

03/28/2023

Automation Anywhere IQ Bot



Contents

IQ Bot — заметки о выпуске.....	6
Рекомендации по обновлению.....	6
IQ Bot version compatibility matrix.....	8
Матрица сравнения функций IQ Bot.....	13
IQ Bot operating system compatibility.....	23
IQ Bot database compatibility matrix.....	24
Required database information for IQ Bot installation.....	26
IQ Bot hardware and software requirements.....	27
Hardware and software requirements for IQ Bot with Extensions.....	29
IQ Bot Version 11.3.5.7 — заметки о выпуске.....	32
IQ Bot Version 11.3.5.6 — заметки о выпуске.....	33
IQ Bot Version 11.3.5.5 — заметки о выпуске.....	34
IQ Bot Version 11.3.5.4 — заметки о выпуске.....	36
IQ Bot Version 11.3.5.3 — заметки о выпуске.....	39
IQ Bot Version 11.3.5.2 — заметки о выпуске.....	44
IQ Bot Version 11.3.5.1 — заметки о выпуске.....	46
IQ Bot Version 11.3.5 — заметки о выпуске.....	48
IQ Bot Version 11.3.4.3 — заметки о выпуске.....	52
IQ Bot Version 11.3.4.2 — заметки о выпуске.....	53
IQ Bot Version 11.3.4.1 — заметки о выпуске.....	54
Version 11.3.4 Release Notes for IQ Bot.....	55
Version 11.3.3.1 Release Notes for IQ Bot.....	61
Version 11.3.3 Release Notes for IQ Bot.....	63
Version 6.5.2 — заметки о выпуске.....	68
Version 6.5 — заметки о выпуске.....	73
IQ Bot architecture overview.....	78
IQ Bot 11.x architecture diagram.....	78
Protocol specifications.....	78
IQ Bot 11.x: Ports and services.....	79
Учетные данные.....	81
Scalability performance planning.....	81
IQ Bot 11.x: High Availability and Disaster Recovery overview.....	83
IQ Bot 11.x: HA cluster configuration overview.....	85
IQ Bot 11.x disaster Recovery deployment model.....	87
Операции.....	91
Log files in IQ Bot.....	92
Enabling tracing in logs.....	94
Monitoring and alerts.....	95
Monitoring services.....	95
Database backup recommendation.....	96
Installing IQ Bot.....	97
IQ Bot 11.x: IQ Bot installation prerequisites.....	99
IQ Bot 11.x: IQ Bot prerequisite steps.....	100
IQ Bot 11.x: IQ Bot service configuration.....	101
IQ Bot 11.x: IQ Bot Windows services.....	102
IQ Bot 11.x: RabbitMQ v3.8.18 and Erlang/OTP upgrade.....	103
Installation limitations.....	104
Prerequisites for installing in Cluster mode.....	104
IQ Bot 11.x: Prerequisites for installing IQ Bot in Express mode.....	105

IQ Bot 11.x: Installing IQ Bot in Express mode.....	106
IQ Bot 11.x: Установка IQ Bot в пользовательском режиме.....	108
IQ Bot Custom installation.....	113
IQ Bot 11.x: Installing IQ Bot in Cluster mode.....	113
IQ Bot 11.x: Make a Shared Folder Accessible.....	115
IQ Bot 11.x: Installing IQ Bot in Cluster mode on machines with IQ Bot preinstalled.....	116
IQ Bot 11.x: Installing IQ Bot in Cluster mode on Amazon EC2.....	117
IQ Bot post installation configuration.....	118
IQ Bot 11.x: Registering IQ Bot with the Control Room.....	118
IQ Bot 11.x: Use Microsoft Azure Computer Vision OCR engine.....	121
Use ABBYY FineReader Engine Распознавание текста (OCR) engine in IQ Bot 11.x.....	123
IQ Bot 11.x: Use Google Vision API OCR engine.....	126
IQ Bot 11.x: Использование модуля Распознавание текста (OCR) Tegaki API.....	129
Databases created during IQ Bot installation.....	130
IQ Bot 11.x: Create a self-signed certificate with Subject Alternative Name.....	131
IQ Bot 11.x: Configure IQ Bot with HTTP and HTTPS.....	132
Контрольный список после установки.....	138
IQ Bot post installation validation.....	140
User roles and permissions.....	140
Learn whether a profile is local or roaming.....	147
IQ Bot 11.x: Health Check API response if RabbitMQ v3.8.18 fails to start.....	147
IQ Bot 11.x: Set up log file automatic rollover.....	148
Reinstalling HTTPS SSL certificate on expiry.....	150
IQ Bot upgrade and uninstallation.....	151
Uninstalling IQ Bot 11.x.....	152
Upgrading IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS.....	152
Upgrading and downgrading IQ Bot 11.x.....	153
Использование IQ Bot.....	155
Learning instance.....	158
Search for a learning instance.....	159
Refresh data in Learning Instance details page.....	159
IQ Bot 11.x: Создать экземпляр для обучения.....	160
Custom Domain in IQ Bot.....	162
IQ Bot 11.x: Selecting an Распознавание текста (OCR) engine.....	164
Classification criteria in IQ Bot.....	166
IQ Bot 11.x: Edit a learning instance.....	167
IQ Bot 11.x: Delete a learning Instance.....	169
Staging environment.....	169
Create and edit a бот.....	170
Start training in Designer.....	170
IQ Bot 11.x: Move a learning instance to Production.....	199
Боты.....	199
Информационная панель.....	202
Production environment.....	205
Upload documents to a learning instance.....	205
Upload multiple folder files to a learning instance.....	206
Download a document from a learning instance.....	207
Read a successfully digitized document using TaskBot.....	208
IQ Bot Validation queue.....	209
Validator window.....	210
IQ Bot 11.x: Adding custom logic to improve automatic extraction in production.....	214
Prevent automatic copying of documents to Staging.....	218
Migration Utility.....	219
Keep learning instance document classifier version during IQ Bot upgrade.....	219
IQ Bot 11.x: List of languages in IQ Bot.....	219

Стандартные формы for custom extraction.....	226
Import domains for fixed format documents.....	227
Create learning instance using fixed format documents.....	228
Process fixed format documents in production.....	229
Using Валидатор for fixed format documents processing.....	229
IQ Bot database encryption.....	230
IQ Bot Microsoft Windows authentication.....	231
IQ Bot audit log in Control Room.....	231
Upgrading IQ Bot.....	233
IQ Bot upgrade options.....	233
Upgrading system to IQ Bot Version 11.3.5.7.....	235
Upgrading system to IQ Bot Version 11.3.5.6.....	236
Upgrading system to IQ Bot Version 11.3.5.5.....	237
Upgrading system to IQ Bot Version 11.3.5.x.....	238
Upgrading system to IQ Bot Version 11.3.5.....	240
Upgrading system to IQ Bot 11.x.....	242
Upgrade from IQ Bot Version 11.3.4 to Version 11.3.4.x patch.....	243
Uninstall IQ Bot Version 11.3.4.x patch.....	244
Upgrade IQ Bot Version 6.5 or earlier to IQ Bot Version 11.3.4.....	244
Upgrading IQ Bot to Version 11.3.3.x.....	246
Upgrading system from IQ Bot Version 5.3.x or IQ Bot 6.0.x to Version 6.5.....	248
Upgrading system from IQ Bot 5.3.x to 6.0.x.....	249
Upgrading system from IQ Bot 5.1.x to 5.2.x.....	250
Upgrading system from IQ Bot 5.0.x to 5.1.x.....	250
Using Migration Utility to import and export learning instances.....	251
Export a learning Instance.....	252
Import a learning instance.....	252
Варианты импорта.....	254
Export or Import learning instances within IQ Bot 5.2 installation.....	257
Export/Import learning instances within IQ Bot 5.3.x, and later versions.....	258
Troubleshooting IQ Bot.....	260
Large IQBA files failing import.....	260
Installation error in output path configuration screen.....	260
No learning instance for command in Enterprise Client.....	260
Learning instance classification issue on restarting AWS instance.....	260
IQ Bot does not load after restarting AWS instance.....	260
Error message displays indefinitely.....	260
IQ Bot installation fails to run in RabbitMQ cluster mode.....	261
IQ Bot HTTPS SSL certificate expiry.....	261
Automation Anywhere Control Room login error.....	261
Connect ECONNREFUSED error during login.....	261
Unable to install IQ Bot in express mode.....	261
Uninstall error.....	261
Unable to view learning instance listing.....	262
Your connection is not private error.....	262
Stalled Classifier.....	262
Unresponsive Designer while drawing a User-Defined Region (UDR).....	262
Installer unable to create platform database tables.....	262
Classification stalls while training documents.....	262
Export process hangs.....	262
Documents not classified after migrating learning instances.....	262
Installer error 1334.....	263
Access Denied message.....	263
Installation fails while installing RabbitMQ.....	263

Cannot upgrade to IQ Bot 6.0 on Control Room 11.3.....	263
IQ Bot services not getting uninstalled.....	263
Output folder path change from local to shared drive.....	263
Windows authentication with services in local system is not working.....	263
Database encryption errors.....	264
SIRs not getting generated consistently.....	264
IQ Bot installation FAQs.....	264
IQ Bot user FAQs.....	264
IQ Bot classifier FAQs.....	264
IQ Bot validator FAQs.....	264
IQ Bot Community Edition quick start guide.....	265
Начните с IQ Bot.....	265
Register to use the Community Edition.....	265
Creating a learning instance in Community Edition.....	265
Custom domain.....	266
Train your learning instance.....	266
Export data to a CSV file.....	267
IQ Bot 11.x: Set learning instance to production.....	268
Use IQ Bot in RPA.....	268
Using Upload Document action.....	268
Upload multiple files to IQ Bot using Loop action.....	269
Использование action «Загрузить все документы».....	270
FAQs for Community Edition.....	271
Index.....	276

IQ Bot — заметки о выпуске

This document for IQ Bot describes new capabilities, changed and migrated features, fixed features, technical updates, and known limitations for each version.

Follow the links in the table to view the release note updates for the respective release.

Major Releases	Minor Releases
Version 11.3.5	Version 11.3.5.7 Version 11.3.5.6 Version 11.3.5.5 Version 11.3.5.4 Version 11.3.5.3 Version 11.3.5.2 Version 11.3.5.1
Version 11.3.4	Version 11.3.4.3 Version 11.3.4.2 Version 11.3.4.1
Version 11.3.3	Version 11.3.3.1
Version 6.5	Version 6.5.2

Related concepts

[IQ Bot operating system compatibility](#) on page 23

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

[IQ Bot database compatibility matrix](#) on page 24

The table provides information about the databases that are compatible with the different IQ Bot releases.

[IQ Bot hardware and software requirements](#) on page 27

Make a note of the following hardware and software requirements before installing IQ Bot.

Related reference

[Рекомендации по обновлению](#) on page 6

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

[IQ Bot version compatibility matrix](#) on page 8

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

[Матрица сравнения функций IQ Bot](#) on page 13

Compare features between different product releases.

Рекомендации по обновлению

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

Upgrading to IQ Bot Version 11.3.5

Upgrading system to IQ Bot Version 11.3.5 on page 240

Important: IQ Bot Version 11.3.5 is compatible with Control Room Version 11.3.4.3 and above only.

Upgrading to IQ Bot Version 11.3.5.7

If you are using any of the earlier IQ Bot versions (11.3.5.3, 11.3.4.3, and so on), ensure that you first upgrade to IQ Bot Version 11.3.5.6 before upgrading to Version 11.3.5.7

Upgrading system to IQ Bot Version 11.3.5.7 on page 235

Upgrading to IQ Bot Version 11.3.5.6

If you are using any of the earlier IQ Bot versions (11.3.5.3, 11.3.4.3, and so on), ensure that you first upgrade to IQ Bot Version 11.3.5.5 before upgrading to Version 11.3.5.6

Upgrading system to IQ Bot Version 11.3.5.6 on page 236

Upgrading to IQ Bot Version 11.3.5.5

Upgrade the system to IQ Bot Version 11.3.5.5 for enhancements and bug fixes.

Upgrading system to IQ Bot Version 11.3.5.5 on page 237

Upgrading to IQ Bot Version 11.3.5.x

Upgrading system to IQ Bot Version 11.3.5.x on page 238

- IQ Bot Version 11.3.5.4 is compatible only with Control Room Version 11.3.4.4
- IQ Bot Version 11.3.5.3 is compatible only with Control Room Version 11.3.4.4.
- To import learning instance backups on an IQ Bot Version 11.3.5.2 environment, the backup (.iqba) file must be exported from an IQ Bot Version 11.3.5.2 environment only. Therefore, you must also upgrade your source IQ Bot environment to Version 11.3.5.2. This requirement is due to changes made in database schemas and version information in the backup (.iqba) files.

Upgrading to IQ Bot Version 11.3.4

Install IQ Bot Version 11.3.4 using installation checklist provided in the installer zip file.

Upgrading to IQ Bot Version 11.3.4.x

Upgrade from IQ Bot Version 11.3.4 to Version 11.3.4.x patch on page 243

Upgrading to IQ Bot Version 11.3.3

- For IQ Bot Version 11.3.3, users must upgrade to version 3.7.17.
- When upgrading to IQ Bot Version 11.3.3, all group information gets stored in a new table **ContentClassification**, and all data gets automatically upgraded/transferred to this table during the installation process.
- If your machine version is older than *SQL Server Native Client 2012*, a dialog box appears, giving you the option to upgrade. Open `services.msc` and stop `SQL Server (MSSQLSERVER)`. Then complete the installation process.

- During the upgrade, the installer detects if you have existing learning instances from a prior version of IQ Bot. Select that prior version of IQ Bot from a drop-down list to keep the classifier version for the existing learning instances.

Note: См. раздел [Keep learning instance document classifier version during IQ Bot upgrade](#) on page 219.

- For any new learning instances created after installation, the classifier version of IQ Bot Version 5.3.1/Version 6.5 is used.
- If upgrading from IQ Bot Version 5.3.1.x and you have a learning instance that relies on 5.3.1.x group check box or linked table functionality, clear that learning instance's validation queue before upgrading to IQ Bot Version 6.5 to avoid field name conflicts.
 - IQ Bot Version 5.3.1.x uses "_", a non-unique delimiter (Gender_ID_Female and Patient_Table_Services).
 - IQ Bot Version 6.5 uses unique delimiters "->" for group check box (for example, "Gender_ID->Female") and ":" for linked tables (for example, "Patient_Table:Services"), which can make it easier to process in RPA.

Note: См. раздел [Export/Import learning instances within IQ Bot 5.3.x, and later versions](#) on page 258.

- For security protection, the SQL server database is encrypted starting from IQ Bot Version 6.5. The added protection can increase the database size by up to 4x. This is due to the encryption obfuscation.
- When upgrading IQ Bot Version 5.3.x to Version 6.5 and above, the installer encrypts data related to files in the database.

Note: См. раздел [IQ Bot database encryption](#) on page 230.

-

11.3.1.1

Upgrading to IQ Bot Version 11.3.3.1

Install IQ Bot Version 11.3.3.1 using the installation checklist provided in the installer zip file.

- **Upgrading to IQ Bot Version 11.3.3.x**

When upgrading IQ Bot, the group numbers under learning instances can change due to data migration to Version 11.3.3.x. To see the mapping between the old groups in Version 6.0.x and new groups in Version 11.3.3.x, user would need to go through the *installation-helper.log* file, in C:\Users\Public\Documents\Automation Anywhere IQBot Platform\Logs folder.

Note: The upgrade changes the group number only, and not the data.

Related concepts

[IQ Bot — заметки о выпуске](#) on page 6

This document for IQ Bot describes new capabilities, changed and migrated features, fixed features, technical updates, and known limitations for each version.

Related reference

[Version 6.5 — заметки о выпуске](#) on page 73

These release notes contain changed features, fixed features, and security fixes introduced in IQ Bot Version 6.5.x.

IQ Bot version compatibility matrix

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

IQ Bot versions and Control Room compatibility matrix

See the following table to verify which IQ Bot version is compatible with specific Automation Anywhere Enterprise 11.x.

IQ Bot versions	Control Room versions	Enterprise Client versions	Примечания
Version 11.3.5.7	Version 11.3.5.8	Version 11.3.5.8	--
Version 11.3.5.6	Version 11.3.5.8 Version 11.3.5.5 Version 11.3.5.4 Version 11.3.5.3 Version 11.3.5.2 Version 11.3.4.7 Version 11.3.4.6 Version 11.3.4.5 Version 11.3.4.4	Version 11.3.5.8 Version 11.3.5.7 Version 11.3.5.6 Version 11.3.5.3 Version 11.3.5.2 Version 11.3.4.8 Version 11.3.4.7 Version 11.3.4 Version 11.3.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.1 and later	--
Version 11.3.5.5	Version 11.3.5.5 Version 11.3.5.4 Version 11.3.5.3 Version 11.3.5.2 Version 11.3.4.7 Version 11.3.4.6 Version 11.3.4.5 Version 11.3.4.4	Version 11.3.5.3 Version 11.3.5.2 Version 11.3.4.8 Version 11.3.4.7 Version 11.3.4 Version 11.3.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.1	--

IQ Bot versions	Control Room versions	Enterprise Client versions	Примечания
Version 11.3.5.4	Version 11.3.5.5 Version 11.3.5.4 Version 11.3.5.3 Version 11.3.5.2 Version 11.3.4.7 Version 11.3.4.6 Version 11.3.4.5 Version 11.3.4.4	Version 11.3.5.3 Version 11.3.5.2 Version 11.3.4.8 Version 11.3.4.7 Version 11.3.4 Version 11.3.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.1	For Control Room Version 11.3.4.4, add ignite.security.disable=true
Version 11.3.5.3	Version 11.3.5.5 Version 11.3.5.4 Version 11.3.5.3 Version 11.3.5.2 Version 11.3.4.7 Version 11.3.4.6 Version 11.3.4.5 Version 11.3.4.4	Version 11.3.5.3 Version 11.3.5.2 Version 11.3.4.8 Version 11.3.4.7 Version 11.3.4 Version 11.3.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.1	For Control Room Version 11.3.4.4, add ignite.security.disable=true
Version 11.3.5.2	Version 11.3.5.1 Version 11.3.5 Version 11.3.4.3	Version 11.3.5 Version 11.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.1	--
Version 11.3.5.1	Version 11.3.5.1 Version 11.3.5 Version 11.3.4.3	Version 11.3.5 Version 11.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.1	--
Version 11.3.5	Version 11.3.5 Version 11.3.4.3	Version 11.3.5 Version 11.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.1	--

IQ Bot versions	Control Room versions	Enterprise Client versions	Примечания
Version 11.3.4.3	Version 11.3.5.1 Version 11.3.5 Version 11.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.1 Version 11.3.1.11	Version 11.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.14 Version 11.3.1.1	
Version 11.3.4.2	Version 11.3.5.1 Version 11.3.5 Version 11.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.11 Version 11.3.1.1	Version 11.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.1	--
Version 11.3.4.1	Version 11.3.5 Version 11.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.1	Version 11.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.1	--
Version 11.3.4	Version 11.3.5.1 Version 11.3.5 Version 11.3.4 Version 11.3.3.6 Version 11.3.3 Version 11.3.2 Version 11.3.1.1	Version 11.3.1.13 Version 11.3.4 Version 11.3.3.6 Version 11.3.3 Version 11.3.2 Version 11.3.1.1	--

IQ Bot versions	Control Room versions	Enterprise Client versions	Примечания
Version 11.3.3.1	Version 11.3.5 Version 11.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.11 Version 11.3.1.1	Version 11.3.3 Version 11.3.2 Version 11.3.1.1	<ul style="list-style-type: none"> For Control Room Version 11.3.5, Version 11.3.4 and Version 11.3.3, add <code>ignite.tls.disable=true</code> For Control Room Version 11.3.2, add <code>ignite.security.disable=true</code> See the Create or update cluster.properties file section below.
Version 6.5	Version 11.3.5.1 (compatible with IQ Bot Version 6.5.2) Version 11.3.5 (also compatible with IQ Bot Version 6.5.2) Version 11.3.4 Version 11.3.3 Version 11.3.2 Version 11.3.1.11 Version 11.3.1.1	Version 11.3.1.1	<ul style="list-style-type: none"> For Control Room, Version 11.3.5.1, Version 11.3.5, Version 11.3.4, and Version 11.3.3, add <code>ignite.security.disable=true</code> <code>ignite.tls.disable=true</code> For Control Room Version 11.3.2, add <code>ignite.security.disable=true</code> See the Create or update cluster.properties file section below.
Version 6.0.1	Version 11.3.3 Version 11.3.2 Version 11.3.1.1	Version 11.3.1.1	<ul style="list-style-type: none"> For Control Room Version 11.3.3, add <code>ignite.security.disable=true</code> <code>ignite.tls.disable=true</code> For Control Room Version 11.3.2, add <code>ignite.security.disable=true</code> See the Create or update cluster.properties file section below.
Version 6.0	Version 11.3.1.1	Version 11.3.1.1	-

IQ Bot versions	Control Room versions	Enterprise Client versions	Примечания
5.3.1.x (Unofficial Release)	10.5.5	-	-
5.3.0	10.5.5	-	-
5.2.x	10.5.5	-	-
5.1.x	10.5.2	-	-
	10.5.5		
5,0	10,4	-	-

Create or update `cluster.properties` file

Based on the compatibility information in the table, update your `cluster.properties` file for the listed parameters.

1. Locate the file in your Control Room directory (for example, `C:\Program Files\Automation Anywhere\Enterprise\config\`).

If the file does not exist in your Control Room directory:

- a. Create a file with the filename `cluster.properties`.
- b. Add the property options to the file as mentioned in the **Notes** column of the table.

2. Save the `cluster.properties` file.

3. Restart the following services:

- a. **Automation Anywhere Control Room Caching**
- b. **Automation Anywhere Control Room Messaging**
- c. **Automation Anywhere Control Room Service**

Related concepts

[IQ Bot — заметки о выпуске](#) on page 6

This document for IQ Bot describes new capabilities, changed and migrated features, fixed features, technical updates, and known limitations for each version.

Related reference

[Матрица сравнения функций IQ Bot](#) on page 13

Compare features between different product releases.

Матрица сравнения функций IQ Bot

Compare features between different product releases.

Прим.: There are no feature changes to the IQ Bot feature comparison matrix from Version 11.3.5.5 onwards.

IQ Bot initial features	Version 11.3.0	Version 11.3.1	Version 11.3.2	Version 11.3.3	Version 11.3.4	Version 11.3.5	Version 11.3.6	Version 11.3.7 / Version 11.3.8.1	Version 6.5.2	Version 6.5	Version 6.0.2	Version 5.3.1	Version 5.3.0
Custom Encryption key	Да	Да	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет
Pre-built domains	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Да	Да
User confidence threshold	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Да	Да
Learning instance creation/editing	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Да	Да
Document image pre-processing	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Да	Да
Document image classification	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Да	Да
Document image OCR	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Да	Да
Бот creation/editing	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Да	Да
Delete a Бот	Да	Yes	Да	Yes	Да	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет
Designer/Preview/Test	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Да	Да
Production toggle	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Да	Да
Валидатор	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Да	Да
Default validations for a group	Да	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет
CSV output files	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Да	Да
Learning instance import/export	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Да	Да

IQ Bot initial features	Version 11.3.0	Version 11.3.1	Version 11.3.2	Version 11.3.3	Version 11.3.4	Version 11.3.5	Version 11.3.6	Version 11.3.7	Version 11.3.8	Version 11.3.9	Version 11.3.10	Version 11.3.11	Version 11.3.12
Learning Instance tab enhancements	Да	Yes	Да	Yes	Да	Да	Нет	Нет	Нет	Нет	Нет	Нет	Нет
Ease-of-use features	Да	Version 11.3.0	Version 11.3.1	Version 11.3.2	Version 11.3.3	Version 11.3.4	Version 11.3.5	Version 11.3.6	Version 11.3.7	Version 11.3.8	Version 11.3.9	Version 11.3.10	Version 11.3.11
Web-based UI	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Нет	Нет
Domain import/export	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Нет	Нет
Import custom domain in any order	Да	Yes	Да	Yes	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет
Hover over text segment to view OCR	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Да	Да
Re-size mapped box in Designer	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Да	Да
Delete mapped box in Designer	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Да	Да
Populate text in End of table/section indicator	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Нет	Нет
Single click to extract text in the	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Нет	Нет	Нет	Нет

IQ Bot initial features	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3.4	Version 11.3.3 / Version 11.3.3.1	Version 6.5.2	Version 6.5	Version 6.0.3	Version 5.3.1	Version 5.3.0
Валидатор enhancements <ul style="list-style-type: none"> Hide optional form fields Hide successful form fields 	Да	Yes	Да	Yes	Да	Да	Нет	Нет	Нет	Нет	Нет	Нет	Нет
Access specific documents in Валидатор using URLs	Да	Yes	Да	Yes	Да	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет
Document group description	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Нет	Нет	Нет	Нет
Search for documents in the Validator UI	Да	Yes	Да	Да	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет
See extraction results action displays list of all training documents in an alpha-numeric sequence	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Нет	Нет	Нет	Нет
InstallShield patch installer has simplified the upgrade/downgrade process for IQ Bot	Да	Yes	Да	Yes	Да	Да	Да	Да	Нет	Нет	Нет	Нет	Нет

IQ Bot initial features	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3.4	Version 11.3.3 / Version 11.3.3.1	Version 6.5.2	Version 6.5	Version 6.0	Version 5.3	Version 5.3.0
IQ Bot Installer enhancements: pre-installation check	Да	Yes	Да	Yes	Да	Да	Нет	Нет	Нет	Нет	Нет	Нет	Нет
Extraction/validation features	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3.4	Version 11.3.3 / Version 11.3.3.1	Version 6.5.2	Version 6.5	Version 6.0	Version 5.3	Version 5.3.0
Original IQ Bot text segmentation / document classifier from IQ Bot Version 5.3.0 / 6.0	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Нет	Да
New IQ Bot text segmentation / document classifier from IQ Bot Version 5.3.1 / 6.5	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Да	Нет

IQ Bot initial features	Version 11.3.3	Version 11.3.3.1	Version 11.3.3.2	Version 11.3.3.3	Version 11.3.3.4	Version 11.3.3.5	Version 11.3.4	Version 11.3.3 / Version 11.3.3.1	Version 6.5.2	Version 6.5	Version 6.0.2	Version 5.3.1	Version 5.3.0
Option to select classifier version of existing learning instances during IQ Bot upgrade: <ul style="list-style-type: none"> Version 1 (IQ Bot 5.3.0 or before / 6.0) Version 2 (IQ Bot 5.3.1 / Version 6.5 Beta) 	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Нет	Нет
Enhanced compatibility with ABBYY FineReader Engine 12.2 Plugin	Да	Yes	Yes	Yes	Да	Да	Да	Да	Да	Да	Нет	Да	Нет
Automated installation of ABBYY FineReader Engine 12.2 Plugin	Да	Yes	Yes	Yes	Да	Да	Да	Да	Да	Да	Нет	Нет	Нет
Validator auto-correction	Да	Yes	Yes	Yes	Да	Да	Да	Да	Да	Да	Нет	Да	Нет
Checkbox extraction	Да	Yes	Yes	Yes	Да	Да	Да	Да	Да	Да	Нет	Да	Нет

IQ Bot initial features	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3.4	Version 11.3.3 / Version 11.3.3.1	Version 6.5.2	Version 6.5	Version 6.0.2	Version 5.3.1	Version 5.3.0
Advanced extraction: Repeated tables / sections; linking tables / sections; map some header-less columns	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Да	Нет
Alternative to stop extraction at End of table/section indicator	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Да	Нет
Select text segments that enclose or are enclosed by other text segments	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Да	Да
Option to select default training document	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Да	Да
Formula validation	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Да	Да
List validation in UI	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Да	Да	Да
List validation via external file	Нет	No	Нет	No	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Да	Да
Microsoft Azure Computer Vision API (OCR)	Да	Yes	Yes	Yes	Да	Да	Да	Да	Да	Нет	Нет	Нет	Нет

IQ Bot initial features	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3.4	Version 11.3.3 / Version 11.3.3.1	Version 6.5.2	Version 6.5	Version 6.0.2	Version 5.3.1	Version 5.3.0
Add user logic in the Designer	Да	Yes	Yes	Yes	Да	Да	Да	Да	Да	Нет	Нет	Нет	Нет
View and test all documents in the Designer > See extraction results	Да	Yes	Yes	Yes	Да	Да	Да	Да	Да	Нет	Нет	Нет	Нет
IQ Bot extensions	Да	Yes	Yes	Yes	Да	Да	Да	Да	Нет	Нет	Нет	Нет	Нет
Import standard form domains	Нет	No	No	No	Нет	Нет	Нет	Да	Нет	Нет	Нет	Нет	Нет
(Beta) Enabled data capture and OCR using Google Vision API for Asian languages		No	No	No	Нет	Нет	Да	Нет	Нет	Нет	Нет	Нет	Нет
(GA) Enabled data capture and OCR using Google Vision API for Asian languages	Да	Yes	Yes	Yes	Да	Да	Нет	Нет	Нет	Нет	Нет	Нет	Нет

IQ Bot initial features	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3.4	Version 11.3.3 / Version 11.3.3.1	Version 6.5.2	Version 6.5	Version 6.0.5	Version 5.3.1	Version 5.3.0
(Beta) Enabled data capture and OCR using Tegaki API Распознавание текста (OCR) engine for Asian languages	Да	Yes	Yes	Yes	Да	Да	Нет	Нет	Нет	Нет	Нет	Нет	Нет
Magnetic ink character recognition (MICR) extraction	Да	Yes	Yes	Yes	Да	Да	Да	Нет	Нет	Нет	Нет	Нет	Нет
Option to turn off PDFBox as OCR engine	Да	Yes	Yes	Yes	Да	Да	Да	Нет	Нет	Нет	Нет	Нет	Нет
Enterprise features	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3	Version 11.3.4	Version 11.3.3 / Version 11.3.3.1	Version 6.5.2	Version 6.5	Version 6.0.5	Version 5.3.1	Version 5.3.0
Access IQ Bot without device license (without Bot Creator or Bot Runner license)	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Нет	Нет
Access IQ Bot as Валидатор users without Bot Creator or Bot Runner license	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Нет	Нет
Database encryption	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Нет	Нет

IQ Bot initial features	Version 11.3.1	Version 11.3.2	Version 11.3.3	Version 11.3.4	Version 11.3.5	Version 11.3.6	Version 11.3.7	Version 11.3.8 / Version 11.3.9.1	Version 6.5.2	Version 6.5	Version 6.0.2	Version 5.3.1	Version 5.3.0
Roles-based access (RBAC) for new learning instances	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Нет	Нет
RBAC enhancements (role assignment from UI)	Да	Yes	Да	Yes	Да	Да	Нет	Нет	Нет	Нет	Нет	Нет	Нет
Журналы аудита	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Нет	Нет
Аутентификация для Windows	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Нет	Нет
Azure PaaS Database Service	Да	Yes	Да	No	Да	Да	Да	Да	Да	Да	Нет	Нет	Нет
Counter for number of uploaded pages in production	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Нет	Нет
Limit number of groups in production	Да	Yes	Да	Да	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет	Нет
API access	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Нет	Нет	Нет	Нет
Access IQ Bot without <i>sysadmin</i> role that includes support for Amazon Relational Database Service (RDS) out of the box	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Нет	Нет	Нет	Нет
Интернационализация	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Нет	Нет

IQ Bot initial features	Vers 11.3	Vers 11.3	Vers 11.3	Vers 11.3	Vers 11.3	Vers 11.3	Version 11.3.4	Version 11.3.3 / Version 11.3.3.1	Version 6.5.2	Version 6.5	Vers 6.0.	Vers 5.3.	Version 5.3.0
UI Localization: Chinese Simplified, Chinese Traditional, French, German, Japanese, Korean, and Spanish	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Да	Нет	Нет	Нет
UI Localization: Italian and Portuguese	Да	Yes	Да	Yes	Да	Да	Да	Да	Да	Нет	Нет	Нет	Нет
Migrate learning instances as other learning instances are being edited	Да	Yes	Да	Yes	Да	Да	Да	Да	Нет	Нет	Нет	Нет	Нет

Понятия, связанные с данным

[IQ Bot — заметки о выпуске](#)

This document for IQ Bot describes new capabilities, changed and migrated features, fixed features, technical updates, and known limitations for each version.

IQ Bot operating system compatibility

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

Note: There are no changes to the IQ Bot operating system from Version 11.3.5.5 onwards.

Версия IQ Bot	Microsoft Windows Server 2019 Data Center	Microsoft Windows Server 2016 Data Center	Microsoft Windows Server 2012 R2 Standard	Microsoft Windows 10 Pro/Enterprise
<div>11.3.5.5</div> Version 11.3.5.5	Да	Да	Да	Да
IQ Bot Version 11.3.5.4	Да	Да	Да	Нет

Версия IQ Bot	Microsoft Windows Server 2019 Data Center	Microsoft Windows Server 2016 Data Center	Microsoft Windows Server 2012 R2 Standard	Microsoft Windows 10 Pro/Enterprise
IQ Bot Version 11.3.5.3	Да	Да	Нет	Нет
IQ Bot Version 11.3.5.2	Да	Да	Да	Нет
IQ Bot Version 11.3.5.1	Да	Да	Да	Нет
IQ Bot Version 11.3.5	Да	Да	Да	Нет
IQ Bot Version 11.3.4	Да	Да	Да	Нет
Version 11.3.3 / Version 11.3.3.1	Нет	Да	Да	Нет
IQ Bot Version 6.5.2	Нет	Да	Да	Нет
IQ Bot Version 6.5	Нет	Да	Да	Нет
IQ Bot Version 6.0.1	Нет	Да	Да	Нет
IQ Bot Version 6.0	Нет	Да	Да	Нет
IQ Bot Version 5.3.1	Нет	Да	Да	Да
IQ Bot Version 5.3	Нет	Да	Да	Да
IQ Bot Version 5.2.1	Нет	Нет	Да	Да
IQ Bot Version 5.2	Нет	Нет	Да	Да
IQ Bot Version 5.1.1	Нет	Нет	Да	Да
IQ Bot Version 5.1	Нет	Нет	Да	Да

Note: The open source software (OSS) disclosure for IQ Bot is stored in the `Installation` folder with the filename: `IQ Bot (version) OSS Disclosures.html`.

```
<Installation folder>\Automation Anywhere IQ Bot \IQ Bot (version) OSS
Disclosures.html
```

IQ Bot database compatibility matrix

The table provides information about the databases that are compatible with the different IQ Bot releases.

Note:

There are no changes to the IQ Bot database compatibility matrix from Version 11.3.5.5 onwards.

Версия IQ Bot	Microsoft SQL Server 2012	Microsoft SQL Server 2014	Microsoft SQL Server 2016	Microsoft SQL Server 2017	Microsoft SQL Server 2019	Amazon Relational Database Service (Amazon RDS)	Microsoft SQL Azure (RTM)
11.3.5.5 11.3.5.5	Да Version	Да	Да	Да	Да	Да	Да
IQ Bot Version 11.3.5.4	Да	Да	Да	Да	Да	Да	Да
IQ Bot Version 11.3.5.3	Да	Да	Да	Да	Да	Да	Да
IQ Bot Version 11.3.5.2	Да	Да	Да	Да	Да	Да	Нет
IQ Bot Version 11.3.5.1	Да	Да	Да	Да	Да	Нет	Да
IQ Bot Version 11.3.5	Да	Да	Да	Да	Да	Нет	Да
IQ Bot Version 11.3.4	Да	Да	Да	Да	Да	Да	Да
IQ Bot Version 11.3.3 / Version 11.3.3.1	Да	Да	Да	Да	Нет	Да	Да
IQ Bot Version 6.5.2	Да	Да	Да	Да	Нет	Да	Да
IQ Bot Version 6.5	Да	Да	Да	Да	Нет	Да	Да
IQ Bot Version 6.0.x	Да	Да	Да	Да	Нет	Нет	Нет

Версия IQ Bot	Microsoft SQL Server 2012	Microsoft SQL Server 2014	Microsoft SQL Server 2016	Microsoft SQL Server 2017	Microsoft SQL Server 2019	Amazon Relational Database Service (Amazon RDS)	Microsoft SQL Azure (RTM)
IQ Bot Version 5.3.1.x	Да	Да	Да	Да	Нет	Нет	Нет
IQ Bot Version 5.3.0	Да	Да	Да	Да	Нет	Нет	Нет
IQ Bot Version 5.2.x	Да	Да	Да	Да	Нет	Нет	Нет
IQ Bot Version 5.1.x	Да	Да	Да	Да	Нет	Нет	Нет
IQ Bot Version 5.0.0	Да	Да	Да	Да	Нет	Нет	Нет

Note: See [IQ Bot hardware and software requirements](#) on page 27 for Database performance requirements.

Required database information for IQ Bot installation

When you install IQ Bot, you are prompted to provide information specific to the database type you are using. The following table summarizes the required information.

Microsoft SQL Server and Amazon RDS databases	
Required information	Описание
Database (SQL Server) authentication	Provide credentials for a Microsoft SQL Server user who has permission to connect to the database.
Database names	<ul style="list-style-type: none"> AliasData ClassifierData Configurations FileManager MLData
Database port	Default: 1433

Microsoft SQL Server and Amazon RDS databases	
Required information	Описание
Service credentials	Provide the user with the following permissions: <ul style="list-style-type: none"> • CONNECT SQL • CREATE ANY DATABASE • VIEW ANY DATABASE

База данных Microsoft Azure	
Required information	Описание
Database (SQL Server) authentication	Created when database was created.
Database names	<ul style="list-style-type: none"> • FileManager • Classifier • Configurations • MLData • AliasData
Database port	Default: 1433
Database role	Database access requires the <i>dbmanager</i> role.

Related concepts

[IQ Bot hardware and software requirements](#) on page 27

Make a note of the following hardware and software requirements before installing IQ Bot.

IQ Bot hardware and software requirements

Make a note of the following hardware and software requirements before installing IQ Bot.

Important: Install IQ Bot on a dedicated server, and install Control Room on a separate server.

To know more, see [What is the limitation of installing both Control Room and IQbot in a same server \(A-People login required\)](#)

Требования к аппаратному обеспечению

IQ Bot	Recommendation
Application server optimum requirements	<ul style="list-style-type: none"> • 32 GB RAM • 8 Octa Core Processor • 500 GB hard disk space¹ • Ensure C: drive has 100 GB plus free hard disk space.

Database server optimum requirements

Сервер	Recommendation
IQ Bot application server	<ul style="list-style-type: none"> 32 GB RAM 8 Core Processor 500 GB hard disk space
For all IQ Bot-related database servers	<ul style="list-style-type: none"> 16 GB RAM 8 Core Processor 500 GB hard disk space <hr/> <p>Note: If hosting IQ Bot databases along with other application databases, ensure the hardware resources are increased proportionately.</p> <hr/>
Microsoft Azure SQL Database: production environment	<ul style="list-style-type: none"> vCore model (recommended) DTU model (Premium tier recommended)
Amazon RDS: production environment	db.t3.2xlarge or db.t3.xlarge

Software requirements

The following software is required for IQ Bot installation:

Software	Сведения
Database Management System	See IQ Bot database compatibility matrix on page 24 for a list of compatible versions.
Automation Anywhere Control Room	See IQ Bot version compatibility matrix on page 8 for a list of compatible versions.
Supported web browsers	<ul style="list-style-type: none"> Google Chrome Microsoft Internet Explorer (Version 11.3.3 onward) <hr/> <p>Important: When using Internet Explorer11, you might need to Display intranet sites in Compatible View in the <i>Compatibility View Settings</i> window.</p> <hr/>

Software	Сведения
Зависимости	<p>Automation Anywhere IQ Bot is dependent on the following software, which are automatically installed during the installation process:</p> <ul style="list-style-type: none"> • RabbitMQ v3.10.8 • Erlang/OTP v25.1 (13.1) • NodeJS v14.20.0 • Python3.11.1 (64 bit) • Microsoft .NET Framework v4.7.2. The system prompts for a restart to complete the update. • Microsoft Visual C++ Redistributable 2017 x64 package • Microsoft SQL Server 2012 Native Client - QFE <p>This is installed automatically by the installer. A system restart is required.</p> <hr/> <p>Note: In a cluster environment, all dependencies will get installed on each machine where IQ Bot is installed.</p> <hr/>

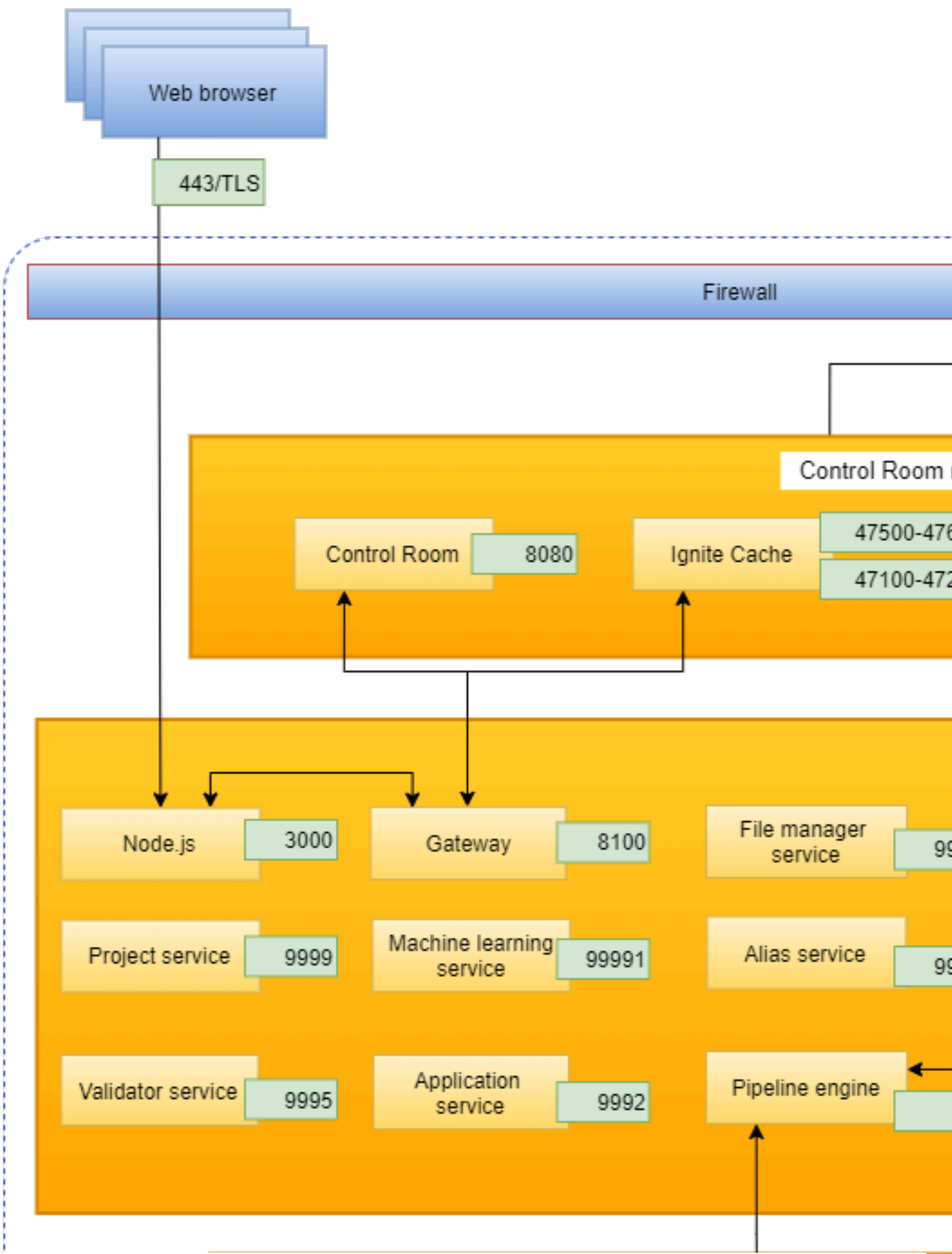
Related reference

[Hardware and software requirements for IQ Bot with Extensions](#) on page 29

The following diagram provides the deployment architecture for IQ Bot with Extensions.

Hardware and software requirements for IQ Bot with Extensions

The following diagram provides the deployment architecture for IQ Bot with Extensions.



This page mentions the minimum requirements for installing Control Room node. See [Automation 360 On-Premises prerequisites](#)

See the minimum hardware and software requirements for IQ Bot node with Extensions below:

Supported operating systems for IQ Bot node with Extensions
Microsoft Windows Server 2016 Standard / Data Center
Microsoft Windows Server 2012 R2 Standard / Data Center
Microsoft Windows 10 Pro/Enterprise

Software	Сведения
Database Management System	Microsoft SQL Server 2012, 2014, 2016, 2017 (Express or Standard or Enterprise or later). Microsoft SQL Azure (RTM) 12.0.2000.8 (optional).
Automation Anywhere Control Room	See IQ Bot version compatibility matrix on page 8 for a list of compatible versions.
Веб-браузеры	The Google Chrome and Internet Explorer 11 web browsers are supported.
Зависимости	<p>IQ Bot is dependent on the following software, which is automatically installed during the installation process:</p> <ul style="list-style-type: none"> • Microsoft .NET Framework v4.7.2. The system prompts for a restart to complete the update. • Erlang v22.0 • RabbitMQ v3.8.18 v3.7.17 • NodeJS v10.16.3 • Microsoft SQL Server 2012 Native Client - QFE • Python 3.5.4 (32 bit) <p>Note: This is installed automatically by the installer and requires a system restart.</p>

Note: For IQ Bot extensions feature to work, the custom extraction services needs to be running on an engine node. We recommend that this engine node be part of a different machine instead of the one that has the IQ Bot node. The configuration of the machine running the engine node (as described in the figure) depends on the requirements of the custom extraction service built for the specific fixed format documents.

Related concepts

[IQ Bot hardware and software requirements](#) on page 27

Make a note of the following hardware and software requirements before installing IQ Bot.

IQ Bot Version 11.3.5.7 — заметки о выпуске

Review the changed features, fixed features, and known limitations in Version 11.3.5.7 for IQ Bot. There are no security fixes in this release.

Изменения

IQ Bot now uses the latest version of Python (3.11.1) for custom logic validation. To use the latest version, you must upgrade from cx_Oracle 8.3 to python-oracledb. See [Upgrading from cx_Oracle 8.3 to python-oracledb](#).

As of the latest build in IQ Bot, the Automation Anywhere Cognitive MLScheduler Service is removed.

Исправления

The security vulnerability related to an **unquoted service path** that contained whitespace has been fixed. Previously, the Windows host referred to an installed service that used an unquoted service path which contained whitespace in the Automation Anywhere Cognitive Console: D:\Program Files (x86)\Automation Anywhere IQ Bot\Portal\node modules\winser\bin\nssm64.exe.

Service Cloud case ID: 01880370

You no longer see duplicate group entries when you import the IQ Bot archive (IQBA) file.

Service Cloud case ID: 00746545, 00827208, 00836859, 01824946

IQ Bot no longer shows any duplicate fields in the Валидатор. Previously, there was a mismatch in the field IDs between the source and target machine for the Custom Domain which caused duplicate fields in the Валидатор.

Service Cloud case ID: 01822954

While exporting learning instances from one environment to another, IQ Bot now updates the **visionBotId** in the exported data. You can edit bots in the destination environment without any errors.

Service Cloud case ID: 00832744

An unexpected error that occurred due to large unnamed RabbitMQ message queues has been fixed and you can now navigate to the **Learning Instance** page without any issue.

Service Cloud case ID: 00833174, 00830141

IQ Bot Classifier now classifies documents perfectly with all aliases. Previously, IQ Bot Classifier threw an `System.OutOfMemoryException` error while processing aliases with spaces which caused a large amount of search loop for each field of the document.

Service Cloud case ID: 01765562

When you enable the **Never Create New Group** option, the document moves to the validation queue instead to the new group. Previously, even though you selected **Never Create New Group**, the document still moved to a new group.

Service Cloud case ID: 01275259

The IQ Bot application now loads successfully and all transactions on the Learning Instances are successful. Previously, the Bot application was not loading if you had more than 8000 groups and a large amount of group data.

Service Cloud case ID: 01758636

Известные ограничения

For non-English languages such as Japanese, Chinese, and Korean, you cannot create a learning instance if the file name contains more than 104 characters.

Понятия, связанные с данным

[IQ Bot — заметки о выпуске](#)

This document for IQ Bot describes new capabilities, changed and migrated features, fixed features, technical updates, and known limitations for each version.

[IQ Bot database compatibility matrix](#)

The table provides information about the databases that are compatible with the different IQ Bot releases.

[IQ Bot hardware and software requirements](#)

Make a note of the following hardware and software requirements before installing IQ Bot.

[IQ Bot operating system compatibility](#)

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

[Required database information for IQ Bot installation](#)

When you install IQ Bot, you are prompted to provide information specific to the database type you are using. The following table summarizes the required information.

Ссылки, связанные с данной

[Рекомендации по обновлению](#)

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

[Матрица сравнения функций IQ Bot](#)

Compare features between different product releases.

[IQ Bot version compatibility matrix](#)

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

IQ Bot Version 11.3.5.6 — заметки о выпуске

The Version 11.3.5.6 release includes the fix for Apache Log4j2 vulnerability. There are no new features, changed features, fixed features, or known limitations in this release.

Security fix

This release addresses the exposure to the Apache Log4j CVE-2021-45105, CVE-2021-45046, CVE-2021-44228, and CVE-2021-44832 vulnerabilities.

Important: We have updated IQ Bot Version 11.3.5.6 to include the fix for the Apache Log4j2 component vulnerability. The Apache Log4j2 library in this release is updated to version 2.17.1.

For the Log4j2 vulnerability, as an additional, in-depth defense measure, IQ Bot Version 11.3.5.6 includes the parameter (`-Dlog4j2.formatMsgNoLookups=true`) for all the applicable Windows services. There will be no impact to IQ Bot 11.3.5.x users who have already implemented this parameter change.

IQ Bot Version 11.3.5.6 is compatible with the latest Control Room 11.3.5.x version, which addresses the exposure to the Apache Log4j. Additionally, this IQ Bot version is also compatible with all the Control Room versions that were compatible with Version 11.3.5.5.

For additional information on the parameter change, see [Automation Anywhere Enterprise 11.x / Update regarding CVE-2021-44228 related to 0-day in the Apache Log4j2 Java library \(A-People login required\)](#).

Подробнее см. в разделе [FAQs related to Automation Anywhere Releases regarding zero-day vulnerabilities \(CVE-2021-44228, CVE-2021-45046\) \(A-People login required\)](#).

Review the disclaimer document included in the IQ Bot Version 11.3.5.6 build for more information.

IQ Bot Version 11.3.5.5 — заметки о выпуске

Review the new features, changed features, and fixed features in Version 11.3.5.5 of Automation Anywhere IQ Bot. There are no security fixes in this release.

Новые функции

Default validations for a group

When editing a learning instance, you can now use the **Select the default validations group** drop-down menu to select an available group. The custom logic and validations for the selected group will apply to all new group documents in production.

[IQ Bot 11.x: Edit a learning instance](#)

Измененные функции

Change in encryption protocol support (Service Cloud case ID: 00687856, 00707964)

IQ Bot now supports only TLS 1.2 and higher.

Python library upgrade (Service Cloud case ID: 00760960, 00812130)

IQ Bot now uses Python version 3.9.5 for data extraction.

Node.JS upgrade (Service Cloud case ID: 00737129, 00764459, 00791511)

IQ Bot now uses Node.JS version 10.24.1.

RabbitMQ upgrade (Service Cloud case ID: 00771128, 00812131, 00795363)

IQ Bot now uses RabbitMQ version 3.8.16.

Исправленные функции

ID обращения к облачному сервису	Описание
00668412, 00644948, 00717414	When you upload a document to a learning instance in production, IQ Bot now runs without failures caused by deadlocks.
00702139	When you are loading the dashboard, editing a learning instance, or extracting results to a CSV, the page no longer freezes.
--	You can now successfully add fields to a learning instance that is on a cluster and click Save . Previously, an error caused the Edit learning instance page to be stuck on the <code>Updating instance and uploading documents</code> screen.
00651057	IQ Bot can now connect to Control Room Ignite cache without any errors. This fixes the issue that previously caused IQ Bot to not display all learning instances.
--	You can now access IQ Bot after a fresh installation without issues. Previously, there was a communication issue between IQ Bot and Control Room.
00784016	The Upload API now supports requests that contain <code>/gateway</code> in the request path.
00728523	When you add a field to a learning instance, the change is now reflected in all the existing боты for that learning instance.
00795424, 00723586	When you move a learning instance between environments, unclassified data is no longer exported.

Известные ограничения

Sometimes, the PDFBox is unable detect PDF (Portable Document Format) documents accurately. We recommend that you first convert the documents into PDF using Adobe Acrobat before uploading it to IQ Bot.

Понятия, связанные с данным

[IQ Bot — заметки о выпуске](#)

This document for IQ Bot describes new capabilities, changed and migrated features, fixed features, technical updates, and known limitations for each version.

[IQ Bot operating system compatibility](#)

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

[IQ Bot database compatibility matrix](#)

The table provides information about the databases that are compatible with the different IQ Bot releases.

[Required database information for IQ Bot installation](#)

When you install IQ Bot, you are prompted to provide information specific to the database type you are using. The following table summarizes the required information.

[IQ Bot hardware and software requirements](#)

Make a note of the following hardware and software requirements before installing IQ Bot.

Ссылки, связанные с данной[Рекомендации по обновлению](#)

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

[IQ Bot version compatibility matrix](#)

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

[Матрица сравнения функций IQ Bot](#)

Compare features between different product releases.

IQ Bot Version 11.3.5.4 — заметки о выпуске

Дата выпуска: 03 марта 2021 г.

Изучите информацию об измененных функциях, исправленных функциях и известных ограничениях в Automation Anywhere IQ Bot Version 11.3.5.4. В этом выпуске нет новых функций или исправлений в системе безопасности.

Измененные функции

Последовательная обработка документов (ID обращения к облачному сервису: 00662968, 00665331)

Используйте параметр **Посмотреть результаты извлечения** в IQ Bot, чтобы открыть запрос в новой вкладке браузера, где отображается номер в очереди. Это число уменьшается по мере обработки предыдущих запросов в очереди.

Поддержка нидерландского языка (ID обращения к облачному сервису: 00694020)

IQ Bot теперь поддерживает нидерландский язык с ABBYY FineReader Engine.

Усовершенствование утилиты миграции

Когда вы теперь экспортируете файл архива IQ Bot (.iqba), экспортируется только один документ, связанный с каждым доступным (групповым) обучением бот. Это значительно уменьшает размер файлов .iqba для экспорта.

Усовершенствование Валидатор:возобновление сеанса

Теперь каждый раз, когда вы вносите изменения в Валидатор, IQ Bot сохраняет ваши данные в локальном хранилище. Если сеанс прервется, вы сможете возобновить его и продолжить работу с тем же документом после повторного входа. Эти данные сохраняются до тех пор, пока все документы не будут либо сохранены, либо отмечены как недействительные.

Исправленные функции

ID обращения к облачному сервису	Описание
--	Если вы выбрали какое-либо поле на экране Валидатор, выбор этого поля больше не отменяется при щелчке или выборе области, определяемой системой (SIR).
00636899, 00683451	При создании обучаемого экземпляра с помощью пользовательского домена имена полей теперь отображаются правильно, независимо от языка пользовательского домена.
00657928, 00679540	Экспортированные файлы архивов IQ Bot (.iqba) больше не содержат записей, у которых <code>classificationID</code> = -1.
00658245, 00459301, 00677204, 00532325	Пользовательская логика Python теперь отображает результаты извлечения в окне Designer без ошибок.
00408482	Теперь вы можете успешно экспортировать пользовательский домен, созданный с помощью корейского или другого азиатского языка.
00687535, 00666456, 00686297	Теперь службы машинного обучения IQ Bot правильно устанавливаются при установке IQ Bot.
00679790, 00648013, 00670191	Теперь вы можете переносить, экспортировать, импортировать или загружать файлы резервных копий экземпляров обучения IQ Bot (.iqba) размером до 1 ГБ. Это применимо к обучаемым экземплярам, содержащим до 100 групп по 10 МБ каждая.
00668412	Документы, которые вы загружаете в производственную среду, теперь эффективно передаются в Валидатор. Ранее документы иногда не отправлялись в Валидатор из-за взаимоблокировок, возникавших в системе.

Известные ограничения

(ID обращения к облачному сервису: 00715124)
Когда вы загружаете в обучаемый экземпляр документы промежуточной или производственной среды, в папке <code>C:\Windows\Temp</code> создаются временные файлы, и с течением времени размер папки может увеличиваться. Поэтому вручную удаляйте файлы из этой папки, так как это может привести к тому, что IQ Bot перестанет отвечать.
Иногда обучаемый экземпляр может не появиться в Enterprise Client.
Обходное решение. Удалите Enterprise Client и выполните повторную установку.
Если работающий параллельно пользователь удаляет бот, IQ Bot не ограничивает действия другого работающего параллельно пользователя по перемещению бот в промежуточную или производственную среду.

Иногда после новой установки IQ Bot не может подключиться к Control Room, и при входе в IQ Bot отображается следующее сообщение об ошибке: «Ошибка при подключении к Control Room. Повторите попытку входа».

Обходное решение.

1. Отмените регистрацию *IQ Bot в Enterprise Control Room*.
2. Перезапустите службы IQ Bot.
3. Повторно зарегистрируйте *IQ Bot в Enterprise Control Room*.

Если вы попытаетесь обработать документ PDF с помощью **pdfboxOCR**, то SIR будут неправильно размещены на флажках.

Обходное решение. Отключите параметр **pdfboxOCR** при создании обучаемого экземпляра.

Если в Валидатор метка поля перекрывается с SIR флажка, то область SIR флажка не может быть выбрана.

Обходное решение. Нарисуйте поверх SIR флажка вместо того, чтобы выбирать идентифицированное поле SIR.

(ID обращения к облачному сервису: 00634155) Если размер файла IQBA превышает 2 ГБ или если ваши обучаемые экземпляры содержат более 200 групп по 10 МБ каждая, миграция может завершиться сбоем.

Обходное решение. См. раздел *Migration of learning instance is not getting completed if the IQBA is more than 2GB (A-People login required)*.

Понятия, связанные с данным

[IQ Bot — заметки о выпуске](#)

This document for IQ Bot describes new capabilities, changed and migrated features, fixed features, technical updates, and known limitations for each version.

[IQ Bot operating system compatibility](#)

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

[IQ Bot database compatibility matrix](#)

The table provides information about the databases that are compatible with the different IQ Bot releases.

[Required database information for IQ Bot installation](#)

When you install IQ Bot, you are prompted to provide information specific to the database type you are using. The following table summarizes the required information.

[IQ Bot hardware and software requirements](#)

Make a note of the following hardware and software requirements before installing IQ Bot.

Ссылки, связанные с данной

[Рекомендации по обновлению](#)

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

[IQ Bot version compatibility matrix](#)

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

[Матрица сравнения функций IQ Bot](#)

Compare features between different product releases.

IQ Bot Version 11.3.5.3 — заметки о выпуске

Изучите информацию об измененных функциях, исправленных функциях и известных ограничениях в Automation Anywhere IQ Bot Version 11.3.5.3. В этом выпуске нет новых функций или исправлений в системе безопасности.

Измененные функции

View confidence level of extracted fields (Service Cloud case ID: 00648941)

You can now view the confidence level of the fields extracted using the Tesseract OCR and Tegaki API OCR engines in IQ Bot. This information is available in a JSON file in the following output directory: C:\Users\Public\Documents\Automation Anywhere IQBot Platform\Output\<Learning Instance>\.

[IQ Bot 11.x: Improve output quality using OCR confidence](#)

Automatically detect check box

IQ Bot can now automatically detect check boxes and radio buttons in a document. You can enable this feature when creating a learning instance.

- With this feature enabled, during training, if you select **check box** from the **data type** drop-down list and then you select the **field value**, only the check box segments are displayed.
- This feature does not work when the PDFBox option is enabled.

[IQ Bot 11.x: Создать экземпляр для обучения](#) | [IQ Bot 11.x: Disable PDFBox option](#)

Tegaki API OCR improvements

IQ Bot now uses enhanced Tegaki API OCR segmentation to improve accuracy in the following scenarios:

- Multiple fields are merged into a single SIR
- Segmentation on empty spaces
- Overlapping SIRs
- Incorrectly located SIRs
- Partial or incorrectly captured values from SIRs

[IQ Bot 11.x: Использование модуля Распознавание текста \(OCR\) Tegaki API](#)

Custom encryption key (Service Cloud case ID: 00656823)

During a new installation of IQ Bot, you can now specify a custom encryption key.

[IQ Bot 11.x: Установка IQ Bot в пользовательском режиме](#)

Performance improvement (Service Cloud case ID: 00629302)

IQ Bot now takes significantly less time to create a bot for groups containing only production documents.

Timeout limit for extracting data from tables (Service Cloud case ID: 00674110, 00662968, 00679587)

Data extraction from a table sometimes stops working indefinitely if the training is not done correctly. To avoid such a scenario, the timeout limit for table data extraction is set to 30 minutes. After the timeout (30 minutes), the document is moved to Валидатор with empty table rows, where you can manually add the data.

Исправленные функции

ID обращения к облачному сервису	Описание
00653929	With segmentation improvements, you can now train Korean language documents using the Tegaki API OCR engine without any system-identified region (SIR) errors. <i>IQ Bot 11.x: Использование модуля Распознавание текста (OCR) Tegaki API</i>
00430923, 00618234, 00636422, 00662137, 00478986, 00414921	All uploaded documents are now rendered correctly, irrespective of their content orientation while uploading, which enables you to train them without encountering any issues. Previously, when you created a learning instance, documents that did not have the correct content orientation (they were upside down or tilted) could not be trained.
00639117	Numeric format in the Polish language is now accepted in Designer and Валидатор. <i>IQ Bot 11.x Designer validation patterns</i>
00590165	Fixed an issue that caused the following error: Cannot read property 'startPx' of undefined. You can now see the extraction results and save your documents without any errors. <i>IQ Bot 11.x: Preview extracted data</i>
00500914	The TesseractLog.log file is now available in the following directory: C:\Users\Public\Public Documents\Automation Anywhere IQBot Platform\Logs\Engine\ The log level is set to error by default. You can change this setting in the CognitiveServiceConfiguration.json file.
00445378	You can now create and edit learning instances even if the role name consists of Unicode characters in Chinese, Japanese, and Korean languages.
00459301, 00677204, 00532325	Пользовательская логика Python теперь отображает результаты извлечения в окне Designer без ошибок.
00619139	When you now run a бот and try to edit it while it is still running, the following correct message is displayed: Staging Documents for this Vision bot is in progress. Please try after some time. Previously, the following incorrect message was displayed: Learning instance not found

ID обращения к облачному сервису	Описание
00668625	When you upload documents containing digital signatures to learning instances, Designer now displays the correct success or error message.
--	When you now select Hide successful fields , successful table fields are accurately hidden.
00663790	Performance is now improved for the projects listing page.
00672470, 00650232, 00542411, 00605607, 00595731	After validating the fields of production documents, you can now use the Save current document option to save all the validated document, without any error messages.
--	Fixed an issue that caused a higher API response time when more than 20 users tried to access IQ Bot. You must add the <code>ignite.security.disable=true</code> property in the <code>cluster.properties</code> file. Create or update cluster.properties file
00672702	You can now export and import backup (.iqba) files successfully even if the data entered in the Валидатор contains spaces or tabs.
00669197, 00681599	Node.js is now upgraded to version v10.22.1 to fix a security vulnerability.
00662968	Sometimes, when you click See Extraction Results and the preview fails, IQ Bot now correctly displays the following error message after a timeout of 2 minutes: <code>Error occurred while extracting the document. Please re-check the training/document</code> . Previously, when the preview failed, the page kept loading indefinitely.
00644948	When you now upload a document in production, deadlocks no longer occur in the system and documents are correctly sent to the Валидатор.

Известные ограничения

In a cluster setup, sometimes after training, when you click See Extraction Results , the preview page does not load and the system displays an <code>Internal Server Error</code> message.
IQ Bot Version 11.3.5.3 is a full installer and not a patch release. Therefore, to import learning instance backups to Version 11.3.5.3, the backup (.iqba) file must be exported <i>only</i> from Version 11.3.5.3.
Processing time for bulk documents (4000 approximately) takes longer than before because IQ Bot now fixes the orientation of documents first before processing them.

When the value entered for `GroupDocumentThreshold` in the `settings.txt` file is zero (0) or negative, the **Threshold to create new groups** field does not display the default value of **10** in the **Learning Instances > Summary** page.

The `settings.txt` file is available in `C:\Program Files (x86)\Automation Anywhere IQ Bot\Configurations` folder.

If you create a learning instance with **Checkbox auto-detection** enabled, check box SIRs cannot be selected.

Обходное решение. Нарисуйте поверх SIR флажка вместо того, чтобы выбирать идентифицированное поле SIR.

When you install IQ Bot with a custom key, documents might not be classified if they are used with Microsoft Azure or Google Vision API.

Sometimes, when you train a bot and verify the extracted data, and then if you retrain that bot and view the extraction results again, the preview might fail but the cached extraction results are still displayed.

When you upload a document to production immediately after deleting a bot it was associated with, extraction results are not displayed.

Обходное решение. Use one of the following options:

- Select the **Disable cache** option in the **Network** tab.
- Ensure you wait at least 3 minutes between deleting the bot and uploading the document.
- Empty the cache and reload the page.

Sometimes, if a bot is not trained correctly and the preview fails, IQ Bot does not display an error and the page keeps loading.

When two users try to access a bot for a learning instance at the same time, IQ Bot redirects the user to the learning instances listing page and displays an error message there instead of the learning instance details page.

When a user with a custom role with all permission except **View learning instance from the same role** and **Launch Validator** clicks **Save and go to next group**, IQ Bot displays an `Access Denied` error. However, the group information is saved.

In the Designer, if a segment drawn over a field maps less than 50% of the total area of that field, the field value is displayed in the Designer.

If you are using Internet Explorer, you cannot save a document or mark it as invalid in the learning instances validator screen.

Обходное решение. Use the Google Chrome browser to access the learning instances validator screen.

Sometimes, IQ Bot does not display an error when you enter a date in an invalid format in the Валидатор.

When IQ Bot is installed with Microsoft SQL Azure (RTM) database, and if the IQ Bot application and database servers are in different sub-networks, the `Healthcheck` API returns `NOT_OK` for the alias service due to network latency.

Обходное решение.

1. Open the `C:\Program Files (x86)\Automation Anywhere IQ Bot\Services\Application.yaml` file.
2. Update the following attributes to increase the healthcheck timeout period to 10000 from the current 5000:

```
connect-timeout: 1000
read-timeout: 10000
```

During a new installation, IQ Bot does not restrict a user from including spaces in the custom encryption key.

When you export a learning instance, the status is not displayed on the **Migration** page until you manually refresh the page data.

When table fields are validated in the Валидатор, the user is navigated to the associated page for that field but the SIRs are sometimes not displayed.

Обходное решение. Navigate to the page by entering the page number in the pagination bar.

Понятия, связанные с данным

[IQ Bot — заметки о выпуске](#)

This document for IQ Bot describes new capabilities, changed and migrated features, fixed features, technical updates, and known limitations for each version.

[IQ Bot operating system compatibility](#)

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

[IQ Bot database compatibility matrix](#)

The table provides information about the databases that are compatible with the different IQ Bot releases.

[Required database information for IQ Bot installation](#)

When you install IQ Bot, you are prompted to provide information specific to the database type you are using. The following table summarizes the required information.

[IQ Bot hardware and software requirements](#)

Make a note of the following hardware and software requirements before installing IQ Bot.

Ссылки, связанные с данной

[Рекомендации по обновлению](#)

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

[IQ Bot version compatibility matrix](#)

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

[Матрица сравнения функций IQ Bot](#)

Compare features between different product releases.

IQ Bot Version 11.3.5.2 — заметки о выпуске

Review the new features, changed features, fixed features, and known limitations in Version 11.3.5.2 of Automation Anywhere IQ Bot. There are no security fixes in this release.

Новые функции

Control creation of groups

Use the **New groups creation setting** section in the **Learning Instance > Edit** page to limit creating groups when uploading training documents to IQ Bot. Use the **Threshold to create new groups** value and **Never create new groups** check box to define the parameters.

[Боты](#)

Измененные функции

Search by filename in Валидатор

(ID обращения к облачному сервису: 00372981)

Use the **Search by filename** field in the **Validator** screen to search a document in IQ Bot.

[Валидатор enhancements](#)

Import custom domains from the staging to the production server in any order

(ID обращения к облачному сервису: 00472445)

You can now edit and update an existing custom domain multiple times and import them to the production server multiple times, in any order, before importing the learning instances. After importing the learning instances, the system classifies all documents in the production server correctly, allowing successful processing of documents.

[Custom Domain in IQ Bot](#)

Исправленные функции

ID обращения к облачному сервису	Описание
00551886	Unicode issue with table validation for Asian languages is now resolved.
--	A validation error message along with the corrected field is now displayed in the output (.CSV) file for documents validated using ValidatorURL.
00605607	When you click Save current document in the validator screen, the document is now saved without any errors and the corresponding .CSV file is created in the output folder.

ID обращения к облачному сервису	Описание
00376179	The Automation Anywhere Cognitive Project is now created without any errors even when you use the IQ Bot batch files to install or uninstall.
00702139	IQ Bot no longer becomes unresponsive when you edit an existing learning instance.

Известные ограничения

To import learning instance backups on an IQ Bot Version 11.3.5.2 environment, the backup (.iqba) file must be exported from an IQ Bot Version 11.3.5.2 environment only. Therefore, you must also upgrade your source IQ Bot environment to Version 11.3.5.2. This requirement is due to changes made in database schemas and version information in the backup (.iqba) files.
When you click the Save and go to next group option, the available groups or the learning instances are sometimes not displayed.
(ID обращения к облачному сервису: 00565803) If the time spent in validating different groups varies substantially, the Y-axis (depicting time) in the Validation chart sometimes does not display data accurately. You can hover over the bar for individual groups to view the time spent in validating that group.
When the value entered for <code>GroupDocumentThreshold</code> in the settings file is zero or negative, the Threshold to create new groups field does not display the default value of 10 in the Learning Instances > Summary page.
Due to some enhancements in IQ Bot Version 11.3.5.2, Microsoft Azure (RTM) Database is not compatible with this version.
(ID обращения к облачному сервису: 00753319) If you are running IQ Bot using a service account credential where the password contains a space, the IQ Bot logs will not update.

Понятия, связанные с данным

[IQ Bot — заметки о выпуске](#)

This document for IQ Bot describes new capabilities, changed and migrated features, fixed features, technical updates, and known limitations for each version.

[IQ Bot operating system compatibility](#)

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

[IQ Bot database compatibility matrix](#)

The table provides information about the databases that are compatible with the different IQ Bot releases.

[Required database information for IQ Bot installation](#)

When you install IQ Bot, you are prompted to provide information specific to the database type you are using. The following table summarizes the required information.

[IQ Bot hardware and software requirements](#)

Make a note of the following hardware and software requirements before installing IQ Bot.

Ссылки, связанные с данной**Рекомендации по обновлению**

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

[IQ Bot version compatibility matrix](#)

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

[Матрица сравнения функций IQ Bot](#)

Compare features between different product releases.

IQ Bot Version 11.3.5.1 — заметки о выпуске

Review the new features, changed features, fixed features, and known limitations in Version 11.3.5.1 of Automation Anywhere IQ Bot. There are no security fixes in this release.

Новые функции

Delete bot option in IQ Bot Designer (Service Cloud case ID: 00096258, 00595526)

Users with Edit bot permission can view and use the **Delete bot** option in the Designer. After a bot is deleted from the system, it will not be displayed in the **Learning Instance** or **Bots** listing pages.

IQ Bot removes all document details from staging, and all unprocessed production documents are moved to the Валидатор.

Прим.: The **Migration Utility** > **Import/Export** functionality is not affected in any way by the Delete bot feature.

[Delete a bot](#)

Alert for successful or pending document validations

Document validation status is now displayed on the **Learning instances** page. A green icon is used for all successful document validations, and a red icon shows any pending validations.

Измененные функции

Extract data from a table that spans across multiple pages (Service Cloud case ID: 00572574, 00341694)

IQ Bot can now extract data successfully from an entire table that spans across multiple pages and that has a table header only on the first page.

[IQ Bot 11.x: Map a table](#)

Валидатор enhancements (Service Cloud case ID: 00470258)

You can now hide the **Skip to next file** and **Mark as Invalid** options using configuration settings. The options are currently enabled by default.

To enable the option to hide them, contact Automation Anywhere Support.

Исправленные функции

ID обращения к облачному сервису	Описание
00552830	You can now use the unique validation link to access documents without any errors.
00574815	Documents are now correctly classified irrespective of the document type.
00371795	When you use table extraction from a document with multiple tables, the data from the specified table is now extracted correctly.
00538480	The Options method is now disabled for HTTP requests.
00538480	Cross origin resource sharing is now restricted in IQ Bot.
00551886	Unicode issue with table validation for Asian languages is now resolved.
00421067	The activities time stamp is now captured correctly in the Control Room Audit Logs tab.

Известные ограничения

<p>If you create a learning instance and click Learning instances > Edit, a blank page is displayed.</p> <p>Обходное решение. Clear your browser cache and try to edit the learning instances.</p>
<p>If you log in to the Control Room as an IQ Bot administrator, a 502 system error is displayed when you click the IQ Bot tab in the navigation bar.</p>
<p>In Internet Explorer, you cannot save a document or mark it as invalid in the learning instances validator screen.</p> <p>Обходное решение. Use the Google Chrome browser to access the learning instances validator screen.</p>
<p>If you remove a бот (Delete a bot) associated with the document from the staging environment, you must create a group before uploading this document to the production environment. However, after deleting the бот from the staging environment, you cannot create or edit the group when you upload the same document to the production environment.</p>
<p>(ID обращения к облачному сервису: 00605607)</p> <p>When you draw a box to select text in the Validator and try to save the document, it is sometimes not saved, and the corresponding .csv file is not created in the output folder.</p>
<p>(ID обращения к облачному сервису: 00737991)</p> <p>When you are creating a learning instance and training your document, the IQ Bot system cannot extract data from tables with the same Header Name and Column Value.</p> <p>Обходное решение. Try combining Header Name or Column Value with the adjacent column. Additionally, you can provide a Python postprocessing script to separate the values during extraction.</p>

Понятия, связанные с данным[IQ Bot — заметки о выпуске](#)

This document for IQ Bot describes new capabilities, changed and migrated features, fixed features, technical updates, and known limitations for each version.

[IQ Bot operating system compatibility](#)

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

[IQ Bot database compatibility matrix](#)

The table provides information about the databases that are compatible with the different IQ Bot releases.

[Required database information for IQ Bot installation](#)

When you install IQ Bot, you are prompted to provide information specific to the database type you are using. The following table summarizes the required information.

[IQ Bot hardware and software requirements](#)

Make a note of the following hardware and software requirements before installing IQ Bot.

Ссылки, связанные с данной[Рекомендации по обновлению](#)

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

[IQ Bot version compatibility matrix](#)

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

[Матрица сравнения функций IQ Bot](#)

Compare features between different product releases.

IQ Bot Version 11.3.5 — заметки о выпуске

Review the new features, changed features, fixed features, and known limitations in Version 11.3.5 for Automation Anywhere IQ Bot. There are no security fixes in this release.

Новые функции

Select an Распознавание текста (OCR) engine when creating a new learning instance

You can now select different Распознавание текста (OCR) engines directly from the UI based on your requirements for data extraction from specific document types when creating a new learning instance. You do not have to stop and restart IQ Bot services for implementing the engine change.

A new **OCR Engine** column is available in the **My learning instance** page that shows the different Распознавание текста (OCR) engines used to create each learning instance. You can use this information when deciding on document processing and to track the different Распознавание текста (OCR) engines at a glance, after importing the learning instances.

[IQ Bot 11.x: Selecting an Распознавание текста \(OCR\) engine](#)

Pre-installation check

The IQ Bot installer now checks for dependent software and required ports before starting the installation process. The installer displays any software that is running an incompatible version and dependent ports that are being used by other services.

The installer also provides you the option to run the pre-installation check again and continue the installation process.

[IQ Bot 11.x: Installing IQ Bot in Express mode](#) | [IQ Bot Custom installation](#)

(Beta) Enable data capture and Распознавание текста (OCR) extraction for Asian languages using Tegaki API Распознавание текста (OCR) engine

Use the Beta version of the Tegaki API Распознавание текста (OCR) engine with IQ Bot to improve the accuracy of the Распознавание текста (OCR) (optical character recognition) results for training documents in Asian languages, particularly in Japanese and Korean. Tegaki API files are installed on your machine automatically during IQ Bot installation. However, you have to use your private license keys to use this engine.

[IQ Bot 11.x: Использование модуля Распознавание текста \(OCR\) Tegaki API](#)

Измененные функции

Enable or disable PDFBox option

You can enable or disable the **My PDF documents do not have images** check box directly in the UI when creating a learning instance. Previously, users had to configure the `Settings.txt` file.

[IQ Bot 11.x: Disable PDFBox option](#)

Use Google Vision API GA version

Besides providing better accuracy for Asian languages, Google Vision API can now be used for all languages supported by this Распознавание текста (OCR) engine.

[IQ Bot 11.x: Use Google Vision API OCR engine](#)

Support for ABBYY FineReader Engine versions 12.2 and 12.3

When you install IQ Bot Version 11.3.5, ABBYY FineReader Engine version 12.3 is installed as the default version. However, the product supports all learning instances created using ABBYY FineReader Engine versions 12.2 and 12.3.

[Use ABBYY FineReader Engine Распознавание текста \(OCR\) engine in IQ Bot 11.x](#)

Role-based access control (RBAC) enhancements

IQ Bot now allows more granular access control over various learning instance actions to different groups of users. Users can achieve this by allocating or deallocating custom roles to learning instances. A new permission **Assign Roles** is introduced in Control Room Version 11.3.4.3 to enable this action.

[Define access to learning instances using custom roles](#)

Валидатор enhancements

Some of the Валидатор enhancements are as follows:

- You can now hide the **Skip to next file** and **Mark as Invalid** options using configuration settings. The options are currently enabled by default.

To enable the option to hide them, contact Automation Anywhere Support.

- You can now hide the **Hide successful fields** and **Hide optional fields** options using configuration settings. The options are enabled by default.

To enable the option to hide them, contact Automation Anywhere Support.

Прим.: Selecting the **Hide successful fields** and **Hide optional fields** check boxes hides all the valid fields and reduces the display of a large number of fields, thus making correction easier. However, if there is an invalid field, it continues to be displayed because the invalid field requires correction.

- Clicking in any column field expands the column width to accommodate the text entry. The Валидатор shows the value of the field that is being validated, in the document.
- Draw an area around single or multiple values in the document image to automatically populate a field in the Валидатор. This function is similar to the Designer.

Text segment

Исправленные функции

ID обращения к облачному сервису	Описание
00474578	During the migration of learning instances between different environments, the group description for each learning instance is now carried over successfully, and users can easily identify the group details and document type in a specific classification group.
--	When a user changes permission for a specific role in the Control Room, the IQ Bot page is now automatically refreshed and implements the permission update.
00451917	If import with append for a modified learning instance fails, IQ Bot now shows an appropriate error message, and learning instance migration works as expected with the append option.
00440868	IQ Bot classifies documents as expected even when the aliasName length exceeds 75 characters.
	A CSV file is now generated with the right content on the validation page for large documents.
00492446	Learning instances with 100 and more fields now load faster, so users can train or validate them without delay.
00481720	The Service account user password can now include special characters. The service account will not be locked and all the IQ Bot services will start successfully after an installation, irrespective of whether the password has special characters.

ID обращения к облачному сервису	Описание
00348696	After login, when you change the UI display language to Japanese, the UI translations in the selected language display correctly. The translations did not display accurately in IQ Bot Version 6.5.
--	After any node is removed from a cluster, the cookies are no longer stored in the environment variable. This enables a clean re-installation.
00248270	The Learning Instance details page loads as expected. Previously, there was a delay in loading the page.
--	When you create learning instances with permissions for the role View the learning instances having the same role , you can now see learning instances created by your user role only. Previously, you were able to see learning instances created by other users as well.
--	The learning instance details page now correctly shows all data for a bot and the available options. Previously, the system displayed the following message: <code>No current groups in this instance.</code>
00339407	Draw box functionality for field labels now ensures that the selected value is treated as an entire word rather than distinct characters. You can now select multiple system identified regions (SIRs) or a specific part of a single SIR from a field label, which enables accurate data extraction in the IQ Bot Designer.
00599162	You can now download archive (.iqba) files for successfully processed documents using an API client without any errors even if the archived learning instances contain spaces in their names.

Известные ограничения

You have to manually refresh the Learning Instances page in IQ Bot to apply and update any permission changes made in the Control Room.
When uploaded file names have spaces in them, any attempt to delete or archive learning instances using the delete or archive API end points fails, showing an error message.
After installing IQ Bot, when you try to log in, the web page shows an "Access token expected in the 'X-Authorization' header" message instead of the dashboard.
Прим.: Restart the Automation Anywhere Control Room Reverse Proxy service to resolve this issue.
In the IQ Bot installer, the scroll bar for the pre-check screen that shows a list of all ports, services, and software dependencies for the installation is not displayed.
Прим.: This is a limitation of the InstallShield tool.
Sometimes, when editing a bot, when you click Test Run , the custom logic script fails to run and no error message is displayed.

(ID обращения к облачному сервису: 00605607)

When you draw a box to select text in the Validator and try to save the document, it is sometimes not saved, and the corresponding .csv file is not created in the output folder.

Понятия, связанные с данным

[IQ Bot — заметки о выпуске](#)

This document for IQ Bot describes new capabilities, changed and migrated features, fixed features, technical updates, and known limitations for each version.

[IQ Bot operating system compatibility](#)

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

[IQ Bot database compatibility matrix](#)

The table provides information about the databases that are compatible with the different IQ Bot releases.

[Required database information for IQ Bot installation](#)

When you install IQ Bot, you are prompted to provide information specific to the database type you are using. The following table summarizes the required information.

[IQ Bot hardware and software requirements](#)

Make a note of the following hardware and software requirements before installing IQ Bot.

Ссылки, связанные с данной

[Рекомендации по обновлению](#)

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

[IQ Bot version compatibility matrix](#)

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

[Матрица сравнения функций IQ Bot](#)

Compare features between different product releases.

IQ Bot Version 11.3.4.3 — заметки о выпуске

The Version 11.3.4.3 release includes the fix for Apache Log4j2 vulnerability. There are no new features, changed features, fixed features, or known limitations in this release.

Security fix

This release addresses the exposure to the Apache Log4j CVE-2021-45105, CVE-2021-45046, CVE-2021-44228, and CVE-2021-44832 vulnerabilities.

Important: We have updated IQ Bot Version 11.3.4.3 to include the fix for the Apache Log4j2 component vulnerability. The Apache Log4j2 library in this release is updated to version 2.17.1.

For the Log4j2 vulnerability, as an additional, in-depth defense measure, IQ Bot Version 11.3.4.3 includes the parameter (`-Dlog4j2.formatMsgNoLookups=true`) for all the applicable Windows services. There will be no impact to IQ Bot 11.3.4.x users who have already implemented this parameter change.

IQ Bot Version 11.3.4.3 is compatible with the latest Control Room 11.3.4.x version, which addresses the exposure to the Apache Log4j. For more information on IQ Bot and Control Room version compatibility, see [IQ Bot version compatibility matrix](#)

For additional information on the parameter change, see [Automation Anywhere Enterprise 11.x / Update regarding CVE-2021-44228 related to 0-day in the Apache Log4j2 Java library \(A-People login required\)](#).

Подробнее см. в разделе [FAQs related to Automation Anywhere Releases regarding zero-day vulnerabilities \(CVE-2021-44228, CVE-2021-45046\) \(A-People login required\)](#).

Review the disclaimer document included in the IQ Bot Version 11.3.4.3 build for more information.

Понятия, связанные с данным

[IQ Bot operating system compatibility](#)

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

[IQ Bot database compatibility matrix](#)

The table provides information about the databases that are compatible with the different IQ Bot releases.

[Required database information for IQ Bot installation](#)

When you install IQ Bot, you are prompted to provide information specific to the database type you are using. The following table summarizes the required information.

[IQ Bot hardware and software requirements](#)

Make a note of the following hardware and software requirements before installing IQ Bot.

Задачи, связанные с данной

[Upgrading system to IQ Bot 11.x](#)

As enhancements and bug fixes are provided with Version 11.3.4.3, use this topic to review the upgrade instructions.

Ссылки, связанные с данной

[IQ Bot version compatibility matrix](#)

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

IQ Bot Version 11.3.4.2 — заметки о выпуске

Review the changed features, fixed features, and known limitations for IQ Bot Version 11.3.4.2 patch release. В этом выпуске нет новых функций или исправлений в системе безопасности.

Измененные функции

Performance improvements

Further performance improvements are introduced in this release for handling concurrent users and page load time over IQ Bot Version 11.3.4.1 patch release.

Исправленные функции

You can now access a particular document in the Валидатор using the Validator URL API.

Известные ограничения

If you have installed the IQ Bot Version 11.3.4.1 patch, you must uninstall it before installing the Version 11.3.4.2 patch.

After installing or uninstalling any IQ Bot Version 11.3.4.x patch, the desktop shortcut will not work. Follow the prerequisite steps provided in the upgrade topic: [Upgrade from IQ Bot Version 11.3.4 to Version 11.3.4.x patch](#).

The auto-correction and auto-suggestion features, which are part of the **MLScheduler** service, use system resources extensively and cause the system to slow down or stop responding.

Задачи, связанные с данной

[Upgrade from IQ Bot Version 11.3.4 to Version 11.3.4.x patch](#)

Install an IQ Bot Version 11.3.4.x patch on your IQ Bot Version 11.3.4 system.

IQ Bot Version 11.3.4.1 — заметки о выпуске

The release notes describes new capabilities and changed features for IQ Bot Version 11.3.4.1.

Новые функции

IQ Bot Version 11.3.4.1 new features	
Функция	Описание
New IQ Bot patch installer	<p>Users can now install the updated patch files using the new patch installation process. Uninstalling the patch reverts IQ Bot to the base version.</p> <p>Пример. IQ Bot Version 11.3.4 is the base version, and the patch updates IQ Bot to version Version 11.3.4.1.</p> <p>Upgrade from IQ Bot Version 11.3.4 to Version 11.3.4.1 patch release</p>

Измененные функции

IQ Bot Version 11.3.4.1 changed features	
Функция	Описание
IQ Bot performance enhancement	<p>IQ Bot caches some static and semi-static data from API calls for some time to improve performance.</p> <p>Data for these static API calls are stored (cached) in the browser for short periods of time. Subsequently, when API calls for that same data are made within the caching time span, the browser responds immediately with the cached data.</p> <p>Users should be able to see the latest refreshed data within two minutes.</p>

Исправления в системе безопасности

There are no security fixes in this version.

Deprecated features

There are no deprecated features in this version.

Известные ограничения

During the Version 11.3.4.1 patch uninstallation process, the IQ Bot services are stopped and uninstalled. After the process is complete, the services are reinstalled and restarted.

Понятия, связанные с данным

[IQ Bot operating system compatibility](#)

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

[IQ Bot database compatibility matrix](#)

The table provides information about the databases that are compatible with the different IQ Bot releases.

[IQ Bot hardware and software requirements](#)

Make a note of the following hardware and software requirements before installing IQ Bot.

[Required database information for IQ Bot installation](#)

When you install IQ Bot, you are prompted to provide information specific to the database type you are using. The following table summarizes the required information.

Задачи, связанные с данной

[Uninstall IQ Bot Version 11.3.4.x patch](#)

Follow these steps to uninstall Version 11.3.4.x patch.

Ссылки, связанные с данной

[Рекомендации по обновлению](#)

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

[IQ Bot version compatibility matrix](#)

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

[Матрица сравнения функций IQ Bot](#)

Compare features between different product releases.

Version 11.3.4 Release Notes for IQ Bot

The release notes for IQ Bot Version 11.3.4 describes new capabilities, changed features, fixed features (resolved issues), security fixes, deprecated features, and known behavior or limitations.

Новые функции

IQ Bot Version 11.3.4 new features	
Функция	Описание
(Beta) Enabled data capture and OCR using Google Vision API for Asian languages	<p>Use the Beta version of the Google Vision API with IQ Bot to improve the accuracy of the optical character recognition (OCR) results for training documents in Asian languages, particularly in Japanese and Korean. Google Vision API files are installed on your machine automatically during IQ Bot installation.</p> <p>IQ Bot 11.x: Use Google Vision API OCR engine on page 126</p>
Magnetic ink character recognition (MICR) extraction	<p>Use the MICR OCR feature with ABBYY FineReader Engine v12.2 to extract MICR data from financial checks.</p> <p>IQ Bot 11.x: Extract data using magnetic ink character recognition on page 196</p>
Option to turn off PDFBox as OCR engine	<p>Users have the option to turn off the PDFBox value to false to use the extraction functionality of the selected OCR engine such as Tesseract4 OCR, ABBYY FineReader Engine, and Microsoft Azure API. Disabling the PDFBox OCR optimizes extraction from hybrid documents that have a mix of images and digital values.</p> <p>IQ Bot 11.x: Disable PDFBox option on page 197</p>

Измененные функции

IQ Bot Version 11.3.4 changed features	
Service Cloud ticket number	Описание
Enterprise Control Room > Administration > Settings IQ Bot	<p>When a user tries to register IQ Bot with the Control Room, the system now shows an error message if you enter an incorrect URL.</p>
UI auto-refresh in IQ Bot is disabled	<p>The system does not automatically refresh (auto-refresh) the IQ Bot UI, unless the user loads a screen or clicks Refresh to manually refresh data on a page. This feature helps reduce the response time for loading new data or performing any action in IQ Bot.</p> <p>Refresh data in Learning Instance details page on page 159</p>

IQ Bot Version 11.3.4 changed features	
Service Cloud ticket number	Описание
- -	<p>Previously, the user had to select the certificate from a provided list. Now, during the installation process:</p> <ul style="list-style-type: none"> The <code>CA.crt</code> is automatically created in the <code><installation path>/Portal/keys</code> folder. The public certificate is added to the Java keystore in <code><installation path>\JRE\zulu8.40.0.20-sa-fx-jre8.0.222-win_x64\lib\security\cacerts</code>.
- -	<p>No updates are required in the <code>cluster.properties</code> file for IQ Bot Version 11.3.4 to work with earlier versions.</p> <p>IQ Bot version compatibility matrix on page 8</p>

Исправленные функции

IQ Bot Version 11.3.4 fixed features	
Service Cloud ticket number	Описание
- -	After correcting the field values in the Валидатор when a user saves the changes, the Валидатор updates only the edited values. The IQ Bot Dashboard now displays the correct accuracy value for that learning instance.
- -	After you correct a field value, the ML suggestion works as expected and provides suggestions for that field value in other documents as well. The user is able to select the ML suggested value on the first click.
- -	The system now generates a valid response for the <code>AAE_IQ Bot Admin</code> role when accessing dashboard accuracy details for a specific project ID.
00417631 / 00423076	Uploading a document with a long file name does not return an empty learning instance success folder anymore. Instead, the file name is now visible and is successfully processed to the success folder.
- -	HTTP response header settings related to security vulnerability are now fixed.

IQ Bot Version 11.3.4 fixed features	
Service Cloud ticket number	Описание
- -	A user can now successfully install a later version of IQ Bot even if an existing Version 11.3.3 is installed on their machine. The system does not create duplicate data in the <i>contentclassification</i> table. In case duplicate data is created, the system displays an error message and rolls back the installation. The user then has to manually verify and remove the duplicate data from the <i>contentclassification</i> table.
00358689	The user can no longer see the system-created temporary files after the processing of documents in the IQ Bot server.

Исправления в системе безопасности

Critical security fix: TLS 1.2 is required for HTTPS connections to IQ Bot

To maintain security standards and promote the safety of data, the earlier TLS 1.1 encryption protocol is disabled in IQ Bot. Starting with Version 11.3.4, all inbound connections to IQ Bot must use TLS 1.2.

Users must verify that their browsers are compliant with TLS 1.2.

Deprecated features

There are no deprecated features listed for this version.

Известные ограничения

IQ Bot Version 11.3.4 known limitations	
Service Cloud ticket number	Описание
- -	If the value of <code>PDFBoxOCREnabled</code> is set to <code>False</code> in the <code>settings.txt</code> file, some multilingual documents do not get classified.
00356534	IQ Bot does not support migration of learning instances created using custom domains, unless the custom domains were imported in the same order, and the field IDs between the source and target system match.

IQ Bot Version 11.3.4 known limitations	
Service Cloud ticket number	Описание
- -	<p>With Google Vision API OCR, for accurate value extraction, use training documents that are single language only.</p> <p>Пример. Documents cannot have a mix of Japanese and English language fields. They must be fully Japanese only.</p>
- -	<p>The system is unable to generate CSV files with the appropriate extraction results for documents with more than 10 to 15 pages that are sent for validation.</p>
- -	<p>The Bot training page displays the bot ID in the URL. If a user manually changes the bot ID in the URL, the system creates a new bot with that ID instead of showing an error message.</p> <hr/> <p>Note: IQ Bot does not support manual modification of the bot ID in the URL.</p>
- -	<p>Sometimes the user is unable to edit or add new fields to existing learning instances in a cluster environment. The new field is not available in the Designer for training, as it did not get added to the learning instance. In such cases, reach out to support.</p> <p>This does not affect learning instances in the standalone mode.</p>
- -	<p>The Валидатор does not stop data extraction at the end of a table/repeated section for the first table, but continues on to extract data from different fields in the following tables as well. This leads to incorrect data extraction and the result is shown in the See extraction results screen for the first table.</p> <hr/> <p>Tip: As a workaround, we recommend using the Advanced table options setting in the Валидатор and enabling the Stop extraction at "End of table indicator" check box. This stops the table extraction at the table footer.</p>
- -	<p>When a user tries to install a newer version of IQ Bot, the system uninstalls any existing previous version of the product on the user machine. The system then installs the newer version without displaying any notification for the user.</p>

IQ Bot Version 11.3.4 known limitations	
Service Cloud ticket number	Описание
- -	<p>When a user with an <i>AAE_IQ Bot Admin</i> role tries to create a learning instance with IQ Bot extensions, the system displays a forbidden access with admin role message.</p> <hr/> <p>Tip: As a workaround, we recommend assigning the user with the <i>AAE_Basic</i> role in addition to the <i>AAE_IQ Bot Admin</i> role .</p> <hr/>
- -	The image invoice document classification is inconsistent. The system deletes such documents from the temporary folder after an upload, which leads to results showing that no classification occurred.
- -	If a user has configured a new output and log path in the <i>Settings</i> file, the system fails to update the change. This results in the audit logs being unavailable at the new location.
- -	The data validation error checklist in the system is not working according to defined priority, thus impacting validation results.
- -	<p>IQ Bot is unable to generate system identified regions (SIRs) for PDF files with multiple formats in different pages.</p> <hr/> <p>Tip: As a workaround, we recommend turning off the PDFBox option as an OCR engine. <i>IQ Bot 11.x: Disable PDFBox option</i> on page 197</p> <hr/>
- -	In the Learning Instance details page when a user deletes a learning instance, and then navigates to the Bots tab and sets the same learning instance to production, the system fails to display an error message stating that the learning instance cannot be found.
- -	IQ Bot is unable to identify some check boxes, or is extracting incorrect values from some of them from the uploaded documents.
- -	The IQ Bot classifier performance is inconsistent for the same learning instances, and for learning instances with the same domain and custom fields.

Related concepts

[IQ Bot hardware and software requirements](#) on page 27

Make a note of the following hardware and software requirements before installing IQ Bot.

[IQ Bot operating system compatibility](#) on page 23

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

[IQ Bot database compatibility matrix](#) on page 24

The table provides information about the databases that are compatible with the different IQ Bot releases.

[Required database information for IQ Bot installation](#) on page 26

When you install IQ Bot, you are prompted to provide information specific to the database type you are using. The following table summarizes the required information.

Related reference

[Рекомендации по обновлению](#) on page 6

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

[IQ Bot version compatibility matrix](#) on page 8

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

[Матрица сравнения функций IQ Bot](#) on page 13

Compare features between different product releases.

Version 11.3.3.1 Release Notes for IQ Bot

This topic for IQ Bot Version 11.3.3.1 describes fixed features.

Note: IQ Bot Version 11.3.3.1 is a full release that also has new, changed, and fixed features from IQ Bot Version 11.3.3 General Availability release. See: [Version 11.3.3 Release Notes for IQ Bot](#) on page 63.

Новые функции

There are no new features listed for IQ Bot in this version.

Измененные функции

The installation process for upgrading to IQ Bot Version 11.3.3.1 in the custom mode requires some specific steps. Follow the installation checklist provided in the `installer.zip` file. См. раздел [Upgrading IQ Bot to Version 11.3.3.x](#) on page 246.

Fixed Features

The following fixed features are listed for IQ Bot in this version.

IQ Bot Version 11.3.3.1 Fixed Features	
Service Cloud ticket number	Описание
14380	IQ Bot installer runs without any interruption, as the issue that occurred during the installation of Python dependencies has been resolved. The required Python packages are now provided with the installer.

IQ Bot Version 11.3.3.1 Fixed Features	
Service Cloud ticket number	Описание
- -	The installation continues despite inconsistent data, which is logged in the <i>installer-helper.log</i> file.
14445	Users are able to access IQ Bot without any HTTP 431 error message.

Deprecated Features

There are no deprecated features listed for IQ Bot in this version.

Known Limitations

(ID обращения к облачному сервису: 00533813, 00564190, 00572649)

При загрузке векторных PDF-документов в новый обучаемый экземпляр несколько документов определяются как неклассифицированные. Если же преобразовать документы из PDF в TIFF и загрузить их, эти документы будут успешно обработаны.

Related concepts

[IQ Bot operating system compatibility](#) on page 23

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

[IQ Bot database compatibility matrix](#) on page 24

The table provides information about the databases that are compatible with the different IQ Bot releases.

[IQ Bot hardware and software requirements](#) on page 27

Make a note of the following hardware and software requirements before installing IQ Bot.

Related reference

[Рекомендации по обновлению](#) on page 6

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

[Матрица сравнения функций IQ Bot](#) on page 13

Compare features between different product releases.

[IQ Bot version compatibility matrix](#) on page 8

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

Related information

[Version 6.5.2 — заметки о выпуске](#) on page 68

This document for IQ Bot Version 6.5.2 describes new capabilities, changed features, fixed features (resolved issues), security fixes, deprecated features, and known behavior or limitations.

[Version 11.3.3 Release Notes for IQ Bot](#) on page 63

This topic for IQ Bot Version 11.3.3 describes new capabilities, changed features, fixed features, security fixes, deprecated features, and known behavior or limitations.

Version 11.3.3 Release Notes for IQ Bot

This topic for IQ Bot Version 11.3.3 describes new capabilities, changed features, fixed features, security fixes, deprecated features, and known behavior or limitations.

Important: To better align the new release cycles for IQ Bot with the Control Room, the versioning convention has been streamlined to be in sync. IQ Bot version 6.6 has been renamed to IQ Bot Version 11.3.3.

Note: IQ Bot Version 11.3.3 is the first General Availability release that also has new, changed, and fixed features from IQ Bot Version 6.5.2 Limited Availability release. See: [Version 6.5.2 — заметки о выпуске](#) on page 68.

Новые функции

IQ Bot Version 11.3.3 New Features	
Функция	Описание
Стандартные формы	Create learning instances that leverage custom extraction services to process complex, fixed-format forms (also known as standard forms) without requiring any training. См. раздел Стандартные формы for custom extraction on page 226.
Import standard form domains	Import domains for standard form documents to use Стандартные формы feature. These domains become available for use from the drop-down list, when creating a learning instance. См. раздел Import domains for fixed format documents on page 227.
Internet Explorer 11 support	IQ Bot Version 11.3.3 now supports Internet Explorer 11. Important: When using Internet Explorer11, you might need to Display intranet sites in Compatible View in the <i>Compatibility View Settings</i> window.
IQ Bot patch installer	The IQ Bot patch installer simplifies the upgrade and downgrade process and supports modifying the affected files only. For minor changes you do not have to uninstall and reinstall the IQ Bot solution package. Note: To revert to the original version, uninstall the patch.

Измененные функции

IQ Bot Version 11.3.3 Changed Features	
Функция	Описание
Check box data extraction enhancement	The IQ Bot check box data extraction ML model has been retrained to capture more variations for check boxes.
RabbitMQ v3.8.18 and Erlang/OTP upgrade	<p>IQ Bot Version 11.3.3 has been updated with RabbitMQ v3.8.18 3.7.17 and Erlang/OTP 22.0.</p> <hr/> <p>Note: IQ Bot Version 11.3.3 is also backward compatible with the earlier versions of RabbitMQ v3.8.18. См. раздел IQ Bot 11.x: RabbitMQ v3.8.18 and Erlang/OTP upgrade on page 103.</p> <hr/>
Migrate learning instances as other learning instances are being edited	An administrative user can now migrate learning instances, even while other learning instances are being edited.
Microsoft Azure Computer Vision OCR engine	<p>This feature is now official, and no longer beta. IQ Bot has native support for Microsoft Azure Computer Vision OCR engine.</p> <p>Пример. It can help handwriting, driver licenses, and passport extraction.</p> <hr/> <p>Note: Internet connectivity is required.</p> <hr/>
Use custom logic (Python scripts) to improve extraction	<p>The custom logic feature is now part of the standard IQ Bot package from this release. There's no separate configuration required to enable the feature.</p> <p>IQ Bot 11.x: Adding custom logic to improve automatic extraction in production on page 214</p>

Fixed Features

IQ Bot Version 11.3.3 Fixed Features	
Zendesk/Support ticket/Service Cloud	Описание
-	CSS vulnerability is no longer found in Veracode scan.
Customer service: 431	Learning instances load faster than before.
Customer service: 13467	After you edit a learning instance with a large number of bots, clicking the Back to training button loads the Designer window.

IQ Bot Version 11.3.3 Fixed Features	
Zendesk/Support ticket/Service Cloud	Описание
-	When you edit a learning instance in any group with a large number of bots, the See extraction results > Back to training action works faster than before.
-	Uploading training files to a learning instance using API processes works as expected.
Customer service: 551	Multi-page document navigation and processing does not stop, but completes as expected.
Customer service: 13847	Classifier successfully processes learning instances even with more than 2100 groups.
Customer service: 534	When you click an empty validator field on a multi-page document in the webpages (Designer/See extraction results/Validator), the cursor now remains on the given page instead of jumping back to page 1.
Zendesk: 242261	In the Designer window, when you click the See extraction result button, the extracted results display faster than before.

Исправления в системе безопасности

There are no security fixes listed for this version.

Deprecated Features

There are no deprecated features for this version.

Known Limitations

Note: In addition to the known limitations in the table below, IQ Bot Version 11.3.3 General Availability release has the known limitations listed for IQ Bot Version 6.5.2 Limited Availability release.

См. раздел [Version 6.5.2 — заметки о выпуске](#) on page 68.

IQ Bot Version 11.3.3 Known Limitations	
Zendesk/Support ticket/Service Cloud	Описание
Zendesk: 221115	In select use cases , with unexpected diagonal line marks on the page, document orientation displays incorrectly in the Валидатор.

IQ Bot Version 11.3.3 Known Limitations	
Zendesk/Support ticket/Service Cloud	Описание
-	In production, during batch upload of files, sometimes an <code>express-http-proxy</code> error can occur due to which one or more files can be lost. The environment shows high-compute usage with database Microsoft Azure SQL service.
Zendesk: 240900	Importing a learning instance with an empty <code>hashkey</code> for <code>layoutTrainSet</code> fails.
Internet Explorer 11	When using Internet Explorer 11, icons disappear after a page refresh. A hard refresh (Ctrl+F5) helps fix the issue.
Customer service: 422 and 526	With ABBYY FineReader Engine in IQ Bot, the text segments / system identified regions (SIRs) for some documents get offset or are not generated, creating problems with mapping. With ABBYY FineReader Engine, for some documents, the SIRs are not generated as expected.
-	In production, the Валидатор is unable to make auto-suggestions for Japanese unicode, requiring a fix to a third party library.
Service Cloud: 00342272	Classifier worker keeps on creating duplicates of the number classifier executors, using more system resources (primarily CPU, and secondarily RAM) than necessary, that slows down IQ Bot.
Service Cloud: 00331297	Documents are stuck in processing without completing classification, and an error message is displayed.
Customer Service: 146	Optical character recognition (OCR) accuracy can impact light colored fonts.
-	The red icon and red highlighted text boxes, indicating a validation error for a field, can disappear if the user clicks on the field but moves to a different field without making any corrections.
-	The IQ Bot dashboard does not always show accurate metrics (for example, number of documents processed) for standard forms that get processed.

IQ Bot Version 11.3.3 Known Limitations	
Zendesk/Support ticket/Service Cloud	Описание
-	During IQ Bot uninstall process, the Finish screen displays incorrect version information of the third party components.
-	Standard form documents in IQ Bot: Learning instances, created with a domain for standard forms, cannot be exported/imported with IQ Bot.
-	User is able to register IQ Bot in the Control Room with an incorrect URL.
-	During the processing of IQ Bot extensions, the blue bounding boxes do not completely cover the extracted text.
-	In the Валидатор, when correcting errors for a IQ Bot extensions document: <ul style="list-style-type: none"> user is unable to see the highlighted value in the document. on selecting a bounding box on the document, the value does not get extracted to the field text box.
-	The Microsoft Azure Computer Vision OCR engine returns single characters for languages such as Japanese. That can lead to unclassified documents in IQ Bot, if domains or learning instances in IQ Bot rely on field names to be multi-character words instead of single characters.
-	In the Валидатор, a user has to select the ML auto-suggested value twice to apply it to a field on that document.
-	User could see a Окно Defender SmartScreen message about unrecognized app at the start of the IQ Bot installation process. To resolve the issue, see Windows unrecognized application message on page 101.
-	While accessing the IQ Bot dashboard, a user with IQ Bot administrator role could get a 403 Forbidden Error message. To resolve this issue, ensure the user also has the AAE_BASIC role assigned in the Control Room.
-	In Валидатор, the suggested value for a field does not get selected from the drop-down.

IQ Bot Version 11.3.3 Known Limitations	
Zendesk/Support ticket/Service Cloud	Описание
-	When documents are getting classified, or a learning instance is in edit mode, the Export Status of that learning instance shows as available in Migration utility page.

Related reference

[Рекомендации по обновлению](#) on page 6

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

Related information

[Version 6.5.2 — заметки о выпуске](#) on page 68

This document for IQ Bot Version 6.5.2 describes new capabilities, changed features, fixed features (resolved issues), security fixes, deprecated features, and known behavior or limitations.

Version 6.5.2 — заметки о выпуске

This document for IQ Bot Version 6.5.2 describes new capabilities, changed features, fixed features (resolved issues), security fixes, deprecated features, and known behavior or limitations.

Note: IQ Bot Version 6.5.2 is a restricted release, and is not listed on the customer or partner portals. For access, contact your Automation Anywhere representative.

Новые функции

IQ Bot Version 6.5.2 New Features	
Функция	Описание
Single click to extract text in the Validator	In the Валидатор, users can click on any text region to select the text instead of typing it.
API access	New APIs have been added for: <ul style="list-style-type: none"> Return a list of filenames for validation status. Download a zip folder containing files. Delete specified files in the output folder.
Document group description	A Description tab has been added for entering a descriptive label or information, such as vendor names, about the associated document group.
Microsoft Azure Computer Vision OCR engine ¹	<p>IQ Bot now has native support for Microsoft Azure Computer Vision OCR engine. Пример. It can help handwriting, driver licenses, and passport extraction.</p> <hr/> <p>Important: Internet connectivity is required.</p> <hr/>

IQ Bot Version 6.5.2 New Features	
Функция	Описание
Add user logic in the Designer	<p>In the Designer, under Logic, Python language support has been added, so power users can add custom code to:</p> <ul style="list-style-type: none"> improve extraction and validation in production skip Валидатор flag errors that could not be flagged before reduce post-processing of IQ Bot output
Internationalization and localization: Italian and Portuguese	<p>You can now select Italian and Portuguese to show the UI in that language.</p> <hr/> <p>Note: Any part of IQ Bot UI that is linked to the database appears only in English. Language support for these is upcoming in a future release.</p> <hr/>

Note 1: This is a beta feature.

Измененные функции

IQ Bot Version 6.5.2 Changed Features	
Функция	Описание
Updated SDK modules	The SDK has been updated to match Control Room Version 11.3.x. This removes the need to change the <i>ignite.security</i> flag.
Access IQ Bot without <i>sysadmin</i> role that includes support for Amazon Relational Database Service (RDS) out of the box	<p>The <i>sysadmin</i> SQL database role requirement has been removed from the IQ Bot installer. The following privileges are checked instead:</p> <ul style="list-style-type: none"> SQL connection database creation view any database <p>Installation with Microsoft Azure SQL requires the following role: <i>dbmanager</i></p>
Localized text in UI updated	The localized UI text has been updated for Chinese Simplified, Chinese Traditional, French, German, Italian, and Japanese.
View and test all documents in the Designer > See extraction results	Users can select and test not some but any of the uploaded documents in See extraction results , to train more robust bots.

IQ Bot Version 6.5.2 Changed Features	
Функция	Описание
Role-Based Access Control updates for IQ Bot Version 6.5.2	All standard roles and permissions for IQ Bot work as before with the exception of custom roles. See Define access to learning instances using custom roles on page 141 for more information.

Fixed Features

Note: For future releases all fixed features will be tracked via external ticket system. For current and previous releases, customers and partners filled out external tickets or worked with internal representatives who helped file internal tickets on their behalf.

IQ Bot Version 6.5.2 Fixed Features	
COG internal ticket number	Описание
COG-15749 AND COG-15664	Reworked migration utility feature to better support classifier versioning at the learning instance level, which fixes the migration overwrite option.
COG-17242 (Zendesk - 209799)	IQ Bot upgrade from v5.2 to v6.5 succeeds despite large increase in SQLServer log volume.
COG-15745 AND COG-15767	In a cluster environment: <ul style="list-style-type: none"> No files are lost during document processing in production environment. My total and My learning instance tiles on dashboard displays are in sync when showing the STP %. Documents sent to the Validator are automatically validated and show the correct STP %.
COG-15426	IQ Bot shows the correct bot numbers when importing learning instances with the merged option.
COG-17211	IQ Bot is able to import learning instances with unclassified group.
COG-17178 (Zendesk 210705)	IQ Bot Version 6.5 performance is improved when loading the learning instance page with a large number of Bots.
COG-15355	Trying to access a learning instance created by a different user role shows an error message instead of a blank screen.

IQ Bot Version 6.5.2 Fixed Features	
COG internal ticket number	Описание
COG-15864 AND COG-15883	<p>IQ Bot Designer is responsive:</p> <ul style="list-style-type: none"> the text segments display correctly. results are displayed when the See extraction results button is clicked.
COG-16765	Japanese and Korean unicode character corrections are getting stored correctly in the Bot database.
COG-16086	The width of the field value input box is now the same as the width of the field name input box.
COG-15417	If a user moves column fields from one table to another table in Designer, the sequence of selection of these fields will appear in See extraction results view.
COG-17032	Even if a document is open for ~20 minutes in the Валидатор, user is able to validate all the errors and save the document.
COG-17348	Displays the correct Copyright year for all IQ Bot DLLs.
COG-15669	IQ Bot can continue with pen sessions over a period of few days without slowing down or the need to restart services. The system can continue to work and be responsive.
COG-17909	On a learning instance page, when navigating through pages for listed groups, the pagination is stable and works as expected.
COG-17908	When there are lot of groups in a learning instance, navigating back to the Back to training page does not take long.
COG-17108	IQ Bot is able to recognize the spaces in specific content. Пример. "Logitech M100 Mouse" is output correctly with the appropriate spaces in between the words.
COG-17338	In the Валидатор page, user is able to scroll through the entire document using the scroll bar.
COG-17721	In a non-cluster environment, My total and My learning instance tiles on the IQ Bot dashboard display the correct document processed count and STP %.
COG-17515	IQ Bot does not display any error screen after learning instance creation and before opening the document in Designer.

Deprecated Features

There are no deprecated features listed for IQ Bot in this version.

Known Limitations

IQ Bot Version 6.5.2 Known Limitations	
JIRA/Zendesk ticket number	Описание
Customer service: 13420	Text segments might not get generated for PDFs with multiple file formats on different pages. Tip: A current workaround is to convert the PDFs to TIFF files before uploading to IQ Bot.
CGNSRV-436	IQ Bot UI response can be slow due to multiple users. The dashboard refresh can be slow due to ~50+ learning instances or a large number of groups per learning instance.
COG-18016	Users can experience longer file upload times for files whose cumulative size is greater than 10MB, when using the APIs.
CGNSRV-362, CGNSRV-457, CGNSRV-521, COG-16030	Several customers have reported cases where some tables, without headers, spanning multiple pages could have skipped rows during extraction.
CGNSRV-356, CGNSRV-368, CGNSRV-372, COG-16891	Several customers have reported table extraction skipping some required rows to be extracted.
CGNSRV-467	IQ Bot healthcheck can incorrectly return a NOT OK message when learning instances are loading.
COG-18977	While upgrading to a different IQ Bot version, incorrect timestamp is inserted for the uploaded documents. The previous version of files have the local timestamp, and the new uploaded files have the timestamp based on the time of the machine (UTC).
COG-19485	If a new group is created in production, or if a user uploads documents to IQ Bot in production, and retroactively toggles the learning instance to production, the download API feature does not work for those documents.

Related concepts

[IQ Bot operating system compatibility](#) on page 23

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

Related reference

[Рекомендации по обновлению](#) on page 6

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

[IQ Bot version compatibility matrix](#) on page 8

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

[Матрица сравнения функций IQ Bot](#) on page 13

Compare features between different product releases.

Version 6.5 — заметки о выпуске

These release notes contain changed features, fixed features, and security fixes introduced in IQ Bot Version 6.5.x.

Новые функции

Extraction/Validation features

- **Select document classifier version:**

During upgrade, the installer detects if you have existing learning instances from a prior version of IQ Bot. Select that prior version of IQ Bot from a drop-down list to keep the document classifier version for the existing learning instances.

См. раздел [Keep learning instance document classifier version during IQ Bot upgrade](#) on page 219.

- **Select between optical character recognition (OCR) engines:**

Select between Tesseract4 or ABBYY FineReader Engine v12.2 as IQ Bot's OCR engine for each new learning instance, and still continue to leverage IQ Bot's native document classification, autocorrection, and extraction capabilities. IQ Bot installation now automatically installs ABBYY FineReader Engine v12.2, and with an open runtime license. This means that the license is pre-activated, and can be on as many IQ Bot servers you run, and works with or without terminal server.

- **Expanded language support:**

Access text segmentation and OCR support for 190 languages including: Chinese Simplified, Chinese Traditional, Japanese, Korean

См. раздел [IQ Bot 11.x: List of languages in IQ Bot](#) on page 219.

Enterprise features

- **Access IQ Bot without device license (without a Bot Creator or Bot Runner license):**

Log in to IQ Bot without an assigned device license in the Automation Anywhere Enterprise Control Room. The roles are custom or defined by the system. The user view of the UI depends on the assigned role.

См. раздел [Access IQ Bot without a Bot Creator or Bot Runner device license](#) on page 146.

- **Access IQ Bot Валидатор without a Bot Creator or Bot Runner license:**

Log in to IQ Bot with a Валидатор role (defined in Control Room) without a Bot Creator or Bot Runner license. This function supports and permits an unlimited number of Валидаторs in IQ Bot simultaneously.

См. раздел [Access IQ Bot Валидатор without a license](#) on page 147.

- **Internationalization and localization:**

At log in, select from a drop-down list of eight languages, that shows the IQ Bot UI in the selected language. Choose from the following languages:

- Английский
- Упрощенный китайский
- Традиционный китайский
- Французский
- Немецкий
- Японский
- Корейский
- Испанский

Note: Any part of IQ Bot UI that is linked to the database appears only in English. Language support for these is upcoming in a future release.

- **Database encryption:**

IQ Bot document data stored in database tables and columns are encrypted for security of potentially sensitive information. This does not yet apply to field value data that humans manually correct in the IQ Bot validation queue. Database encryption occurs during the following tasks:

- Fresh install of IQ Bot
- Migration of a learning instance
- Upgrade of IQ Bot

См. раздел [IQ Bot database encryption](#) on page 230.

Note: All APIs that use this data work as before.

- **Role-Based Access Control for new learning instances:**

Role-Based Access Control (RBAC) is configured through the Control Room, which enables or restricts access to the IQ Bot learning instances, related features, and functionality that are based on permissions defined in the user role. Create and assign custom roles to users. Without permissions for the custom role, users get an error message when trying to log in to the system.

См. раздел [Define access to learning instances using custom roles](#) on page 141.

- **Audit logs for IQ Bot:**

The administrator sees action logs for all IQ Bot users in the **Audit Logs** tab of the Control Room. Successful and unsuccessful actions are logged with reasons for failure logs.

См. раздел [IQ Bot audit log in Control Room](#) on page 231.

- **Windows authentication:**

The IQ Bot platform administrator is able to enable Windows authentication, during IQ Bot platform installation, to connect SQL databases with Windows or dual authentication.

См. раздел [IQ Bot Microsoft Windows authentication](#) on page 231.

- **Microsoft Azure SQL database service Platform as a Service (PaaS):**

The IQ Bot platform administrator can enable Microsoft Azure SQL database service during IQ Bot platform installation to use the SQL database services.

- **Counter for number of pages uploaded:**

In the IQ Bot UI, users can now view the number of pages uploaded in production to manually compare with their license limit. Automatic comparison with their license limit is forthcoming in a future release.

Измененные функции

The following features were migrated from IQ Bot Version 5.3.1.x to Version 6.5:

Extraction/validation features

- **Production field value autocorrection:**

Fix field value errors in the IQ Bot Валидатор. As IQ Bot learns, it can autocorrect field value errors for which it reaches 90% confidence. If users upload additional documents in production, IQ Bot can autocorrect these errors, skip Validator, and count the documents as STP.

См. раздел [Use Machine Learning to fix extraction errors](#) on page 210.

- **Check box extraction:**

When a user maps check boxes or radio buttons, IQ Bot's artificial intelligence (AI) returns a **Yes/No/No check box found** value for whether the check boxes have check marks. That applies to a single check box, group of check boxes, and repeated sections of check boxes.

См. раздел [Extract data from check box or check box groups](#) on page 192.

- **Improved text segmentation:**

Improved text segmentation, such as, grouping and separation of related or unrelated text, provides more accurate results to support OCR, document classification, and data extraction.

For example, the improvement helped increase STP (percent of documents processed successfully without human intervention) by 9% on a sample dataset of 4,300 documents. The example increase is based on comparing IQ Bot Version 6.5 with IQ Bot Version 6.0.1 on that sample dataset, and was replicated for IQ Bot Version 6.5 versus IQ Bot Version 5.3.0.

См. раздел [Text segment](#) on page 186.

- **Map table columns without mapping table headers:**

In the IQ Bot Designer, map only one column header per table. If other column headers in the table do not exist or have low quality text, users can map these columns without headers to extract the column data.

- **Repeated table/section extraction:**

In the IQ Bot Designer, for a specific document with repeated tables/sections, users only have to map the first table or section. Automatic extraction occurs for the repeated tables or sections with similar structure or content in the remainder of the document. That automation can continue to production documents.

См. раздел [Map repeated tables and sections](#) on page 191.

- **Link tables/sections:**

In the IQ Bot Designer, select one or more fields to link tables or sections. For example, link health insurance claims data to services data.

That linking automatically continues to production documents, facilitating and eventually merging these tables or sections in RPA.

- **Choose a different training document for a group:**

During document training, a user can look at unique document layouts available in a group, and choose a different document from the default one chosen by IQ Bot Designer, that is more representative of documents across that group.

См. раздел [Choose training document for a group](#) on page 172.

- **IQ Bot Designer and Валидатор formula validation:**

Use formulas for selected fields to flag whether the formulas catch errors. For example, sum of column item totals equals Invoice Total.

См. раздел [IQ Bot 11.x: Formulas](#) on page 180.

- **Formula validation migrates during upgrade from Version 5.3.x to 6.5.x:**

When upgrading from IQ Bot Version 5.3.x to 6.5.x, the formula validation also migrates, and this prevent the task of re-adding the formula validation manually.

Ease-of-use features

- **Resize box around a text segment:**

In the Designer, resize a box around a mapped field value in any direction, without having to redraw or reselect a box. In the Designer, Валидатор, and Preview mode, (See Extraction Results), hover over any text segment to preview its OCR result.

См. раздел [Resize mapping area](#) on page 184.

- **Preview OCR result for a text segment:**

In the Designer, Валидатор, and Preview mode, (See Extraction Results), hover over any text segment to preview its OCR result.

- **Delete mapping in the Designer:**

Delete mapping of field labels or field values, by selecting the **X** delete symbol next to the mapped label or value.

См. раздел [IQ Bot 11.x: Delete mapping in the Designer](#) on page 194.

- **Use blue-bound box to populate text in End of table/section indicator:**

Select a blue-bounded box to populate the text value for the **End of table/section indicator** in the IQ Bot Designer.

См. раздел [Stop extraction at End of table/section indicator](#) on page 189.

Fixed features

- **End of table/section indicator:**

Stop extraction at End of table/section indicator permits the end of table indicator to work in additional cases.

См. раздел [Stop extraction at End of table/section indicator](#) on page 189.

- **Migration utility**

Option 1: triggers the functionality for **Appends only new learning instance(s)**, if the learning instance ID in the .iqba file (for example, from development environment) differs from the ID in the target environment (for example, production environment). If a learning instance ID in the .iqba file is the same as an ID in the target environment, that .iqba learning instance is not appended.

Option 2: triggers the functionality for **Merges new groups and trainings (bots) in existing learning instance(s)**.

См. раздел [Using Migration Utility to import and export learning instances](#) on page 251.

- **Numeric format autocorrection:**

For international languages, for example, French or German, if a numeric field has a comma misread as a period (100000.00), then an international number pattern (999,00) can autocorrect the values (100000,00).

For the English language, if a numeric field has a period misread as a comma (100000,00), then an English number pattern (999.00) can autocorrect the values (100000.00).

Technical updates

- Microsoft .NET framework updated from v4.6 to v4.7.2. The system prompts for a restart to complete the update.
- SQL client updated from v11.0 to v2012. The system prompts for a restart to complete the update.
- NodeJS updated from v6.10.2 to v10.15.0. Minimum requirement is v8.0.0.
- JDBC driver updated from v4.2 to v7.2.

Известные ограничения

- Import/export of learning instances from IQ Bot Version 6.5 Beta to Version 6.5 is not supported just as this is not supported for IQ Bot Version 5.2 to 5.3, and IQ Bot Version 6.0.1 to Version 6.5 and so on.

See [IQ Bot upgrade options](#) on page 233, which includes migration workarounds.

- When importing learning instances, the import option 3 (overwriting data) can create new groups unexpectedly. Use the other import options instead.

См. раздел [Import a learning instance](#) on page 252.

- **Database encryption:**

- Performance and database size are impacted.
- Encryption for learning instance export is not supported for IQ Bot Version 6.5.

Related reference

[Рекомендации по обновлению](#) on page 6

To ensure successful upgrade to the newest IQ Bot version, review the considerations section before starting the upgrade process.

[IQ Bot version compatibility matrix](#) on page 8

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

[Матрица сравнения функций IQ Bot](#) on page 13

Compare features between different product releases.

IQ Bot architecture overview

Find the technical details for IQ Bot Version 6.5.

IQ Bot technical details are as follows:

- Развертывание
- Protocols
- Ports
- Encryption and credentials
- Sensitive user information

IQ Bot 11.x architecture diagram

This diagram shows the different components of IQ Bot architecture.

Use the IQ Bot, components, Designer and Валидатор for designing and validating боты, respectively. In a typical scenario, IQ Bot portal and IQ Bot platform communicate through a network firewall and a load balancer.

Various protocols are used to communicate between the different components. A database server, a file storage server, and servers for IQ Bot are used. An organization has the flexibility of using a separate server for the database or using the Control Room clusterdatabase. A firewall is between the external components, web browser and Bot Runner, and the data center load balancer. Chrome is the supported browser.

Protocol specifications

A standard set of regulations and requirements that allow two electronic items to connect to and exchange information with one another.

The following table lists the protocols IQ Bot uses to enable various task.

Component Communication	Протокол	Примечания
Microsoft Azure Computer Vision OCR engine	HTTPS	Open port: 443
Google Vision API OCR engine	TCP	Open port: 443
Browser to Web server	HTTPS, REST/JSON	TLS typically terminates on a firewall.
IQ BotLite command to Web server	HTTP(S), REST/JSON	TLS typically terminates on a firewall.
Web server to Gateway	HTTP(S), REST/JSON	
Web server to Control Room	HTTP(S), REST/JSON	TLS typically terminates on a firewall.
Gateway to Microservices	HTTP(S), REST/JSON	

Component Communication	Протокол	Примечания
Gateway to Message queue	HTTP	Encrypted communication will be mandatory in a future release.
Control Room to Web server	HTTP(S), REST/JSON	TLS typically terminates on a firewall.
Microservices to Control Room	HTTP(S), REST/JSON	Use of encryption is not controlled by the Cognitive team.
Microservices to database	TCP	Encrypted communication will be mandatory in a future release.

Related concepts

[IQ Bot 11.x: Ports and services](#) on page 79

Find out a list of port numbers for all services used for IQ Bot.

IQ Bot 11.x: Ports and services

Find out a list of port numbers for all services used for IQ Bot.

Important: Configure to expose the following as inbound listening ports:

- 47100-47200 on IQ Bot server for IQ Bot-Control Room communication.
- 47100-47200 and 47500-47600 on Control Room server.

The following table displays port numbers for all services used in IQ Bot:

Service / Micro service	Протокол	Источник	Целевой объект	Port number	Примечания
Web Server (NodeJS) IQ Bot Portal	HTTP/S	Load Balancer	IQ Bot application server	3000	Port 3000 needs to be opened on the Windows Application Server so browser sessions can send requests through the Load Balancer.

Service / Micro service	Протокол	Источник	Целевой объект	Port number	Примечания
RabbitMQ v3.8.18 Cluster Server	HTTP/S	Other IQ Bot Applications Server in same cluster	IQ BotApplication Server (part of cluster)	4369/25672	Needs to be open on each IQ Bot Application Server so RabbitMQ v3.8.18 can work within a cluster.
Automation Anywhere Control Room	HTTP/S	Client web browsers	IQ Bot application server	80	This port is required to handle Control Room and IQ Bot traffic, and enable internet communication.
Firewall/TLS	HTTPS	Load Balancer	IQ Bot application server	443	Default HTTPS TLS port.
Псевдоним	HTTP/S	-	-	9997	Used internally within server.
Приложение	HTTP/S	-	-	9002	Used internally within server.
RabbitMQ v3.8.18	TCP/IP	-	-	<ul style="list-style-type: none"> 5672 5673 	Used internally within server.
Gateway	HTTP/S	Load Balancer	IQ Bot application server	8100	Used internally within server.
File Manager	-	-	-	9996	Used internally within server.
Microsoft SQL Server	TCP/IP	IQ Bot application server	Сервер SQL	1433	Used by micro services.
Machine Learning	-	-	-	9991	Used internally within server.
Project	-	-	-	9999	Used internally within server.
Отчет	-	-	-	9992	Used internally within server.
Валидатор	-	-	-	9995	Used internally within server.
VisionБот Manager	-	-	-	9998	Used internally within server.

Related concepts

[Protocol specifications](#) on page 78

A standard set of regulations and requirements that allow two electronic items to connect to and exchange information with one another.

Учетные данные

IQ Bot does not store any user credentials as it relies on the Control Room authentication, which uses AES256 encryption algorithm.

Scalability performance planning

To plan your deployment capacity and performance, understand the requirements, limits, and defaults that determine the number of concurrent users, document processing rates, and infrastructure required.

The following information is to help you calculate your best deployment scenario.

Hardware and software requirements

[IQ Bot hardware and software requirements](#) on page 27

User Concurrency

IQ Bot Version 11.3.4.2 supports up to 20 concurrent users in a system .

Document processing performance benchmark

The objective of this test is to verify the maximum number of documents that can be processed in a span of time by IQ Bot Version 11.3.4.2, when the configuration is scaled in a vertical and horizontal approach.

Test parameters

Параметр	Значение
OCR engine	Tesseract4 (Default)
Домен	Счет-фактура
Тип документа	TIFF (image)
Total documents processed	8604 (8K), 40416 (40K)
Pages per document	One (Single page per document)

Special considerations

Параметр	Значение
Number of fields mapped	Six fields (3 form fields and 3 table fields)
Document resolution	300 DPI or more

Параметр	Значение
Document density	Not dense

File processing benchmark results

Benchmark results for 40,000 documents

The following tables represent the scaling configuration and the time taken to process approximately 40,000 documents. The total time specified includes document upload, classification, and extraction.

Note: The processing times mentioned do not include any post processing, pre processing, and no additional custom logic.

Vertical scaling	Processing time
1x8 (Single machine with 8 cores)	57 hours and 40 minutes
1x16 (Single machine with 16 cores)	29 hours and 20 minutes
1x32 (Single machine with 32 cores)	31 hours and 10 minutes

Horizontal scaling	Processing time
2x8 (Two machines with 8 cores each)	34 часов
4x8 (4 machines with 8 cores each)	14 hours and 40 minutes
8x8 (8 machines with 8 cores each)	7 hours and 40 minutes
2x16 (Two machines with 16 cores each)	15 hours and 50 minutes
4x16 (4 machines with 16 cores each)	10 часов

Benchmark results for 8,000 documents

The following tables represent the scaling configuration and the time taken to process approximately 8,000 documents. The total time specified includes document upload, classification, and extraction.

Note: The processing times mentioned do not include any post processing, pre processing, and no additional custom logic.

Конфигурация	Processing time
1x8 (Single machine with 8 cores)	16 hours and 20 minutes

IQ Bot 11.x: High Availability and Disaster Recovery overview

High availability (HA) provides a failover mechanism if an IQ Bot service or server fails. Disaster recovery (DR) enables recovery across a geographically separated distance if a disaster causes an entire data center to fail.

IQ Bot uses a minimum of 3 nodes and a maximum of 5 nodes in a cluster for high availability (HA).

IQ Bot HA and DR solution

In the context of IQ Bot, implementation of High Availability (HA) and Disaster Recovery (DR) reduces downtime and maintains continuity of business (CoB) for your bot activities.

- **High Availability (HA)**—High availability is an architectural system design that attempts to safeguard a system against certain failure scenarios. This means that even if parts of a system is failing, as a whole it is still available and usable. High availability solutions typically protect against specific scenarios such as: server failures, single component failures, dependency failures, variable load increases, and networks splits where dependent on system components that become unreachable on a network.
- **Disaster Recovery (DR)**—Disaster recovery involves a set of policies and procedures to enable the recovery or continuation of vital infrastructure and systems following a natural or human-induced disaster. Disaster recovery addresses many different causes of failures in a system where high availability typically accounts for a predictable few. Disaster recovery has a focus on re-establishing services after an incident not just failover. Recovery of a system includes scenarios such as: restarting a service or system, restoring configuration files or a database from backups.

To ensure HA and DR protection of your IQ Bot components, configure your existing HA and DR infrastructure, load balancing, and failover systems to include IQ Bot servers and services. See your data center administrator for your approved local HA and DR procedures.

Required HA and DR infrastructure elements

- **Distributed Approach**—In addition to clustering IQ Bot related data center components, we also recommend that you deploy IQ Bot on multiple physical and, or virtual servers.
- **Load balancing**—Performed by a load balancer, this is the process of distributing application or network traffic across multiple servers to protect service activities and allows workloads to be distributed among multiple servers. This ensures bot activity continues on clustered servers.

- **Databases**—Databases use their own built-in failover to protect the data. This ensures database data recovery.
 - Between the HA clusters, configure **synchronous** replication between the primary (active) and secondary (passive) clustered MS SQL servers in the data center. This ensures consistency in the event of a database node failure.

For the required HA synchronous replication, configure one of the following:

 - Backup replica to **Synchronous-Commit mode of SQL Server Always On** availability groups
 - SQL to **Server Database Mirroring**
- Between the DR sites, configure your database to provide **asynchronous** replication from the primary (production) DR site to the secondary (recovery) DR site that is at a geographically separated location from the primary DR site.

Sample scenario

Point all IQ Bot instances within the same cluster to the same database and repository files. This is required to enable sharing data across multiple servers and ensuring data integrity is maintained across IQ Bots servers within a cluster.

HA and DR deployment models

To ensure your IQ Bot is protected by HA and, or DR, configure your data centers according to the deployment models described in:

- [IQ Bot 11.x: High Availability deployment model](#) on page 87
- [IQ Bot 11.x disaster Recovery deployment model](#) on page 87

HA implementation requirements

- Install IQ Bot on multiple servers.
- Access to IQ Bot is through a load balancer.
- Open a RabbitMQ v3.8.18 synchronization port between IQ Bot servers.
- Configure the Microsoft SQL Server in high availability mode.

Installation HA and DR configuration requirements

- The IQ Bot installer does not directly support cluster installation. To set up a cluster do the following:
 - Run the installer on each application server node.
 - Share the `output` folder using the access role `Everyone`.
 - Post installation, execute the `messagequeue_cluster_configuration.bat` with appropriate command line arguments.
- Configure IQ Bot in a high availability configuration.
- Open firewall ports: 4369 and 25672.

- Install RabbitMQ v3.8.18 on every IQ Bot node in the cluster.
The first node where IQ Bot is installed becomes the primary RabbitMQ v3.8.18 node. The host name of the primary node is used to configure the RabbitMQ v3.8.18 cluster.
- The load balancer is required to distribute a traffic to all IQ Bot server nodes.
- Configure Microsoft SQL Server for high availability. Use the Microsoft SQL Server **Always On** option.
- For RabbitMQ v3.8.18 specific installation, see your RabbitMQ v3.8.18 documentation.

HA and DR known limitations

- To discover the availability of IQ Bot instances, a load balancer periodically sends pings, attempts connections, or sends requests to test the IQ Bot instances. These tests are called health checks.
- Health checks do not verify the availability of RabbitMQ v3.8.18 instances.

IQ Bot 11.x: HA cluster configuration overview

To support Automation Anywhere your data center, configure an HA cluster. Follow your company methods and procedures for implementing your data center cluster.

HA clusters protect services and data in the event of a server or service failure. The following is a list of processes associated with clusters.

Database replication

Configure synchronous replication between the primary site (active) and secondary site (passive) MS SQL servers to ensure consistency in the event of a database node failure.

Downtime

The amount of downtime depends on the number of restart attempts the administrator configures for the primary server services, the number of failovers allowed per number of hours, and the failback configuration.

Failback

After the primary server is returned to normal, fail back the workload from the secondary servers to the primary servers. The primary server becomes the active server again.

Restoring operations to the primary system or site after a failover or disaster recovery on a secondary system or site.

Failover

If one of the primary servers fails, the workload of the failed server automatically shifts to the secondary server in the cluster. This automatic process is called failover. Failover ensures continuous availability of applications and data. When failover completes, the secondary server becomes the active server.

When a (primary) system detects a fault or failure, it automatically transfers control to a (secondary) duplicate system. This applies to HA clusters, where failover is from one server to another.

Graceful degradation

Process allowing cluster dependencies to operate gracefully on a degraded primary site.

Redundancy	HA clusters use redundancy to prevent single points of failure (SPOF), such as a failed server or service. HA clusters include primary (active) servers that host services or databases and secondary (passive) servers that host replicated copies of the services and databases.
Replication	The secondary servers have the same configuration and software as the primary servers, they are a duplicate (redundant copy) of the primary. Data is replicated (copied) from the primary servers to the secondary servers.

To support HA and DR for Automation Anywhere, configure the selected components in your data center for HA.

Прим.: In the context of clusters, though the terms server, host, and node each have specific meaning, they are frequently used interchangeably.

Cluster	A cluster is a set servers (nodes) that are connected by physical cables and software. In an HA environment, these clusters of servers are allowed to be in the same physical data center.
Cluster group (role)	Group of clustered services that failover together and are dependent on each other.
Узел	The cluster machine that is hosting the services.
Multiple servers	The HA technique where operations are available across multiple servers with workload managed by a load balancer. This applies to IQ Bot instances.
Узел	A generic term for a machine in a cluster.
Primary node	The active node in the cluster. The machine where the production activities run. This applies to the database servers.
Secondary node	The machine that is designated as the target in the event of a failover. The secondary node is a passive duplicate of the primary node. This applies to the database servers.
Сервер	The machine in the cluster installed with the server operating system.

HA cluster technologies guard against three specific types of failures:

Application and service failures	These affect application software and essential services.
Site failures in multisite organizations	This is caused by natural disasters, power outages, or connectivity outages.
System and hardware failures	This affects hardware components such as CPUs, drives, memory, network adapters, and power supplies.

This ability to handle failure allows clusters to meet two requirements that are typical in most data center environments:

Высокая доступность

The ability to provide end users with access to a service for a high percentage of time and reduces unscheduled outages.

High reliability

The ability to reduce the frequency of system failure.

IQ Bot 11.x: High Availability deployment model

The High Availability (HA) deployment model provides failure tolerance for the IQ Bot servers, services, and databases.

The following shows IQ Bot and data center components.

In this example, the IQ Bot servers and Microsoft SQL Servers have HA redundancy.

- Multiple users have access the IQ Bot cluster through their web browsers. The web browsers communicate to the IQ Bot cluster through the load balancer.
- Multiple Bot Runner communicate to the IQ Bot cluster through the load balancer.
- The server message block (SMB) file share and the Microsoft SQL Server store data from the IQ Bot cluster.
- Microsoft SQL Server uses redundancy through replication syncing to the clustered Microsoft SQL Server.

Pros

Maintains availability when server failures occur within a single data center.

Cons

Does not provide protection against data center outage.

Use Cases

Small to medium-size businesses that do not require multi-site disaster recovery.

IQ Bot 11.x disaster Recovery deployment model

The Disaster Recovery (DR) deployment model uses high availability (HA) clusters distributed over a geographic area.

Disaster Recovery (DR) is a method where the two High Availability (HA) data center configurations are separated geographically. The extra benefit here from a single location HA configuration, is in the event of a localized disaster, the physically removed data center resumes functions with minimum downtime.

In this example, all the servers have redundancy.

- Multiple users have access the IQ Bot cluster through their web browsers. The web browsers communicate to the IQ Bot clusters through the load balancers.
- Multiple Bot Runner communicate to their IQ Bot cluster through the load balancer.
- The server message block (SMB) file share and the Microsoft SQL Server store data from their IQ Bot cluster. Both servers are asynchronously replicated to the backup disaster recovery site.

- Microsoft SQL Server uses redundancy through replication syncing to the clustered Microsoft SQL Server on the primary disaster recovery site.

For disaster recovery in IQ Bot environment.

- Deploy a second IQ Bot HA cluster in an additional data center that is in a separate geographic location.
- In the event of a primary site failure, do the disaster recovery manually. See the [IQ Bot 11.x: Disaster recovery failover steps overview](#) on page 90.

Note: When a failover to a backup site occurs, it is possible that very recent changes made on the primary site are lost.

Pros	Provides business continuity when faced with data center outage or loss.
Cons	Increased operational burden.

IQ Bot 11.x: DR configuration requirements

When you configure your Disaster Recovery enabled data centers for IQ Bot, ensure the listed conditions are met.

Disaster Recovery configuration requirements

- **Asynchronous replication**—Configure asynchronous, rather than synchronous replication, between DR sites for all supporting services. This ensures off-site replication does not impact performance of the primary site.
- **AD domain**—Ensure the same Active Directory domain is available to both the primary and backup sites.
- **Site domains**—Ensure the backup site Control Room and device machines are members of the same domain as the primary site Control Room and machines.
- **Licenses**—Assign floating licenses for users, so that they are able to log into devices on the backup site.
- **Backup site services**—Shutdown the Control Room services at the backup site until they are needed.
- **Site configurations**—Ensure the machines at the primary site and backup site have the same specification and configuration. This includes the Control Room, Bot Runner, associated devices, and login credentials. This is required to ensure equal level of service during an outage.

Прим.: Schedules are stored in UTC and therefore run at the same time regardless of the physical location or time zone settings of the server.

Database Replication Details

The database replication configuration for disaster recovery is an extension of the high availability configuration. This configuration requires the use of **Always On** availability groups.

- Configure the primary site replica in **Synchronous-Commit** mode.
- Configure the recovery site replica in **Asynchronous-Commit** mode. **Asynchronous-Commit** mode ensures that the latency and reliability of the inter-datacenter does not impact the performance and availability of the primary site.

- Do not configure the recovery site replica to offer any database services until a recovery failover is triggered.

Failure mode

With asynchronous replication there is the possibility that a transaction that occurs on the primary site does not reach the recovery site replica before the failure occurs.

Прим.: This possibility of losing the most recent transactions applies to all DR automated application solutions using asynchronous replication, not just Automation Anywhere solution.

Deployment requires strict consistency between distant geographical locations. **Synchronous-Commit** configured between replicas with significant latency has a detrimental effect on all Control Room operations.

To prevent work items being processed twice when a failure occurs, some work items awaiting delivery to a device are placed into an error state. This ensures they can be manually reviewed and marked as ready to be processed or complete as appropriate.

Disaster Recovery preparation

Describe the settings and configuration required to ensure recovery in the event of a failed site.

Prior to installing IQ Bot, prepare your Disaster Recovery sites.

Hardware failure protection

Deploy multiple IQ Bot servers locally on each DR site.

Data corruption protection

Backups

Perform regular on-site full and daily backups of database server, the IQ Bot repository, configuration and task files.

DR sites

Apply the same storage configuration on both the primary and secondary DR sites. Apply replication methods to update the secondary DR site from the primary DR site. Example content describes using the Windows feature, Distributed File System (DFS).

Environmental disaster protection

Geographic separation

Protect against a geographical or environmental disaster, complete regular backups of the secondary DR site.

Primary site	The location where the active cluster resides.
Recovery	<p>In the event of a disaster, some events could stop part way through execution. Retrieve task level log files and other intermediate files to identify the state of any pending processes. Example content describes using SQL Server 2012 AlwaysOn Availability Groups.</p> <p>The process of shifting the production activities from a failed primary site to the secondary backup site. This applies to DR sites, where recovery is from one site to another.</p>
Recovery site	The secondary (redundant) site, that is geographically separated from the primary DR site. This secondary site is a passive replication of the primary site. It is designated as the target location in the event of a disaster.

IQ Bot 11.x: Disaster recovery failover steps overview

Overview of failover steps for IQ Bot recovery after a disaster.

Complete the disaster recovery deployment on two geographically separated sites, where one site is primary (active) and the other is a backup (passive) site. Disaster recovery is performed on remote backup site.

The procedure is identical regardless of whether switching over from primary to secondary (recovery), or secondary to primary.

If the failed IQ Bot nodes are still available:

1. Shut off all IQ Bot services at the primary site.
2. Failover all IQ Bot-related databases using the database tools.
3. Failover your Server Message Block (SMB) share using the appropriate tools to make the recovery site SMB file share writable.
4. Start IQ Bot services at the recovery site.
5. Wait until the IQ Bot web interface is available.

6. Login to the web interface as an administrator.
7. After the recovery site is operating as the primary site, configure a replacement secondary site. Using the database tools, set replication from the recovery primary site to the replacement secondary site.

IQ Bot 11.x: Re-establish a duplicate DR site

After a secondary (backup) site is recovered as the primary (production) site, establish a new secondary DR site.

The recovery site is up and running as the new production site.

The process of returning activity to a primary (active) production site, plus secondary (backup) site depends on the state of the original primary site.

- If the old production environment becomes available again, complete the following to switch back to the original DR primary site.
 - a) Restore/replicate the DR database and file system to the original production database and file system respectively.
 - b) Bring up the new DR primary (production) IQ Bot.
 - c) Verify new DR primary (production) environment is working, as expected.
 - d) Stop the DR IQ Bot services on the DR recovery site.
 - e) Establish the replication between the new DR primary (production) and DR secondary (standby) IQ Bot (DB and NAS).
- If the old DR primary production environment is rendered completely unusable due to the disaster, re-establish a new secondary (standby) DR site. Complete the recovery DR steps to re-establish primary and secondary DR sites.
 - a) Restore/replicate the database and file system data from DR environment to the new production environment.

No additional steps are required. The DR primary and secondary sites are restored.

- The 60t Activation utility does not need to be run again. Activation occurs when IQ Bot is first deployed to the DR cluster sites only.
- For any subsequent disasters, only the database query needs to be run on DR secondary (standby) IQ Bot database. This is required because the replication between DR primary (production) and DR secondary (standby) overwrites DR secondary site Bot Runner data in DR secondary site database with DR primary (production) Bot Runner data.
- Similarly, the mapping between DR primary and DR secondary Bot Runner is established. Use the same mapping for all subsequent disasters or mock drills.

Операции

Find out about the important IQ Bot operations supported by IQ Bot.

IQ Bot provides information about the following:

- different logs generated for IQ Bot components and the location of logs,
- enabling tracing in the logs for the various components of IQ Bot,
- status of IQ Bot services using the healthcheck APIs, and
- recommended database maintenance plan.

Related concepts

[Log files in IQ Bot](#) on page 92

Find out the different logs generated for IQ Bot components and the location of logs.

[Enabling tracing in logs](#) on page 94

Log files are generated by the system that store messages from various application and system components. Different logs are generated for IQ Bot components for which you can enable tracing.

[Monitoring services](#) on page 95

Find the status of the IQ Bot services using the healthcheck.

[Database backup recommendation](#) on page 96

Find out the details about the recommended database maintenance plan.

Log files in IQ Bot

Find out the different logs generated for IQ Bot components and the location of logs.

Компоненты IQ Bot

Component	Log File	Related Feature or Functionality	Location
Installer	<ul style="list-style-type: none"> IQBotSetupLog.log MSI****.log 		%temp%
Gateway service	Gateway.log	Provides connectivity to Control Room(authorization, roles, permissions, and auditing) Gateway for all inward requests to other micro-services	%public%\Documents\Automation Anywhere IQBot Platform\Logs
Alias service	Alias.log	Serves different domains, language, fields or columns, and their alias related APIs Add, Import, or Export domain	%public%\Documents\Automation Anywhere IQBot Platform\Logs
Application service	Application.log	Serves handshake for App registration, updating on configuration IN DB and the V2 API's	%public%\Documents\Automation Anywhere IQBot Platform\Logs

Classifier service	ClassifierWorker.log	<p>Supports RabbitMQ for incoming classification requests</p> <p>For each request, it spins a Classifier Executor</p> <p>It is not a API service, but only takes operation work through RabbitMQ queue (topic_classification)</p>	%public%\Documents\Automation Anywhere IQBot Platform\Logs\Engine
File Manager service	FileManagerer.log	Serves different APIs related to files	%public%\Documents\Automation Anywhere IQBot Platform\Logs
Project service	ProjectService.log	<p>Serves different APIs related to project (Learning Instance)</p> <p>IQBA Migration</p>	%public%\Documents\Automation Anywhere IQBot Platform\Logs
Report service	Reports.log	Dashboard and Metrics	%public%\Documents\Automation Anywhere IQBot Platform\Logs
Validator service	Validator.log	Responsible for activities (Visionbot) after a production document is processed	%public%\Documents\Automation Anywhere IQBot Platform\Logs
VisionBotEngine service	VisionBotWorker.log	<p>Supports RabbitMQ for incoming Visionbot related requests</p> <p>For each request, it invokes VisionbotEngine Executor</p>	%public%\Documents\Automation Anywhere IQBot Platform\Logs\Engine
VisionBot Manager	VisionbotService.log	Serves different APIs related to Visionbot	%public%\Documents\Automation Anywhere IQBot Platform\Logs
Machine Learning	<ul style="list-style-type: none"> MLTranslationService.log MLWebService.log 	Responsible for validator input and output based supervised learning data	%public%\Documents\Automation Anywhere IQBot Platform\Logs

Web Server (Node.js) Gateway Client	ClientGateway.txt	Front end server that serves as a gateway for all requests to IQBot (e.g. from frontend, visionbot command)	%public%\Documents\Automation Anywhere IQBot Platform\Logs
--	-------------------	---	--

Other Automation Anywhere applications interacting with IQ Bot

Component	Log File	Related Feature or Functionality	Location
Control Room	<ul style="list-style-type: none"> query-engine-xxxx.log WebCR_xxxx.log aa_cr_elasticsearch_xxxx.log zoomdata_xxxx.log 		%ProgramData%\AutomationAnywhere\Logs
Enterprise Client	ClientServiceLog.log	Provides essential features to record, modify, manage, and run tasks	%public%\Documents\Automation Anywhere Client Files\LogFiles\ServiceLogs

Third party applications interacting with IQ Bot

Component	Log File	Related Feature or Functionality	Location
Сервер SQL	<ul style="list-style-type: none"> Приложение Окна 		Start Menu > Event Viewer > Windows Logs
RabbitMQ	rabbit@<hostname>.log	Serves as a message broker	%appdata%\RabbitMQ

См. раздел [IQ Bot 11.x: Set up log file automatic rollover](#) on page 148.

Related concepts

[Download a document from a learning instance](#) on page 207

Once documents are uploaded to a learning instance, some files process successfully, while others fail.

Enabling tracing in logs

Log files are generated by the system that store messages from various application and system components. Different logs are generated for IQ Bot components for which you can enable tracing.

To enable tracing, open the log configuration file of the component. See [Enabling tracing in logs \(A-People login required\)](#) on steps for enabling tracing.

Monitoring and alerts

Find out the status of the IQ Bot services using the Health Check APIs.

For more information about the status of the IQ Bot services using the Health Check APIs, see link in the Related information section.

Related tasks

[IQ Bot 11.x: Health Check API response if RabbitMQ v3.8.18 fails to start](#) on page 147

Check the status of each IQ Bot service using the Health Check API if RabbitMQ v3.8.18 fails to start.

Monitoring services

Find the status of the IQ Bot services using the healthcheck.

Performing a Health Check

If needed, use the Healthcheck API to perform a detailed verification on the desired service. The request/response details of the Healthcheck API are as follows:

REQUESTS

The following table lists the API requests sent for performing healthcheck of the different IQ Bot services:

Service Name	URL-адрес
Alias	<code>http://<hostname/IP>:9997/healthcheck</code>
Application service	<code>http://<hostname/IP>:9002/healthcheck</code>
Project service	<code>http://<hostname/IP>:9999/healthcheck</code>
FileManager service	<code>http://<hostname/IP>:9996/healthcheck</code>
Visionbot	<code>http://<hostname/IP>:9998/healthcheck</code>
Validator service	<code>http://<hostname/IP>:9995/healthcheck</code>
Report service	<code>http://<hostname/IP>:9992/healthcheck</code>
Gateway service	<code>http://<hostname/IP>:8100/healthcheck</code>
Frontend or Console service	<code>http://<hostname/IP>:3000/healthcheck</code>
RabbitMQ	<code><RabbitMQ installation directory>\sbin\rabbitmqctl.bat status</code>

In the table listing, simply replace `<hostname/IP>` with the IQ Bot Host name or IP address to create the Healthcheck API request using a web browser on the machine on which IQ Bot is installed.

For example, if your IQ Bot is accessible at **http://localhost:3000**, the FileManager Healthcheck can be accessed using the URL `http://localhost:9996/healthcheck`.

Database backup recommendation

Find out the details about the recommended database maintenance plan.

The following database backup strategy is strongly recommended.

- Weekly: Full database backup
- Every 3 Days: Differential backups
- Daily: Incremental backups every 24 hours
- Hourly: Transaction log backup every hour

Installing IQ Bot

This is the landing page for the collection of topics related to IQ Bot installation. For details on the installation types and methods, see the topics below to install Automation Anywhere IQ Bot.

IQ Bot installation core tasks

Follow the installation task list to install IQ Bot:

Шаг 1. Предустановка

Review and verify the requirements and options before installing IQ Bot. This topic provides you important information about the supported operating systems, hardware and software requirements, and the prerequisite steps you have to complete even before you begin the installation process.

[IQ Bot 11.x: IQ Bot installation prerequisites](#)
on page 99

Verify the hardware, software, and configuration required to install IQ Bot in your environment. Follow the pre-installation checklist before installing IQ Bot.

Шаг 2. IQ Bot installation

Install IQ Bot using any of the following installation options:

[IQ Bot 11.x: Installing IQ Bot in Express mode](#)
on page 106

Install IQ Bot in Express mode with the default settings.

[IQ Bot Custom installation](#)
on page 113

Пользовательский режим используется для установки IQ Bot со сведениями о конфигурации.

[IQ Bot 11.x: Installing IQ Bot in Cluster mode](#)
on page 113

Install IQ Bot in Cluster mode for improved throughput.

[IQ Bot 11.x: Installing IQ Bot in Cluster mode on machines with IQ Bot preinstalled](#)
on page 116

If you have IQ Bot already installed on your machine, uninstall IQ Bot, stop service, and clean the existing RabbitMQ v3.8.18 cookies before installing IQ Bot in Cluster mode.

[IQ Bot 11.x: Installing IQ Bot in Cluster mode on](#)

Install IQ Bot in the cluster mode on Amazon

Шаг 3. Пост-установка

Amazon EC2 on page
117

Elastic Compute Cloud
(Amazon EC2).

After downloading IQ Bot, register with the Control Room and do the various configurations as required. You would also go through the checklist to ensure all services, databases, tables, and configuration settings are in place.

*IQ Bot post installation
configuration* on page
118

After installing IQ Bot complete the configuration settings to ensure registration with Control Room, confirm the creation of all required databases, create the appropriate certificates, configure the HTTP and HTTPS settings, generate the authorization token for performing any task, and verify the completion of all tasks in the post-installation checklist.

Шаг 4. Валидация

Create and register IQ Bot specific users in the Control Room, and do other validation actions as required.

*IQ Bot post installation
validation* on page
140

After installing IQ Bot and completing the post-installation tasks, validate the installation by creating IQ Bot specific roles, accessing the Валидатор without a license, accessing the product without a device license, and understanding permissions for role-based access control to the learning instances.

*IQ Bot upgrade and
uninstallation* on page
151

Follow the upgrade and uninstallation steps for IQ Bot to ensure a smooth and seamless process.

IQ Bot 11.x: IQ Bot installation prerequisites

Verify the hardware, software, and configuration required to install IQ Bot in your environment. Follow the pre-installation checklist before installing IQ Bot.

Требования к аппаратному обеспечению

Important: As a prerequisite step, open ports 4369 and 25672 and add inbound firewall rules to allow traffic to these ports on each target machine. To add nodes to the cluster, sync the RabbitMQ v3.8.18 cookies to enable running any RabbitMQ v3.8.18 commands . If IQ Bot is already installed on the target machine, clean up and remove the existing cookies.

[IQ Bot hardware and software requirements](#) on page 27

Make a note of the following hardware and software requirements before installing IQ Bot.

[IQ Bot version compatibility matrix](#) on page 8

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

[IQ Bot operating system compatibility](#) on page 23

Install IQ Bot as a local profile with administrator permissions. The table provides information about the operating systems that are compatible with the different IQ Bot releases.

[IQ Bot database compatibility matrix](#) on page 24

The table provides information about the databases that are compatible with the different IQ Bot releases.

Prerequisite

[IQ Bot 11.x: IQ Bot prerequisite steps](#) on page 100

Complete the steps before you begin installing IQ Bot.

[IQ Bot 11.x: IQ Bot service configuration](#) on page 101

In some IQ Bot deployments, the service account can be different from the login account. As an administrator, provide the service credentials during installation.

[IQ Bot 11.x: IQ Bot Windows services](#) on page 102

IQ Bot Windows services are automatically installed when running the installation and setup.

[IQ Bot 11.x: RabbitMQ v3.8.18 and Erlang/OTP upgrade](#) on page 103

The IQ Bot Version 11.3.x installation package includes the RabbitMQ v3.8.18 version 3.7.17 and Erlang/OTP version 22.0.

[Installation limitations](#) on page 104

Learn about the installation limitations before installing IQ Bot.

[Prerequisites for installing in Cluster mode](#) on page 104

Complete the prerequisites to set up in cluster mode.

[IQ Bot 11.x: Prerequisites for installing IQ Bot in Express mode](#) on page 105

Complete the prerequisites to set up in express mode.

Related tasks

[IQ Bot 11.x: Installing IQ Bot in Express mode](#) on page 106

Install IQ Bot in Express mode with the default settings.

[IQ Bot 11.x: Установка IQ Bot в пользовательском режиме](#) on page 108

Пользовательский режим используется для установки IQ Bot со сведениями о конфигурации.

[IQ Bot 11.x: Installing IQ Bot in Cluster mode on machines with IQ Bot preinstalled](#) on page 116

If you have IQ Bot already installed on your machine, uninstall IQ Bot, stop service, and clean the existing RabbitMQ v3.8.18 cookies before installing IQ Bot in Cluster mode.

[IQ Bot 11.x: Installing IQ Bot in Cluster mode on Amazon EC2](#) on page 117

Install IQ Bot in the cluster mode on Amazon Elastic Compute Cloud (Amazon EC2).

IQ Bot 11.x: IQ Bot prerequisite steps

Complete the steps before you begin installing IQ Bot.

1. User needs to have *SYSADMIN* or following privileges for SQL database account as this is used during installation to create database and run the BULK INSERT statement.

6.5.2

IQ Bot 6.5.2 onwards, the *SYSADMIN* role is not a mandatory requirement by the installer. Instead, it verifies if the user has the following privileges:

- SQL connection (CONNECT SQL)
- Database creation (CREATE ANY DATABASE)
- View any database (VIEW ANY DATABASE)

Note: Installation with Microsoft Azure SQL requires the *dbmanager* role.

Note: Installation with AWS RDS requires a role with the above three privileges. These privileges are already assigned to the *db_owner* role in RDS.

Grant permissions for a specific database user and see the permissions for that role using the following TSQL query:

```
SELECT * FROM fn_my_permissions(NULL, 'SERVER').
```

2. First enable HTTPS, to configure IQ Bot with HTTPS. Keep the following HTTPS certificate files ready for use:

- Control Room certificate in *.cert* format (Certificate Authority list bundle).
- Control Room certificate in *.cert* format (Server side public certificate).
- IQ Bot server certificate in *.pfx* and *.cert* format.



Important: Install the *.cert* certificates for Control Room manually to their appropriate certificate stores.

Note: See [IQ Bot 11.x: Configure IQ Bot with HTTP and HTTPS](#) on page 132 for more information.

3. Keep the following ports open because they are used by IQ Bot services:

См. раздел [IQ Bot 11.x: Ports and services](#) on page 79.

- Application access port (configurable): 3000
- Database access port (configurable): 1433
- Internal application services ports (fixed): 8100, 9002, 9991, 9992, 9995, 9996, 9997, 9998, 9999

- Inbound listening ports:
 - 47100-47200 on IQ Bot server for IQ Bot-Control Room communication.
 - 47100-47200 and 47500-47600 on Control Room server.
- RabbitMQ v3.8.18
 -  Порт. 5672
 -  Порт. 5673
- 4. When upgrading from IQ Bot Version 5.3.1.x, if you have learning instances that rely on the 5.3.1.x check box or linked table functionality, clear the validation queue before upgrading to IQ Bot Version 6.5.x and above.
- 5. If your Cephер SQL version is older than *SQL Server Native Client 2012*, a dialog box appears, giving you the option to upgrade. Open `services.msc` and stop the Cephер SQL (MSSQLSERVER) to do the upgrade. Then continue with the installation process.
- 6. During the upgrade process, the installer will detect existing learning instances from a previous version of IQ Bot. To retain the original classifier for those learning instances, select that earlier version of IQ Bot from the drop-down list. This ensures consistency in the behavior of the learning instances with that earlier version.
- 7. IQ Bot installer is case sensitive about the user account created for Cephер SQL or Оkhos.

Important: Use the username as it appears on the Microsoft SQL Server Management Studio under **Security > Logins**. If it was created in upper case, then use upper case for the username to launch the installer. Additionally, verify if the collation database property is set to case sensitive.

Windows unrecognized application message

The system might display a Windows Defender SmartScreen message about unrecognized applications at the start of the installation process. The Administrator can either choose to continue with the installation (by selecting **Run anyway**) or perform specific steps before installation to prevent the message from appearing.

1. Click the Windows key to display the **Start** menu.
2. Enter `gpedit.msc`, and select the result (which can be `Group Policy Editor` or `gpedit.msc`).
3. Navigate to **Computer Configuration > Administrative Templates > Windows Components > File Explorer**.
4. Double-click the policy **Configure Windows Defender SmartScreen** and set it to **Disable**.
5. Click **OK** to save the change.

IQ Bot 11.x: IQ Bot service configuration

In some IQ Bot deployments, the service account can be different from the login account. As an administrator, provide the service credentials during installation.

IQ Bot Installer supports service credentials during Microsoft Windows or SQL server authentication. When installing Services for IQ Bot, in the service installation window, the **Local System Account** check box is selected by default. You can deselect this and provide a username and password.

Прим.:

- Use Windows authentication with a valid system administration user in service configuration.
- Use Windows authentication with a local system for a system administration user.
- When using a remote SQL server to create a database, the combination of local system account for service credentials and Windows authentication for SQL connection is not supported.
- The service account used for IQ Bot services must have full rights to the IQ Bot installation folder.

If you do not select the **Local System Account** checkbox, provide your user credentials to run the IQ Bot Services.

Прим.:

- A valid system administrator user requires Windows authentication with the Services user credentials.
- При вводе учетных данных пользователя убедитесь, что они связаны с доменом. For example: example.com/testuser. User is unable to use this function without the domain.

See [IQ Bot 11.x: Установка IQ Bot в пользовательском режиме](#) to view the use of service credentials in IQ Bot.

IQ Bot 11.x: IQ Bot Windows services

IQ Bot Windows services are automatically installed when running the installation and setup.

Make sure that the following Windows services are set when installing IQ Bot.

Имя службы	Описание
Automation Anywhere Cognitive Alias	IQ Bot service that manages domains, domain dictionary, aliases, and languages supported in the system.
Automation Anywhere Cognitive Application	IQ Bot service that provides support for all Control Room integration points and information about IQ Bot application configuration.
Классификатор Automation Anywhere Cognitive	IQ Bot service that provides support to classify documents in a learning instance, into different groups.
Automation Anywhere Cognitive Console	<p>IQ Bot user interface.</p> <p>Прим.: In contrast to other services, the Automation Anywhere Cognitive Console service runs on the local user account rather than the domain or service account.</p>
Automation Anywhere Cognitive File Manager	IQ Bot service that manages documents in the file management system.
Automation Anywhere Cognitive Gateway-2	IQ Bot Gateway for all the IQ Bot backend services, handling authorization and validation of request/response of APIs.
Automation Anywhere Cognitive MLScheduler Service	IQ Bot service scheduler for ML Web Service.

Имя службы	Описание
Automation Anywhere Cognitive MLWeb Service	IQ Bot service that prepares models based on user validation.
Automation Anywhere Cognitive Projects	IQ Bot service managing learning instances.
Automation Anywhere Cognitive Report	IQ Bot dashboard.
Automation Anywhere Cognitive Валидатор	IQ Bot service to manage documents that go for validation.
Automation Anywhere Cognitive Visionbot Manager	IQ Bot service to manage vision bots in the system.
Automation Anywhere Cognitive VisionbotEngine Service	IQ Bot service to process document based on different inputs provided.

Прим.: All the services can be configured either in Local System or Domain account when IQ Bot is installed in Custom mode. For IQ Bot installed in Express mode, all the services are run in Local System account.

IQ Bot 11.x: RabbitMQ v3.8.18 and Erlang/OTP upgrade

The IQ Bot Version 11.3.x installation package includes the RabbitMQ v3.8.18 version 3.7.17 and Erlang/OTP version 22.0.

For Automation 360 IQ Bot, ensure that you download the Microsoft Visual C++ Redistributable 2017 x64 version because it is required for the latest version of Erlang/OTP.

The following information explains different scenarios for upgrading RabbitMQ v3.8.18/Erlang/OTP:

- **Fresh installation of IQ Bot Version 11.3.x:**

For a fresh installation, you do not have to perform any additional steps, as RabbitMQ v3.8.18 Erlang/OTP are included in the IQ Bot Version 11.3.x installation package. These get installed automatically on the machine during the installation process.

- **Upgrade from previous version of IQ Bot to Version 11.3.x:**

Uninstall the earlier version of RabbitMQ v3.8.18 / Erlang/OTP.

- **An earlier version of RabbitMQ v3.8.18/Erlang/OTP exists on the machine and the user wants to upgrade to the latest versions:**

You need to manually remove any older versions from the system using a batch utility file provided by Automation Anywhere. Contact the Automation Anywhere Support team to get the utility. You can then proceed with installing IQ Bot Version 11.3.x.

Related tasks

[Uninstall previous version of RabbitMQ v3.8.18 / Erlang/OTP](#) on page 104

When upgrading to IQ Bot Version 11.3.x, you need to uninstall the previous version of RabbitMQ v3.8.18 / Erlang/OTP.

[IQ Bot 11.x: Health Check API response if RabbitMQ v3.8.18 fails to start](#) on page 147

Check the status of each IQ Bot service using the Health Check API if RabbitMQ v3.8.18 fails to start.

Uninstall previous version of RabbitMQ v3.8.18 / Erlang/OTP

When upgrading to IQ Bot Version 11.3.x, you need to uninstall the previous version of RabbitMQ v3.8.18 / Erlang/OTP.

Except for a fresh installation of IQ Bot Version 11.3.x, all upgrades to Version 11.3.x require you to uninstall older RabbitMQ v3.8.18 Erlang/OTP instances.

Follow these steps to uninstall RabbitMQ v3.8.18 or Erlang/OTP:

1. Uninstall existing RabbitMQ v3.8.18 and Erlang/OTP from the Control Panel.
2. Run the `Cleanup_Components.bat` file as an administrator.
3. Restart your machine.
4. After running the scripts, verify that RabbitMQ v3.8.18 and Erlang/OTP are removed completely. If not, uninstall them manually to delete any remaining files from the program files folder, and then repeat Step 3.

Related concepts

[IQ Bot 11.x: RabbitMQ v3.8.18 and Erlang/OTP upgrade](#) on page 103

The IQ Bot Version 11.3.x installation package includes the RabbitMQ v3.8.18 version 3.7.17 and Erlang/OTP version 22.0.

Related tasks

[Upgrading IQ Bot to Version 11.3.3.x](#) on page 246

This topic provides instructions on upgrading IQ Bot from Version 6.5.x and older, to Version 11.3.3.x.

Installation limitations

Learn about the installation limitations before installing IQ Bot.

Database encryption limitations

Installation time increases when encryption of the SQL database backup file is in progress, and also when the database backup file size increases.

The encryption process of the SQL database might result in the creation of large transaction logs. Allocate at least 3 to 4 times more disk space than the database backup file size.

IQ Bot has been tested for basic compatibility with Microsoft Azure database with single database PaaS. However, the functionality for the following scenarios was not fully verified:

- IQ Bot services configured in the Active Directory
- IQ Bot Портал secured with HTTPS
- IQ Bot operating in a Cluster mode
- Using Microsoft Windows authentication to connect to the database
- Microsoft Windows authentication with the local system works only if the NT Authority/System user has system administration permissions.
- The combination of Local System Account for service credentials and Microsoft Windows authentication for the SQL connection is not supported if you are using the remote SQL server to create databases.

Prerequisites for installing in Cluster mode

Complete the prerequisites to set up in cluster mode.

To set up a cluster, do the following:

1. Run the installer on each application server node.

2. Share the **output** folder with the access role **Everyone**.
3. Run the `messagequeue_cluster_configuration.bat` post-installation with appropriate command line arguments provided in the Cluster Configuration guide.
4. Set up in High Availability mode when you set up IQ Bot in the High Availability mode as well.
5. Install RabbitMQ v3.8.18 with cluster configuration in a multi-node setup.
6. Configure the firewall to have ports 4369 and 25672 open.
The first node where IQ Bot is installed becomes the primary RabbitMQ v3.8.18 node. The host name of the primary node is used to set up the RabbitMQ v3.8.18 cluster configuration.
7. Ensure you have a load balancer for a cluster setup to distribute traffic to all application server nodes.
8. Configure the SQL server in the High Availability setup.
9. Ensure the SQL server is set up in **always on** mode.

Related tasks

[IQ Bot 11.x: Installing IQ Bot in Cluster mode](#) on page 113

Install IQ Bot in Cluster mode for improved throughput.

IQ Bot 11.x: Prerequisites for installing IQ Bot in Express mode

Complete the prerequisites to set up in express mode.

Complete the following steps before you begin installing IQ Bot in express mode.

1. Preinstall the Automation Anywhere Control Room Version 11.3.1 base plus either Version 11.3.1.1 or Version 11.3.1.2 patch on the target machine in express mode. This is required for communicating with the Control Room using default settings.
2. Ensure that SQL Server Browser service is up and running before installing IQ Bot in express mode.
3. Start the SQL Server Browser service in any one of the following ways:

Option 1	<ol style="list-style-type: none"> a. Launch the SQL Server Configuration Manager. b. Go to SQL Server Services. c. Start the SQL Server Browser services.
Option 2	<ol style="list-style-type: none"> a. Launch the Task Manager. b. Go to the Services tab. c. Start the SQLBrowser services.

4. Use the `Automation_Anywhere_IQ_BOT_<version_number>.exe` file to install IQ Bot.
5. The setup wizard guides you through the installation process. During installation, any software dependencies or missing prerequisites are installed.

Note: When a file is uploaded to a fresh IQ Bot instance, the database administrator is unable to extract any information about that file from the database as the data is encrypted.

6. Enable SQL authentication.
Enable the TCP protocol on the SQL server and listen to the local host at port 1433.
7. Set the SQL server instance name to `AACRSQLEXPRESS`.

8. Create a user with sysadmin permissions for username `aaadmin`, and password `aabots@123`.

9.

6.5

If you install **IQ Bot Version 6.5**, with the Control Room, ensure you update the `cluster.properties` file and set `ignite.security.disable=true` and `ignite.tls.disable=true`. If you install **IQ Bot Version 6.5.2**, ensure you update the `cluster.properties` file and set `ignite.tls.disable=true`.

a) Locate the file in your Control Room directory (for example, `C:\Program Files\Automation Anywhere\Enterprise\config\`). If the file does not exist in your Control Room directory, then create it using a text editor:

1. Create a file with the filename, `cluster.properties`.

Note: Ensure all file extensions are shown and your editor is opened with Administrator rights.

2. For IQ Bot Version 6.5, add `ignite.security.disable=true` and `ignite.tls.disable=true`.

3. For IQ Bot Version 6.5.2, add `ignite.tls.disable=true`.

b) Save the `cluster.properties` file.

c) Restart the following services:

- **Automation Anywhere Control Room Service**
- **Automation Anywhere Control Room Caching**
- **Automation Anywhere Control Room Messaging**

See [IQ Bot 11.x: Installing IQ Bot in Express mode](#) on page 106 for steps to install in Express mode.

IQ Bot 11.x: Installing IQ Bot in Express mode

Install IQ Bot in Express mode with the default settings.

Complete the prerequisites: [IQ Bot 11.x: Prerequisites for installing IQ Bot in Express mode](#) on page 105

1. Double-click the `Automation_Anywhere_IQ_BOT_<version_number>.exe` file.
2. In the IQ Bot Setup Wizard, click **Yes**, and then click **Next**.

Note: The Control Room installation does not have to be in Express mode to install IQ Bot Version 6.5 in Express mode.

3. In the **Prerequisites** page, review the prerequisites and click **Next**.
4. In the **License Agreement** page, review the license agreement, accept the terms, and click **Next**. IQ Bot runs a pre-installation check.

Появится экран предварительной установки с приложениями, не имеющими требуемой версии и необходимых портов, вместе со службами, занимающими эти порты.

5. If the pre-installation check is not successful, uninstall the mentioned software and free the required ports.
 - a) Щелкните **Повторить**.
 - b) When the pre-installation check is successful, click **Next**.

Открывается страница **Тип установки** с настройками **Экспресс** и **Пользовательский**.

Note: Во время экспресс-установки устанавливается IQ Bot на основе HTTP без поддержки Active Directory.

6. Select **Express** and click **Next**.
7. After you click **Next**, the unable to proceed with installation message might appear if one of the following conditions is not met.
 - a) If Control Room Version 11.3.1 base plus either Version 11.3.1.1 or Version 11.3.1.2 patch are not pre-installed on the target machine in Express mode.
 - b) If the installer is unable to communicate with the Control Room or SQL Express.

If the error message appears, perform these steps:

- a. Click **Back** to review or change the installation settings. Alternatively, exit the Setup Wizard and click **Cancel**.
 - b. In the confirmation dialog box, click **Yes** to exit the Setup Wizard.
This rolls back all the changes.
 - c. Click **No** to resume.
8. In the **Ready to install the program** page, click **Install**.
The express installation begins and the system shows the **Finished** page after a few minutes to indicate a successful installation.
 9. For the Control Room, set the `cluster.properties` file as required based on the release version.
For more information about the associated `cluster.properties` file for each release version, see [IQ Bot version compatibility matrix](#) on page 8.

IQ Bot is installed with the following default settings:

Security type: None (HTTP)

Web configuration: <web url:port>

Database configuration: <database url:port> (user: aaadmin ; Authentication: SQL)

Database password: aabots@123

Host Gateway: <gateway:port> (SSL Offloading: No)

Output path: C:\Users\Public\Documents\Automation Anywhere IQBot Platform\Output\

Logging Path: C:\Users\Public\Documents\Automation Anywhere IQBot Platform\Logs\

Logging path IQ Bot A360.21 onward: C:\Users\Public\Documents\Automation 360 IQBot Platform\Logs\

Installation path for IQ Bot Version 11.3.5: C:\Program Files (x86)\Automation Anywhere IQ Bot\

Installation path for Automation 360 IQ Bot: C:\Program Files (x86)\Automation Anywhere IQ Bot A2019\

Installation path IQ Bot A360.21 onward: C:\Program Files (x86)\Automation 360 IQ Bot\

[IQ Bot 11.x: Registering IQ Bot with the Control Room](#) on page 118

Register IQ Bot with Automation Anywhere Control Room.

Related tasks

[IQ Bot 11.x: Установка IQ Bot в пользовательском режиме](#) on page 108

Пользовательский режим используется для установки IQ Bot со сведениями о конфигурации.

[IQ Bot 11.x: Installing IQ Bot in Cluster mode](#) on page 113

Install IQ Bot in Cluster mode for improved throughput.

[IQ Bot 11.x: Installing IQ Bot in Cluster mode on Amazon EC2](#) on page 117

Install IQ Bot in the cluster mode on Amazon Elastic Compute Cloud (Amazon EC2).

IQ Bot 11.x: Установка IQ Bot в пользовательском режиме

Пользовательский режим используется для установки IQ Bot со сведениями о конфигурации.

1. Run the `Automation_Anywhere_IQ_BOT_<version_number>.exe` installation file as an administrator.
2. Для всех установок IQ Bot Version 6.5 и более поздних версий Microsoft SQL Server 2012 Native Client — QFE устанавливается автоматически.
В первый раз после установки может потребоваться перезагрузка сервера. Перезапустите процесс установки IQ Bot при необходимости.
3. В мастере настройки IQ Bot Automation Anywhere щелкните **Далее**.
а) Щелкните **Далее** в окне **Предварительные условия**.
4. Прочитайте лицензионное соглашение, примите условия и щелкните кнопку **Далее**.
IQ Bot выполняет проверку перед установкой.
Появится экран предварительной установки с приложениями, не имеющими требуемой версии и необходимых портов, вместе со службами, занимающими эти порты.
5. Если проверка перед установкой не была успешной, удалите упомянутое программное обеспечение и освободите необходимые порты.
а) Щелкните **Повторить**.
б) Когда проверка перед установкой пройдет успешно, щелкните кнопку **Далее**.

Открывается страница **Тип установки** с настройками **Экспресс** и **Пользовательский**.

Note: Во время экспресс-установки устанавливается IQ Bot на основе HTTP без поддержки Active Directory.

6. Выберите вариант **Пользовательский** и щелкните кнопку **Далее**.
7. В окне **Конфигурация базы данных** добавьте указанные ниже данные.
а) Имя хоста или IP. Введите имя хоста или IP-адрес.

Note: Подчеркивание в имени хоста не допускается.

- б) Порт. Введите номер порта.

Note: Если на целевом компьютере локально установлена база данных Microsoft Windows SQL Server Express, в качестве имени хоста автоматически подставляется *localhost*, а в качестве порта — 1433.

8.

11.3.5.3

В окне **Настройка ключа шифрования** выберите один из указанных ниже вариантов.

- **По умолчанию**, чтобы использовать автоматически сгенерированный предопределенный ключ
- **Custom** if you want to use a custom key.

Ensure that the custom key is a 32-character, alphanumeric key, and does not contain any special characters.

Вы можете выбрать этот вариант только во время **новой** установки IQ Bot. Этот вариант не удастся изменить позднее.

Restriction: If you upgrade from IQ Bot Version 11.3.5.3 installed using a custom key to Version 11.3.5.4, you might not be able to validate those documents in the Валидатор which were migrated from Version 11.3.5.3.

For a cluster setup, ensure that you complete installing IQ Bot on the first node successfully before you begin installing IQ Bot on the subsequent nodes.

9. Введите указанные ниже данные сервера базы данных на странице **Конфигурация базы данных** и щелкните **Далее**.

Option	Description
Вариант 1	Укажите свои учетные данные пользователя Microsoft Windows SQL Server для входа на сервер базы данных.
Вариант 2	Если установить флажок Использовать аутентификацию Windows , не нужно предоставлять учетные данные Microsoft Windows для входа на сервер базы данных, поскольку программа установки обнаруживает их автоматически.

Сообщение об ошибке Не удалось подключиться к SQL-серверу с заданной конфигурацией появляется при указанных ниже условиях.

- Неправильные имя сервера/IP-адрес и номер порта
- Неправильные учетные данные сервера базы данных
- Недостаточные права пользователя для подключения к базе данных

Note:

- При установке IQ Bot настройте учетные данные недавно размещенной базы данных в Microsoft Azure SQL PaaS. Для проверки учетных данных и перехода к следующему экрану может потребоваться до 300 секунд. Однако если локальная база данных для IQ Bot уже

перенесена на Microsoft Azure SQL PaaS перед установкой, задержки при настройке базы данных не будет.

- IQ Bot не поддерживает логику повторных попыток для Microsoft Azure SQL PaaS. Избегайте использовать IQ Bot во время запланированных мероприятий по техническому обслуживанию в базе данных Microsoft Azure SQL.
- Если IQ Bot и экземпляр базы данных уже существуют, а IQ Bot устанавливается повторно, IQ Bot получает экземпляр базы данных по умолчанию во время установки.
- Windows authentication with the local system works only if the NT Authority\System user has system administrator permissions.
- Комбинация учетной записи Local System для служебных учетных данных и аутентификации Microsoft Windows для подключения SQL не поддерживается, если для создания баз данных вы используете удаленный SQL-сервер.

10. В окне **Конфигурация служб** установите флажок **Локальная системная учетная запись** и щелкните кнопку **Далее**.

- Установите флажок **Локальная системная учетная запись**, чтобы службы запускались в контексте локальной системной учетной записи.
- Если флажок **Локальная системная учетная запись** не установлен, укажите свои учетные данные пользователя для запуска служб IQ Bot.
 - Для действительного пользователя системного администратора требуется аутентификация Windows с помощью учетных данных пользователя «Службы».
 - При вводе учетных данных пользователя убедитесь, что они связаны с доменом. For example: `example.com/testuser`. Пользователь не может воспользоваться этой функцией без домена.
 - In contrast to other services, the Automation Anywhere Cognitive Console service runs on the local user account rather than the domain or service account.

11. В окне IQ Bot **Конфигурация портала** введите указанные ниже данные и щелкните **Далее**.

Безопасность портала
Выберите тип безопасности: HTTPS или HTTP .
Выбрав HTTPS , убедитесь, что можете просмотреть, а затем выбрать действительный файл сертификата PFX в поле Путь к сертификату . <i>IQ Bot 11.x: Configure IQ Bot with HTTP and HTTPS on page 132</i>
Выбрав HTTP , перейдите к следующему шагу.

Безопасность портала	
Введите действительную парольную фразу сертификата в поле Парольная фраза сертификата .	

Конфигурация портала	
Имя хоста или IP	<p>Введите имя хоста или IP-адрес IQ Bot или используйте автоматически заполняемое значение по умолчанию, которое представляет собой полное доменное имя (FQDN) компьютера, на котором устанавливается IQ Bot.</p> <hr/> <p>Note: По умолчанию автоматически подставляется полное доменное имя компьютера, на котором устанавливается IQ Bot.</p> <hr/>
Порт	Введите номер порта или используйте автоматически заполняемое значение по умолчанию — 3000.

12. В окне **Конфигурация балансировщика нагрузки** выполните указанные ниже действия.

- а) Установите флажок **Использовать то же, что и портал IQ Bot**, чтобы использовать для балансировщика нагрузки те же имя хоста и номер порта, которые были указаны ранее в окне **Конфигурация портала** в IQ Bot. Этот флажок установлен по умолчанию. Этот флажок следует оставить установленным при выполнении любого указанного ниже условия.
 - IQ Bot устанавливается на одном компьютере.
 - Конфигурацию балансировщика нагрузки планируется оставить такой же, как на странице IQ Bot.
- б) Если значения конфигурации балансировщика нагрузки отличаются от значений на странице IQ Bot, снимите флажок **Использовать то же, что и портал IQ Bot** и введите указанные ниже значения.
 - **Имя хоста балансировщика нагрузки:** Введите имя хоста или IP-адрес.
 - **Порт балансировщика нагрузки.** Введите номер порта.
- в) При необходимости установите флажок **Балансировщик нагрузки может обрабатывать разгрузку SSL** и щелкните **Далее**.

Note: Если во время настройки балансировщика нагрузки задать режим безопасности HTTPS в окне **Конфигурация портала** IQ Bot, разгрузка SSL по умолчанию отключена. Чтобы включить разгрузку SSL для балансировщика нагрузки, выберите **HTTP** в окне **Конфигурация портала** IQ Bot.

Ниже приведены некоторые дополнительные возможности настройки балансировщика нагрузки.

- При установке IQ Bot в AWS, чтобы обеспечить доступ к серверу IQ Bot из внешнего местоположения, замените имя шлюза именем, предоставляемым общедоступной службой DNS.
- При повторной установке имя хоста балансировщика нагрузки и порт автоматически определяются программой установки на основе данных предыдущей установки,

сохраненных в файле Control Room. Изменяйте их при необходимости, поскольку это полезно при установке нескольких экземпляров IQ Bot для масштабируемости (чтобы не пришлось запоминать сведения для каждого экземпляра).

- При использовании HTTPS-сертификата в балансировщике нагрузки с псевдонимом, который отличается от имени хоста машины (FQDN), введите псевдоним в качестве имени хоста.
- Программа установки берет значение из окна Портал **Конфигурация** в IQ Bot (с предыдущей страницы), но показывает ранее полученные значения в отключенных текстовых полях из окна Control Room.

13. В окне Папка назначения внесите необходимые изменения в папки назначения и щелкните Далее.

- **Путь установки.** При необходимости выберите другой путь установки.

Путь установки по умолчанию: C:\Program Files(x86)\Automation Anywhere IQ Bot <номер версии>\

IQ Bot A360.21 и далее: C:\Program Files (x86)\Automation 360 IQ Bot\

- **Путь вывода.** Выберите путь вывода, где будут сохраняться выходные данные. Путем вывода также может быть общий сетевой путь. Во время повторной установки **Путь вывода** автоматически определяется программой установки (на основе данных предыдущей установки, хранящихся в базе данных конфигурации IQ Bot). При необходимости измените сведения.

Путь вывода по умолчанию: C:\Users\Public\Documents\Automation Anywhere IQ Bot Platform\Output\

14. В окне Готовность к установке программы проверьте и просмотрите настройки установки и щелкните Установить, чтобы начать установку.

- При первой установке в процессе установки может появиться оповещение системы безопасности Microsoft Windows Security с предложением разрешить программе установки установить Erlang. При появлении такого запроса щелкните **Разрешить доступ**.
- Иногда окно **Оповещение системы безопасности Windows** не видно (оно может быть скрыто за другими активными окнами). С помощью сочетания клавиш Alt + Tab убедитесь, что окно **Оповещение системы безопасности Windows** не скрыто за другими видимыми окнами.

15. Щелкните Разрешить доступ, чтобы завершить установку, а в окне Успешная установка щелкните Готово.

На рабочем столе создается значок IQ Bot.

Если при запуске IQ Bot возникает ошибка, возможно, придется перезапустить службы Cognitive Console Automation Anywhere Control Room Reverse Proxy и Automation Anywhere.

16. Для Control Room задайте файл cluster.properties нужным образом в зависимости от версии выпуска..

For more information about the associated cluster.properties file for each release version, see [IQ Bot version compatibility matrix](#) on page 8.

[IQ Bot 11.x: Registering IQ Bot with the Control Room](#) on page 118

Register IQ Bot with the Control Room.

Related tasks

[Контрольный список после установки](#) on page 138

Verify if IQ Bot is installed, and ensure the IQ Bot services are running using the healthcheck APIs.

[IQ Bot 11.x: Configure IQ Bot with HTTP and HTTPS](#) on page 132

This section describes single and multiple domain scenarios when installing IQ Bot and Control Room with various server certificates.

[Reinstalling HTTPS SSL certificate on expiry](#) on page 150

Reinstall HTTPS SSL certificate when your HTTPS SSL certificate expires.

[IQ Bot 11.x: Create a self-signed certificate with Subject Alternative Name](#) on page 131

Create a self-signed certificate with Subject Alternative Name (SAN) when you want to use an SSL certificate for multiple domains.

[IQ Bot 11.x: Installing IQ Bot in Cluster mode](#) on page 113

Install IQ Bot in Cluster mode for improved throughput.

Related reference

[IQ Bot version compatibility matrix](#) on page 8

Before you install or upgrade, read the compatible versions of IQ Bot with the Control Room.

IQ Bot Custom installation

Install IQ Bot in Custom mode to configure and install specific requirements, for example, connection to an SQL database, load balancer details, and output folder definitions.

If you have not done so already, first review [IQ Bot Architecture Guide](#) and [IQ Bot 11.x: IQ Bot installation prerequisites](#) and ensure you have the following available on Windows Server 2016 Standard / Data Center or 2012 R2 Standard / Data Center:

- Брайзер Google Chrome
- Microsoft SQL Server Express 2014 SP1
- Microsoft SQL Server Management Studio (SSMS)
- Automation Anywhere Control Room
- Automation Anywhere Enterprise Client
- IQ Bot installation file
- SSL certificate
- License file for IQ Bot

The Custom mode installation enables users to set up IQ Bot with the following process:

Шаг 1. Create a role

See [Create a role](#) for information on creating a role.

Шаг 2. *User roles and permissions*

Find out about the roles and associated permissions required for each IQ Bot user to know the role you need access to. Your permission to access specific areas in IQ Bot are defined and depend on your user role.

Шаг 3. *IQ Bot 11.x: Установка IQ Bot в пользовательском режиме*

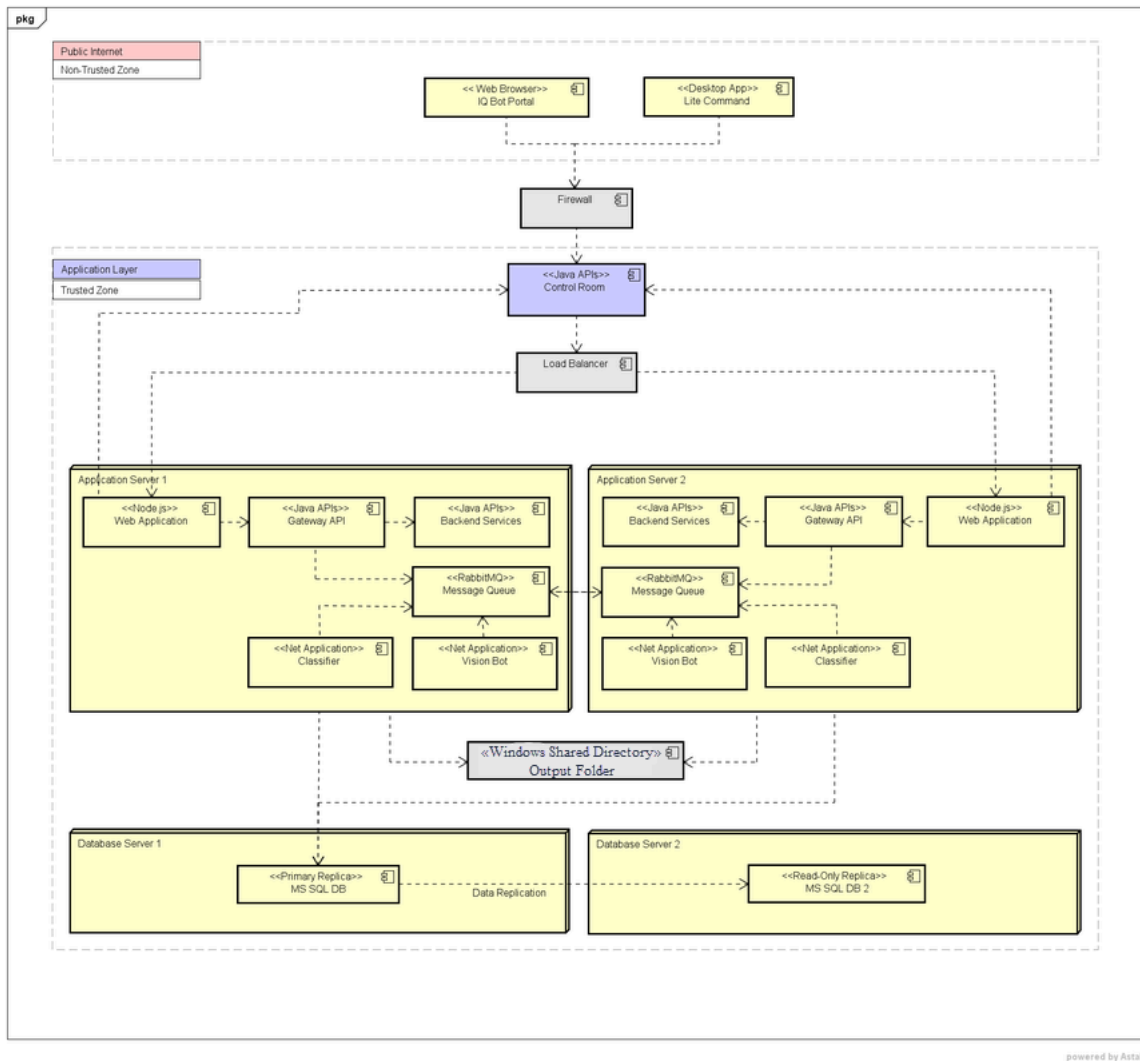
IQ Bot scales horizontally in Custom mode to support improved throughput.

Шаг 4. *IQ Bot 11.x: Registering IQ Bot with the Control Room*

IQ Bot can be accessed after registering it with Control Room

IQ Bot 11.x: Installing IQ Bot in Cluster mode

Install IQ Bot in Cluster mode for improved throughput.



IQ Bot supports clustering of up to five IQ Bot installations.

1. Install IQ Bot on the target machines in the custom mode. During installation, on the **Load Balancer Configuration** screen, type in the load balancer host name and port.
2. Select the **Load Balancer can handle SSL Offloading** option, if the load balancer supports it to enable SSL offloading.
3. Provide the shared output path on the **Destination Folder** screen.
4. During installation, use the same database server details on all the nodes.

After completing the installation, perform the following for each node to complete the process:

1. Get the host name of the primary node.

Note: The primary node is the node where IQ Bot was first installed.

2. Using administrator permissions, open the command prompt.
3. Navigate to the <installation Directory>\Configurations> folder.
4. Run `messagequeue_cluster_configuration.bat` and pass the host name of the primary node:

```
C:\Program Files (x86)\Automation Anywhere IQ Bot <version number>
\Configurations>
```

```
messagequeue_cluster_configuration.bat Server1
```

Important: In a cluster setup, if a temporary network issue occurs, the cluster breaks. To add the nodes back into the cluster, you must manually execute commands in each of the participating nodes. You also have to monitor the cluster status to know if it is healthy or broken. To avoid such issues, you can configure the cluster to automatically recover (auto-recover) from temporary network issues. See this article for information about how to enable auto-recovery: [RabbitMQ Cluster Configuration with Auto-recovery \(A-People login required\)](#).

Related tasks

[IQ Bot 11.x: Make a Shared Folder Accessible](#) on page 115

[IQ Bot 11.x: Installing IQ Bot in Cluster mode on Amazon EC2](#) on page 117

Install IQ Bot in the cluster mode on Amazon Elastic Compute Cloud (Amazon EC2).

IQ Bot 11.x: Make a Shared Folder Accessible

Follow the steps to make your shared folder accessible to IQ Bot.

1. Change log on of the application services with `.\Administrator` account on all cluster nodes.

2. On primary (shared folder) node, change following settings:
 - a) Click **Control Panel > Network and Internet > Network and Sharing Center > Advanced Sharing Setting**
 - b) Expand **Private** and click **Network Discovery**.
 - c) In **Network Discovery**:
 1. Select **Turn on Network Discovery**.
 2. Check the **Turn on automatic setup of network connected devices** checkbox.
 3. Click **File and Printer Sharing** and then select the **Turn on file and printer sharing** checkbox.
 - d) Expand **Guest or Public** and click **Network Discovery**.
 - e) In **Network Discovery**:
 1. Select **Turn on Network Discovery**.
 2. Click **File and Printer Sharing** and then select the **Turn on file and printer sharing** checkbox.

Open "Local Group Policy Editor". Go to Local Computer Policy >> Windows Settings >> Security Settings >> Local Policies >> Security Options. Find "Network access : Sharing and security model for local accounts". Change it to "Guest only - local users authenticate as Guest".

- f) Click **Local Group Policy Editor**.
- g) Click **Local Computer Policy > Windows Settings > Security Settings > Local Policies > Security Options**.
- h) Find **Network access : Sharing and security model for local accounts** and change it to Guest only - local users authenticate as Guest.
- i) Execute this Powershell script:

```
Set-ItemProperty -Path "HKLM:\SYSTEM\CurrentControlSet\Services
\LanmanWorkstation\Parameters" -Name "AllowInsecureGuestAuth" -Type
DWord -Value 1
```

You need to execute this Powershell script on every machine which is a part of the cluster.

IQ Bot 11.x: Installing IQ Bot in Cluster mode on machines with IQ Bot preinstalled

If you have IQ Bot already installed on your machine, uninstall IQ Bot, stop service, and clean the existing RabbitMQ v3.8.18 cookies before installing IQ Bot in Cluster mode.

- Open ports 4369 and 25672 and add inbound firewall rules to allow traffic to these ports on each target machine.
- To add nodes to the cluster, sync the RabbitMQ v3.8.18 cookies to enable running any RabbitMQ v3.8.18 commands . If IQ Bot is already installed on the target machine, clean up and remove the existing cookies.

Follow the clean up procedure before setting up a cluster:

1. Uninstall IQ Bot from Program and Features.

2. Stop the RabbitMQ v3.8.18 service, by running the command: `net stop RabbitMQ /yes`.
3. Uninstall RabbitMQ v3.8.18 from `%Programfiles%\RabbitMQ Server\uninstall`.
4. Stop the `epmd.exe` and its descendants by running this command: `Taskkill /IM epmd.exe /F`.
5. Stop `erl.exe` and `erlsrv.exe` and its descendants by running the following commands:
 - a) `Taskkill /IM erl.exe /F`
 - b) `Taskkill /IM erlsrv.exe /F`
6. Uninstall Erlang from `%Programfiles%\erl8.2\Uninstall`.
7. Remove the following folders if they were not removed from the uninstall:
 - a) `%Programfiles%\Rabbit MQ Server`
 - b) `%Programfiles%\erl8.2`
8. Remove the following folders: `%appdata%\RabbitMQ`, `%WINDIR%\erlang.cookie`, `%USERPROFILE%\erlang.cookie`.

Do the following after completing the installation steps:

- The load balancer details for the following are available:
 - name of the load balancer
 - порт
 - type of security used (For example, HTTP or HTTPS)
- Share a folder for configuring the output path.

Прим.: The user installing IQ Bot requires appropriate access permissions.

IQ Bot 11.x: Installing IQ Bot in Cluster mode on Amazon EC2

Install IQ Bot in the cluster mode on Amazon Elastic Compute Cloud (Amazon EC2).

If you install IQ Bot in Cluster mode on Amazon EC2, make a note of the following.

- The name for the Amazon EC2 RabbitMQ v3.8.18cluster is in this format: `rabbit@ip-XXX-XXX-XX-XX`.
- Connecting to a node works if both the nodes are in the same local network, but if you connect to a cluster outside the local Amazon EC2 network, configure the host file of node 2.
- Add an entry in the host file where `AA.AA.AAA.AAA` is the public IP of node 1.

```
AA.AA.AAA.AAA
ip-XXX-XX-XX-XX
```

If all the IQ Bot instances in a cluster are not a part of the same domain, ensure that the following services are running using the Administrator user login on each instance.

- Automation Anywhere Cognitive Projects
- Automation Anywhere Cognitive Validator
- Automation Anywhere Cognitive File Manager

To run a service using the Administrator user login, do the following procedure.

1. Click **Task Manager > Services > Open Services**.

2. Right-click the target service, for example, Automation Anywhere Cognitive Projects, and click **Properties**.
3. In the Properties dialog box, select **This account** and enter the credentials for the administrator user.
4. Click **OK** and restart this service. Repeat these steps for the remaining services on this instance and all the other IQ Bot instances in the cluster.

Related tasks

[IQ Bot 11.x: Installing IQ Bot in Cluster mode](#) on page 113

Install IQ Bot in Cluster mode for improved throughput.

IQ Bot post installation configuration

After installing IQ Bot complete the configuration settings to ensure registration with Control Room, confirm the creation of all required databases, create the appropriate certificates, configure the HTTP and HTTPS settings, generate the authorization token for performing any task, and verify the completion of all tasks in the post-installation checklist.

Control Room installation

Review the installation core tasks and topics for installing Enterprise Control Room in a data center on an on-premise server or a cloud service provider server instance.

Related tasks

[IQ Bot 11.x: Registering IQ Bot with the Control Room](#) on page 118

IQ Bot is integrated with Control Room for user management. Installation of the Enterprise Control Room and Enterprise Client is not a prerequisite for installing IQ Bot. However, you are required to log in to the Enterprise Control Room and register before using IQ Bot.

[IQ Bot 11.x: Use Microsoft Azure Computer Vision OCR engine](#) on page 121

IQ Bot automate some installation steps for Microsoft Azure Computer Vision OCR engine.

[Use ABBYY FineReader Engine Распознавание текста \(OCR\) engine in IQ Bot 11.x](#) on page 123

IQ Bot installation now automates the installation of ABBYY FineReader Engine (FRE) optical character recognition (OCR) plug-in.

[Databases created during IQ Bot installation](#) on page 130

Learn which databases and tables are created after installing IQ Bot.

[IQ Bot 11.x: Create a self-signed certificate with Subject Alternative Name](#) on page 131

Create a self-signed certificate with Subject Alternative Name (SAN) when you want to use an SSL certificate for multiple domains.

[IQ Bot 11.x: Configure IQ Bot with HTTP and HTTPS](#) on page 132

This section describes single and multiple domain scenarios when installing IQ Bot and Control Room with various server certificates.

[Контрольный список после установки](#) on page 138

Verify if IQ Bot is installed, and ensure the IQ Bot services are running using the healthcheck APIs.

IQ Bot 11.x: Registering IQ Bot with the Control Room

IQ Bot is integrated with Control Room for user management. Installation of the Enterprise Control Room and Enterprise Client is not a prerequisite for installing IQ Bot. However, you are required to log in to the Enterprise Control Room and register before using IQ Bot.

Do the following before registering IQ Bot with Control Room:

- Ensure the Control Room and IQ Bot are on the same subnet.
- Launch Control Room and create an admin user.
- Install the license for IQ Bot.

Note: Install the IQ Bot-specific license.

See [Installing a license](#).

IQ Bot can be accessed after registering it with Control Room. When installing IQ Bot, use the following guidelines:

For Express installation:

Control Room Version 11.3.1 base plus Version 11.3.1.1 or later patch must be installed in Express mode before installing IQ Bot.

For Custom installation:

Control Room Version 11.3.1 base plus Version 11.3.1.1 or later patch must be installed in Custom mode before installing IQ Bot.

Note: Make a note of the database credentials used for the Control Room installation. This is required for IQ Bot installation if you are using the same database.

1. Log in to Control Room as an administrator.
If you already logged into Control Room in the same browser session, you are automatically logged in to IQ Bot.
2. Click **Administration > Settings > IQ Bot**.
3. Click **Edit** in the IQ Bot section, and a text box appears.
4. Enter the correct IQ Bot URL for example, `http(s)://IQBotURL/`, and click **Save changes**.
If the application registration fails, try registering again.

Log in to IQ Bot.

Note: IQ Bot supports Google Chrome.

Related tasks

[IQ Bot 11.x: Resolving IQ Bot registration failure](#) on page 120

Use the instructions in this topic if IQ Bot registration fails due to HTTPs URL issues.

[Unregistering IQ Bot 11.x from the Control Room](#) on page 119

You have to unregister IQ Bot from the Control Room if the IQ Bot URL changes because of installation or uninstallation of IQ Bot, or when a load balancer is added.

Unregistering IQ Bot 11.x from the Control Room

You have to unregister IQ Bot from the Control Room if the IQ Bot URL changes because of installation or uninstallation of IQ Bot, or when a load balancer is added.

After unregistering IQ Bot from the Automation Anywhere Control Room, restart the Automation Anywhere Cognitive Console service.

1. Using the **sysadmin** role, run two separate SQL queries in different databases.

2. Run the first SQL query in the Control Room database to delete the following data:

- ```
DELETE FROM [CRDB-NEW].[dbo].[APP_USER] WHERE [type]='IQBOT'
```
- ```
DELETE FROM [CRDB-NEW].[dbo].[USERS] WHERE user_type='APP'
```
- ```
DELETE from dbo.ACTIVEMQ_ACKS
```
- ```
DELETE from [CRDB-NEW].dbo.ACTIVEMQ_ACKS
```
- ```
DELETE from dbo.ACTIVEMQ_MSGS
```

**3. Run the second SQL query in the IQ Bot configuration database to delete the following data:**

- ```
DELETE FROM [Configurations].[dbo].[Configurations] where [key]='controlRoomVersion'
```
- ```
DELETE FROM [Configurations].[dbo].[Configurations] where [key]='appRegistered'
```
- ```
DELETE FROM [Configurations].[dbo].[Configurations] where [key]='controlRoomUrl'
```
- ```
DELETE FROM [Configurations].[dbo].[Configurations] where [key]='appId'
```

You have unregistered successfully.

**Related tasks**

[Upgrading IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS](#) on page 152

Upgrade IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS by unregistering IQ Bot first.

## IQ Bot 11.x: Resolving IQ Bot registration failure

Use the instructions in this topic if IQ Bot registration fails due to HTTPs URL issues.

1. Use Windows **Services** to restart the Control Room service.
2. Update the Control Room HTTPs URL by logging in to **Control Room > Administration > Settings > General**.
3. Use Windows **Services** to restart the following services:
  - Automation Anywhere Control Room Cognitive Console
  - Automation Anywhere Control Room Reverse Proxy
4. Re-register IQ Bot with the HTTPs URL in the Control Room.  
IQ Bot is registered successfully.

**Related tasks**

[Unregistering IQ Bot 11.x from the Control Room](#) on page 119

You have to unregister IQ Bot from the Control Room if the IQ Bot URL changes because of installation or uninstallation of IQ Bot, or when a load balancer is added.



## IQ Bot 11.x: Use Microsoft Azure Computer Vision OCR engine

IQ Bot automate some installation steps for Microsoft Azure Computer Vision OCR engine.

- Microsoft Azure Computer Vision OCR engine is a cloud Распознавание текста (OCR) engine and is available to all customers of IQ Bot.
- Data is not stored and is removed immediately.

For additional information on privacy for data retention see: [Microsoft Azure Cognitive Services](#)

See a list of allowed service URLs for using Microsoft Azure Computer Vision OCR engine in the example section below.

---

**Note:** When creating a learning instance, you can select any language from the IQ Bot's drop-down list. During processing, the OCR engine tries to auto-detect the primary language and can override the user selection. For example, you can specify English, but if you upload Spanish, the API would try to process Spanish.

---

Microsoft Azure Computer Vision OCR engine provides approximately 18% STP and 80% accuracy with data extraction.

---

**Tip:** If IQ Bot is unable to extract data from low quality or handwritten documents, troubleshoot the issue:

[IQ Bot unable to extract data from low quality and Handwritten documents \(A-People login required\)](#)

---

Follow the steps to configure the `Settings.txt` file and use Microsoft Azure Computer Vision OCR engine.

---

**Important:** Configuring the `settings.txt` file is not applicable to Automation 360 IQ Bot Cloud

---

1. Ensure your IQ Bot server has internet connectivity and external DNS resolution.

Check to enable communication for the API endpoint on default port = 443: `default endpoint = https://aai-iq-bot-ocr.cognitiveservices.azure.com/.`

---

**Note:** To validate connectivity to the API endpoint and the server open a web browser on the server and type in the complete URL for the API endpoint. If the browser returns a "404 error", then a response from the API endpoint was received.

---

2. You can use your own Microsoft Azure Computer Vision OCR engine subscription or spell-check keys. See [IQ Bot 11.x: Use your own keys for Microsoft Azure Computer Vision OCR engine](#) on page 122 for more information.
  3. From the `C:\Program Files (x86)\Automation Anywhere IQ Bot <version number>\Configurations` folder, open the `Settings.txt` file, and change the OCR engine value to `OCREngine=Tesseract4` or `OCREngine=Abbyy` to `OCREngine=MicrosoftAzureAPI`. Then save the file.
  4. Run the **stopanduninstallallservices.bat** file at `C:\Program Files (x86)\Automation Anywhere IQ Bot\Configurations`.
- 

**Note:** After stopping the services, run **installandstartallservices.bat** file to install and start the services.

---

5. Create learning instances in IQ Bot, and use Microsoft Azure Computer Vision OCR engine for the text segmentation and OCR engine for these learning instances.

At the same time, for these learning instances, you would continue to use the IQ Bot capabilities for document classification, auto-mapped fields, cognitive extraction, and field value auto-correction.

### List of service URLs used for Microsoft Azure Computer Vision OCR engine (optional)

Use the following allowed URLs if required:

---

**Note:** All URLs point to a global service region in the US.

---

- <https://aai-iq-bot-ocr.cognitiveservices.azure.com/>
  - <https://aai-iq-bot-ocr-spellcheck.cognitiveservices.azure.com/>
- 

**Note:** If IQ Bot is unable to process a document using Microsoft Azure Computer Vision OCR engine, see [IQ Bot unable to process the document with Microsoft Azure OCR \(A-People login required\)](#) for troubleshooting tips.

---

### Related reference

[Матрица сравнения функций IQ Bot](#) on page 13

Compare features between different product releases.

## IQ Bot 11.x: Use your own keys for Microsoft Azure Computer Vision OCR engine

You can use your own Microsoft Azure Computer Vision OCR engine subscription or Spell Check keys.

Users can use a combination of their own Microsoft Azure Computer Vision OCR engine keys with the Spell Check keys provided by Automation Anywhere. Using the provided Spell Check keys from Automation Anywhere will send your data to the Automation Anywhere account. If you do not want to send any data to the Automation Anywhere Microsoft Azure account, you would have to provide your own Spell Check service keys, or turn it off by setting the value in the `Settings.txt` file to `EnableAutoCorrectSegmentText: false`.

Follow the steps to use your own keys for Microsoft Azure Computer Vision OCR engine.

1. By default, IQ Bot's encrypted Microsoft Azure Computer Vision OCR engine subscription and Spell Check keys are used. If you prefer to use your own Microsoft Azure Computer Vision OCR engine subscription and, or Spell Check keys, go to `C:\Program Files (x86)\Automation Anywhere IQ Bot <version>\Configurations` and folder **Configurations** > **AzureOCREngineSettings.json** file, and specify your keys.

If both `SubscriptionKey` and `SubscriptionClientKey` are specified, then `SubscriptionClientKey` is used:

- `VisionSubscriptionKey`
- `VisionSubscriptionClientKey`
- `SpellCheckSubscriptionKey`
- `SpellCheckSubscriptionClientKey`

2. Enter your keys correctly to ensure proper API calls as follows:

Before:

```
{
```

```

 "VisionServiceUrl": "https://aai-iq-bot-ocr.cognitiveservices.azure.com/",
 "EngineType": 0,
 "VisionSubscriptionKey": "",
 "VisionSubscriptionClientKey": "",
 "SpellCheckSubscriptionKey": "",
 "SpellCheckSubscriptionClientKey": "",
 "EnableDebugging": false,
 "DebuggingFolder": "C:\\Users\\Public\\Documents\\Automation Anywhere IQBot Platform\\Output\\Engine\\Azure",
 "HttpTimeoutInSec": 300,
 "EnableReprocessLowConfidentSegment": true,
 "EnableAutoCorrectSegmentText": true,
 "EnableResolveOverlappedSegment": true,
 "EnableFieldMerging": true,
 "EnableFieldRegions": true
 }

```

After:

```

{
 "VisionServiceUrl": "https://aai-iq-bot-ocr.cognitiveservices.azure.com/",
 "EngineType": 0,
 "VisionSubscriptionKey": "",
 "VisionSubscriptionClientKey": "191234d5e7abc1f382123459d4399e33",
 "SpellCheckSubscriptionKey": "",
 "SpellCheckSubscriptionClientKey": "336f8f6a503a4c30ba123456834d4abc",
 "EnableDebugging": false,
 "DebuggingFolder": "C:\\Users\\Public\\Documents\\Automation Anywhere IQBot Platform\\Output\\Engine\\Azure",
 "HttpTimeoutInSec": 300,
 "EnableReprocessLowConfidentSegment": true,
 "EnableAutoCorrectSegmentText": true,
 "EnableResolveOverlappedSegment": true,
 "EnableFieldMerging": true,
 "EnableFieldRegions": true
}

```

3. Run the `stopanduninstallallservices.bat` file as an administrator. The default location of the file is at `C:\Program Files (x86)\Automation Anywhere IQ Bot <version>\Configurations`.
  4. Run the `installandstartallservices.bat` file as an administrator. The default location of the file is at `C:\Program Files (x86)\Automation Anywhere IQ Bot <version>\Configurations`.
- Log in or refresh your IQ Bot web page.

## Use ABBYY FineReader Engine Распознавание текста (OCR) engine in IQ Bot 11.x

IQ Bot installation now automates the installation of ABBYY FineReader Engine (FRE) optical character recognition (OCR) plug-in.

---

**Note:** IQ Bot supports ABBYY FineReader Engine version 12.2 and 12.3 for IQ Bot.

---

When installing IQ Bot, the system automatically installs an ABBYY FineReader Engine open run-time license on your server.

Use the following steps to manually install ABBYY FineReader Engine:

1. Download the OCR plug-in with IQ Bot.
2. Unzip the OCR plug-in folder in your downloads folder, and place that unzipped folder, at C:\Program Files (x86)\Automation Anywhere IQ Bot <version>.
3. Ensure the folder says \OCR Plugins\ABBYY SDK\12\ . . . , and the unzipping does not create OCR Plugins\OCR Plugins twice.
4. To use ABBYY FineReader Engine with IQ Bot you have the following options:

| Параметры                                                                            | Описание                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Set ABBYY FineReader Engine as your default Распознавание текста (OCR) engine</b> | <p>Configure the Settings.txt file.</p> <p>Follow steps 5 and 6 to configure the Settings.txt file.</p> <hr/> <p><b>Important:</b> Configuring the settings.txt file is not applicable to Automation 360 IQ Bot Cloud</p> |
| <b>Select ABBYY FineReader Engine Распознавание текста (OCR) engine from the UI</b>  | To select from the UI, see <a href="#">IQ Bot 11.x: Selecting an Распознавание текста (OCR) engine</a> on page 164.                                                                                                       |

5. **Important:** Configuring the settings.txt file is not applicable to Automation 360 IQ Bot Cloud.

In Automation 360 IQ Bot Cloud, you can use the `appConfigurations` API to read and update the OCR settings.

For help with using the API, contact the Support team. [Open a support case \(A-People login required\)](#)

---

To set ABBYY FineReader Engine as your default Распознавание текста (OCR) engine, from the C:\Program Files (x86)\Automation Anywhere IQ Bot <version>\Configurations folder, open the Settings.txt file, change `OCREngine=Tesseract4` to `OCREngine=Abbyy`, and save the file.

---

**Important:** Troubleshoot classification issue in processing Chinese language documents:

[All files are getting unclassified while processing Chinese language documents \(A-People login required\)](#)

6. Next, run the **stopanduninstallallservices.bat** file at C:\Program Files (x86)\Automation Anywhere IQ Bot\Configurations.

---

**Note:** After stopping the services, run **installandstartallservices.bat** file to install and start the services.

7. Create learning instances in IQ Bot, and use ABBYY FineReader Engine for the text segmentation and Распознавание текста (OCR) engine for these learning instances. At the same time, for these learning instances you still partner with the IQ Bot capabilities on document classification, auto-mapped fields, cognitive extraction, and field value autocorrection.

---

**Note:** If you install IQ Bot in a different folder besides C:\Program Files (x86)\Automation Anywhere IQ Bot <version>, find and open the **Configurations >**

**ABBYOCREngineSettings.txt** folder, and update the embedded *EnginePath* and *LicensePath* to match the different folder.

Пример.

```
{
 "UseOpenRuntimeLicense": true,
 "EnginePath": "C:\\Program Files (x86)\\Automation Anywhere IQ Bot 6.5
Beta\\OCR Plugins\\ABBYY SDK\\12\\FineReader Engine\\Bin",
 "DeveloperSN": "",
 "ProjectId": "",
 "LicensePath": "C:\\Program Files (x86)\\Automation Anywhere IQ Bot 6.5
Beta\\Configurations\\Runtime.ABBYY.LocalLicense",
 "LicensePassword": ""
}
```

**Note:** Sometimes, documents can fail to classify with ABBYY FineReader Engine as your default Распознавание текста (OCR) engine. See recommended workaround for this issue.

*Document uploads are moving to unclassified state while using Abbyy OCR engine (A-People login required)*

### Related reference

[Матрица сравнения функций IQ Bot](#) on page 13

Compare features between different product releases.

## IQ Bot 11.x: Installation steps if ABBYY FineReader Engine remains installed from a previous IQ Bot version

If ABBYY FineReader Engine remains installed from a previous IQ Bot version, use the IQ Bot ABBYY FineReader Engine open run-time license.

1. Navigate to the **IQ Bot installation directory > configuration folder**, and open the `AbbyyOCREngineSettings.json` file to update the following properties:  
Change the `EnginePath` and paste the installed ABBYY FineReader Engine engine path. For example, `C:\\Program Files\\ABBYY SDK\\12\\FineReader Engine\\Bin`. Ensure the path includes separators as two backward slashes.
2. Go to the ABBYY FineReader Engine installation directory, open the `Bin` folder, and remove the `Protection.Developer.dll` file.
3. From the `C:\\Program Files (x86)\\Automation Anywhere IQ Bot <version>\\Configurations` folder, open the `Settings.txt` file, modify or ensure `OCREngine=ABBYY FineReader Engine`, and save the file.
4. Run the `stopanduninstallallservices` file at `C:\\Program Files (x86)\\Automation Anywhere IQ Bot <version>\\Configurations`.
5. Run the `installandstartallservices` file and log in, or refresh your IQ Bot web page.

## IQ Bot 11.x: Use your own ABBYY FineReader Engine license

Follow the steps to use your own ABBYY FineReader Engine license.

1. Navigate to the **IQ Bot installation directory > configuration folder**, and open `AbbyyOCREngineSettings.json` to update the following properties:
  - Change the `EnginePath` and paste the installed ABBYY FineReader Engine engine path. For example, `C:\Program Files\ABBYY SDK\12\FineReader Engine\Bin`. Ensure the path includes separators as two backward slashes. Update the `DeveloperSN` property with the license key.
  - Update the `ProjectId` property with your license project ID.
  - Update the `UseOpenRuntimeLicense` to `false`.
2. From the `C:\Program Files (x86)\Automation Anywhere IQ Bot <version>\Configurations` folder, open the `Settings.txt` file to ensure or modify `OCREngine=ABBYY FineReader Engine`, and save the file.
3. Run the `stopanduninstallallservices` file at `C:\Program Files (x86)\Automation Anywhere IQ Bot <version>\Configurations`.
4. Run the `installandstartallservices` file and log in to or refresh your IQ Botweb page.

## IQ Bot 11.x: Use Google Vision API OCR engine

Use the Google Vision API Распознавание текста (OCR) engine with IQ Bot to improve the accuracy of the optical character recognition (Распознавание текста (OCR)) results for training documents in Asian languages, particularly in Japanese and Korean. Google Vision API Распознавание текста (OCR) engine in IQ Bot supports all languages supported by the engine.

Verify that the default port 443 is available to enable communication for the API endpoint using TCP.

---

**Note:** See a list of allowed service URLs for using Google Vision API in the example section below.

---

Google Vision API files are installed on your machine automatically during the IQ Bot installation and is provided as a built-in plug-in, with a single-step installation, and is available for all users:

- It is a cloud Распознавание текста (OCR) engine.
- Google Vision API does not support documents with more than one language. Before using this feature, ensure you want to primarily extract Japanese or Korean text only.
- Languages that are written right to left, rather than left to right, are not supported within IQ Bot for document extraction. For example, Arabic, Aramaic, Azeri, Divehi, Fula, Hebrew, Kurdish, N'ko, Persian, Rohingya, Syriac, and Urdu.

Prior to this release, the engine primarily supported data extraction for Japanese and Korean text only.

*[IQ Bot 11.x: List of languages in IQ Bot](#) on page 219*

- Data is not stored in Google Cloud and is removed immediately.

For additional information on privacy for data retention see: [Google Data Usage](#)

IQ Bot provides you with the license to use the Google Vision API Распознавание текста (OCR) engine. You can also use your own license key.

*[IQ Bot 11.x: Use your own license keys for Google Vision API OCR engine](#) on page 128*

You have the following options for using this Распознавание текста (OCR) engine:

| Параметры                                                                                                | Описание                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Вариант 1.</b> Set Google Vision API as your default engine                                           | Configure the <code>Settings.txt</code> file.<br><br><b>Restriction:</b> Configuring the <code>settings.txt</code> file is not applicable to Automation 360 IQ Bot Cloud |
| <b>Вариант 2.</b> Select Google Vision API engine directly from the UI when creating a learning instance | <i><a href="#">IQ Bot 11.x: Selecting an Распознавание текста (OCR) engine</a> on page 164</i>                                                                           |

To set Google Vision API as your default Распознавание текста (OCR) engine, configure the `Settings.txt` file as follows:

**Restriction:** Configuring the `settings.txt` file is not applicable to Automation 360 IQ Bot Cloud

1. Запустите установщик IQ Bot.
2. Navigate to `..\Automation Anywhere IQ Bot\Configurations\Settings.txt`, and modify the following value: `OCREngine=GoogleVisionAPI`.  
This will set Google Vision API Распознавание текста (OCR) engine as the default engine for your environment.
3. The `GoogleOCREngineSettings.json` file is generated within the `..\Automation Anywhere IQ Bot\Configurations` folder with default values as follows:
  - Use the following with Google Vision API:

```
{
 "ADCJson": null,
 "EngineType": 2,
 "EnableDebugging": false,
 "DebuggingFolder": "C:\\Users\\Public\\Documents\\Automation Anywhere
IQBot Platform\\Logs\\Engine\\Google",
 "EnableCustomParse": false,
 "DistanceThreshold": 15
}
```

- Use the following with Google Vision API in IQ Bot Version 11.3.5 and later:

```
{
 "ADCJson": null,
 "EngineType": 2,
 "EnableDebugging": false,
 "DebuggingFolder": "C:\\Users\\Public\\Documents\\Automation Anywhere
IQBot Platform\\Logs\\Engine\\Google",
}
```

4. For Japanese and Korean language documents, update the field: `"EnableCustomParse": true`.

**Note:** A service restart is not required after making the change.

### List of service URLs used for Google Vision API (optional)

Use the following allowed URLs if required:

---

**Note:** All URLs point to a global service region in the US.

---

- API URL: <https://vision.googleapis.com/>
- Auth URL: <https://accounts.google.com/o/oauth2/auth>
- Token URL: <https://oauth2.googleapis.com/token>
- Auth Provider URL: <https://www.googleapis.com/oauth2/v1/certs>
- Client Auth URL: <https://www.googleapis.com/robot/v1/metadata/x509>

1. Создайте новый обучаемый экземпляр с использованием документа на одном из азиатских языков, который вы хотите обучить.
2. Обучите документ и переведите обучаемый экземпляр в рабочий режим.
3. Отправьте файлы на азиатском языке и запустите бот.
4. Выполните загрузку и просмотрите точность результатов извлечения.

### Related reference

[Матрица сравнения функций IQ Bot](#) on page 13

Compare features between different product releases.

## IQ Bot 11.x: Use your own license keys for Google Vision API OCR engine

You can use your own keys for Google Vision API OCR engine subscription.

Users can use their own authentication of Google Vision API. They would need to create Google Cloud Application Default Credentials (ADC) and copy the content from ADC JSON file to the **"ADCJson"** field in `GoogleVisionOCREngineSettings.json`.

---

**Note:** Use the link to create Google Cloud Application Default Credentials for Google Vision API: <https://cloud.google.com/docs/authentication/production>.

---

Follow the steps to use your own keys for Google Vision API OCR engine.

1. By default, IQ Bot's encrypted Google Vision API subscription keys are used. If you prefer to use your own Google Vision API subscription keys, go to `C:\Program Files (x86)\Automation Anywhere IQ Bot <version>\Configurations`, and folder **Configurations** > **GoogleVisionOCREngineSettings.json** file, and specify your keys.
2. IQ Bot provides you with an inbuilt license for Google Vision API, but you have the option to overwrite this license if you would like to use your own. Copy the content from the ADC JSON file correctly to ensure proper API calls as follows:

```
{
 "ADCJson": {
 "type": "service_account",
 "project_id": "dark-caldron",
 "private_key_id": "9e83979f61cff072d0e0e4f91bf837e6e29bbb",
 "private_key": "-----BEGIN PRIVATE KEY-----\nMIIEvgIBADANBg.....-----\nEND PRIVATE KEY-----\n",
 "client_email": "vision-test@dark-caldron.iam.gserviceaccount.com",
 "client_id": "105342202023265468399",
 "auth_uri": "https://accounts.google.com/o/oauth2/auth",
 "token_uri": "https://oauth2.googleapis.com/token",
 "auth_provider_x509_cert_url": "https://www.googleapis.com/oauth2/v1/certs",
```



```

 "client_x509_cert_url": "https://www.googleapis.com/robot/v1/
metadata/x509/vision-test%40dark-caldron-254807.iam.gserviceaccount.com"
 },
 "EngineType": 2,
 "EnableDebugging": false,
 "DebuggingFolder": "C:\\Users\\Public\\Documents\\Automation Anywhere
IQBot Platform\\Logs\\Engine\\Google",
 "HttpTimeoutInSec": 300,
 "EnableCustomParse": false,
 "DistanceThreshold": 15
}

```

### Related tasks

[IQ Bot 11.x: Use Google Vision API OCR engine](#) on page 126

Use the Google Vision API Распознавание текста (OCR) engine with IQ Bot to improve the accuracy of the optical character recognition (Распознавание текста (OCR)) results for training documents in Asian languages, particularly in Japanese and Korean. Google Vision API Распознавание текста (OCR) engine in IQ Bot supports all languages supported by the engine.

### Related information

<https://cloud.google.com/docs/authentication/production>

## IQ Bot 11.x: Использование модуля Распознавание текста (OCR) Tegaki API

Use the Tegaki API Распознавание текста (OCR) engine with IQ Bot to improve the accuracy of the optical character recognition (OCR) results for training documents in Japanese and Korean. You can configure it for use with IQ Bot Version 11.3.5 and later.

Просмотрите указанные ниже предварительные условия для настройки модуля Распознавание текста (OCR) Tegaki API.

- Server selection information for Tegaki API Распознавание текста (OCR) engine.

См. раздел [Tegaki on-premises server selection guide](#).

- IQ Bot предоставляет Tegaki API в качестве встроенного подключаемого модуля. Установите Tegaki API в качестве модуля Распознавание текста (OCR) в файле `settings.txt`, находящемся в следующей папке:

C:\Program Files (x86)\Automation 360 IQ Bot <version>\Configurations

- Set the communication for the API endpoint on default port = 443, using TCP protocol.

Распознавание текста (OCR) Tegaki API поддерживает документы на указанных ниже языках.

- Японский
- Корейский
- Японский-английский
- Корейский-английский

1. Запустите установщик IQ Bot.
2. Install the Tegaki API Распознавание текста (OCR) engine for the On-Premises version on your machine based on instructions received from your Automation Anywhere representative.

- Next, install your license key. IQ Bot does not provide you with the license to use the Tegaki API Распознавание текста (OCR)engine. You have to use your own license key.

Выполните указанные ниже шаги для установки собственного лицензионного ключа.

- Navigate to C:\Program Files (x86)\Automation Anywhere IQ Bot \Configurations.
- Настройте конечную точку Tegaki API, на которой установлена версия On-Premises. Set APIKey = <your key here> and configure the TegakiOCREngineSettings.json file.

```
{
 "APIKey": "<ensure your key meets UUID format (https://
www.uuidgenerator.net)>",
 "RestEndpointURL": "<your Tegaki Server URL here>",
 "RestEndpointPort": <80>,
 "EngineType": 3,
 "EnableFieldMerging": false,
 "EnableFieldRegions": false,
 "DebuggingFolder": "C:\\Users\\Public\\Documents\\Automation
Anywhere IQBot Platform\\Logs\\Engine\\Tegaki"
}
```

- Navigate to ..\Automation Anywhere IQ Bot\Configurations\Settings.txt, and modify the following value: OCREngine=TegakiAPI.

Файл TegakiOCREngineSettings.json становится доступным после установки IQ Bot.

- Создайте новый обучаемый экземпляр с использованием документа на одном из азиатских языков, который вы хотите обучить.
- Обучите документ и переведите обучаемый экземпляр в рабочий режим.
- Отправьте файлы на азиатском языке и запустите бот.
- Выполните загрузку и просмотрите точность результатов извлечения.

### Related information

[Tegaki on-premises Freeform API guide \(Login required\)](#)

[Tegaki on-premises troubleshooting guide \(Login required\)](#)

[Tegaki on-premises suport policy \(Login required\)](#)

[Tegaki on-premises sytem administrator guide \(Login required\)](#)

## Databases created during IQ Bot installation

Learn which databases and tables are created after installing IQ Bot.

Log into the database using the <dbusername> and <dbpasswd> to verify the names of the databases and tables using <hostname>, <dbusername>, and <dbpasswd>.

The system creates the following databases:

- AliasData:** This is the master database to store data about different aliases related to a field in the system for different document types. This database also has the information about the languages and different document types supported by IQ Bot.
- ClassifierData:** This database has the data related to the classification output for both layout and content classification.
- Configurations:** This database stores data about the configurations used when installing IQ Bot, for example, Control Room URL, output path, and so on.

- **FileManager:** This database stores data related to learning instances and the files uploaded related to learning instances and vision bots.
- **MLData:** This database stores the training data used by the Machine Learning (ML) system in IQ Bot.

## IQ Bot 11.x: Create a self-signed certificate with Subject Alternative Name

Create a self-signed certificate with Subject Alternative Name (SAN) when you want to use an SSL certificate for multiple domains.

1. Create a file with the name `domain.cnf` and add the following configuration as per your requirement:

```
[req]
default_bits = 2048
prompt = no
default_md = sha256
x509_extensions = v3_req
distinguished_name = dn
[dn]
C = ES
ST = MyState
L = MyCity
O = MyOrg
emailAddress = email@mydomain.com (Any email address)
CN = sss-laptop136.aaspl-brd.com (CR FQDN Url Name)
[v3_req]
subjectAltName = @alt_names
[alt_names]
DNS.1 = sss-laptop136.aaspl-brd.com (CR FQDN Url Name)
DNS.2 = sss-laptop151.aaspl-brd.com (IQBOT URL FQDN Name)
```

2. Download the Openssl utility.
3. Create the certificate either on Microsoft Windows or on Linux:

- Run the following command to create the certificate on Microsoft Windows:

```
openssl.exe req -new -x509 -newkey rsa:2048 -sha256 -nodes -keyout
"D:\ssc\ssc\key.key" -days 3560 -out "D:\ssc\ssc\cert.crt" -config
"D:\ssc\ssc\domain.cnf"
```

- Run the following command to create the certificate on Linux:

```
openssl req -new -x509 -newkey rsa:2048 -sha256 -nodes -keyout /tmp/
cert/key.key -days 3560
-out /tmp/cert/cert.crt -config /tmp/cert/domain.cnf
```

**4. Create the .pfx file from cert and key file:**

- Run the following command to create the .pfx file from the cert and key file on Microsoft Windows:

```
openssl.exe pkcs12 -export -out "D:\ssc\ssc\sss-aspl.pfx" -inkey "D:\ssc\ssc\key.key"
-in "D:\ssc\ssc\cert.crt"
```

- Run the following command to create the .pfx file from the cert and key file on Linux:

```
openssl.exe pkcs12 -export -out /tmp/cert/sss-aspl.pfx -inkey /tmp/cert/key.key -in
/tmp/cert/cert.crt"
```

**5. Import the .pfx file in Microsoft IIS.**

Use the same .pfx file with the installation of IQ Bot.

**6. Run the following command to import the certificate in the Java keystore:**

```
keytool.exe -import -alias dev -keystore "C:\Program Files
(x86)\Java\jre1.8.0_91\lib\security\cacerts" -file "D:\cert\xyz.com.crt"
```

Based on the type of operating system 32-bit / 64-bit, this C:\Program Files (x86)\Java\jre1.8.0\_91\lib\security\cacerts directory can differ.

If the certificate is not imported in the Java keystore, then Control Room shows the following error message: Java security certificate path validator signature check failed.

- 7. Go to %installation\_dir%\Configurations and run stopanduninstallallservices.bat as an administrator.**
- 8. Go to %installation\_dir%\Configurations and run installandstartervices.bat as an administrator.**
- 9. Import the cert.crt file to the Trusted Root using the Microsoft Management Console (MMC).**

## IQ Bot 11.x: Configure IQ Bot with HTTP and HTTPS

This section describes single and multiple domain scenarios when installing IQ Bot and Control Room with various server certificates.

There are two main scenarios:

- Installing and with wildcard server certificates (single domain).
- Installing and with individual server certificates (different domains).

You can encrypt the communication between IQ Bot and Control Room by configuring Two-way (Mutual) SSL. The following steps explain how to configure this and can be achieved by exchanging the SSL certificates between IQ Bot and the Control Room.

---

**Note:** IQ Bot does not support self-signed certificate.

---

### Prerequisite for single domain

If Control Room and IQ Bot are on a single domain, and we name the domain as *DomainOne*, the following certificate files are required:

- **PFX file:**

Ensure you have the `DomainOne.pfx` file. The file size is approximately 7/8 KB. One pfx file is required for a single domain.

- **CA Bundled certificate from the Enterprise Control Room (with all intermediate certificate information):**

Use any tool to create the bundle certificate, or you can use *openssl* to create CA/bundled certificate from `DomainOne.pfx` file.

Use the following example command to create CA/Bundled certificate using *openssl* for `DomainOne.pfx`:

```
openssl.exe pkcs12 -in "{DomainOne.pfx file location}" -cacerts -nokeys -chain -out "{Outputlocation}\DomainOne_ControlRoom_CA.crt
```

---

**Note:** You will need the Control Room bundle certificate for single or multiple domains.

---

- **Public certificates from IQ Bot and Control Room:**

Use any tool to create the public certificates or use *openssl* to create Public certificate from the `DomainOne.pfx` file.

Use the following example command to create the Public certificate using *openssl* for `DomainOne.pfx`:

```
openssl.exe pkcs12 -in "{DomainOne.pfx file location}" -clcerts -nokeys -out "{Outputlocation}\DomainOne_ControlRoom_PublicCertificate.crt
```

---

**Note:** For a single domain, there will be one public certificate for both, IQ Bot and Control Room.

---

### Prerequisite for multiple domains

If the Control Room and IQ Bot are on separate domains, and the domain names are *DomainOne* (Control Room) and *DomainTwo* (IQ Bot), the following certificate files are required:

- **Pfx file:**

Ensure you have the `DomainOne.pfx` and `DomainTwo.pfx` files. The file size is approximately 7/8 KB.

- **Public certificates from IQ Bot and Control Room:**

Use any tool to create the bundle certificate or use *openssl* to create Public certificate from `DomainTwo.pfx` file.

Use the following example command to create the Public certificate using *openssl* for `DomainTwo.pfx`:

```
openssl.exe pkcs12 -in "{DomainTwo.pfx file location}" -clcerts -nokeys -out "{Outputlocation}\DomainTwo_IQBot_PublicCertificate.crt
```

---

**Note:** : If you set up Control Room or IQ Bot with HTTPS, then configure IQ Bot with HTTPS before registering.

---

**Related tasks**

[Upgrading IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS](#) on page 152  
Upgrade IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS by unregistering IQ Bot first.

**Related reference**

[Configure IQ Bot 11.x with HTTP when Control Room is configured with HTTPS](#) on page 136  
Configure IQ Bot with HTTP and HTTPS to access IQ Bot using HTTPS and HTTP in the IQ Bot URL.  
[Configure IQ Bot 11.x with HTTPS using multiple domains](#) on page 135  
Configure IQ Bot with HTTPS when Control Room is configured with HTTP using multiple domains.  
[Configure IQ Bot 11.x with HTTPS using single domain](#) on page 134  
Configure IQ Bot with HTTPS when Control Room is configured with HTTPS using single domain.

## Configure IQ Bot 11.x with HTTPS using single domain

Configure IQ Bot with HTTPS when Control Room is configured with HTTPS using single domain.

1. Set up IQ Bot using the PFX file with HTTPS configuration during installation.
2. Put the bundled certificate (DomainOne\_ControlRoom\_CA.crt) for Control Room in the IQ Bot folder after IQ Bot installation at C:\Program Files (x86)\Automation Anywhere IQ Bot <version number>\Portal\keys. Rename the DomainOne\_ControlRoom\_CA.crt to ca.crt.

**Important:**

If the ca.crt file in the C:\Program Files (x86)\Automation Anywhere IQ Bot <version number>\Portal\keys folder is already present, then replace it with the new ca.crt file.

3. Add the Control Room public certificate (DomainOne\_ControlRoom\_PublicCertificate.crt) to the keystore for IQ Bot by running this command as a **system administrator**:

```
"{IQ Bot installation directory}\JRE\zulu8.40.0.20-sa-fx-jre8.0.222-win_x64\bin\keytool.exe"
-import -alias cr -keystore "{IQ Bot installation directory}\JRE\zulu8.40.0.20-sa-fx-jre8.0.222-win_x64\lib\security\cacerts" -file "{FolderLocation}\DomainOne_ControlRoom_PublicCertificate.crt"
```

The system will ask for a keystore password, which is `changeit`.

**Note:** Sometimes the system shows a message saying `cr` exists. In this case, change `cr` in the command to `cr1` or something else.

4. Next, restart the machine(s) and follow instructions to register IQ Bot.

CM. [IQ Bot 11.x: Registering IQ Bot with the Control Room](#) on page 118

**Related tasks**

[Upgrading IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS](#) on page 152  
Upgrade IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS by unregistering IQ Bot first.

**Related reference**

[Configure IQ Bot 11.x with HTTP when Control Room is configured with HTTPS](#) on page 136

Configure IQ Bot with HTTP and HTTPS to access IQ Bot using HTTPS and HTTP in the IQ Bot URL.

[Configure IQ Bot 11.x with HTTPS using multiple domains](#) on page 135

Configure IQ Bot with HTTPS when Control Room is configured with HTTP using multiple domains.

## Configure IQ Bot 11.x with HTTPS using multiple domains

Configure IQ Bot with HTTPS when Control Room is configured with HTTP using multiple domains.

1. Set up IQ Bot using the PFX file with the HTTPS configuration during installation.
2. Put the bundled certificate (DomainOne\_ControlRoom\_CA.crt) for the Control Room in the IQ Bot folder after IQ Bot installation at: C: \Program Files (x86)\Automation Anywhere IQ Bot \Portal\keys.

Rename the DomainOne\_ControlRoom\_CA.crt to ca.crt.

---

**Important:** If the ca.crt file in the C:\Program Files (x86)\Automation Anywhere IQ Bot <version number>\Portal\keys folder is already present, then replace it with the new ca.crt file.

---

3. Add the Control Room public certificate (DomainOne\_ControlRoom\_PublicCertificate.crt) to the keystore for IQ Bot by running this command as a system administrator:

```
"{IQ Bot installation directory}\JRE\zulu8.40.0.20-sa-fx-jre8.0.222-win_x64\bin\keytool.exe" -import -alias cr -keystore "{IQ Bot installation directory}\JRE\zulu8.40.0.20-sa-fx-jre8.0.222-in_x64\lib\security\cacerts" -file "{FolderLocation}\DomainOne_ControlRoom_PublicCertificate.crt"
```

The system will ask for a keystore password, which is `changeit`.

---

**Note:** Sometimes the system shows a message saying `cr` exists. In this case, change `cr` in the command to `cr1` or something else.

---

4. Add the IQ Bot Public certificate (DomainTwo\_IQBot\_PublicCertificate.crt) to the keystore for the Control Room by running the following command as a system administrator:

```
"{Control Room installation directory}\JRE\bin\java.exe" -jar certmgr.jar -appDir "{Control Room installation directory}" -importTrustCert "{FolderLocation}\DomainTwo_IQBot_PublicCertificate.crt"
```

---

**Note:** For Automation 360 IQ Bot (Build 550), change `JRE` to `jrk` in the command mentioned above.

---

5. Next, restart the machine(s) and follow instructions to register IQ Bot.

CM. [IQ Bot 11.x: Registering IQ Bot with the Control Room](#) on page 118

### Related tasks

[Upgrading IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS](#) on page 152

Upgrade IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS by unregistering IQ Bot first.

### Related reference

[Configure IQ Bot 11.x with HTTP when Control Room is configured with HTTPS](#) on page 136

Configure IQ Bot with HTTP and HTTPS to access IQ Bot using HTTPS and HTTP in the IQ Bot URL.

[Configure IQ Bot 11.x with HTTPS using single domain](#) on page 134

Configure IQ Bot with HTTPS when Control Room is configured with HTTPS using single domain.

## Configure IQ Bot 11.x with HTTPS when Control Room is configured with HTTP

Configure IQ Bot with HTTPS when Control Room is configured HTTP.

1. Set up IQ Bot using the PFX file with HTTPS configuration during installation.
2. Put the bundled certificate (DomainTwo\_IQBot\_CA.crt) for Control Room in the IQ Bot folder, after IQ Bot installation at C: \Program Files (x86)\Automation Anywhere IQ Bot\Portal\keys. Rename the DomainTwo\_IQBot\_CA.crt to ca.crt.

---

**Important:** If the ca.crt file in the C:\Program Files (x86)\Automation Anywhere IQ Bot <version number>\Portal\keys folder is already present, then replace it with the new ca.crt file.

---

3. Add the IQ Bot Public certificate (DomainTwo\_IQBot\_PublicCertificate.crt) to the keystore for the Control Room by running the following command as a system administrator:

```
"{Control Room installation directory}\JRE\bin\java.exe" -jar certmgr.jar
-appDir "{Control Room
installation directory}" -importTrustCert "{FolderLocation}/
DomainTwo_IQBot_PublicCertificate.crt"
```

4. Next, restart the machine(s) and follow instructions to register IQ Bot.

CM. [IQ Bot 11.x: Registering IQ Bot with the Control Room](#) on page 118

## Configure IQ Bot 11.x with HTTP when Control Room is configured with HTTPS

Configure IQ Bot with HTTP and HTTPS to access IQ Bot using HTTPS and HTTP in the IQ Bot URL.

1. Put the bundled certificate (DomainOne\_ControlRoom\_CA.crt) for Control Room in the IQ Bot folder after IQ Bot installation at C: \Program Files (x86)\Automation Anywhere IQ Bot\Portal\keys. Rename the ControlRoom\_CA.crt to ca.crt.

---

**Important:** If the ca.crt file in the C:\Program Files (x86)\Automation Anywhere IQ Bot <version number>\Portal\keys folder is already present, then replace it with the new ca.crt file.

---

2. Add the Control Room public certificate (DomainOne\_ControlRoom\_PublicCertificate.crt) to the keystore for IQ Bot by running this command as a system administrator:

```
"{IQ Bot installation directory}\JRE\zulu8.40.0.20-sa-fx-jre8.0.222-
win_x64\bin\keytool.exe" -import -
alias cr -keystore "{IQ Bot installation directory}\JRE\zulu8.40.0.20-sa-
fx-jre8.0.222-
```



```
in_x64\lib\security\cacerts" -file "{FolderLocation}/
DomainOne_ControlRoom_PublicCertificate.crt "
```

The system will ask for a keystore password, which is `changeit`.

**Note:** Sometimes the system shows a message saying `cr` exists. In this case, change `cr` in the command to `cr1` or something else.

3. Next, restart the machine and follow instructions to register IQ Bot.

CM. [IQ Bot 11.x: Registering IQ Bot with the Control Room](#) on page 118

### Related tasks

[Upgrading IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS](#) on page 152

Upgrade IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS by unregistering IQ Bot first.

### Related reference

[Configure IQ Bot 11.x with HTTPS using multiple domains](#) on page 135

Configure IQ Bot with HTTPS when Control Room is configured with HTTP using multiple domains.

[Configure IQ Bot 11.x with HTTPS using single domain](#) on page 134

Configure IQ Bot with HTTPS when Control Room is configured with HTTPS using single domain.

## Configuring RabbitMQ v3.8.18 in SSL mode for IQ Bot

Configure RabbitMQ v3.8.18 to enable SSL/TLS communication between applications and RabbitMQ v3.8.18. This configuration enables you to disable default or nonsecure listeners.

Ensure you install IQ Bot using the PFX file with HTTPS configuration.

1. Navigate to the following folder: `C:\Program Files (x86)\Automation 360 IQ Bot\Configuration`
2. Edit the following settings in the `Settings.properties` file:
  - a) Change the value of `secureRabbitMQCommunication` from `False` to `True`.
  - b) Enter the certificate paths for `RabbitMQClientP12CertPath`, `RabbitMQClientJKSCertPath`, and `RabbitMQKeyPassphrase`.
3. Open RabbitMQ v3.8.18 and enter the `%appdata%\RabbitMQ` directory.
4. Edit the `rabbitmq.conf` file and review the following parameters:
  - `listeners.tcp = none`
  - `listeners.ssl.default = 5671`
  - `ssl_options.cacertfile = <certificate path>/ca_certificate.pem`
  - `ssl_options.certfile = <certificate path>/server_certificate.pem`
  - `ssl_options.keyfile = <certificate path>/server_key.pem`
  - `ssl_options.verify = verify_peer`
  - `ssl_options.fail_if_no_peer_cert = true`
5. Restart the RabbitMQ v3.8.18 service.

6. In the C: \Program Files (x86)\Automation 360 IQ Bot\Configuration filepath, run the following commands to reinstall IQ Bot services:

- a) stopanduninstallallservices.bat
- b) installandstartallservices.bat

RabbitMQ v3.8.18 is configured in SSL mode.

## Контрольный список после установки

Verify if IQ Bot is installed, and ensure the IQ Bot services are running using the healthcheck APIs.

Automation Anywhere IQ Bot

Убедитесь, что элемент **Automation Anywhere IQ Bot** существует в разделе **Панель управления** > **Программы** > **Программы и функции** на компьютере, на котором установлен IQ Bot.

### Confirming Automation Anywhere cognitive services are running

Убедитесь, что указанные ниже службы установлены на компьютере, на котором установлен IQ Bot, а для статуса служб в окне служб Microsoft Windows задано значение **Выполняется**.

Чтобы просмотреть список служб, которые запущены в данный момент, откройте *services.msc*, используя **Пуск** > **Запустить**.

- Automation Anywhere Cognitive Alias
- Automation Anywhere Cognitive Application
- Automation Anywhere Cognitive Classifier Service
- Automation Anywhere Cognitive File Manager
- Automation Anywhere Cognitive Console
- Automation Anywhere Cognitive Gateway
- Automation Anywhere Cognitive MLScheduler Service

---

**Note:** As of the latest build in IQ Bot, this service is removed, by default.

---

- Automation Anywhere Cognitive MLWeb Service
- Automation Anywhere Cognitive Projects
- Automation Anywhere Cognitive Report
- Automation Anywhere Cognitive Validator
- Automation Anywhere Cognitive Visionbot Manager
- Automation Anywhere Cognitive VisionbotEngine Service

### Doing a healthcheck

If needed, use the Healthcheck API to verify about the required service. Сведения о запросах/ответах API проверки работоспособности описаны в приведенной ниже таблице.

#### Запросы

The following table lists the API requests sent for doing a healthcheck of different IQ Bot services:

| Имя службы          | URL-адрес                             |
|---------------------|---------------------------------------|
| Alias               | http://<hostname/IP>:9997/healthcheck |
| Application Service | http://<hostname/IP>:9002/healthcheck |

| Имя службы                  | URL-адрес                             |
|-----------------------------|---------------------------------------|
| Project Service             | http://<hostname/IP>:9999/healthcheck |
| FileManager Service         | http://<hostname/IP>:9996/healthcheck |
| Visionbot                   | http://<hostname/IP>:9998/healthcheck |
| Validator Service           | http://<hostname/IP>:9995/healthcheck |
| Report Service              | http://<hostname/IP>:9992/healthcheck |
| Gateway Service             | http://<hostname/IP>:8100/healthcheck |
| Frontend or Console Service | http://<hostname/IP>:3000/healthcheck |

В списке таблиц замените *<hostname/IP>* именем/IP-адресом узла IQ Bot, чтобы создать запрос API проверки работоспособности с помощью веб-браузера на компьютере, на котором установлен IQ Bot.

Например, если ваш IQ Bot доступен по адресу **http://localhost:3000**, то доступ к FileManager Healthcheck можно получить по следующему URL-адресу: **http://localhost:9996/healthcheck**.

### Ответы

Типичный успешный ответ приведен в представленном ниже примере кода.

```
Subsystem
Application: <Service Name>
Status: OK
Application uptime: 0d 3h 45m 6s
Version: 1.2.0-RELEASE
Branch: RC-5.2-1
GIT #: d88e59c0435c3a836bb47cd586081205564904c5
Build Time: 2018-02-17T09:26:52.523Z
Dependencies:
Database Connectivity: OK
MessageQueue Connectivity: OK
Project: OK
VisionBot: OK
```

Значением **\*\*<Service Name>** могут быть **alias**, **application**, **filemanager**, **project**, **reports**, **gateway**, **validator** или **visionbot**.

**Dependencies:** отображается статус всех зависимых служб, например базы данных и очереди сообщений рассматриваемой службы.

### Checking created databases and tables

Learn which databases and tables are created after installation of IQ Bot.

Выполните вход в базу данных с помощью <dbusername> и <dbpasswd>, чтобы проверить имена баз данных и таблиц, используя <hostname>, <dbusername> и <dbpasswd>.

The system creates the following databases:

- **AliasData:** This is the master database that stores data about different aliases related to a field in the system for different document types. This database also has the information about the languages and different document types supported by the IQ Bot system.
- **ClassifierData:** This database has the data related to classification output for both layout and content classification.
- **Configurations:** This database stores data about the configurations used when installing IQ Bot, for example, Control Room URL, output path, and so on.
- **FileManager:** This database stores data related to learning instances, files uploaded related to learning instances, and vision bots.
- **MLData:** This database stores the training data used by a Machine Learning (ML) system in IQ Bot.

### Related tasks

[IQ Bot 11.x: Health Check API response if RabbitMQ v3.8.18 fails to start](#) on page 147

Check the status of each IQ Bot service using the Health Check API if RabbitMQ v3.8.18 fails to start.

[Databases created during IQ Bot installation](#) on page 130

Learn which databases and tables are created after installing IQ Bot.

## IQ Bot post installation validation

After installing IQ Bot and completing the post-installation tasks, validate the installation by creating IQ Bot specific roles, accessing the Валидатор without a license, accessing the product without a device license, and understanding permissions for role-based access control to the learning instances.

## User roles and permissions

Learn about the roles and associated permissions required for each IQ Bot user.

Your permission to access specific areas in IQ Bot are defined depending on your user role. For example, a Валидатор does not have permissions to access the **Audit Trial Log** page because the tasks on this page are only for Administrators.

All the roles and permissions for the IQ Bot are defined in the Control Room. For more information on creating these roles, see *Control Room User Guide*.

In the Control Room, Role-Based Access Control (RBAC) is implemented for only the following options:

- Navigate to **Administration > Roles**, and select **View IQ Bot > View learning instances > View learning instances from the same role**.
- Navigate to **Administration > Roles**, and select **View IQ Bot > View learning instances > View ALL learning instances**.

### Note:

11.3.4

When you enable caching, the cache in the Enterprise Client is active for 15 mins. Therefore, any change in user roles in the Control Room is reflected after 15 minutes.

The permissions and areas of IQ Bot that can be accessed by users based on their roles are described in the following table:

**Table 1: Roles and permissions for IQ Bot**

The following table describes the different IQ Bot system defined roles and the associated permissions:

| System role              | Default IQ Botpermissions                                               | Access to tabs                                                                                                                                                                                                             |
|--------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AAE_Администратор IQ Bot | All IQ Bot permissions                                                  | <ul style="list-style-type: none"> <li>• Информационная панель</li> <li>• Экземпляры для обучения</li> <li>• Боты</li> <li>• Домены</li> <li>• Administration Migration utility can be accessed using this tab.</li> </ul> |
| AAE_Службы IQ Bot        | All permissions available as per View my learning instances             | <ul style="list-style-type: none"> <li>• Информационная панель</li> <li>• Обучаемые экземпляры</li> <li>• Боты</li> </ul>                                                                                                  |
| AAE_Валидатор IQ Bot     | Launch Валидатор permission available as per View my learning instances | Обучаемые экземпляры                                                                                                                                                                                                       |

If both Services and Admin roles are allocated to a user, IQ Bot shows the following five tabs:

- Информационная панель
- Экземпляры для обучения
- Боты
- Домены
- Администрирование

To learn how to use custom roles, see [Define access to learning instances using custom roles](#) on page 141.

For IQ Bot create Bot Runner and Bot Creator users. See Bot Runner and Bot Creators - overview topic for more information.

## Define access to learning instances using custom roles

Role-based access control (RBAC) enables or restricts access to new learning instances, related features, and functionality in IQ Bot based on permissions defined for various roles that are configured through the Control Room.

Users with the **View and manage roles** privilege can create custom roles and assign privileges to roles through the Control Room.

### Просмотреть обучаемые экземпляры

Users can decide to turn on permissions by selecting any of the following view permissions:

- **View my learning instances**

Allows users to view only the learning instances created by them.

- **View learning instances from the same role**

Allows users to only view learning instances created using a particular role.

- **View all learning instances**

A user with this privilege can view all learning instances created by all users across all roles.

Users can perform actions on learning instances they can access based on the following:

- View permission selected for their roles.
- Learning instances that are also assigned the same role as the user.
- The user is assigned a role with relevant permissions selected.

---

**Прим.:**

- Users can use the **Delete learning instance** option only if **Edit learning instance** is also selected for that role.
- If users migrating from IQ Bot versions earlier than Version 11.3.5 are unable to view learning instances as before, an admin user with the **Assign Roles** privilege has to assign permissions to their custom roles and roles to learning instances as required.

---

**Просмотреть домены**

Users with only this permission can view the **Domains** tab in IQ Bot but do not have the permission to import or export domains. Select **Import Domains** and **Export Domains** permissions to enable importing and exporting domains.

**View administration**

Users with only this permission can view the **Administration** tab in IQ Bot but do not have the permission to import or export learning instances. Select **View and manage migration** to enable importing and exporting learning instances.

The **View and manage migration** privilege allows users to only migrate learning instances they have access to based on the view permission. Therefore, permissions to view these learning instances are necessary.

---

**Прим.:** **View domains** and **View administration** permissions work as expected for the standard *AAE\_IQBOTAdmin* role.

---

## Пример

The following example explains some of the combinations of permissions set in custom roles. These roles have specific permissions assigned to them that enable users to access learning instances and perform actions:

### Функции

- RoleA = View LI from the same role + Edit + Send learning instance to production
- RoleB = View LI from the same role + Train

### Обучаемый экземпляр

The learning instance is in staging.

#### Scenario 1

- Learning instance has RoleA assigned
- User2 is assigned RoleA + RoleB

#### Result:

- Only User1 will be able to access and perform actions on the learning instance.
- User1 can only edit and send the learning instance to production.

#### Scenario 2

- Learning instance has RoleA assigned
- User1 is assigned RoleA
- User2 is assigned RoleA + RoleB

#### Result:

- Both User1 and User2 will be able to access the learning instance.
- Both User1 and User2 can edit and send learning instance to production.

#### Scenario 3

- Learning instance has RoleA + RoleB assigned
- User1 is assigned RoleA
- User2 is assigned RoleB

#### Result:

- Both User1 and User2 will be able to access the learning instance.
- User1 will be able to edit and send learning instance to production, while User2 will be able to only train the learning instance.

#### Scenario 4

- Learning instance has RoleA + RoleB assigned
- User1 is assigned RoleA + RoleB
- User2 is assigned RoleB

**Result:**

- Both User1 and User2 can access the learning instance.
- User1 can edit, train, and send learning instance to production, while User2 will only be able to train the learning instance.

**Прим.:**

- When the permissions of the current user role are changed or the user is assigned to a different role, the access control is updated to reflect the latest permissions configured for the assigned role.
- If a role is deleted, the learning instances created by a user of that role are still accessible to other users with the following roles:
  - *AAE\_IQ Bot Admin*
  - *AAE\_IQ Bot Services*
  - A custom role with permission **View all learning instances**
  - A custom role assigned to those learning instances with permission **View learning instances from the same role**
- Using the *AAE\_IQ Bot Admin* role makes any other additional custom role redundant. An admin user has the default view of an administrator and has access to all learning instances.
- Exporting or importing learning instances from one IQ Bot environment to another does not migrate roles. Users can use the **Assign Roles** feature to reassign roles to learning instances as required in the destination environment.

**Views in IQ Bot**

A user has the option of three views in IQ Bot based on the roles and permissions assigned to their roles:

**Службы**

Accessible tabs: Dashboard, learning instances, and боты

**Прим.:** This is the standard IQ Bot view.

**Валидатор**

Accessible tabs: Learning instances (validation only)

**Прим.:** This view is visible to a user in the following scenarios:

- The user is assigned only the *AAE\_IQ Bot Validator* role.
- The user is assigned custom roles with only **Launch Validator** action along with a view permission. If any of the assigned roles has any other actions selected, the default **Services** view will be visible.

**Администратор**

Accessible tabs: Dashboard, learning instances, domains, боты, and administration



## IQ Bot 11.x: Create a user with an IQ Bot specific role

Create users in Control Room to access IQ Bot as an administrator, Bot Creator, and Валидатор.

Create administrator, services, and Валидатор IQ Bot users with Microsoft Windows credentials using the following roles in the Control Room:

- AAE\_IQBotAdmin
- AAE\_IQBotServices
- AAE\_IQBotValidator

---

**Tip:** The Active Directory users are authenticated with their Active Directory credentials, and the non-Active Directory users are authenticated with the credentials stored in the Control Room database.

---

Users in Control Room are created depending on the type of user configured during installation. IQ Bot supports a maximum of five concurrent users.

1. Log in to Control Room with superadmin permissions.
2. Go to **Administrator > Users**.
3. Click the **Create User** link.  
The **Create User** page appears.
4. Enter the required information on the **Create User** page.

---

**Note:**

- The **First name**, **Last name**, and **Description** fields are optional. For a first name and last name, use numbers, spaces ( ), period (.), hyphen (-), and underscore (\_).
  - For a Non- Active Directory user, provide information in each field.
  - If you are not configuring the Outgoing Mail Server settings, enter the password .
- 

5. Select a license to be allocated to the user from the **Allocate a device license to user area**.  
If no license slots are available for a role, an alert message appears.
6. To create a user with the administrator role, select **AAE\_IQBotAdmin**. To create a user with the services role, select **AAE\_IQBotServices**, To create a Валидатор role, select the **AAE\_IQBotValidator** role. .
7. Click **Save** to create the user.

To switch a user type from Development to Run-time or vice versa, depending on the automation requirements of your organization, update the license type from the License Management page in Control Room.

After a Валидатор or a services user is created, an email is sent to the user. The user is asked to do the following:

- Verify the email ID and set the Control Room access password, if the Control Room is configured for the Non-Active Directory users.
- Verify the email ID, if the Control Room is configured for the Active Directory users.

### Related tasks

[User roles and permissions](#) on page 140

Learn about the roles and associated permissions required for each IQ Bot user.

## Access IQ Bot without a Bot Creator or Bot Runner device license

Log in and operate IQ Bot without a device license (Bot Creator or Bot Runner) in Automation Anywhere Control Room. However, using the IQ Bot command in the Automation Anywhere Enterprise Client requires the appropriate device license identified in the table.

The following table summarizes the roles and associated UI views allowed for each role, with/without an assigned device license. To view or assign device license, go to the Automation Anywhere Control Room and navigate to **Administration > Users > Allocate a device license to this user?**.

| Пользователь                                                                                                                                                | Лицензия устройства | UI view in IQ Bot Портал | Комментарии                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Multi/single users:<br><ul style="list-style-type: none"> <li>AAE_Администратор IQ Bot</li> <li>AAE_IQ Bot Service</li> <li>AAE_Валидатор IQ Bot</li> </ul> | Нет                 | Role-specific view       | Can access IQ Bot                                                                                                                                                          |
| Users with both roles:<br><ul style="list-style-type: none"> <li>AAE_Администратор IQ Bot</li> <li>AAE_Основы</li> </ul>                                    | Нет                 | Admin view               | Can access IQ Bot                                                                                                                                                          |
| AAE_Основы                                                                                                                                                  | Нет                 | Нет                      | Cannot access IQ Bot. An error message appears with a link to the Control Room.                                                                                            |
| AAE_IQ Bot Service                                                                                                                                          | Нет                 | Службы                   | Can access IQ Bot but unable to access the Enterprise Client. Therefore, Production documents in the Enterprise Client using the IQ Bot lite command are unable to upload. |
| AAE_IQ Bot Service                                                                                                                                          | Bot Creator         | Службы                   | Can access IQ Bot Портал and Enterprise Client. In the Enterprise Client, to upload production documents, navigate to the <b>New &gt; Workbench &gt; Command</b> tab.      |

| Пользователь       | Лицензия устройства | UI view in IQ Bot Портал | Комментарии                                                                                                                            |
|--------------------|---------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| AAE_IQ Bot Service | Bot Runner          | Службы                   | Can access the IQ Bot Портал and Enterprise Client. In the Enterprise Client, select a task and run it. User cannot create/edit a bot. |

For more information go to [Automation 360 platform](#), and see **Licenses - an overview**

## Access IQ Bot Валидатор without a license

Access the Валидатор functionality in IQ Bot without requiring a Bot Creator or Bot Runner license. From the Automation Anywhere Control Room, create any number of users and assign them to the system defined Валидатор role (AAE\_IQ Bot Validator).

Log in to the IQ Bot Портал and access all the Валидатор-specific tabs.

### Понятия, связанные с данным

[Define access to learning instances using custom roles](#)

Role-based access control (RBAC) enables or restricts access to new learning instances, related features, and functionality in IQ Bot based on permissions defined for various roles that are configured through the Control Room.

## Learn whether a profile is local or roaming

Follow these steps to learn whether a profile is local or roaming.

1. On your computer, right-click **This PC**, and click **Properties**, and then click the **Advanced system settings** link.
2. In the **User Profiles** group, click **Settings**.  
In the **User Profile** window, a list of all the users appears. **Local** appears in the **Type** column for the user you have logged in to, to install the product. This user must be an administrator.  
If you must switch the user profile from **Roaming profile** to **Local profile**, click **Change Type....** In the **Change Profile Type** window, select **Local profile** and click **OK**.

---

**Note:** Do not install IQ Bot with a roaming profile. Install IQ Bot as a local profile with administrator permissions.

---

## IQ Bot 11.x: Health Check API response if RabbitMQ v3.8.18 fails to start

Check the status of each IQ Bot service using the Health Check API if RabbitMQ v3.8.18 fails to start.

The Health Check response for RabbitMQ startup failure is different in case of FileManager, Project, Validator, VisionBot as described in the following table.

| Service name                                                     | Health Check response                                                                                                                             | Reason for failure                                                                                                                                                                                                                                            |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FileManager<br>http://<br><hostname>:<9996>/<br>healthcheck      | <b>Failure 1:</b><br>localhost refused to<br>connect<br><br><b>Failure 2:</b><br>localhost refused to<br>connect                                  | <b>Reason for failure 1:</b><br>The RabbitMQ v3.8.18 node/<br>service went down when<br>the Filemanager service was<br>running.<br><br><b>Reason for failure 2:</b><br>The RabbitMQ node/service<br>was already down when the<br>Filemanager service started. |
| Project<br>http://<br><hostname>:<9999>/<br>healthcheck          | <b>Failure:</b><br>localhost refused to<br>connect                                                                                                | <b>Reason for failure:</b><br>The RabbitMQ v3.8.18 node/<br>service is down.                                                                                                                                                                                  |
| Validator<br>http://<br><hostname>:<9995>/<br>healthcheck        | <b>Failure:</b><br>localhost refused to<br>connect                                                                                                | <b>Reason for failure:</b><br>The RabbitMQ v3.8.18 node/<br>service is down.                                                                                                                                                                                  |
| VisionBotManager<br>http://<br><hostname>:<9998>/<br>healthcheck | <b>Failure:</b><br>localhost refused to<br>connect                                                                                                | <b>Reason for failure:</b><br>The RabbitMQ v3.8.18 node/<br>service is down.                                                                                                                                                                                  |
| Gateway-2 service<br>http://<hostname>:8100/<br>healthcheck      | <b>Application: gateway-2</b><br><b>Failure 1:</b><br>localhost refused to<br>connect<br><br><b>Failure 2:</b><br>localhost refused to<br>connect | <b>Reason for failure 1:</b><br>Port is blocked and the<br>Gateway-2 service is running.<br><br><b>Reason for failure 2:</b><br>The Gateway-2 service is not<br>running.                                                                                      |

## IQ Bot 11.x: Set up log file automatic rollover

This topic addresses setting up automatic rollover of log files based on the file size.

Once the log files are created, the system continues logging messages that increases the log file size to a point where they are too large to open. This would prevent the user from opening the log files for reviewing the information and error messages.

---

**Note:** This would happen sooner if the logging level is increased to **DEBUG** or **TRACE** modes.

---

For all Java services, user can identify the log files under <IQ Bot installation directory>/Services . Open any logging configuration file, and add the following change under <SizeBasedTriggeringPolicy size="100MB" /> in the first occurrence of **Policies**:

```
<Policies>
<TimeBasedTriggeringPolicy interval="720" />
<SizeBasedTriggeringPolicy size="50MB" />
</Policies>
```

In the following example setting, after the log file reaches 50 MB, the system creates a new file automatically and starts logging in it. Though the user ends up with more files, but each file would be 50 MB only. This is standard practice to manage log files.

This example shows entries a user can add to the setting for IQ Bot Version 11.x. to automatically roll over the logs after the files reach a certain size.

```
<RollingFile name="Alias" fileName="${env:PUBLIC}/Documents/Automation
Anywhere IQBot Platform/Logs/Alias.log"
 filePattern="${env:PUBLIC}/Documents/Automation
Anywhere IQBot Platform/Logs/Archive/${date:yyyy-MMM}/Alias-%d{yyyy-MMM-
dd}-%i.log.zip"
 immediateFlush="true"
 append="true">
 <PatternLayout pattern="CPL1 Alias %X{cid} %d{ISO8601}{UTC}Z
%-5level %C %M %msg %n"/>
 <Policies>
 <TimeBasedTriggeringPolicy interval="720" />
 <SizeBasedTriggeringPolicy size="50MB" />
 </Policies>
 <DefaultRolloverStrategy max="10"/>
</RollingFile>
```

This example shows entries a user can add to the setting for Automation 360 IQ Bot On-Premises to automatically roll over the logs after the files reach a certain size.

```
<RollingFile name="Alias" fileName="${env:PUBLIC}/Documents/Automation
Anywhere IQBot Platform/Logs/Alias.log"
 filePattern="${env:PUBLIC}/Documents/Automation
Anywhere IQBot Platform/Logs/Archive/${date:yyyy-MMM}/Alias-%d{yyyy-MMM-
dd}-%i.log.zip"
 immediateFlush="true"
 append="true">
 <PatternLayout pattern="CPL1 Alias %X{cid} %d{ISO8601}{UTC}Z
%-5level %C %M %msg %n"/>
 <Policies>
 <TimeBasedTriggeringPolicy />
 <SizeBasedTriggeringPolicy size="50MB" />
 </Policies>
 <DefaultRolloverStrategy max="10"/>
</RollingFile>
```

## Related concepts

[Enabling tracing in logs](#) on page 94

Log files are generated by the system that store messages from various application and system components. Different logs are generated for IQ Bot components for which you can enable tracing.

## Reinstalling HTTPS SSL certificate on expiry

Reinstall HTTPS SSL certificate when your HTTPS SSL certificate expires.

The HTTPS SSL certificate is required for secure and encrypted communication between your browser and IQ Bot, to protect highly confidential online transactions, for example, online financial and shopping transactions. The padlock icon on your browser indicates that you have an active secure connection.

To enable a secure connection, get the HTTPS SSL certificate as follows:

1. Go to %installation\_dir%\Configurations and as an administrator, run stopanduninstallallservices.bat.

---

**Note:** In a cluster installation, stop the services on each of the nodes for IQ Bot and Control Room cluster.

---

2. Go to %installation\_dir%\Portal\keys and make a backup of the cert.crt, key.key, and ca.crt files.
3. Convert the .pfx file of the IQ Bot certificate to .crt and .key formats by running the following commands:

- Extract an encrypted key from .pfx file.

```
openssl.exe pkcs12 -in "path_to_cert\example.pfx" -nocerts -out "path_to_cert\example encp.key"
```

---

**Note:** If the .pfx file is password protected, you need to enter the pass phrase when prompted.

---

- Convert an encrypted key to a readable format.

```
openssl.exe rsa -in "path_to_cert\example encp.key" -out "path_to_cert\key.key"
This command converts encrypted key to a readable format.
```

---

- Convert the .pfx file to .crt format.

```
openssl.exe pkcs12 -in "path_to_cert\example.pfx" -clcerts -nokeys -out "path_to_cert\cert.crt"
```

---

- Fetch the ca.crt file from the Control Room certificate (.pfx) file only if the Control Room certificate also expires.

```
openssl pkcs12 -in <filename.pfx> -cacerts -nokeys -chain -out <ca.crt>
```

---

4. Copy or replace the cert.crt, and key.key (generated in the previous step), and the ca.crt (generated using the Control Room certificate .pfx file ) to the %installation\_dir%\Portal\keys folder.
5. Import the IQ Bot public certificate into the Java Key store for IQ Bot by running this command as a system administrator:

```
"JRE Location\bin\keytool.exe" -import -alias iqbot-keystore "cacerts
location of iq bot" -file "iq bot public certificate file"
```

**Пример.** C:\Program Files (x86)\Automation Anywhere IQ Bot <version number>\JRE\1.8.0\_161\bin\keytool.exe" -import -alias cr -keystore "C:\Program Files (x86)\Automation Anywhere IQ Bot <version number>\JRE\1.8.0\_161\lib\security\cacerts" -file "C:\Certificate\cert.crt"

6. To import the IQ Bot public certificate into Control Room, go to the Control Room installation path, such as: C:\Program Files\Automation Anywhere\Enterprise, and run the following command as a system administrator: jre\bin\java -jar certmgr.jar -appDir "C:\Program Files\Automation Anywhere\Enterprise" -importTrustCert "C:\Certificate\cert.crt".

**For Automation 360 IQ Bot,** use the following path: jrk\bin\java -jar certmgr.jar -appDir "C:\Program Files\Automation Anywhere\Enterprise" -importTrustCert "C:\Certificate\cert.crt".

7. After importing the certificates, restart the Control Room and IQ Bot servers.  
This refreshes the system caches.
8. On the IQ Bot server, go to %installation\_dir%\Configurations and as an administrator, run installandstartallservices.bat.

### If the Control Room certificate expires

1. Follow the steps: [Import Control Room HTTPS and CA certificates](#)
2. Convert .pfx to .crt format. openssl.exe pkcs12 -in "path\_to\_cert\example.pfx" -clcerts -nokeys -out "path\_to\_cert\cert.crt".
3. Fetch the ca.crt file from the Control Room certificate (.pfx) file. openssl pkcs12 -in <filename.pfx> -cacerts -nokeys -chain -out <ca.crt>
4. Copy or replace the ca.crt to the keys folder in IQ Bot.
5. Import the Control Room public certificate into Java Key store for IQ Bot by running this command as a system administrator: "JRE Location\bin\keytool.exe" -import -alias cr -keystore "cacerts location of iq bot" -file "control room public certificate file".

**Пример.** C:\Program Files (x86)\Automation Anywhere IQ Bot <version number>\JRE\1.8.0\_161\bin\keytool.exe" -import -alias cr -keystore "C:\Program Files (x86)\Automation Anywhere IQ Bot <version number>\JRE\1.8.0\_161\lib\security\cacerts" -file "C:\Certificate\cert.crt"

---

**Note:** To change the Control Room certificate, follow steps here: [Import Control Room HTTPS and CA certificates](#)

---

### Related information

[Compare SSL/TLS Certificates for Websites](#)  
[SSL, TLS and HTTPS](#)

## IQ Bot upgrade and uninstallation

Follow the upgrade and uninstallation steps for IQ Bot to ensure a smooth and seamless process.

In addition, refer to [Upgrading IQ Bot](#) on page 233 to learn how to upgrade installation and migrate learning instances to a different version of IQ Bot.

**Related tasks**

[Uninstalling IQ Bot 11.x](#) on page 152

Uninstall IQ Bot and its dependencies.

[Upgrading IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS](#) on page 152

Upgrade IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS by unregistering IQ Bot first.

[Upgrading and downgrading IQ Bot 11.x](#) on page 153

Uninstall and install a later version to upgrade IQ Bot. Uninstall and install an earlier version of IQ Bot to downgrade.

## Uninstalling IQ Bot 11.x

Uninstall IQ Bot and its dependencies.

To manually uninstall, go to **Windows > Control Panel > Programs > Uninstall a program**, and choose IQ Bot.

For all other versions, use the following steps.

1. Double-click the `Automation_Anywhere_IQ_BOT_<version-number>.exe` installer file. The Automation Anywhere IQ Bot - Wizard appears.
2. Enter the administrative permissions in the **User Access Control** dialog box if a dialog box appears.

---

**Note:** Ensure you close all the existing browser instances running IQ Bot before you begin uninstallation.

---

3. Щелкните **Вперед**. The **Ready to Remove** page appears.
4. Click **Remove**.

The uninstallation process begins.

---

**Note:** During the uninstallation process, if setup information appears, click **OK** to continue. Clicking **Cancel** to close the process.

---

5. When complete, the **Finished** page appears. Click **Finish** to complete the process.

---

**Note:** Uninstalling IQ Bot does not delete the IQ Bot database or any of the following dependencies. Manually remove them using recommended third party procedures.

- Erlang/OTP
  - RabbitMQ v3.8.18
  - NodeJS
  - Сервер SQL Native Client
  - Python
- 

## Upgrading IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS

Upgrade IQ Bot and Automation Anywhere Control Room from HTTP to HTTPS by unregistering IQ Bot first.



Uninstall the HTTP versions of IQ Bot, and Automation Anywhere Control Room from your machine before upgrading both the applications to HTTPS.

1. In HTTPS mode, install the Automation Anywhere Control Room.
2. Update the Web Control Room HTTPS URL by logging in to **Control Room > Administration > General Setting**.
3. Next, in HTTPS mode, install IQ Bot.
4. Unregister IQ Bot from the Control Room.
5. Copy the CA certificate of the Automation Anywhere Control Room to the `IQBot_INSTALL_DIR/Portal/Keys` location.
6. Import the IQ Bot public certificate to the Automation Anywhere Control Room `certmgr`.
7. Import the Automation Anywhere Control Room public certificate to the IQ Bot keystore.
8. Restart the Console service.
9. Register the IQ Bot with the HTTPS URL in the Automation Anywhere Control Room.

## Upgrading and downgrading IQ Bot 11.x

Uninstall and install a later version to upgrade IQ Bot. Uninstall and install an earlier version of IQ Bot to downgrade.

To upgrade or downgrade IQ Bot, perform the following procedure.

### • Upgrading IQ Bot

- a) Create a new folder in any location and take a backup of the *Settings.txt* and both or either of the .json files *ImageProcessingConfig.json* or *AbbyyImagePreProcessingSettings.json* for your reference from the *<Installation Path/Configuration>* folder to this new folder.
- b) Take a backup of the existing IQ Bot databases before starting the upgrade.
- c) Follow the uninstall process.
- d) Copy a later version of IQ Bot installable file from *<path of the installable file>* to your local system.
- e) Follow the installation process.

---

#### Note:

- Refer to the settings from the *Settings.txt* and both or either of the .json files *ImageProcessingConfig.json* or *AbbyyImagePreProcessingSettings.json* to enter the configuration values when you are installing an earlier version of the product.
  - Back up your database to restore it in case any issue occurs in future or in case you downgrade to an earlier version of IQ Bot.
- 

[Upgrading IQ Bot](#) on page 233

[Upgrading Automation 360 IQ Bot](#)

### • Downgrading IQ Bot

- a) Create a new folder in any location and take a backup of the *Settings.txt* and both or either of the .json files *ImageProcessingConfig.json* or *AbbyyImagePreProcessingSettings.json* for your reference from the *<Installation Path/Configuration>* folder to this new folder.
- b) Uninstall the later version of IQ Bot.

- c) Take a backup of the current databases.
- d) Remove the backup of the current databases.
- e) Restore the database backup of the earlier IQ Bot version.
- f) Install the earlier version of IQ Bot.

---

**Note:**

- Refer to the settings from the *Settings.txt* and both or either of the .json files `ImageProcessingConfig.json` or `AbbyyImagePreProcessingSettings.json` to enter the configuration values when you are installing an earlier version of the product.
  - Back up your database to restore it in case any issue occurs in future or in case you upgrade to a different version of IQ Bot.
- 

**Related tasks**

[Uninstalling IQ Bot 11.x](#) on page 152

Uninstall IQ Bot and its dependencies.

[IQ Bot 11.x: Installing IQ Bot in Express mode](#) on page 106

Install IQ Bot in Express mode with the default settings.

[Databases created during IQ Bot installation](#) on page 130

Learn which databases and tables are created after installing IQ Bot.

**Related reference**

[IQ Bot 11.x: IQ Bot installation prerequisites](#) on page 99

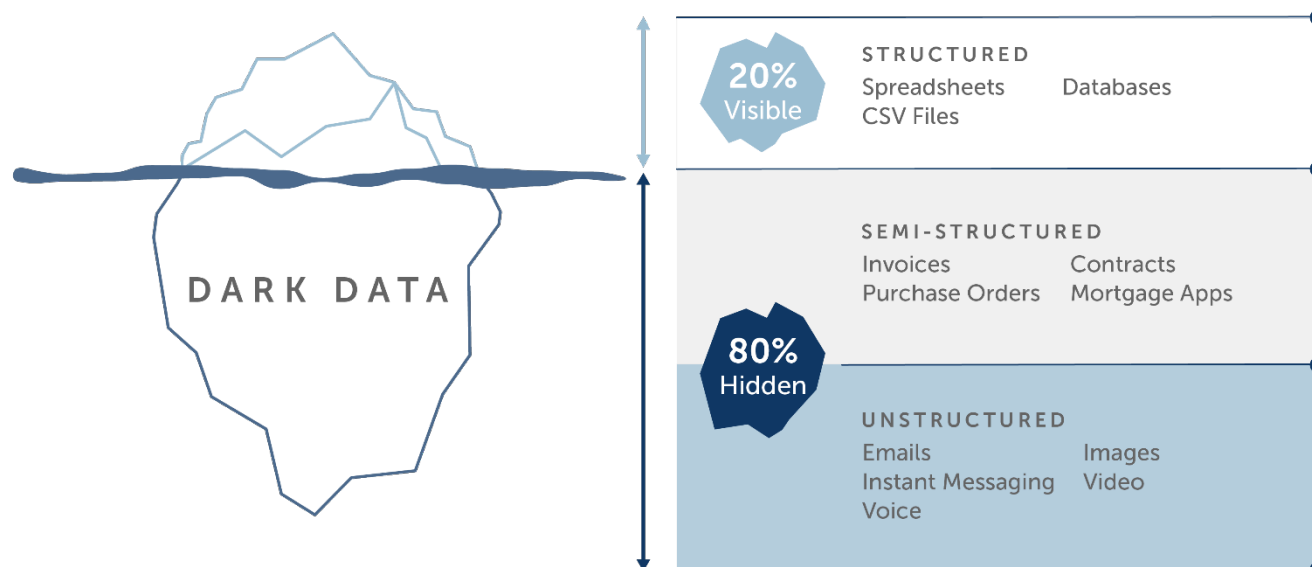
Verify the hardware, software, and configuration required to install IQ Bot in your environment. Follow the pre-installation checklist before installing IQ Bot.

# Использование IQ Bot

IQ Bot provides cognitive (intelligent) automation to uncover and transform important, but less structured data to automate business processes quickly and efficiently, simultaneously reducing human error.

## Обзор

Cognitive automation processes semi-structured and unstructured data and converts it into structured data that is used by Robotic Process Automation (RPA) bots for end-to-end automation.



Start using IQ Bot by creating a learning instance, which defines the type of document you must process, the language of documents, and a list of data fields to capture and extract from each document. Next, train the documents and review the results of the training. You can also download the extracted data to a CSV file for review. After correcting any errors, save the bot and send it for production. In the production environment, run the trained bot against a set of documents to automate data extraction.

## Phases in IQ Bot business process

1. Preprocess documents.
2. Receive text segmentation and optical character recognition (OCR).
3. Classify documents in groups.
4. Extract document data.
5. Validate and correct failed documents.
6. Complete validation and save.
7. Trigger approval.
8. Obtain final review and approval.

## User prerequisites

Users who create and configure automation tasks and deploy TaskBots also create IQ Bot learning instances, deploy the learning instances from staging to production environments, and correct documents with exceptions.

The primary user roles are as follows:

- **Services users:** Automation experts who train боты on sample documents, so these боты can later automatically process a larger volume of documents.
- **Validators:** Use a visual interface to manually verify or fix data extraction from a document.

Users are required to have an understanding of the following:

- Common administrative tasks of Automation Anywhere Control Room
- Differences between structured, semi-structured, and unstructured documents
- Standard fields in a semi-structured or unstructured document, for example, invoice number, invoice date, and so on.
- General automation commands in Automation Anywhere
- Internet information services
- How to start and stop web services
- How to block and unblock ports

## General process

Use the general process for IQ Bot to create a learning instance, upload documents, build/train the боты, validate extracted data and make corrections, and set the боты to production.

The general process for using IQ Bot is described as follows:

1. [IQ Bot 11.x: Создать экземпляр для обучения](#) on page 160 and upload sample documents.
2. After the documents are analyzed, review the report in the [IQ Bot 11.x: Performance report page](#) on page 203. The report shows you important insights about your sample documents, for example, similar documents that can be grouped together, document groups that return all required fields, and document groups used to create and train learning instances.
3. After the sample documents are analyzed, [IQ Bot 11.x: Train a learning instance](#) on page 171 by mapping required fields and setting validation rules for a document in a group that best reflects the documents in that group. When the learning instance is deployed in production, it processes all documents identified as part of this group.
4. After training, [IQ Bot 11.x: Move a learning instance to Production](#) on page 199, and then use the `bot` command to upload documents to the production environment for processing. См. раздел [Upload documents to a learning instance](#) on page 205.
5. Any documents that do not complete straight-through processing because of field extraction or rule-related problems require human validation. Users are required to [Validate document with errors](#) on page 211.
6. Throughout the process, use the IQ Bot [Информационная панель](#) on page 202 to monitor the progress of the production instances.

Throughout the process, use the IQ Bot [Информационная панель](#) on page 202 to monitor the progress of the production instances.

## Features and benefits of using IQ Bot

Use IQ Bot for the following features:

- Train the learning instances in order of importance on the web-based Designer.
- Reduce setup time for new use cases with the Domain Management utility.
- If you are logged in to the Control Room with the Single Sign-on feature, you can open the IQ Bot Portal directly.
- Leverage the stronger security features in the Automation Anywhere platform as part of IQ Bot Version 6.0 integration.
- Exception handling is fast and seamless with the web-based Валидатор.
- Preview the data extraction results to verify the training provided to the learning instance.
- Use semantic analysis and automated classification to analyze and extract data types and formats from learning algorithms, invoices, purchase orders, and bills. It also does the following:
  - Autodetects file values after field mapping
  - Autocorrects exceptions from human expertise
  - Flags exceptions based on the built-in confidence levels mechanism
- Leverage OCR technology, document classification, and data extraction of documents.

## Resources

To learn more, search for the following courses in [Automation Anywhere University: RPA Training and Certification \(A-People login required\)](#):

- *Intelligent Document Processing with IQ Bot*
- *Unleash Your Intelligent Bots: Develop Cognitive Bots Driven by AI & Machine Learning (IQ Bot)*

## Related concepts

[Learning instance](#) on page 158

Create a learning instance to upload and train sample documents. After training is complete, send the learning instance to production and use it to run on actual documents to extract data. View a summary of all learning instances and their details in a table on the **My Learning Instances** window.

[Staging environment](#) on page 169

The learning instance workflow consists of the Staging and Production environments. Staging is a training, testing, and validation environment for hands-on experience with the IQ Bot workflow on documents that represent the larger volume of documents to process in production.

[Start training in Designer](#) on page 170

After creating a learning instance, click the **Train** button to launch the Designer window to create or edit a bot in that learning instance.

[Информационная панель](#) on page 202

View the IQ Bot performance report in real-time on the Dashboard.

[Production environment](#) on page 205

The learning instance workflow consists of the Staging and Production environments. This is a live environment where a learning instance is set into operation with actual business documents uploaded from a bot.

[Migration Utility](#) on page 219

Use the IQ Bot Migration Utility to export and import learning instances between different IQ Bot installations to avoid re-creating similar learning instances. This makes the life cycle management of a learning instance and the associated боты easier.

## Learning instance

Create a learning instance to upload and train sample documents. After training is complete, send the learning instance to production and use it to run on actual documents to extract data. View a summary of all learning instances and their details in a table on the **My Learning Instances** window.

Learning instances is an environment in which a user can upload documents and do specific tasks in two phases:

- **Training:**

In the training phase, create, edit, and test bots on sample documents that represent a larger volume of documents you can process in the production stage.

- **Production:**

In the production phase, a user can upload new documents to IQ Bot for automatic processing by the боты. A user can manually view and edit any documents the system flags with errors.

If a learning instance is in the staging environment, the details of the training are shown. If a learning instance is in the production environment, the details from the production environment are shown.

When you log in to IQ Bot for the first time, the **No current learning instances** message appears. Click the **Create One Now** button to create your first learning instance.

Click any learning instance to view a summary of all learning instances and their details in the **Summary** tab. The **Document Groups** tab shows every group the documents are categorized into.

### Document Groups tab

6.5.2

The **Document Groups** tab shows a list of the document classification groups for the learning instance in a table.

When a user creates a learning instance and uploads documents to train, documents are automatically categorized in the same document group based on their content and classified accordingly. These are termed as classification groups. A bot is more likely to succeed extracting text across documents in a group with similar content.

Type in the description for the document group in the **Description** column. You can use all the special characters, except #. You can enter a maximum of 30 characters to add the group description. Click on the description text to edit the group description. Refresh the **Bots** tab to update the document description. The description tab is disabled, when the bot is in production mode.

In some situations, a document in production could lead to a new document group that has no documents from staging. This happens if you set the **Copy Production Files** property to false, when creating a bot. If you create a new bot with the **Copy Production Files** property set to false, the following message appears:

**There are no training documents available for this Bot. Upload some training documents for the associated learning instance and try again.**

Set the **Copy Production Files** property to true, so that the documents are automatically copied to the staging environment.

## Summary tab

To view the summary of a learning instance, click the name of a learning instance from the **Instances** table. The learning instance area shows the name of the learning instance with a label showing its current environment.

### Related concepts

[Staging environment](#) on page 169

The learning instance workflow consists of the Staging and Production environments. Staging is a training, testing, and validation environment for hands-on experience with the IQ Bot workflow on documents that represent the larger volume of documents to process in production.

[Production environment](#) on page 205

The learning instance workflow consists of the Staging and Production environments. This is a live environment where a learning instance is set into operation with actual business documents uploaded from a bot.

[Migration Utility](#) on page 219

Use the IQ Bot Migration Utility to export and import learning instances between different IQ Bot installations to avoid re-creating similar learning instances. This makes the life cycle management of a learning instance and the associated боты easier.

### Related tasks

[IQ Bot 11.x: Создать экземпляр для обучения](#) on page 160

Create a learning instance to upload and train sample documents. After training completes, send the learning instance to production and use it to run on actual documents to extract data. Creating a learning instance is the first task you perform for creating and training a bot.

## Search for a learning instance

Use the Search bar of the learning instance page to search for learning instances based on the specific criteria, for example, All Fields, Environment, and Instance Name.

To search for a learning instance, do the following:

1. In the **Search** area, select a field from the **All Fields** drop-down list, and select from the specific options.
2. In the **Search** field, enter the name of the learning instance to search.
3. Press **Enter** to show search results in the **Instances** area.

## Refresh data in Learning Instance details page

The system does not automatically refresh (auto-refresh) the IQ Bot UI unless the user loads a screen or clicks the **Refresh** button, thereby manually refreshing data on a page. This feature helps reduce the response time for loading new data or performing any action in IQ Bot.

Making complex database calls and auto-updating the displayed pages slow down the system. Disabling the UI auto-refresh helps the performance of IQ Bot considerably.

---

**Note:** When you use the Refresh option in the Learning Instance details page or Bots page, the refresh button is disabled for 60 seconds. The icon now spins for this duration indicating that a refresh is in progress.

---

The following scenarios have changed due to the feature update:

## Disabled auto-refresh from the learning instance details page

In the **Learning Instance** details page, use the **Refresh** button to refresh the categories/groups table.

In the **Learning Instance** details page or Боты tab, click the **Create** or **Edit** buttons. The system directs the user to the Designer without refreshing the groups or categories information. Click **Refresh** to update the data on the screen.

## Unable to train a group already in production

In the **Learning Instance** details page, without refreshing the page, click a group in staging. This same group could have been set to production by another user in the Боты tab. But because the data on the page does not auto-refresh, the page still displays older data. Clicking this group directs the first user to the IQ Bot Designer and displays a message stating that the group cannot be trained as it is already in production.

## Save and go to next group button is always enabled

In the Designer, even when there are no further groups in queue, a user can click the **Save and go to next group** button. The system displays a message stating that there are no groups available in the queue and the group cannot be trained. Click **Close** to exit the Designer.

---

**Note:** Since auto-refresh is turned off, the **Save and go to next group** button is always enabled to provide users the option to manually refresh the page to see if another group was added to the queue.

---

## IQ Bot 11.x: Создать экземпляр для обучения

Create a learning instance to upload and train sample documents. After training completes, send the learning instance to production and use it to run on actual documents to extract data. Creating a learning instance is the first task you perform for creating and training a бот.

---

### Important:

- Ensure you know the file size and page limitations before creating a learning instance.

*Supported file size and number of pages for processing in IQ Bot (A-People login required)*

- If any existing learning instances use Tesseract OCR v3, we recommend that you plan to train with alternative OCRs (Optical Character Readers), including Tesseract4 OCR. Tesseract OCR is an open source Optical Character Reader engine leveraged by IQ Bot for document processing and extraction. It has not been enhanced since 2018 and no new fixes will be applied to Tesseract OCR v3.

- 
1. Click the **New instance** option.



2. In the **Create new learning instance** screen, enter the following information:

- a) **Имя экземпляра.** Enter a unique name.  
IQ Bot does not allow duplicate learning instance names. Even if you delete a learning instance, the name cannot be reused.
- b) Optional: **Описание:** Введите описание.
- c) **Document type:** Select the domain from the drop-down list.  
Based on the domain selected, a predefined set of form and table fields for the domain type appears. For example, when you select **Invoices**, the standard forms and tables of an invoice appear.

---

**Note:** If you want to use a custom domain, select **Document type** > **Other**.

---

- d) **Upload your documents:** Click the **Browse** option to upload the documents samples to classify and train for the learning instance.
  - Use documents with a resolution value of at least 300 dots per inch (dpi). If multiple documents are in a single PDF, split the PDF into separate documents before the upload. Use the PDF command or Acrobat editor to split into separate documents.
  - You can upload a maximum of 12 MB file size. You can add additional documents even after creating the learning instance.
  - Besides image formats, such as TIFF, JPG, and PNG files, you can also upload PDF, Vector, Raster, and Hybrid (Vector and Raster) documents for classification and analysis.
- e) **Primary language of documents:** Use the drop-down menu to select a language for the learning instance.

*[IQ Bot 11.x: List of languages in IQ Bot](#) on page 219*

To create custom domains in other languages and access up to 190 languages that IQ Bot supports, contact Automation Anywhere support.




---

**Trouble:** If you are unable to see all languages in the IQ Bot interface, troubleshoot the issue: *[Unable to extract data from Multiple languages in a document \(A-People login required\)](#)*

---

- f) **Optical Character Recognition:** Select the necessary Распознавание текста (OCR) engine.  
*[IQ Bot 11.x: Selecting an Распознавание текста \(OCR\) engine](#) on page 164*
- g) **Checkbox auto-detection:** Check the **Detect checkboxes** check box to enable this feature.  
Selecting this option allows IQ Bot to automatically detect check boxes in a document. However, it might increase the processing time of documents.

*[IQ Bot 11.x: Extract repeated check boxes data](#) on page 193*

3. Add the standard fields in the **Standard form fields** and **Standard table fields** sections. To add additional fields, enter the field name in the **Other fields (Optional)** section and click the **Add as form/Add as table** options.

You cannot add duplicate fields using customization.

Follow the naming conventions when you enter a name in the **Other fields (Optional)** field:

- Field names can only begin with alphabetical characters (A-Z and a-z).
- Field names can only include alphanumeric characters and spaces.

4. Click the **Create instance and analyze** option to create the learning instance.

The system analyzes and sorts the training documents into logical groups based on field identification and shows the details in the **Learning Instance** > **Summary** tab.

When a new learning instance is created, it enters the staging environment and the **View Details** page is displayed. You are now ready to train the bot.

Begin training the learning instance you created in the Designer.

## Custom Domain in IQ Bot

A domain contains information about the language of the documents and the fields that the system extracts from the documents. Besides the domains provided by IQ Bot, you can also create and add custom domains to your IQ Bot environment, which displays in the **Document type** drop-down list.

### Custom domain

---

**Важное замечание:** Users with the Admin role or role assigned with domain access privileges (set in the Control Room) can view and access the **Domains** tab and its features in IQ Bot.

---

The **Domains** tab displays all available domains for use in the system and their associated languages. Besides out-of-box domains offered by IQ Bot, you can also create a custom domain and import it into IQ Bot.

*Create a custom domain (A-people login required)*

When creating a learning instance using a custom domain:

- The languages assigned to the domain when creating the domain is displayed and is available for selection from the **Primary language of documents** drop-down list.
- The fields that were selected when creating the custom domain are displayed in the **Fields to extract** section of the create **New instance** page.

You can import or export a domain using the **Import** or **Export** option in the **Domains** tab.

---

**Прим.:** Domains are created and saved with the `.dom` extension in the system.

---

**Совет:** Troubleshoot classification issue with Chinese language documents:

*Classification issue with Chinese Invoices (A-People login required)*

---

### Import a domain

You import a domain for the following scenarios:

- Import a new domain.
- Import an existing domain from another system to your current system.

When you are ready to import a domain into your system:

1. Go to the system where you want the domain to be imported.

2. Click **Import new domain** in the **Domains** tab and select the `.dom domain` file in your local machine that you want to import.

The domain import success message is displayed in the **Domains** tab.

The imported domain appears for the selection in the **Document type** drop-down list of the create **New instance** page and is displayed in the domains list in the **Domains** page.

## Export a domain

When you click the **Export** option next to a domain, it is exported to an output folder on your local drive. The exported domain is encrypted and is created with a `.dom filename` extension.

You export an existing domain from one IQ Bot system to import to another.

To export a domain from your IQ Bot system, do this: In the **Domains** list page, click the **Export** option next to the domain you want to export.

The system displays a success message for the exported domain.

The file is exported to a local output folder on your machine with a `.dom filename` extension.

---

**Прим.:** The domain files are encrypted for security.

---

## Current limitations to the domain import and export actions

---

**Важное замечание:** Import or export of domains is independent of the migration action in the Migration Utility feature.

---

When you migrate learning instances that were created using a custom domain from one system to another, the field names and IDs must remain the same in the target machine as well. Otherwise, though the learning instances are imported, the custom domain will not be imported and the associated field names and IDs for the custom domain do not work in the imported learning instance. If you run the imported learning instance on documents, the documents will not be classified.

Even if you import the custom domain to your new system, the field names and IDs will still not match as these are automatically generated by the system. Hence classification will fail. This is the current limitation of the Migration Utility feature using a custom domain.

**Обходное решение.** Copy the alias database from the current machine to the target machine. Then migrate the learning instances, using a custom domain. Move all learning instances to the staging environment, and test them before moving the learning instance to the production environment.

## Custom domain enhancements

### Import custom domains in any order

When you migrate learning instances (created using a custom domain) from the staging server to the production server, migration fails unless you import the different versions of the custom domain in the same order as they were created.

As the capability to edit a custom domain to add additional fields and aliases was not available, the user had to create a new domain and add the additional fields and aliases to it. Then the user had to assign that new domain to the learning instance. So when the user wanted to use the new domain, they had to re-import the original and the new domain to the production server in the order they were created in.

*Importing custom domain to IQ Bot production (A-People login required)*

From release Automation 360 Сборка 5322, and IQ Bot Version 11.3.5.2 this restriction does not exist.

- You can edit and update an existing custom domain multiple times, and import them to the production server multiple times as well.
- You can import the custom domains in any order. The system successfully migrates the updated fields (form or table), and field aliases (variations of field values found in the training documents, associated with a field) to the production server.

---

**Важное замечание:** Perform all edits or updates to a custom domain in the staging server before importing it to the production server to avoid errors.

---

IQ Bot performs document classification based on the defined fields and aliases of the version of custom domain used when the learning instance was created.

Editing the same custom domain (with additional fields) changes the version of the custom domain. For new learning instances created using the new version of the custom domain, classification occurs on the updated fields as well. The edited fields (whether form or table fields) are displayed in the learning instance with a double asterisk next to them to help identify them.

## IQ Bot 11.x: Selecting an Распознавание текста (OCR) engine

You can select different Распознавание текста (OCR) engines from the UI to see what best suits your requirements for data extraction based on your document types. A stop and restart of IQ Bot services is not required for implementing an engine change.

Во время установки IQ Bot система в качестве модуля Распознавание текста (OCR) по умолчанию устанавливает последнюю версию Tesseract Optical Character Reader. This is also the global setting for the product.

However, you can manually set the Распознавание текста (OCR) engine in the `Settings.txt` file, which becomes the default engine. Similar to the prior releases of IQ Bot, you can continue to manually update the `Settings.txt` file with the Распознавание текста (OCR) engine name you want to set as default.

If you select a deprecated version of the Распознавание текста (OCR) engine or a non-supported engine through the `Settings.txt` file configuration, the system displays an error message. When creating a learning instance, you can select an Распознавание текста (OCR) engine from the **Optical Character Recognition** drop-down menu. См. [IQ Bot 11.x: Создать экземпляр для обучения](#) on page 160

---

**Note:** Selecting an Распознавание текста (OCR) engine overrides the values in the `Settings.txt` file.

---

1. On the **Create a new learning instance** page, select the domain and language of the documents. In the **My learning instance** list page, a new **OCR Engine** column is available that shows the Распознавание текста (OCR) engine used for creating each learning instance. This information is useful to the user when deciding on document processing.
2. The **Fields to extract** and **Advanced Settings** sections are displayed when you select the domain. Each domain is available with a predefined list of primary supported languages. Language selection is enabled and available from the **Primary language of documents** drop-down list based on supported languages for a specific domain.

---

**Note:** If you select a language from the **Primary language of documents** drop-down list and then select an engine that does not support that language, the system displays an error message in the **Optical character recognition** drop-down list.

---

3. Click **Advanced Settings > Optical character recognition** to display the Распознавание текста (OCR) engine options drop-down list.

If the Распознавание текста (OCR) engine selection is invalid, the **Create instance and analyze** option is not enabled.

---

**Note:** IQ Bot automatically installs all Распознавание текста (OCR) engines during the installation process, except for ABBYY FineReader Engine.

---

**Important:** You can only configure the selected Распознавание текста (OCR) engine in Automation 360 IQ Bot On-Premises. Распознавание текста (OCR) settings in Automation 360 IQ Bot Cloud cannot be edited as they are not accessible except for ABBYY FineReader Engine. You can edit the configuration settings for ABBYY FineReader Engine using the `appConfigurations` REST API.

---

You can select from the following:

Вариант	Описание
<b>Tesseract OCR4</b>	This is the default engine, unless changed in the <code>Settings.txt</code> file.
<b>ABBYY FineReader Engine</b>	<p>To verify if ABBYY FineReader Engine is installed and available for use on your machine, check the <code>Settings.txt</code> file, the Распознавание текста (OCR) Plug-ins folder for the SDK files, and the <b>Optical character recognition</b> drop-down list.</p> <hr/> <p><b>Note:</b> Also supported in IQ Bot [Local Device] пакет and IQ Bot Extraction пакет.</p> <hr/> <p><i>Use ABBYY FineReader Engine Распознавание текста (OCR) engine in IQ Bot 11.x on page 123</i></p>
<b>Microsoft Azure Computer Vision OCR engine</b>	<p>IQ Bot supports all languages supported by this Распознавание текста (OCR) engine.</p> <p><i>IQ Bot 11.x: Use Microsoft Azure Computer Vision OCR engine on page 121</i></p>
<b>Google Vision API</b>	<p>IQ Bot supports Google Vision API as an Распознавание текста (OCR) engine and supports all languages supported by this engine.</p> <p><i>IQ Bot 11.x: Use Google Vision API OCR engine on page 126</i></p>
<b>Tegaki API</b>	<p>IQ Bot supports his Распознавание текста (OCR) engine to extract data specific to Japanese and Korean language documents. You need to download and use your private license to use Tegaki API.</p> <hr/> <p><b>Note:</b> Tegaki API Распознавание текста (OCR) engine is not supported in Automation 360 IQ Bot Cloud.</p> <hr/> <p><i>IQ Bot 11.x: Использование модуля Распознавание текста (OCR) Tegaki API on page 129</i></p>

Вариант	Описание
<b>В моих документах PDF отсутствуют изображения</b>	<p>All the PDF documents that you upload are processed using the PDFBox Распознавание текста (OCR) by default, regardless of the Распознавание текста (OCR) engine you have specified or selected.</p> <p>If you are uploading non-PDF documents or PDF documents that contain images, clear the <b>My PDF documents do not have images</b> check box to ensure that the Распознавание текста (OCR) engine that you have specified or selected is used to process the documents.</p> <p>The <b>My PDF documents do not have images</b> check box is enabled by default. To disable this feature, see <a href="#">IQ Bot 11.x: Disable PDFBox option</a> on page 197.</p>

**Tip:** If IQ Bot is unable to extract data from low quality or handwritten documents, troubleshoot the issue:

[IQ Bot unable to extract data from low quality and Handwritten documents \(A-People login required\)](#)

## Classification criteria in IQ Bot

Learn about the requirements for a document to be classified in IQ Bot.

### Обучаемые экземпляры, созданные с помощью готовых или пользовательских доменов

IQ Bot searches a document for the minimum number of fields that you selected to successfully classify the document. If IQ Bot does not find the minimum number of fields, the document is marked as unclassified.

Пример.

- If you create a new learning instance with 1 to 4 fields selected, IQ Bot checks for at least 4 fields from the total number of fields presented for that specific learning instance. Similarly, if you create a new learning instance with 5 fields selected, IQ Bot checks for at least 5 fields.
- If you create a learning instance with 6 or more fields selected in the learning instance, IQ Bot checks for at least 6 fields. For example, if you selected 8 fields in an invoice domain, IQ Bot checks for at least 6 fields out of the total fields available.

### Обучаемые экземпляры, созданные с помощью других доменов

If you create a new learning instance with one or more fields, IQ Bot checks for at least one field and classifies the document. Если IQ Bot не находит ни одного поля, документ помечается как неклассифицированный.

## Факторы, влияющие на классификацию

Фактор	Примечания
Макет страницы	If the page layout is different from the original document with respect to document content position, IQ Bot might have difficulty classifying the document.
Ориентация метки	Все метки в документе должны быть ориентированы в одном направлении. If some of the labels are vertical and some horizontal, the document will not be classified.
Позиция метки	Метки можно расположить в любом месте страницы. Однако последовательность меток слева направо и сверху вниз должна быть такой же, как в обучающих документах.
Процент соответствия	IQ Bot использует 70-процентное соответствие для меток.
Поля, добавленные после создания обучаемого экземпляра	Поля, добавленные после создания обучаемого экземпляра, исключаются из процесса классификации.

## IQ Bot 11.x: Edit a learning instance

Edit a learning instance to change its name, description, add additional training documents, or include additional fields for extraction.

You can edit learning instances that are in the staging environment. To edit instances in the production environment, first set the learning instance to the staging environment.

1. On the **Learning Instances** page, click a learning instance.
2. Click the **Edit** icon to edit the learning instance.
3. Optional: Update the description field.
4. Optional: Change or update the learning instance name.

When you change the name of a learning instance, the following changes occur:

- A separate folder with the new learning instance name is created in the configured output directory to store the .csv files of processed documents.

The previous folder containing the .csv files before the learning instance name was changed remains as is in the output folder.

- When you migrate a learning instance with an updated name using overwrite or remove options, it is updated in the source environment after the .iqba file is imported.
  - An entry in the audit logs is created for this activity.
5. Optional: Click **Browse** to select additional training documents.
  6. Optional: Select additional fields and table columns to add to the learning instance for data extraction.
  7. Use the **New groups creation setting** field to restrict creation of new groups or set the threshold for the number of groups.

---

**Note:** The **New groups creation setting** option is not applicable for IQ Bot [Local Device] and IQ Bot Extraction пакеты.

---

8. Optional: Use the **Default validations group** option to select a default group for document validations.

All new documents use the custom logic and validations defined in the default group. Validation rules from this default group are applied when a document does not belong to any of the existing group.

9. Click **Save** to view a confirmation message.

10. Click **Yes, proceed with field addition** to upload, analyze, and classify the selected training documents (if any) that were added to the learning instance.

The classification of documents remain unaffected by the newly added fields.

All additional fields become available in all the боты and appear as optional fields in the selected learning instance. The боты must be retrained for these fields.

См. раздел [IQ Bot 11.x: Errors generated while editing learning instances](#) on page 168.

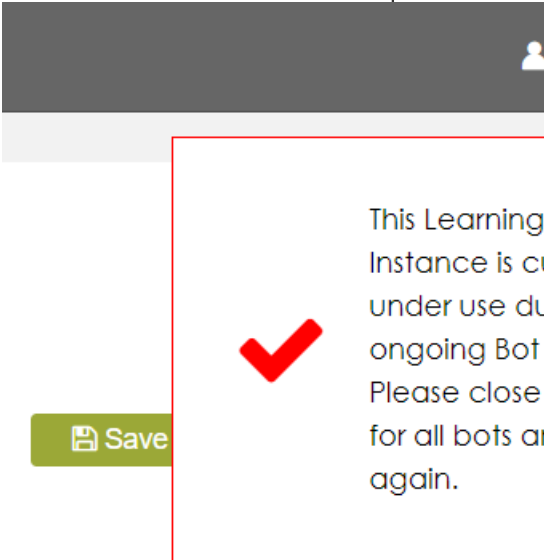
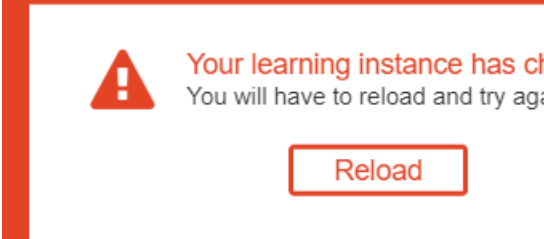
### Related concepts

[Варианты импорта](#) on page 254

Find out about the impact of each import option.

## IQ Bot 11.x: Errors generated while editing learning instances

Use case scenarios and error messages generated while editing a learning instance are explained in this topic.

Обращение	Сведения	Сообщение
Бот in training	<p>Learning instance is in use because of ongoing bot training and you edit the same instance</p> <p>A) User 2 is editing the same learning instance</p>	
Case 1: Simultaneous editing of same learning instance	<p>Example for case 1:</p> <p>User 1 uploads a document to the same learning instance.</p> <p>User 2 adds a field when editing the same learning instance.</p>	



Обращение	Сведения	Сообщение
Run and edit the same бот	Run the бот and then edit the same бот using the same user login or two different user logins.	Staging document for this vi

## IQ Bot 11.x: Delete a learning Instance

Use the **Learning Instances** page to delete a learning instance from the **View Details** page.

You cannot delete a learning instance that is in the production environment. To edit a learning instance, do the following:

1. On the **Learning Instances** page, click the learning instance or **View Instance Details** icon to show the **Summary** tab.
2. On the details page, : click the **Edit** icon. The learning instance becomes available for editing.
3. To delete the learning instance, click the **Delete Instance** button. A confirmation message appears.
4. Enter the learning instance name in the field and click the **I understand, please delete** button to delete it.

---

### Important:

Unless you have already exported the learning instance as a backup, the following occurs after you delete a learning instance:

- It is permanently deleted and cannot be restored.
  - All the associated боты are deleted and cannot be reused.
  - You cannot reuse a deleted name for a learning instance to create a new one.
- 

## Staging environment

The learning instance workflow consists of the Staging and Production environments. Staging is a training, testing, and validation environment for hands-on experience with the IQ Bot workflow on documents that represent the larger volume of documents to process in production.

Use Staging to train, test, and improve the accuracy of a learning instance and its боты before deployment to the Production environment.

---

**Note:** Data from the Staging environment does not appear in the Production environment.

---

The primary purpose of the staging environment is as follows:

- Provide an overview and give you the opportunity to review and correct the extracted data before sending the боты to production
- Provide reporting data for the Staging environment so it does not interfere with reporting data in the Production environment.

Do the following tasks in the Staging environment:

- Upload sample documents.
- Classify or digitize the sample documents.
- Create or train боты to extract data.
- Preview to verify extraction or make manual corrections.
- Save and set the боты to production.

## Create and edit a бот

Use the **Learning Instances** page to create and edit боты using the **View Details** page.

This is an alternate way to create a learning instance and also edit it.

Do the following:

1. On the **My Learning Instances** page, click an instance or the **View Instance Details** icon to show the instance details in the **Summary** and **Document Groups** tabs. You can also click the **New Instance** button to create a new learning instance.
2. On the details page, do the following:
  - a) Click the **Train** button to launch the Designer window to begin training the бот.
  - b) Click the **Edit** icon to edit a бот for a document group.

## Start training in Designer

After creating a learning instance, click the **Train** button to launch the Designer window to create or edit a бот in that learning instance.

The Designer window opens and shows the first document in line for training, with automapped fields. Define and map the form and table fields, and also verify the automapped fields to verify or remap them, if required. The document name appears in the following format:

**Group Name > Document Class Name [File name].**

If the name of a document is too long, move your mouse over the partial name to show the full name of the document as a tool tip.

In the Designer, the left panel shows the training panel with fields and table headers of the newly added document class. The center panel shows the auto-mapped values, and lets you select/verify them. The right panel shows the document under training.

A бот can be accessed by a single user at a time. If it is in use by another user, the **open bot** option is disabled.

Use the **Zoom in**, **Zoom out**, or **Fit to screen** icons at the bottom of the document pane to adjust the display size of the document in training. Use the pagination arrows to move to a different page in the document.

---

**Note:** If you are inactive in IQ Bot for 20 minutes, the system logs you off and redirects you to the login page.

---

**Tip:** Learn how to convert PDF files to TIFF files:

[How to convert PDF files to TIFF files \(A-People login required\)](#)

---

### Related concepts

[Design panel](#) on page 172

The Designer opens with auto-mapped fields and table columns, and lets you edit the existing mapping by adding new fields and tables. The left panel also displays the **Field Listing Header** showing the name, format, and requirement.

[IQ Bot 11.x: Map a table](#) on page 187

In the Designer, move one or more table fields from one table to another to train extraction, see multiple tables and their extracted values to validate extraction, and add new tables.

[IQ Bot 11.x Designer validation patterns](#) on page 173

IQ Bot Designer allows you to validate a field and table column against a set of predefined parameters so that you can be warned if any mismatch is found during data digitization process.

[IQ Bot 11.x: Preview extracted data](#) on page 197

After completing field and table mapping, click the **See Extraction Results** button to view OCR and extracted results to verify the accuracy of the training.

[Common fields across multiple document groups](#) on page 196

Create a learning instance with a single document group.

### Related tasks

[IQ Bot 11.x: Map a field](#) on page 185

The Designer opens with the field panel displayed. Correct and re-map the fields, and map new ones as required.

[Resize mapping area](#) on page 184

In the Designer, after mapping a box around a field value on a document, you can resize the box in any direction.

## IQ Bot 11.x: Train a learning instance

To begin training боты to digitize and extract data from documents in a learning instance, click the **Train** button. The system analyzes and sorts the training documents into logical groups based on field identification.

The IQ Bot Designer displays each document group for you to train in order of importance.

---

**Note:** Define all the fields and tables you want to extract from the documents in the Designer.

---

When you click a field in the left panel, the mapped field and its value displays in the center panel. You can validate the field and its value in the document, displayed in the right panel.

If the mapped field value is accurate, the Designer displays a green check mark next to the mapped field in the center panel.

Mark a field **Optional** in case the value in a field appears in some documents only. By default, fields are marked as **Required** unless a field is added after creating the learning instance. In this case, the field is **Optional** by default. See example below.

If Tax is calculated in one document but not in another, you could mark this field as optional and provide a default value of 2% .

## Choose training document for a group

During document training, look at unique document layouts available in a group, and choose a different document than the default one chosen by IQ Bot Designer, that is more representative of documents across that group. That helps maximize straight-through processing (STP).

Follow the steps to choose a different document from a document group.

1. User can see the **View each Group 'x' document** button in the Designer training page next to the document name.  
The **View each Group 'x' document** button is disabled if there is a single document in the group.
2. Click the **View each Group 'x' document** button to display the previous and next arrows that will let you move to another document. You can also cancel out of the task.  
Choosing a different document as the group's training document will clear all mapping from the previous document. IQ Bot displays a warning message stating the same.
3. Select a new document and click the **Change the training document** button to see a message confirmation stating: If you change the training document for this group, any mapping from the previously trained document will be lost. Do you want to change the training document for <group name> to <document name>?
4. Choosing **No, cancel** takes you back to the Designer, whereas confirming the message **Yes, change** loads and launches the new document with auto-mapped fields.
5. Click **See extraction results** to view extracted data from the new document.

## Design panel

The Designer opens with auto-mapped fields and table columns, and lets you edit the existing mapping by adding new fields and tables. The left panel also displays the **Field Listing Header** showing the name, format, and requirement.

1. Click a field in the left panel, to display the selected field and its value in the middle panel. In the middle panel, completed field mapping is identified with a green check icon at the top of the panel.
2. Using the draw icon, select/reselect the appropriate value with System Identified Regions (SIR) in the document, which is represented by a blue-box text segment in the right panel of the document itself .

---

**Note:** The blue-box text segment has boundary handles allowing resize of selected areas in the document.

---

3. Next, create a design for a bot by adding and defining columns and tables you want to extract the data from.

---

**Note:** The extent of auto mapping depends on text segmentation and optical character recognition (OCR) quality of the fields and also the depth of taxonomy related to the underlying domain for that learning instance. Additionally, it also depends on the algorithm's decision-making logic.

---

## IQ Bot 11.x: Improve output quality using OCR confidence

Improve the output quality of the IQ Bot platform using the system-identified region (SIR) and optical character recognition (OCR) confidence by comparing it to a predefined threshold.

Confidence-based validation is useful for a text type field and for Date or Number fields because it helps route a document, with contentious values, for a human to view despite the fields satisfying the set validation criteria.

## Enable OCR confidence-based validation

---

**Note:** This option is applicable only if you selected Tesseract OCR when creating the learning instance.

---

Эта функция по умолчанию отключена. To enable this feature, open the `Settings.txt` configuration file available in `<IQ Bot Installation Folder>\Configurations\`, and set the desired threshold value in the `ConfidenceThreshold` property. For this example, set the character-level confidence threshold value to 99, that is `ConfidenceThreshold=99`. When this feature is disabled, the default value is set to 0, signifying that the feature is disabled.

---

**Note:** The confidence threshold value is uniformly applicable across all the learning instances.

---

## How OCR confidence-based validation works

In a document if a field's SIR character level confidence is lower than that of the set confidence threshold, the validation for that field fails, resulting in the failure of that document.

---

**Note:** If a field value fails due to a validation rule (for example, Invalid Number Format) other than an OCR confidence validation failure, you see that tooltip, and not the tooltip for *Low confidence*.

---

While training a document, a confidence-based validation failure against a field appears in an orange box during preview if no other validation errors exist for that field. Other validation errors take precedence over OCR character-level confidence validation.

---

**Troubleshoot:** If the OCR engine is not able to identify SIRs for Chinese language PDF documents, troubleshoot the issue:

- [Data objects \(SIRs\) are not identified by OCR for Chinese PDF documents \(A-People login required\)](#)
  - [How to convert PDF files to TIFF files \(A-People login required\)](#)
- 

## IQ Bot 11.x Designer validation patterns

IQ Bot Designer allows you to validate a field and table column against a set of predefined parameters so that you can be warned if any mismatch is found during data digitization process.

### Validate a field or table

Validate a field or table column against the following predefined parameters of validation options:

- Start With / End With
- Шаблон
- Списки
- Formulas

IQ Bot classifies documents into groups based on similar content, structure, and layout, which is easily identifiable. The sample documents for training are chosen based on these criteria as well. When you

launch the Designer to train your learning instance, IQ Bot loads and displays a sample document from each classified group in the document pane.

---

**Tip:** In the Designer set the validation parameters by defining any field and or table column during document training.

---

### Related concepts

[IQ Bot 11.x: Starts With and Ends With](#) on page 174

While all validations can be set at the time of Design definition, you can set **Starts with/Ends with** and **Pattern** validations during training.

[IQ Bot 11.x: Шаблон](#) on page 174

A pattern helps define an acceptable format for data.

[IQ Bot 11.x: Текст](#) on page 175

Select from a list of different available text data types.

[Date](#) on page 175

Specify any regular expression and special patterns in the Date data type.

[Число](#) on page 177

Choose from available number patterns. For example, regular expression and special patterns.

### Related tasks

[IQ Bot 11.x: Списки](#) on page 180

While defining a field or table column in the Design view, you can specify a list as part of validation option for a selected field or table column. The extracted value of the field is validated against this predefined list during Preview and Test Run.

## IQ Bot 11.x: **Starts With** and **Ends With**

While all validations can be set at the time of Design definition, you can set **Starts with/Ends with** and **Pattern** validations during training.

To validate whether data in a field starts or ends with a certain value, use the **Starts With** and **Ends With** validation option fields. While defining the design of a field or table column, you can specify whether the data is part of the selected field.

- Start with a certain value using a Starts With field
- End with a certain value using an Ends with field

If the Start With value is "IN" and extracted value is "1N7646464", then validation fails. While if End With value is 2017 and the extracted date value is 10-Aug-2017, the validation passes.

## IQ Bot 11.x: Шаблон

A pattern helps define an acceptable format for data.

Validate data in the field or table column against a specific pattern. While defining the field or column in the Design view, specify a pattern of the data in the selected field.

Select pattern for date and number fields based on the different available patterns.

You can have different patterns for Text, Date, and Number.

### Related concepts

[IQ Bot 11.x: Текст](#) on page 175

Select from a list of different available text data types.

[Date](#) on page 175

Specify any regular expression and special patterns in the Date data type.

[Число](#) on page 177

Choose from available number patterns. For example, regular expression and special patterns.

*IQ Bot 11.x: Текст*

Select from a list of different available text data types.

Specify any regular expression in the Text data type. The following table lists some of the common examples:

Field	Pattern	Notes	Description
Эл. почта	<code>^([a-z0-9_\.\-]+)@([\da-z_\.\-]+)\.([a-z\.\-]{2,6})\$</code>	This regular expression validates emails like john@ado.com.	The Email field supports regular expressions.
Номер телефона	<code>^(\\(\\+?[0-9]*\\)?[0-9_\\-\\(\\)]*\$</code>	This regular expression validates phone numbers like (+64) 38 3235393.	The Phone Number field supports regular expressions.
Website	<code>^([a-zA-Z0-9]+(\\.[a-zA-Z0-9]+)+\\.*)\$</code>	This regular expression validates websites like www.domain.com.	The Website field supports regular expressions.
Number string	<code>^[0-9]{1,45}\$</code>	This regular expression validates a string with numbers 0 - 9 and limit length to 45.	The Number string field supports regular expressions.
Alpha-numeric	<code>^[A-Za-z0-9_@./#&amp;+;+-]*\$</code>	This regular expression validates a string containing alphanumeric values like INV-001.	The Alpha-numeric field supports regular expressions.

*Date*

Specify any regular expression and special patterns in the Date data type.

The following table lists some common examples:

Поле	Шаблон	Примечания
Date	<ul style="list-style-type: none"> <li>d-m-yy</li> <li>dd-mm-yy</li> <li>mm-dd-yy</li> <li>dd-mm-yyyy</li> <li>mm-dd-yyyy</li> <li>dd-mmm-yyyy</li> <li>mmmm dd, yyyy</li> </ul>	<p>Supported date separators include /(forward slash), – (dash), space, .(dot), and , (comma).</p> <p>Here,</p> <ul style="list-style-type: none"> <li><b>d</b> - Numeric day of the month, from 1 through 31 (eg. 5, 15 etc.)</li> <li><b>dd</b> - Numeric day of the month, from 01 through 31 (eg. 05, 15 etc.)</li> <li><b>m</b> - Numeric month (eg. 1 for January)</li> <li><b>mm</b> - Numeric month (eg. 01 for January)</li> <li><b>mmm</b> - First 3 letters of the month (eg. NOV for November)</li> <li><b>mmmm</b> - Full name of the month (eg. June)</li> </ul>

The following table lists some date examples and it's corresponding valid patterns:

Дата	Pattern
01-31-18	mm-dd-yy
Jan-31-2018	mmm-dd-yyyy
2018-1-31	mmmm dd, yyyy
2018-1-09	Mmmm d, yyyy
9 5 15	D M YY
9 11 15	D MM YY
7 MAR 15	D MMM YY
7 MARCH 15	D MMMM YY
5 05 2018	M DD YYYY
2018-5-05	D/MM/YY
2015-9-05	M/D/YY
05 / 9 / 2018	DD / M / YYYY
MAR / 05 / 18	MMM / DD / YY
09-APRIL-18	D-MMMM-YY
5-5-18	M-D-YY
11-5-18	MM-D-YY
NOV-13-2018	MMM-DD-YYYY



Дата	Pattern
13 - 5 - 2019	DD - M - YYYY
OCTOBER - 05 - 18	MMMM - DD - YY
05.APRIL.2018	D.MMMM.YYYY
APRIL.05.2018	MMMM.DD.YYYY
5 . 5 . 18	D . M . YY
5 . 05 . 18	D . MM . YY
05 . JUL . 18	DD . MMM . YY
5 . 11 . 2018	M . DD . YYYY
MAY . 13 . 13	MMMM . DD . YY
2018-1-27	YYYY-MM-DD
2017/07/27	YYYY/MM/DD

### Число

Choose from available number patterns. For example, regular expression and special patterns.

## Регулярное выражение

The following table provides an example of the numeric regular expression.

Field	Pattern	Notes	Description
Number string	<code>^[0-9]{1,45}\$</code>	This regular expression validates a string with numbers 0 - 9 and limit length to 45.	The Number string field supports regular expressions.

## Special patterns

A Pattern consists of a Prefix, a Number Pattern, and a Suffix. Use for each is explained as follows:

- **Prefix:** Any symbol or a text string that is appended before the Number Pattern.
- **Suffix:** Any symbol or a text string that is appended after the Number Pattern.

- **Number Pattern:** Number pattern has two parts:

- **Integer-part:**

They are represented by nines (9s).

The 9s in the integer part represents integer pattern and separators such as commas, spaces, and so on.

- **Fractional part**

They are represented by zeros.

If you need two fractional number, then it will be represented by two zeros.

Specifying fractional part is optional.

Format of numbers defined for validating numeric data.

Field	Pattern	Notes	Description
Числовой	Supported patterns	Supported format for numeric patterns: <ul style="list-style-type: none"> <li>• Decimal (India)</li> <li>• Decimal (US, UK, Australia and others)</li> <li>• Number (India)</li> <li>• Number (US, UK, Australia and others)</li> <li>• Normal Decimal</li> <li>• Normal Number</li> </ul>	The Numeric field supports special patterns (system recognized patterns) and regular expressions.
	9999999,00	2597,23	
	9999999,00	7562597,23	
	9 999 999.00	2 597.23	
	9 999 999,00	7 562 597,23	
	9999999,00	2597,23	
	9999999,00	7562597,23	
	99,99,999.00	75,26,569.56	
	\$ 9.999.999,00	\$ 7.562.597,23	
	\$9 999 999.00	\$7 562 597.23	
	9 999 999,00 \$	2 597,23 \$	
	€ 9999999,00	€ 7562597,23	
	€9999999.00	€7562597.23	
	99,99,999.00 €	75,62,597.23€	
	EUR 9,999,999.00	EUR 7,562,597.23	
	EUR9 999 999.00	EUR7 562 597.23	
	9999999,00 EUR	62597,23 EUR	

Field	Pattern	Notes	Description
	9.999.999.00	62.986.51	
	9, 999, 999. 00	232, 510. 68	

IQ Bot supports prefixes and suffixes to make processing and validation of data easier. Specifying a suffix and prefix in the pattern and in the numeric fields is optional. Even if you do not specify the suffix or prefix, IQ Bot auto corrects and includes the required currency symbols and units of measure for the numeric fields as prefix or suffix. If you specify the currency symbols and units of measurements in the pattern and in the numeric data, IQ Bot deletes the currency symbol and unit of measure from the data.

**Note:** IQ Bot automatically recognizes these currency symbols: \$, ¥, £, ₹, €, Rs, USD, EUR, CAD, AUD, GBP, and INR. We recommend specifying valid currency symbols in the data.

## Auto Correction

This is one of the built-in features of IQ Bot for date and number format types. It performs automatic validation and correction based on the defined pattern, even when the date/number in the scanned document is incorrect.

**Note:** Auto correction is only supported for special patterns.

The following table illustrates the auto-correction of an incorrect date and numbers by IQ Bot.

	Incorrect OCR value	Pattern	Auto-Correction	Description
DATE	12 <i>F3B</i> 2 0 1 5	dd mmm yyyy	12 <i>FEB</i> 2015	In the first example, IQ Bot auto corrects incorrect OCR " <b>F3B</b> " to " <b>FEB</b> ".  In the second example, IQ Bot auto corrects "15 10-2015" to "15-10-2015".
	15 10-2015	dd-mm-yyyy	15-10-2015	
ЧИСЛО	123 4567	9999999	1234567	In the first example, the extra space between "3" and "4" is deleted after validation against the pattern.  In the second example, the alphabet "S" is corrected as "5".
	12.34,S67.12	99,99,999.00	1234567,12	

**Note:** English language numeric value with at least one digit to the left and two consecutive digits to the right (for example, 1.23) gets auto corrected if there is a space found between the decimal and the digits. For example, values 1 . 23 or 1. 23 or 1 .23 get auto corrected to 1.23.

To use this feature, add Pattern (in validation options) to the selected date and number format fields.

## IQ Bot 11.x: Списки

While defining a field or table column in the Design view, you can specify a list as part of validation option for a selected field or table column. The extracted value of the field is validated against this predefined list during Preview and Test Run.

You can only specify list validation when format of field or table column is "Text". If the lookup returns multiple values for a word, the value is not auto corrected and the validation fails.

To specify list validation, do the following:

1. Select the validation type as **List** from the **Validate** drop-down menu.
2. Type a predefined list and click **Define** to save.

Each value in the list should be in a separate line.

If the extracted value does not match any value in the predefined list, the field is considered to have failed validation.

## IQ Bot 11.x: Formulas

For calculative or comparative validation, in the design view, specify a formula as part of validation options for a selected field or table column.

You can specify formula validation only when format of field or table column is a number.

The formulas you specify in the Designer are saved and carried over to the Валидатор as well. Opening a бот in the Валидатор will let you see and use the formulas associated with the бот.

- In the Designer, in Preview (**See extraction results**) view, the formula validation flags errors as expected, to process the training documents.
- Upload the same documents to production. The documents get processed and failed due to the same formula validation.
- In the Валидатор, the same formula validation continues to flag errors to process the documents.

To specify a formula for validation, perform the following steps.

1. Select the validation type as **Formula** from the **Validate** drop-down menu.
2. Type the formula of your choice and click **Define** to save the formula.
3. To write a formula, you can use basic arithmetic, comparative, logical, and functional operations. Validation rules can be built by combining these operations with different fields and table columns.
4. Fill in the fields in the form, as appropriate.

**Таблица 2. Mathematical Operators**

Operations	Description	Syntax
+	Addition	Field/Column_Name1 + Field/Column_Name2
-	Subtraction	Field/Column_Name1 - Field/Column_Name2

Operations	Description	Syntax
*	Multiplication	Field/Column_Name1 * Field/Column_Name2
/	Деление	Field/Column_Name1 / Field/Column_Name2

Таблица 3. Comparative Operators

Operations	Description	Syntax
==	Equal To	[Current Field/Column Name] == [expression comprised of one or more field/column name or fixed numeric values]  For example, AMOUNT == MUL(QUANTITY, UNIT_PRICE)
>=	Greater than or Equal To	[Current Field/Column Name] >= [expression comprised of one or more field/column name or fixed numeric values]  For example, TOTAL_BILL_AMOUNT >= AMOUNT_PAID
<=	Less than or Equal To	[Current Field/Column Name] <= [expression comprised of one or more field/column name or fixed numeric values]  For example, AMOUNT_PAID <= TOTAL_BILL_AMOUNT
>	Больше	[Current Field/Column Name] > [expression comprised of one or more field/column name or fixed numeric values]  For example, BILL_AMOUNT > 0

Operations	Description	Syntax
<	Меньше	[Current Field/Column Name] > [expression comprised of one or more field/column name or fixed numeric values]  For example, DISCOUNT_PERCENTAGE < 100
!=	Not Equal To	[Current Field/Column Name] != [expression comprised of one or more field/column name or fixed numeric values]  For example, DEBIT_AMOUNT != 0

Таблица 4. Logical Operators

Operations	Description	Syntax
&&	<b>And:</b> Field/Column is valid if all conditions are true	<Current Field/Column Name> <operator 1> <expression 1> && <Current Field/Column Name> <operator 2> <expression 2>  For example, DISCOUNT_PERCENTAGE >= 0 && DISCOUNT_PERCENTAGE <=100
	<b>Or:</b> Field/Column is valid if any one of the given conditions is true	<Current Field/Column Name> <operator 1> <expression 1>    <Current Field/Column Name> <operator 2> <expression 2>  For example, DISCOUNT_PERCENTAGE >= 0    DISCOUNT_PERCENTAGE == 'Net'

Operations	Description	Syntax
!	<b>Not:</b> Converts a true expression to false and also the other way round	!<expression> For example, !(AGE < 18) ==> valid when AGE is not less than 18

Таблица 5. Functional Operators

Operations	Description	Syntax
СУММА	<b>Summation:</b> gives result of addition of one or more field/column/fixed-number values	SUM(n1,n2,...,nN) For example, SUM(SUB_TOTAL, SERVICE_TAX, EDUCATION_CESS) ==> equivalent to SUB_TOTAL plus SERVICE_TAX plus EDUCATION_CESS
SUB	<b>Subtraction:</b> gives result of subtraction of one or more field/column/fixed-number values from the first specified value	SUB(n1,n2,...,nN) For example, SUB(SUB_TOTAL, TOTAL_DISCOUNT, ADJUSTMENTS) ==> equivalent to SUB_TOTAL minus TOTAL_DISCOUNT minus ADJUSTMENTS
MUL	<b>Multiplication:</b> gives result of multiplication of one or more field/column/fixed-number values	MUL(n1,n2,...,nN) For example, MUL(QTY_IN_BOX, UNIT_PRICE, SHIPPED_BOXES) ==> equivalent to QTY_IN_BOX multiply-with UNIT_PRICE multiply-with SHIPPED_BOXES
DIV	<b>Division:</b> gives result of division of one or more field/column/fixed-number values from the first specified value	DIV(n1,n2,...,nN) For example, DIV(AMOUNT, SHIPPED_BOXES, UNIT_PRICE) ==> equivalent to AMOUNT divide-by SHIPPED_BOXES divide-by UNIT_PRICE

Operations	Description	Syntax
COLSUM	<b>Sum of a given Column in a table:</b> gives result after evaluating given expression for each row of specified table and adding them all together	<p>COLSUM("&lt;table-name&gt;", "&lt;expression to evaluate for each row of specified table-name&gt;")</p> <p>For example, FINAL_TOTAL == COLSUM("LINE_ITEMS", "MUL(QTY, UNIT_PRICE)")</p> <p>Say there are 3 rows for table LINE_ITEMS, then FINAL_TOTAL should be equal to MUL(QTY1, UNIT_PRICE1) + MUL(QTY2, UNIT_PRICE2) + MUL(QTY3, UNIT_PRICE3)</p> <p>where, QTY1 is QTY value in row 1, similarly UNIT_PRICE1 is UNIT_PRICE value in row 2, and so on for other rows as well.</p>

---

**Совет:** We recommended using functional operators instead of mathematical operators when validating fields and tables for better accuracy.

---

When formulating an expression remember the following:

- All function names must be in capital letters.
- All formulas must result in either a true or false validation.
- Field and column names are case sensitive when used within formulas. If field is defined as *Qty* in design, using *qty* or *QTY* in formula results in an invalid formula.
- For variable declaration or manipulation, ensure not to use certain keywords that are reserved for formulating an expression.

SUM, SUB, DIV, MUL, COLSUM, IF.

If the expression evaluated is false, a validation error is raised.

---

**Совет:** Ensure you do not write "=" (single equal) where you intend to use "==" (double equal). For example, AMOUNT == MUL(QUANTITY, UNIT\_PRICE) is valid. But AMOUNT = MUL(QUANTITY, UNIT\_PRICE) is not a valid resultant formula.

---

## Resize mapping area

In the Designer, after mapping a box around a field value on a document, you can resize the box in any direction.

1. In IQ Bot Designer, select a field name in the left panel to see a box with boundary handles around the field value on the document in the right panel.



2. If a field value is not mapped, select a blue-bounded box around the field label on the document to auto-populate the field value. A highlighted box has boundary handles that lets you adjust the size.
3. Alternatively, in the Designer, after drawing a box around a field value, and then releasing the cursor a highlighted box appears with boundary handles that lets you adjust the size.
4. Additionally, make the selected area larger than the segment of text (for example, to enclose multiple segments of text) to extract text in that larger selected area.

## IQ Bot 11.x: Map a field

The Designer opens with the field panel displayed. Correct and re-map the fields, and map new ones as required.

For mapping a system identified region (SIR) as a field, do the following:

1. For a selected SIR, select type from the **Type** drop down list.
2. Map the field label and field values separately by clicking the **Draw** icon next to the **Label** and **Value** fields. Draw a rectangle around the label and value. The value is detected and shows up in the validation pane.

If a mapped field has multiple SIRs, then select any one of the SIR and add the whole key words in the **Label** field. For example, if you have two SIRs such as: Invoice and Number, then add the whole key words *Invoice Number* in the **Label** field.

3. Click **Save and close**.

When you accept the system-detected value mapping for a field, the value stays relative to the field. In some cases, in a different document type, even if the value of the field appears in another location, the system is able to detect it.

4. Click **Validation Options** to validate the field against a set of predefined parameters.

For validation, type the **End with**, and pattern fields when mapping document groups. Additionally, you can also use list validation if the field data type is text.

5. Click **Save** to confirm your changes.

It is mandatory to map all the required fields and table columns defined at the time of creating the learning instance. If any of the required fields is not mapped, a greyed out check icon displays next to the document class. It continues to display until you complete mapping all the required fields and table columns.

---

**Tip:** For additional information, see [What are the different ways to map form fields in IQ Bot \(A-People login required\)](#)

---

### Related concepts

[IQ Bot 11.x Designer validation patterns](#) on page 173

IQ Bot Designer allows you to validate a field and table column against a set of predefined parameters so that you can be warned if any mismatch is found during data digitization process.

## IQ Bot 11.x: Use list validation to improve accuracy of a text field

Setting validations while defining any field or table column while mapping the document class helps validate a field or table column against predefined parameters so that you can be warned if any mismatch is found during the data digitization process.

Enter each text value in a separate line.

- The bot validates extracted value of field/table column against this predefined list and checks for any mismatch found during the **See Extraction Results** phase.
- Besides validating, the process also helps auto correct the extracted values.

- Errors in validation are marked with a red border and can be seen in the **See Extraction Results** phase. Move your cursor over the error to know the error type.

If list validation value is **Adam**, and the extracted value is **Adem**; the extracted value will be auto corrected to **Adam**. In this example, there is a 75% match of characters; and threshold for match is at least 66%.

### Задачи, связанные с данной

[Use Machine Learning to fix extraction errors](#)

In the Validation queue (in Валидатор), IQ Bot can learn from manually corrected (by humans) field values, over a specific time period.

## IQ Bot 11.x: Use validation patterns/lists to flag discrepancy in extracted data

Use validation patterns/lists to flag discrepancies in extracted data and prevent incorrect data from going through.

When a date/number format pattern is explicitly specified, the date/number is auto corrected.

See the following examples:

**Таблица 6. Example of date format pattern**

Incorrect OCR Data	Шаблон	Auto-Correction
15 10-2015	dd-mm-yyyy	15-10-2015

**Таблица 7. Example of number format pattern**

Incorrect OCR Data	Шаблон	Auto-Correction
123 4567	9999999	1234567

## Text segment

A text segment is a blue-box display of a mapped field/column value in the document panel. This feature helps train the боты.

Text segments provide better results for OCR, document classification, and ultimately data extraction. For example, words that should be grouped in the text segment are more likely grouped together, and documents with different layouts are less likely to be grouped together.

In Designer, Валидатор, and Preview (**See extraction results**) views, place your cursor over a text segment on a document to see segment's OCR display in a pop-up box.

In Designer, the pop-up displays a text segment's OCR on the document (in the right panel) with matching corresponding extracted value in the middle panel.

In the Preview (**See extraction results**), and Валидатор views, see the pop-up display a text segment's OCR on the document (in the right panel) with matching corresponding extracted value in the left panel.

If a text segment encloses other smaller text segments, place your cursor over any single text segment to see a pop-up display of its corresponding optical character recognition (OCR) extracted value.

**Понятия, связанные с данным****IQ Bot Validation queue**

Validation eliminates the complexity of validating and fixing issues with the bot, requires less time to fix the issues, and requires minimal human intervention.

**Multi line segmentation for data extraction**

In the Designer, re-size/draw a region consisting of a group of system identified regions (SIRs). The re-sized/draw boxes extract data only from the enclosed SIRs. Additionally, you can also extract text from an entire region by selecting it.

IQ Bot offers multi line segmentation for data extraction. For example, there can be segmentation for patient name, member ID, date of birth, provider name, and gender. All of this information can be contained within a bigger segment box. The Designer can extract data from text segments enclosed within bigger text segments. The blue text segments display in the Designer, Валидатор, and in Preview (**See extraction results** views). The blue text segment boxes that enclose or are enclosed by other text segment boxes help extract data from any of these segments.

For text segments Y and Z enclosed within the main text segment X, when you select/draw around the text segment X, the Designer extracts data enclosed in the text segment X, which would comprise of data in Y and Z.

Select/draw around a text segment Y (that is enclosed by text segment Z) to extract text from text segment Y.

Resizing the X text segment to exclude the Y text segment will extract data from text segment Z only.

When mapping a text segment box X that encloses other segment boxes Y and Z, IQ Bot provides the best guess and auto maps the corresponding value of text segment box X.

**IQ Bot 11.x: Map a table**

In the Designer, move one or more table fields from one table to another to train extraction, see multiple tables and their extracted values to validate extraction, and add new tables.

To map a table fields and columns, do the following:

1. Click **Add table/section** in the left panel and assign a name for the table in the middle panel.
2. Expand **Move fields** in the middle panel, and select the field labels you want to move to other tables.
3. Click the down arrow, and begin mapping the table fields.
4. Select the table field in the left panel and to begin mapping them using any of the following options:
  - **Вариант 1.** Click the column name field in the middle panel and select from available drop-down options.
  - **Вариант 2.** Click the column name field in the middle panel and select the column value from the document view in the right panel.
5. Place your cursor in the **Column value** field in the middle panel and then click the value in the document view to populate the field.
6. Alternatively, use the draw icon to select the value from the document in the right panel.
7. In the **Data type** section, select the data type value of the column from the drop-down list.
8. Next, select **Column options** in the middle panel and choose *Required* or *Optional*. Use the optional value if the column value is not consistently available in the training documents.
9. Use the **Validate pattern** section to specify the following parameters:
  - Starts With
  - Ends With

- Шаблон
- Список

---

**Note:** *[IQ Bot 11.x Designer validation patterns](#)* on page 173

---

**10.** Map values for the other table fields using the same steps.

Once you complete mapping the table columns, the selected SIR region in the document gets highlighted in yellow for easy identification. After mapping the table columns, assign the **Best field for table/repeated section** and **Best field for table/repeated section** for the table.

### Best field for table/repeated section (Reference Column)

The **Best field for table/repeated section** is auto detected and can be viewed in the inspection panel (right panel) of the Designer window. Ensure the **Best field for table/repeated section** does not contain multiple lines, or is empty.

Other columns are extracted in reference to this column. If the **Best field for table/repeated section** has five rows, then the user can expect a maximum of five rows to be extracted from the other columns.

### End of table/section indicator

The **End of table indicator** is the end-point of a table. Enter name of the first field that appears where a table ends. For example, Total, Grand Total etc.

The **End of table/section indicator** helps create a bot in an accurate and efficient way, and is optional. This functionality lets you create and train more боты without worrying about assigning an end of table indicator.

Complete **Table/section name** and **Best field for table/repeated section** in the left and middle panels to set the green check mark for the **Table Settings** section.

### Best field for table/repeated section and End of table/section indicator

Do the following to assign a **Best field for table/repeated section** and **End of table/section indicator** :

1. In the left panel, select the table for which you want to assign the **Best field for table/repeated section** and **End of table/section indicator** .
2. The middle panel gets updated with the details related to the table.
3. Select the **Best field for table/repeated section** from the drop-down list of defined table columns.

---

**Note:** It is mandatory to define a **Best field for table/repeated section** for a table. If you do not define one, a warning icon displays next to the document group.

---

4. To enter the **End of table/section indicator** value, add the first field that appears after a table, as the footer value. Use the pipe symbol to add multiple values to the **End of table/section indicator** .
5. Go to **Advance table options** and select the **Stop extraction at end of table indicator** option to stop data extraction when an end of table indicator value is found.
6. Click **Save** to confirm the values.

**Tip:**

For tables that span across pages but do not have column headers on every page, IQ Bot might skip extracting rows from the pages without column headers. To prevent this, you must accurately select the **End of table indicator/section**. However, this approach does not work with advanced table mapping.

For additional information, see [How to map tables in IQ Bot \(A-People login required\)](#)

## Tips for mapping

Use the following tips to save time and simplify work on IQ Bot tasks.

- Use the special character Pipe "|" Symbol to add multiple aliases to extract similar fields and table columns across multiple document classes. Using and alias helps you create generic IQ Bots.
- When you resize any value region or create your own value region using select, its position gets fixed relative to the field label. The value for that field is always searched in that relative region.
- Reset a fixed field region defined by the user in the auto-detected mode by clicking the close button at the top right corner of the field.
- Map all the required fields or table columns. If missed fields or table columns exist, the system shows a warning icon against the missed fields or columns.
- Define a reference column and footer (footer is optional, and does not always yield a message) for a table. Otherwise, the system shows a warning icon against the missed column/footer.

## Stop extraction at **End of table/section indicator**

Use the **End of table/section indicator** field in the Designer to specify to IQ Bot where to stop extracting data from a table.

Create a learning instance and begin training documents in the Designer. Map all the fields in the document before populating the **End of table/section indicator** field.

As an example, an invoice might contain the subtotal, sales tax, and total in the table, but since each of these fields only have one value per document, they should not be extracted as part of the table.

To prevent IQ Bot from extracting values beyond the **End of table indicator/section**, do the following steps:

1. In the table/section setting, navigate to the **Best field. .** field. For that field, map a table/section header as field label, but shift to advanced table/section, mapping the first row value as the field value.
2. For other table/section fields, you only need to map their first row values as the field values.
3. In the middle panel, for **Advanced table options**, select **Stop extraction at End of table/section**.

Provide the value for the **End of table/section indicator** field in any of the following ways:

- In the right panel, select a blue-bounded box around a text value to populate that text value as the **End of table/section** indicator.
- Alternatively, type a value directly in to the **End of table indicator/section** field, in the middle panel.
- To add multiple values for the **End of table indicator/section** field, type a pipe symbol and a subsequent text value where / refers to *OR* (for example, Subtotal | Subtotal Amounts refers to Subtotal OR Subtotal Amounts).

## IQ Bot 11.x: Add multiple tables in Designer

Add multiple tables in the Designer simultaneously.

Add multiple tables in the Designer to extract their value and validate them. Move one or more table fields from one table to another to train extraction. To add tables do the following:

1. Navigate to **Learning Instance > Start Training > Designer window**.
2. Click the **Add Table** link.
3. Select the columns to add from the **Available columns** list and click the arrow to add to the new table column list.
4. Map the field label or value, for example, column header, and specify the footer. This action provides the bot with a header and footer parameter and informs it to extract the value from the rows in. Use the Draw icon or select a blue box text segment on the document for a field label/field value.
5. Click **Save and close**.
6. To delete a table, click the **Delete Table** option.

When a field that is used as a reference column is removed from a table, the system reassigns the first field of that table as a reference column.

After you finish adding/removing tables and mapping field labels for the columns, choose from the following options:

- Click **Next group**, to move to the next document group in the queue.
- Click **Save and close** to return to the learning instance.

## IQ Bot 11.x: Defining one or more linked fields in a child table

In the Designer, define one or more linked fields/sections in a child table, to link parent and child tables in a flexible way.

Use the *linked fields in a child table* feature in Designer to create table links, and a hierarchy of table links among parent and child tables. This helps efficient data extraction of the linked fields besides easy linking among tables. Foreign key data extraction allows the following relationships only:

- Link single parent row to a single child row (one-to-one linking).
- Link single parent row to multiple child rows (one-to-many linking).

---

**Прим.:** IQ Bot does not support linking of check boxes.

---

Use the feature for documents with a list of names or IDs with specific information on each. For example, documents from an electric company with a list of customers and their billing/usage information. Or a document with a list of student names displaying their test scores. Create multiple tables and link the common fields thus allowing efficient and accurate data extraction. IQ Bot supports linking of up to 50

columns and unlimited rows. However, data extraction from rows spanning across multiple pages is not supported.

- **Single parent-child table field/section linking:**

In the **Table/Repeated Section** of the Designer, choose one or more fields/sections from a parent table to link to a child table.

1. Click **Table Settings** in the child table and click on **Link Table Fields** and select the parent table from the drop-down list of table names. This displays the available column options in the parent table you can choose to link to.
2. Select the columns you want linked and click the downward arrow to link the columns to the child table.
3. The linked columns display under **child table > Table Settings > Linked to (table name)**.
4. When previewing the extracted data (click **See extraction results**), the linked fields from the parent table show up in the extreme left columns of the child table.

- **Multiple hierarchical table field/section linking:**

When linking table 1, 2, and 3 in a hierarchy, link in a way so that table 1 is the parent of table 2, and table 2 is parent of table 3. All three tables would be linked. Child table 3 would display linked fields from table 2 and 1. IQ Bot supports hierarchy linking up to six tables at a time.

---

**Прим.:** For table 3, you can only choose fields from table 2 that are not from table 1.

---

When previewing the extracted data for child table 3 (click **See extraction results**), the extreme left columns show linked fields from table 1. The next columns show linked fields from table 2.

---

**Важное замечание:** For successful linking, the child table must be at the same or lower level than the parent.

---

## Map repeated tables and sections

This topic explains how to map repeated section labels and values.

Follow the steps to map repeated section labels and values:

1. Create a learning instance with an attached document in the domain of your choice and add additional fields that you need. For example, create an instance in the Invoice domain and add Patient name, Date of service, Net amount, and Billed amount.
2. Open the Designer/Training page.
3. Select a repeated section.
4. For a selected system identified region (SIR), select the type from the **Type** drop-down menu.
5. Map the repeated section value separately by clicking the **Draw** icon next to the **Value** field and draw a rectangle around the value. The value is auto detected in the validation pane. Map the repeated section **Label** field by manual entry or selecting the label in the document view. Verify the extracted value in the middle validation panel.

---

**Note:** If a mapped field has multiple SIRs, select any one of the SIR and add the whole key words in the label field. For example, if you have two SIRs, "Invoice" and "Number", then add the whole key words "Invoice Number" in the label field.

---

## 6. Click **Save and close**.

**Note:** When you accept and map the automatically detected value region for a field, the value stays floating relative of the field. Sometimes, in a different document type, even if the value of the field appears in another location, it will be detected.

## UI help to extract tables and repeated sections

When extracting data from tables and repeated sections, IQ Bot offers real-time inline help. View the **Information** icon in the following locations.

- On the create/edit learning instance page, hover over the **Information** icon next to the **Standard table/repeated section fields** header, to see a pop-up screen with an example.
- On the create/edit learning instance page, under **Other fields (optional)** section, to the right of **Add as form/Add as table** buttons, hover over the **Information** icon to display an example.
- In the middle panel of the Designer, for **Table/section Settings**, hover over the **Information** icon to the right of the **Best field for table/section extraction** section, and the **Advanced table/section options** to see image examples of table/repeated section fields, and table summary row.

## Rename tables and repeated sections

Rename tables and repeated sections in the Designer, and identify their content.

In the **Learning Instance** tab, click **Create Bot** to bring up the Designer. In the middle panel, edit the default name of the first table/repeated section (Table-repeated-section-1), to describe the content.

1. In the left panel, select **Add Table** to add a new table. The new default table name appears in the left and middle panels with a placeholder name. Provide a suitable name.
2. In the setting option of the middle panel, enter up to 30 characters to provide a new/revised table name.
3. After saving the table name, the updated name displays in the left panel, describing the content.
4. On trying to save a name that is a duplicate table/field/repeated section name, a text box with a red border and a tooltip displays showing an error message.
5. In the left panel, clicking out of current settings without entering a table/repeated section name shows an error icon in the left panel, and a corresponding error message in the middle panel.
6. Failing to enter valid names for all table/repeated sections disables the **See Extraction Results** (Preview) and **Save** buttons to prevent user from proceeding any further.

## Extract data from check box or check box groups

When you create a learning instance and set it for training, IQ Bot displays the Designer where document groups are trained to extract data. This topic specifies the data extraction for single or group check boxes in the staging environment.

Флажок — это объект пользовательского интерфейса, который позволяет сделать двоичный выбор: выбрать определенную функцию или оставить ее невыбранной. IQ Bot supports extracting data from check boxes or radio buttons with the marked with a tick, cross, or dot. В дополнение к квадратным флажкам и круглым переключателям IQ Bot поддерживает треугольные и ромбовидные контуры.

When IQ Bot processes documents with a check box, it extracts either a **Yes** (check box selected) or **No** (check box not selected) value.



You can also combine multiple check boxes into a single group, for example a payment methods group that contains check boxes for cash, credit card, and check. When IQ Bot processes documents with a check box group, it includes the group name in the extraction results.

### Recurring check boxes or groups

By default, IQ Bot extracts check box values as a form field. However, if a check box or group appears on a recurring basis in the uploaded documents, you manually select the **Column** option so that IQ Bot extracts the values as table fields. This enables IQ Bot to extract values from the subsequent occurrences. Otherwise, IQ Bot will only extract the check box value the first time it appears.

1. Click the field you want to map from the left panel.
2. In the center panel, in the **Data type** drop-down field, select value as **check box** or **checkbox group**.
  - **To extract data from single check box or check box groups**, click the **Field label** field and then click the corresponding value in the document in the right pane.
  - **Extract data from recurring check box or check box groups**, click the **Column name** field and then click the corresponding value in the document in the right pane.
3. To extract the check box value, draw an outline around the check box excluding the value.
  - **For a single check box**, use the **Draw** tool to draw over the check box or select the auto-mapped check box segment.
  - **For a check box group**, use the **Draw** tool to draw over the region covering all the check boxes in that group.
4. **For single check boxes or check box groups:** Verify the extracted data either in the **Field value** field in the Designer or click **See Extraction Results** to see the extracted data.  
**For recurring check boxes or check box groups:** You can only view the extracted data by clicking **See Extraction Results**; the extracted data is not shown in the Designer.
5. Необязательно: To add an individual check box to a check box group, select the desired value from the **Checkbox group** drop-down menu.
6. When you are done configuring the check boxes, click **Save and close** or **Save and go to next group**.

## IQ Bot 11.x: Extract repeated check boxes data

This topic explains how to extract data from the repeated check boxes.

To extract values of these repeated check boxes, first add the repeating check boxes as table fields to your document in the learning instance. In this example, Master Card and Visa Card are the two repeated check boxes.

To extract repeated check box data:

1. Add fields to the learning instance as a table field for the check boxes. For example, add Master Card, and Visa Card.
2. On the **Design** tab, change Format of **Master Card** and **Visa Card** check box fields to `Checkbox_Single`.
3. On the **Design** tab, change Format of **Card Type** field to `Checkbox_Group`.
4. On the **Train** tab, map **Master Card** check box. Similarly, map **Visa Card** check box.
5. Select `Card Type` from the **Group** drop-down list for both the check boxes.
6. Щелкните **Сохранить**.

7. On the **Train** tab, click **Preview** or **CSV**. Based on your selection, the check box and its values are extracted in the preview or in a CSV file.

The data from the two check boxes that are repeated across multiple pages is extracted.

If the Master Card check box field is selected, `Yes` value is extracted and if a check box is not selected, `No` value is extracted. If the check box is drawn away from the actual position of the check box, then `No checkbox found` value is extracted.

---

**Note:** To prevent validation errors, update check box value as `Yes` or `No` in Validator.

---

### Related tasks

[Use Machine Learning to fix extraction errors](#) on page 210

In the Validation queue (in Валидатор), IQ Bot can learn from manually corrected (by humans) field values, over a specific time period.

## IQ Bot 11.x: Delete mapping in the Designer

Delete mapping of field labels and field values, selecting the **X** delete symbol next to the mapped label or value.

The following use cases explain the delete field labels and value mapping options in the Designer.

### Delete a field label and its mapped value:

Select a field label in the middle panel and click the **X** delete symbol of the bound box in the document view to delete both, label and value mapping. The label and the value from the middle panel gets deleted as well. The mapping check mark in the left and middle panels turns from green to gray indicating incomplete mapping.

### Delete field value:

Select the field value and click the **X** delete symbol of the mapped box in the document view, to delete the mapped value. The value from the middle panel gets deleted as well. The check mark in the left and middle panels turns from green to gray indicating incomplete mapping.

### Delete auto mapped value fields:

The **X** delete symbol of the mapped box in document view is not visible till user resizes or manually maps it.

For a form field, when a user deletes a resized or manually mapped box around a the field value, IQ Bot repopulates the original auto mapped value.

For a table/section field, that same behavior does not apply, as a user has the option to map a table/section field name but not a field value, and vice versa.

### Delete a field label/value with or without auto mapped value:

Select a field label/value with or without auto mapped value. The field label bound box displays in the document with an **X** delete symbol allowing users to delete the label.

### Delete field label mapping with validation pattern:

In spite of deleting a field label, the validation pattern that was assigned to the field remains in place.

**Delete option ('X') when bounded box reaches space limit:**

If the label/field value bounded box in the document view covers a bigger area, extending to the edge of or beyond the document view, the 'X' delete symbol appears in the nearest corner of the box.

---

**Прим.:** The field value box in the middle panel is disabled and users cannot enter text manually.

---

## Extract data from table summary rows

User can map table summary rows in the Designer to extract different structures. This topic explains a typical scenario for extracting data from table summary rows.

The following criteria enables this functionality.

In the Designer, navigate to **Table/section settings > Advance table option > Extract table summary row**, and select **Extract Table Summary Rows** to activate extraction of a table summary row.

Select a field label for **Best column for row extraction**, and map the field label and value to turn the field check mark green in the left panel.

For other columns, just map either the field label or field value, to turn the check mark green in the left panel.

In the Designer map one table summary row only to automatically extract subsequent table summary rows (with similar labels and structure in the document).

In staging, in the preview view, CSV file view, and Валидатор, view the listed field names and extracted field values to validate.

## IQ Bot 11.x: Пример

**Extract Table Summary Rows** functionality works to extract values between **label of reference column** and **End of table indicator** labels and avoids duplicate extraction of values from similar areas in other tables.

User is in the Designer training a bot, with at least one table having duplicate or similar regions matching those of another table. **Extract Table Summary Rows** functionality does not impact data extraction irrespective of whether user specifies the **End of table indicator** value.

1. Create two tables with similar or duplicate areas. For example, one table with *claims total* and other with *record details* related to *line number*.
2. Map all table columns related to *line number*.
3. Map all value columns without table label, but related to *claims total*.  
*Claim totals* table has duplicate or similar areas like another table related to *line number*. So the *billed amount* column is a duplicate area for both tables.
4. Map one column of *claims total* table with the *claims total* label, as at least one column label is required for data extraction for a table.
5. Click on **See extraction results** to see duplicate rows that have duplicate or similar areas on *claims total* table. For example, When single page has multiple claim totals records.
6. Click **Back to training** to return to the training page.
7. Navigate to **Claim totals table > table settings**, and check the box for **Extract Table Summary Rows** label under **Advance Table Options**.
8. Enter value for **End of table indicator** and click on **See extraction results**.
9. User can see rows in *claims total* table related to *claims total* only.
10. Click on **Export to CSV** to open the file.

11. User can see table related to *claims total* extraction, as seen in preview.
12. Next, set the learning instance, and bot to production and upload some files related to the bot.
  - If the bot does not have any validation errors, the user can see *claims total* table as per mapping in production CSV file.
  - If the bot has some validation errors, the user can see *claims total* table as per mapping in the Валидатор.

## Common fields across multiple document groups

Create a learning instance with a single document group.

1. Pick any good document from your list of documents.
2. Create, design, and map all the fields as dynamic floating fields.
3. Add aliases to the mapped field labels using "|", if the values are different across various documents. Пример. Invoice header mapped in the document could have values such as, Invoice#, Invoice No., Document No and so on in other documents.

---

**Note:** "|" stands for the term, "or". Пример. Invoice Total | Invoice Amount tells the bot to find the label - if equal to Invoice Total or Invoice Amount.

---



---

**Tip:** Test and refine the aliases as required.

---

## IQ Bot 11.x: Extract data using magnetic ink character recognition

Use the magnetic ink character recognition (MICR) OCR feature with ABBYY FineReader Engine version 12.2 support to extract MICR data from financial checks.

---

**Note:** Documents in Non-Latin based languages cannot be processed if MICR is enabled on ABBYY FineReader Engine OCR version 12.3 and 12.4.

---

- Ensure that ABBYY FineReader Engine is installed in the plug-ins folder: \OCR Plugins\ABBYY SDK \12\ . . .
  - From the C:\Program Files (x86)\Automation Anywhere IQ Bot (version)\Configurations folder, open the Settings.txt file, change *OCREngine=Tesseract4* to *OCREngine=Abbyy*, and save the file.
- 

**Note:** A system restart is not required.

---

1. Set ABBYY FineReader Engine in your settings.txt file as the primary OCR engine.
2. Navigate to the IQ Bot\Configurations\AbbyyImagePreProcessingSettings.json file.
3. Update these parameters:
  - TextTypes = 129
  - DetectTextTypesIndependently =true

The MICR feature is activated in the system.

- Create a learning instance and add form fields to extract MICR data from financial checks such as **MICR** and **Pay to** fields.

- Scan and upload a check to IQ Bot for training. In production, upload the financial checks for accurate MICR data extraction.
- In the Designer, map the MICR data in the financial check for extraction.
- In production, upload the financial checks for accurate MICR data extraction.

### Related tasks

[Use ABBYY FineReader Engine Распознавание текста \(OCR\) engine in IQ Bot 11.x](#) on page 123

IQ Bot installation now automates the installation of ABBYY FineReader Engine (FRE) optical character recognition (OCR) plug-in.

## IQ Bot 11.x: Disable PDFBox option

The PDFBox option is enabled by default. Disable the option when you are training hybrid PDF documents containing images and text.

The PDFBox option works best with completely digital documents only. When using hybrid documents containing images and text, our recommendation is to disable the PDFBox option for better document classification.

There are two ways in which you can disable/enable the PDFBox option in IQ Bot:

- Directly in the UI during the creation of a learning instance. In the **Create new learning instance** page go to **Advanced Settings > Optical character recognition** and disable/enable the **My PDF documents do not have images** check-box.
- In the `Setting.txt` file described as follows.

---

**Note:** The PDFBox option is enabled in the system by default.

---

1. Navigate to `C:\Program Files (x86)\Automation Anywhere IQ Bot\Configurations`.
2. Open the `Setting.txt` file, and change `PDFBoxOCREnabled=true` to `PDFBoxOCREnabled=false`

This turns off the processing of uploaded documents by PDFBox for new learning instances (after applying this change), and does not apply to the existing learning instances. IQ Bot will use your selected OCR engine for PDF documents as well.

---

**Note:** When PDFBox is disabled, ensure that your PDF document is less than 60 pages.

---

3. After updating the `Setting.txt` file, execution of `stoppedanduninstalled` and `installedandstartedstart` of IQ Bot services is not required.

### Related reference

[Матрица сравнения функций IQ Bot](#) on page 13

Compare features between different product releases.

## IQ Bot 11.x: Preview extracted data

After completing field and table mapping, click the **See Extraction Results** button to view OCR and extracted results to verify the accuracy of the training.

The extraction result displays information that the Валидатор view would display and lets you do the following:

- See the listed fields and values. Display an indication if value was successfully extracted, if there was a validation error, or lack of OCR confidence.

- See all table headers and the values for each row, also indicating if there was an error on validation or lack of confidence.

At this point, you can export the preview data to a CSV file for further analysis by clicking on the **Export to CSV** link at the top right header area. Alternatively, click **Back to Training** button to continue with the training. Once all fields and tables complete the training and pass validation, a green check mark displays next to the group title in the middle panel.

---

**Important:** A training document can pass in spite of an error flagged by the validation pattern. Sometimes we want a validation pattern to flag an error, so it would not pass specific documents at a later stage in production; instead enter them in the manual validation queue.

---

After training the documents groups, choose **Save and close**. At this point choose any of the following:

- Choose **Cancel** to stay on the current training.
- Choose **Save** to save the training.
- Choose **Save and send to production** to send the learning instance to the Production environment.

Preview any time during or after the document training, or after completing the mapping of fields and tables for each document group. The **See Extraction Results** button is available for a current document that lets you see the extracted results with the mapped fields and table columns. Errors, if any, are visible and highlighted within a red box. Hover on the error to know more about the error, and correct it.

Click the **Back to Training** button to return to the training.

---

**Important:** If you upload 30 documents and all documents are classified into one group, you can see only one document for each unique layout.

---

## Navigating through your training documents

IQ Bot analyzes training documents and groups, and arranges them in an alpha-numeric sequence.

IQ Bot performs an initial field mapping based on existing knowledge from any pre-trained document types. The training documents are listed in an alpha-numeric sequence.

The **See Extraction Results** menu lists the uploaded training documents in an alpha-numeric sequence. The files are listed in an old to new sequence. You can navigate through the documents one by one, or use the forward and the back arrows to jump to the first, or the last training document.

For IQ Bot Version 11.3.3.1 onward, when you click **Change Training Document**, you are able to view all training documents available in that group, and can select a specific document from that group.

Training documents in a batch are listed in the following order:

- Files names starting with special characters.
- File names starting with numbers.
- File names starting with alphabets.

After you upload the training documents, in the **Review** menu, click **View Each Group**. The training documents appear in alpha numeric sequence. Perform the following steps to preview the training documents:

1. Click the forward button to navigate to the next file.
2. Click the fast forward button to navigate to the last file.
3. Click the backward button to navigate to the previous file.
4. Click the fast-backward button to navigate to the first file.

**5. Click **Change Training Document** .**

The confirmation window appears.

**6. Click **Yes, Change**.**

Edit the training document as per the requirement.

---

**Прим.:** The sequence in which the training documents appear remains the same, even if you edit the documents.

---

Each training document that you copy from the staging environment to the production environment, has its own time-stamp. However, in the staging environment, the documents are listed based on original uploading sequence.

When you upload the training files from production environment to staging environment, the documents are listed based on the original time-stamp.

## IQ Bot 11.x: Export data to a csv file

In the **See Extraction Results** view, you can export the extracted data to a CSV file for ease of review.

Export data to a CSV file:

1. During training when you click the **See Extraction Results** button, you can view the correct/incorrect data extraction for the current training document.
2. In this view, you have the option to export the data to a CSV file for further review.
3. Click the **Export to CSV** option to export data and view it in a spreadsheet.

The CSV file is downloaded with the data extracted from the document.

Click the > next to the document name at the top to see other documents in the group. This allows you to download the data extracted from other documents.

## IQ Bot 11.x: Move a learning instance to Production

Use the **Set instance to production** button to move a learning instance to Production.

When you move a learning instance to the Production environment, a confirmation message appears. To confirm, click **Yes, send to production**. Learning instances in the Production environment are identified by the **Production** label next to their name.

---

**Tip:** You can also use the **My Learning Instances** page to move a learning instance to Production.

---

## Боты

The **Bots** page of the IQ Bot Портал lists all available боты for a learning instance, and enables you to perform tasks such as run, change the status, or launch the IQ Bot Designer.

Create a бот to extract text from a document. Define the field labels and values in a document so that the system can learn from it and automatically process other documents in the document group..

Monitor the progress and status of all боты created for a learning instance and set the status from Staging to the Production environment.

Testing a bot verifies that the bot can reach the required accuracy based on the training. It also runs it against all the sample documents associated with that category or group and benchmarks document and field accuracy. Test a bot only in the Staging environment.

**Note:**

- To view the updated document and field accuracy, refresh the **Bots** page and click the bot name. The updated document and field accuracy appear in the details area.
- You cannot edit a bot that another user is already editing.

## Bot states

The status of a bot is dependent on the state of the learning instance as well as the bot. The table below shows the relationship between learning instance state, bot state, and bot status.

Learning Instance State	Bot State	Bot Status
Staging	Staging	Обучение
Staging	Производство	Ready
Производство	Staging	Обучение
Производство	Производство	Активный
Создан	Not created	No listing

## Delete a bot

The following are some key points:

- Clicking the **Delete bot** button displays a message asking if you want to delete the bot. Selecting yes displays a success message in the Learning Instance details page. The **Summary** tab shows the updated information in the **Staging** and **Production** results sections for the **Groups found** and **Bots created** fields.
- You can delete a bot in Staging only. Once deleted, the bot does not display in the Learning Instance details page or the bot listing page.
  - All associated staging documents are removed from the system.
  - All associated unprocessed production documents get moved to the Валидатор for processing.

**Note:** A new bot is created when the same documents are uploaded again to Staging or Production.

- On re-uploading the deleted documents from the learning instance, the system classifies the documents and displays the groups again with the **Create Bot** option for each group. Clicking the **Create Bot** option creates the bot and you can see it in the **Create Bot** details page.
- In case of backend exceptions, such as disruption of Services, the system does not let you delete the bot. Instead, it displays an error message saying that an unexpected error has occurred.



## Control creation of groups in IQ Bot

Use the new feature to limit creating groups in IQ Bot. A Bot Creator can now configure a threshold defining when a group for a specific document type should be created, thus saving time. New documents uploaded to a learning instance (in production) are sent directly to the Валидатор, instead of creating a new group when the threshold is not met. This enables the user to prioritize training a new document type, based on its frequency of occurrence in production.

To use the new feature:

1. Go to the **Learning Instances** tab, select a learning instance, and click **Edit**.

The **New groups creation setting** section is shown in the edit page.

2. Select any of the following to control the creation of groups:

Вариант	Описание
Select the <b>Never create new groups</b> check box	<p>No new groups are created, irrespective of the number of document uploads. The uploaded documents are sent directly to the Валидатор.</p> <ul style="list-style-type: none"> <li>• This check box is deselected by default.</li> <li>• When this option is selected, the <b>Threshold to create new groups</b> field is disabled.</li> <li>• You can create new groups manually by uploading them to the learning instance in staging.</li> </ul>
Set a value for the <b>Threshold to create new groups</b> field	<p>When you set a threshold value, IQ Bot does not create a group for the uploaded documents till it reaches the defined value. Till the set threshold value is reached, all documents are sent to the Валидатор.</p> <ul style="list-style-type: none"> <li>• By default, the value is set to 10 for all new learning instances.</li> <li>• You can set a value of up to 10 digits.</li> <li>• IQ Bot does not allow you to enter non-numerical characters, zero, or floating points.</li> </ul>

3. Save your updates, which are then reflected in the **Summary** tab.

**Note:** The **Summary** tab displays all the staging and production details. The information is updated based on any applied setting in the **New groups creation setting** section.

For new learning instances, unless you set the minimum threshold in the **New groups creation setting** section, IQ Bot applies the default set value of 10 and does not create groups for the first 9 uploaded documents.

4. For existing learning instances, you can set the minimum threshold in the **Learning Instance > Edit** page. The new threshold is applied to all documents from then onward.

All existing learning instances, even after upgrade, will continue with a threshold as 1.

All changes take effect only on the documents uploaded in production after the setting is edited.

If you change the setting to a new threshold or never create new groups with an existing learning instance, this check will be performed only on the next document uploaded in production.

In the production environment, all classified documents that do not belong to any group and do not meet the minimum threshold requirement are sent to the Валидатор. You can update the values and make necessary corrections. However, all fields are optional and are text data type. The user can **Save current document** without making any corrections, or choose the **Mark as Invalid** option.

You can delete a group from the IQ Bot Designer when the group is in staging. If the same document group occurs in production and meets the minimum threshold again, the system automatically creates a new group with the latest document.

---

**Note:** The **Delete** option is not available on the Learning Instance list page or the Бот page, to ensure that documents are not deleted without reviewing them.

---

## Информационная панель

View the IQ Bot performance report in real-time on the Dashboard.

The report appears when you log in to the IQ Bot Portal. Информационная панель обобщает отчет о работе и предоставляет информацию об обработке документов в графическом формате.

Отображается информация о классификации документов, сквозной обработке (STP) и точности, а также о проверке человеком сведений о действиях для конкретного обучаемого экземпляра. Это позволит вам сосредоточиться на областях, требующих внимания.

Информационная панель IQ Bot разделена на две основные области.

- **Мое общее количество**
- **Мои обучаемые экземпляры**

### Область «Мое общее количество»

**Мое общее количество** — это отображаемая на информационной панели область, которая дает краткий общий обзор статуса всех обучаемых экземпляров в рабочей среде.

В области **Мое общее количество** просмотрите приведенную ниже информацию.

- **Files Processed:** The total number of files uploaded against a learning instance, which are in the production environment.
- **Сквозная обработка (STP).** Процент от общего числа загруженных файлов, которые были успешно обработаны без ручного вмешательства.
- **Точность.** Точность полей, которая представляет собой процентное значение точно идентифицированных полей. Сюда входят поля, уровни доверия оптического распознавания символов (OCR) которых превышают заданный порог доверия.

## Область «Мои обучаемые экземпляры»

Просмотрите сведения о созданных вами обучаемых экземплярах, которые находятся в промежуточных и рабочих средах.

Просмотрите информацию об обучаемых экземплярах в промежуточной среде.

- Имя обучаемого экземпляра
- Область или тип документов. Например, счета-фактуры и квитанции.
- Количество документов в обучаемом экземпляре
- Графическое представление обучаемых документов, показывающее подробные сведения в процентах

Просмотрите информацию об обучаемых экземплярах в рабочей среде.

- Количество обработанных файлов
- Процент сквозной обработки (STP) файлов, которые были успешно обработаны без ручного вмешательства
- Точность поля в процентах

---

**Important:** Иногда количество документов на информационной панели и на странице со сводными сведениями об обучаемых экземплярах не совпадает с количеством документов, поданных на обработку. Это может произойти, когда документы классифицируются по группам, которые не относятся к производству. Документы в этой категории не обрабатываются (преднамеренно), что приводит к несоответствию между количеством обработанных документов и количеством всех документов. В таком случае, если эти группы перевести в производство, общее количество документов будет совпадать.

---

## IQ Bot 11.x: Performance report page

The performance report page displays the details of a learning instance in the production environment.

Navigate to **My learning instances** > **Production** button to view the **Performance report** page showing details of all learning instances in the production environment.

---

**Note:** The **Performance report** page is not available for learning instances that are in the staging environment.

---

The top right corner of the performance report page displays the percentage of bots trained for the learning instance. The following is an example of how to interpret the percentage information.

Cathy has uploaded 10 documents and has created three bots for the learning instance:

- Bot1
- Bot2
- Bot3

Of these, three documents are a part of Bot1, four documents of Bot2, and three documents of Bot 3. When Cathy sets Bot1 into the production environment, the label displays 33% as the percentage of bots trained for the learning instance, which means that 3 out the 10 (33%) uploaded documents (for Bot1) have been trained.

## IQ Bot 11.x: Performance report details

In the **My learning instances** area, click any displayed information to bring up the **Performance report** page. The following sections describe the information for each displayed section of the performance report.

### Instance totals and Processing results

The instance totals and processing results area shows the following information for a learning instance:

- Number of files uploaded for the learning instance – total number of files uploaded that need to be processed.
- Number of files processed for the learning instance - number of files that was processed by a bot.
- Number of files successfully processed for the learning instance – includes files that were successfully processed by a bot without human intervention.
- Number of files sent to validation for the learning instance – files flagged with one or more errors that need human intervention for review.
- Number of files validated for the learning instance – number of files that were reviewed by an individual and the results were saved.
- Number of files marked as invalid for the learning instance – number of files that were reviewed by an individual and marked as invalid.

### Classification results

The **Classification** area provides a statistical display of the field representation graphically.

### Field accuracy results

The **Field accuracy** area provides a graphical representation of the number of times a field is correctly extracted by the system.

### Валидация

The **Validation** area provides the following information:

- A statistical representation of the corrections made to individual fields during the process of validating a document.
- A statistical representation of the average time spent to validate a group.

### Track page count on IQ Bot Dashboard

IQ Bot keeps track of pages that are uploaded to production and displays the information on the dashboard. Users can view the number of pages uploaded to compare against their purchased license limit.

---

#### Прим.:

- This feature is available IQ Bot Version 6.5.x onward.
  - When you upgrade from an IQ Bot version earlier than Version 6.5.x, documents migrated from the earlier version will not be counted in track page count.
-

Each document uploaded to IQ Bot production using RPA is counted towards the license limit.

- See the number of pages uploaded in the IQ Bot Dashboard, learning instance dashboard, learning instance summary, and at the group level.
- When IQ Bot processes a document, the dashboard shows an incremented page count.
- On deleting a learning instance, the page count on the IQ Bot Dashboard remains unchanged.

---

**Прим.:**

- IQ Bot counts the pages of classified and unclassified files. Only corrupt files that cannot be opened will not have any effect on page count.
  - Documents uploaded to staging are not included in the page count.
- 

## Production environment

The learning instance workflow consists of the Staging and Production environments. This is a live environment where a learning instance is set into operation with actual business documents uploaded from a бот.

The learning instance uses the боты created in the Staging environment and executes on actual business documents uploaded against it from a TaskBot.

The primary purpose of the Production environment is as follows:

- Run the бот on uploaded business documents to extract relevant data, thereby automating the business process.
- Do the following tasks in the Production environment:
  - Collect the processed documents that IQ Bot processes, which can result in end-to-end, or unclassified processing.
  - Validate the documents marked for review and export the output to a CSV file for manual review.
  - Do manual review and correction of the extracted data and submit back to IQ Bot.
  - Mark incorrect documents as invalid.
  - Collect and download the invalid documents.

## Upload documents to a learning instance

Upload the Production-ready documents from Automation Anywhere Enterprise to IQ Bot for processing.

You can upload documents to IQ Bot in the following scenarios:

- When you create a new learning instance. См. раздел [IQ Bot 11.x: Создать экземпляр для обучения](#) on page 160.
- When you edit a learning instance in the Staging environment. См. раздел [IQ Bot 11.x: Edit a learning instance](#) on page 167.
- In the Production environment in Automation Anywhere Enterprise Client using the IQ Bot lite command.
- In Automation 360 IQ Bot using **Upload Document** action in [IQ Bot package](#).

The following steps describe the document upload process using Automation Anywhere Enterprise Client.

---

**Note:** This does not apply to Automation 360 IQ Bot.

---

1. Click **File > New** in the Automation Anywhere Enterprise Client window to show the **Automate** dialog box.
2. Click **Workbench** to show the window.
3. From the **Commands** panel, select the IQ Bot command and move it to the **Task Actions List** panel using drag-and-drop. The IQ Bot upload dialog box appears.
4. In the IQ Bot upload dialog box, do one of the following Y:
  - a) **Имя.** Select the learning instance to upload your document.
  - b) **File Path:** Click the browse button to select the learning instance file to upload.  
The **Output Path** area is populated with the name of the learning instance files and path.
  - c) **Success:** This is the physical location on the IQ Bot server where the successfully extracted CSV files are stored. Click the **Copy** button to copy the path to your clipboard.
  - d) **Invalid:** This is the physical location on the IQ Bot server where the invalid source files are stored. Click the **Copy** button to copy the path to your clipboard.
5. Щелкните **Сохранить**. The command is added to the **Task Action List** panel.  
To upload multiple files from a folder, use the **Each File In A Folder** loop command with the IQ Bot command and add it to the **Task Actions List** panel. An example of this task is described in the next topic.

#### Related tasks

[Upload multiple folder files to a learning instance](#) on page 206

Use this task to upload multiple documents to the IQ Bot server. Uploading multiple documents at one time will save you time.

## Upload multiple folder files to a learning instance

Use this task to upload multiple documents to the IQ Bot server. Uploading multiple documents at one time will save you time.

The following example uses the IQ Bot command with the **Each File In a Folder** loop command to upload multiple documents from a local folder to the IQ Bot server.

1. Move the IQ Bot command from the **Commands** list to the **Task Actions List** panel using drag-and-drop. The IQ Bot dialog box appears.
2. Select the learning instance to upload your document and click the browse button to select the file to upload.
3. Click the **Save** button. The IQ Bot command is added to the **Task Actions List** panel.
4. For the source file, the file path can be browsed, or it can contain variables for example,  
`$CurrentDirectory$\$FileName$. $Extension$`.  
 Use the Variable Manager to define extended parameters.
5. Move the **Each File in A Folder** loop command to the **Task Actions List** using drag-and-drop. The **Loop** dialog box appears.
6. Click the **Browse** button, select the folder of your choice, and click **Save**. The loop command is added to the **Task Actions List** panel.
7. Delete the existing file path item in the **File Path** field and choose the *F2* and *Fn* buttons on a Microsoft Windows machine. The **Insert Variable** dialog box appears.

## Download a document from a learning instance

Once documents are uploaded to a learning instance, some files process successfully, while others fail.

**Note:** To download documents from an Automation 360 IQ Bot server, use the **Download all documents** action in [IQ Bot package](#).

For documents that are processed but enter the Validator queue for human review, use the option to mark the document digitization and extraction as **Invalid**. Depending on the scenario, download and remove these files from the learning instance. Copy the paths shown in the **Success** and **Invalid** labels of the IQ Bot dialog box to your clipboard.

### Output folder structure

Use the copied output paths as a variable in the **Task Editor**. The output paths are formatted as follows:

- If you did not choose the path during installation, then IQ Bot sets the following as the default path: C:\Users\Public\Documents\Automation Anywhere IQBot Platform\Output\.
- After the files are uploaded for processing, the output for every learning instance is categorized into the following:

#### Success folder

```
<output path>\<learning instance name>\Success\
```

Documents go into this folder when IQ Bot successfully classifies a document in production with a trained group and matches the following validation rules:

- The document is associated with a group under a learning instance based on a domain (out-of-the-box or custom). Groups are created based on layout or format of the documents. If 60 percent of the documents' format or layout match, they are categorized into the same group.
- The fields intended to be extracted from the document match the patterns or rules set during its training.

Successfully extracted fields are saved in a .csv format.

#### Unclassified folder

```
<output path>\<learning instance name>\Unclassified\
```

Documents go into this folder when IQ Bot is unable to classify them. This can happen due to various reasons, some of which are as follows:

- Document is noisy or has low dots per inch (DPI) count (recommended is 300 DPI or more).
- Wrong language was selected during instance creation.

- The document contains a heavily colored background. In this case, try removing the color and try again.

### Invalid folder

```
<output path>\<learning instance name>\Invalid\
```

Documents in this folder did not pass IQ Bot validation.

IQ Bot processes and flags field errors in that document before it can be viewed in the Validator, where you can fix and verify the flagged fields. IQ Bot processes and flags field errors in that document before it can be viewed in the Validator. In the Validator, you can fix and verify the flagged fields in the Validator.

Files that fall into groups but do not have an associated bot become available in Not Processed folder.

### Not processed folder

```
<output path>\<learning instance name>\Unclassified\
```

Documents in this folder fall into groups but do not have an associated bot.

This can happen due to various reasons, some of which are as follows:

- The document layout is not yet trained and creates a new group.
- Documents for which training is complete but the associated bot is still in staging.

In this folder, sub-folders might be created based on the groups. For example, Group\_123, where 123 is the group number. In these sub-folders, you can view documents that have been processed by IQ Bot for that learning instance.

### Related tasks

[Read a successfully digitized document using TaskBot](#) on page 208

Use a TaskBot to read a processed document from a CSV file.

## Read a successfully digitized document using TaskBot

Use a TaskBot to read a processed document from a CSV file.

---

### Important:

Typically, the .csv output directly reflects the sequence in which fields are selected while creating a learning instance. Fields added later by editing a learning instance are displayed at the end. However, all .csv files generated for the same learning instance is not guaranteed to have the same sequence of header fields.



This occurs because some features such as Nested Table and Multi Table, which have their own specialized configuration at the bot level, alter the field sequence based on how that bot is configured during training. Therefore, you should access the output `.csv` file using field names instead of index in header.

1. On the Automation Anywhere Enterprise Client Editor UI, drag the **Read From CSV/Text** command from the **Commands** list to the **Task Actions List** panel.
2. Do the following
  - a) Choose **Select File** to read the file.
  - b) Choose from **Delimiter, Header and Trim** modes, as appropriate.
3. Select **Encoding > UTF-8** to ensure all the special characters from different languages appear accurately.
4. Click **Save** to add the command to the **Task Action List** panel.
5. Use `$Filedata Column$` variable to specify the CSV column for extraction.

The following example uses the **Read From CSV/Text** command with the loop command to read digitized documents in the CSV format, from the IQ Bot Success path.

`$Filedata Column(1)$` returns the value from the first column. `$Filedata Column(2)$` returns the value from the second column. The Loop iterates through each record in the CSV file and returns values for the first and second columns. Use these values for further automation, as required.

**Tip:** In the `$Filedata Column(name)$`, the name could be `$Filedata Column(Invoice_Date)$`.

After upgrading from a previous version of IQ Bot to the latest installed version, if you are using a TaskBot to read the output CSV, change the encoding in the **Read from CSV command** in the TaskBot to `UTF-8`.

## IQ Bot Validation queue

Validation eliminates the complexity of validating and fixing issues with the bot, requires less time to fix the issues, and requires minimal human intervention.

IQ Bot processes a document before it can be viewed in the Валидатор, and flags field errors in that document. The user corrects the flagged fields and/or verifies the unflagged fields in the Валидатор.

After the updated document is fixed and saved, it does not count as straight-through processing (STP) but still moves to the successful queue where it can be picked up by an upstream automation task. This is the IQ Bot Validation queue.

Documents that fail automated processing rules or have field values failing because of low optical character recognition (OCR) confidence are pushed into a folder to be reviewed and fixed manually. Manual review is time-consuming and complex because it requires navigating to the correct folder and scripting knowledge (done in a CSV file) to fix the document.

**Note:** To learn more about how field-level OCR confidence can be used to improve the quality of STP output, see [IQ Bot 11.x: Improve output quality using OCR confidence](#) on page 172.

### Related tasks

[Use Machine Learning to fix extraction errors](#) on page 210

In the Validation queue (in Валидатор), IQ Bot can learn from manually corrected (by humans) field values, over a specific time period.

## Use Machine Learning to fix extraction errors

In the Validation queue (in Валидатор), IQ Bot can learn from manually corrected (by humans) field values, over a specific time period.

IQ Bot can learn from the document field data pairs, for example, incorrect field values and manually corrected field values, and become more confident about an erroneous field value and what that value correction is. If IQ Bot reaches a 90%+ confidence level, it auto-corrects the erroneous field value.

If additional documents are uploaded in Production, IQ Bot auto-corrects errors, skips the Validation queue, and counts the documents as straight-through processing (STP).

Sometimes, IQ Bot does not reach the 90%+ confidence level. For example, if incorrect data and manually corrected data differ in length by more than four characters, the manually-corrected data is not provided to the Machine Learning (ML) model.

---

**Прим.:** The Validation queue auto-correction does not apply to check box extraction.

---

1. In the Validation queue, when correcting a field value error, select from the available options.
  2. Choose to not select a suggestion, but instead enter a value, or click to another field.
  3. Choose to enter a value in a field to fix the error, and save your corrections, IQ Bot saves your manually-corrected field value.
  4. If you make multiple corrections for the same fields with the same value, the confidence of IQ Bot might increase. If the confidence level reaches 90%; the system auto-corrects the field value in real-time with your suggested value (when you click into the cell).
- 

**Прим.:** For uploaded documents, if all failed fields are auto-corrected, the document skips the Валидатор, and instead, exports directly to CSV, counting as Dashboard STP.

---

## Validator window

The Валидатор window helps validate the uploaded and processed documents for a learning instance.

To open the Валидатор user interface, navigate to **http://<IQ Bot installation path>/ > Learning Instances** and click the **Launch validator** icon on your Web browser.

---

**Note:** Only users with an assigned Валидатор role using Control Room can view the Validation page.

---

### Launch the validator window

Launch the **Validator** window from the **Learning Instances** page in any of the following ways:

- Click the **Launch validator** icon for a learning instance.
- Click the **Validate** button from the **Summary** or **Document Groups** tab.

The Validator launches displaying the first file from the validation list.

---

**Note:** The user sees an empty page and a message saying: *There are no documents available for validation, you will be redirected to the learning instance page*, in the following scenarios:

- If no files are available in the validation queue.
- If a file does not exist in the validation queue.

- If another user is working on the remaining file in the validation queue.

---

### Related concepts

[Validate document with errors](#) on page 211

The Валидатор window appears with data requiring validation marked in red color fonts and boxes.

[Multiple table relationship in Валидатор](#) on page 211

To complete successful validation, in the Validation queue (in the Валидатор), edit shared columns between two or more tables, or add corresponding rows to two or more tables.

[Multiple table relationship in CSV file](#) on page 212

Preview the linked columns of a learning instance in a CSV file to see the mapped values of those multiple linked tables. Review and confirm the accuracy of the mapping. Then save the validation.

[Mark document as invalid](#) on page 212

The Валидатор might want to flag a certain document as invalid if the validation conditions are not met, and if the document requires retraining.

[Validator audit logs](#) on page 212

All events related to validation are stored in a log file in the Microsoft Windows Public folder.

[Tips for mapping](#) on page 189

Use the following tips to save time and simplify work on IQ Bot tasks.

### Related tasks

[User roles and permissions](#) on page 140

Learn about the roles and associated permissions required for each IQ Bot user.

## Validate document with errors

The Валидатор window appears with data requiring validation marked in red color fonts and boxes.

To validate a document with errors do the following:

1. Click the **Tab** button or click the mouse on the field that requires validation (marked in red). The associated field value of the document is highlighted so that it is visible and focused.
2. Validate the fields by entering the correct information.

When you try to save a document without validating all the errors in the document, an error message appears.

Do the following during validation:

- **Add or delete a table row:** To insert or delete rows while validating a document, hover over the ellipses to show the icons for adding or deleting table rows.
- **Skip to next file:** If you want to skip a file without correcting its errors, click the **Skip to next file** option at the bottom of the validator window.
- **Validation queue:** See all information about the validation queue in the validator screen as a subtitle.

## Multiple table relationship in Валидатор

To complete successful validation, in the Validation queue (in the Валидатор), edit shared columns between two or more tables, or add corresponding rows to two or more tables.

In the Валидатор, you can edit values in the extracted primary field of the parent table or repeated section.

If shared fields between the linked tables do not match values, the Валидатор does not let you complete validation and save.

This functionality helps avoid manual validation errors that can occur when there is a mismatch of field values between the parent and child tables. The Валидатор shows an error message and prevents the save.

## Multiple table relationship in CSV file

Preview the linked columns of a learning instance in a CSV file to see the mapped values of those multiple linked tables. Review and confirm the accuracy of the mapping. Then save the validation.

Вариант 1.

If you edit a learning instance to add a field, and then link that field to a child table, that field appears in the leftmost columns of that child table of the CSV file. For files in the IQ Bot production (success) folder, you can leverage RPA to access the CSV files, and use the extracted linked fields from the leftmost columns of a child table to merge that child table with a parent table.

Вариант 2.

If you edit a learning instance to add a field, and that field is not a primary or linked field in a child table, the field appears in the rightmost column of the CSV file.

## Mark document as invalid

The Валидатор might want to flag a certain document as invalid if the validation conditions are not met, and if the document requires retraining.

Mark documents that cannot be processed as invalid because of some of the listed reasons. To mark documents as invalid, click the **Mark as Invalid** button in the Validator window. Select the appropriate reason in the confirmation window from the following options:

- Fields missing
- Tables missing
- Wrong values

---

**Note:** To view and access the documents marked as invalid, go to the **Invalid > Output** folder located in your server.

---

1. After successfully validating the fields and tables, click the **Save Current Document** button.
2. Click the **Skip to next file** button to scroll to the next document in the queue.

## Validator audit logs

All events related to validation are stored in a log file in the Microsoft Windows Public folder.

The logs are stored in a **validator.events** file and the location of the folder is **%Public%\Documents\Automation Anywhere IQ Bot Platform\Logs\Audit**. The following events are stored in the log file:

- Name of the platform
- Имя компьютера
- Time stamp
- Whether a document was validated successfully

---

**Note:** The logs stored in the **validator.events** file are updated asynchronously.

---

## Валидатор enhancements

Review the IQ Bot Валидатор enhancements, which are available to users with Валидатор access.

Some of the Валидатор enhancements are as follows:

- You can now hide the **Skip to next file** and **Mark as Invalid** options using configuration settings. The options are currently enabled by default.

To enable the option to hide them, contact Automation Anywhere Support.

- You can now hide the **Hide successful fields** and **Hide optional fields** options using configuration settings. The options are enabled by default.

To enable the option to hide them, contact Automation Anywhere Support.

---

**Note:** Selecting the **Hide successful fields** and **Hide optional fields** check boxes hides all the valid fields and reduces the display of a large number of fields, thus making correction easier. However, if there is an invalid field, it continues to be displayed because the invalid field requires correction.

---

- Clicking in any column field expands the column width to accommodate the text entry. The Валидатор shows the value of the field that is being validated, in the document.
- Draw an area around single or multiple values in the document image to automatically populate a field in the Валидатор. This function is similar to the Designer.

*Text segment* on page 186

## Search in Валидатор, by file name

As users process documents from various vendors simultaneously, IQ Bot classifies these documents into different validation groups, which makes it difficult for the user to identify and prioritize a specific document for validation.

Users with Валидатор access roles can see the new search box in the Валидатор page, and search for a specific document in the validation queue.

Click the Валидатор icon next to the learning instance to load the IQ Bot Валидатор and use the new search feature as follows:

- Enter a specific file name or search term (from the document name) in the search box.

IQ Bot uses the single search terms like a wildcard and retrieves a list of documents with the search word in the document name.

---

**Note:** There is a 150-character limit for entering a file name in the search box.

---

- The Валидатор displays 10 search results at a time. The search box has a search and cancel icon, and a scroll bar to view the entire search list.

---

**Note:** The search does not display locked documents in the result list.

---

- Clicking a search result opens the document in a new window, allowing you to return to the search list to click and open another document. You can open multiple windows simultaneously, with a different document displaying in each window.

- Search is specific to a learning instance. When you click the **Validate** option for a specific learning instance, the system searches only within that learning instance.

---

**Note:** The validator restricts the use of certain characters in the search box. Using any of the following characters displays an error message: / \* < > " | ? : .

---

- The Валидатор locks the document you are working on, ensuring no one else has access to it at that time and allowing you to work on one document at a time. If you move away from the document while working on it, the system allows the lock to remain in place for 15 minutes before unlocking it.

---

**Note:** Validate one document at a time.

---

If user opens multiple documents in different tabs, the last document opened will be locked. Other documents will not be locked.

## IQ Bot 11.x: Adding custom logic to improve automatic extraction in production

Enter the logic in the IQ Bot Designer to improve text extraction and validation, and to reduce the number of documents entering the Валидатор that requires RPA post processing.

### Обзор

For Automation 360 IQ Bot Cloud, there is an identified list of Python libraries and packages that are safe to use for the Custom Logic feature. Use only these packages to ensure security for your cloud infrastructure, file systems, databases, and network resources: [List of Pandas Libraries which are supported and not supported on Automation 360 IQ Bot \(A-People login required\)](#)

Keep in mind the following:

- Custom logic executes in a sequential order across all tables and fields.
- Applying custom logic might increase the extraction time per document.
- Automation 360 IQ Bot validation rules apply over the extracted values processed by the custom script.
- Custom script only works on the extracted data and does not influence the OCR extraction quality.

The custom logic feature helps clean up extracted values ahead of the validation step but does not replace all the post-processing currently done using the TaskBot. In addition to adding inline scripts, users can use the Python scripts in a central location, import those as modules, and call functions to reduce the amount of Python code at the field or table level.

---

**Restriction:** If the number of characters in the Python code along with other information exceeds 32000, and when this code is sent to the back-end as a Windows runtime argument for the process, the execution fails, and does not display any error message.

---

### Resources

To learn more, search for *Using Custom Logic in IQ Bot* course in [Automation Anywhere University: RPA Training and Certification \(A-People login required\)](#).

### Следующий шаг

Using scripts, in the IQ Bot Designer add the **Form fields** and **Table fields**.

**Related concepts**

[IQ Bot 11.x: Use cases and examples](#) on page 216

These are some use cases the Designer script feature supports.

[IQ Bot 11.x: Pre-installed Python packages](#) on page 217

To facilitate ease of use and consistent behavior across servers, IQ Bot auto installs Python v3.5.4 and some popular Python packages mentioned as follows. For example: at C:\Python354-x86-IQBot.

[IQ Bot 11.x: Additional Python packages](#) on page 218

To allow further empowerment, you can add more Python libraries for use in IQ Bot.

**Related tasks**

[IQ Bot 11.x: Поля формы](#) on page 215

Add scripts in Designer for form fields.

[IQ Bot 11.x: Поля таблицы](#) on page 215

Add scripts in Designer for table fields.

## IQ Bot 11.x: Поля формы

Add scripts in Designer for form fields.

The *List validation via external file* can be implemented as a part of the field custom logic using python scripts directly in the Designer.

1. In the IQ Bot Designer, left-hand panel, highlight a form field whose extraction/validation you aim to improve further.
2. In the middle panel, scroll down to **Field options** > **Logic**.
3. In that **Logic** section, toggle between **fullscreen** and **smallscreen** for ease of use.
4. Add code to modify IQ Bot's extracted text value. See example below:

```
variable that stores the value: field_value

import the Python regular expression library, re
import re

call the regular expression library's method, findall, to extract the
date value only
field_value = re.findall(r'\d{2}-\d{2}-\d{4}', field_value)[0]
```

5. Select **Test Run** to test your script and see the results before vs. after.

```
value_before: 2018/11/09 B210
value_after: 2018/11/09
```

## IQ Bot 11.x: Поля таблицы

Add scripts in Designer for table fields.

1. In IQ Bot Designer, left-hand panel, highlight **Table/section settings** for the table whose extraction/validation you aim to improve further.
2. In the middle panel, scroll down to **Logic**.
3. In the **Logic** section, toggle between **fullscreen** and **smallscreen** for ease of use.

4. Add code to modify the extracted table values, which are stored as a Python dictionary in a user variable called `table_values`. See example below.

Each row has a Guid (Global unique identifier), which allows IQ Bot to auto track rows that are added and deleted. If you add a row, you need not enter a Guid. IQ Bot will handle this automatically.

```
variable that stores the value: table_values

convert from dictionary to dataframe
df = pd.DataFrame.from_dict(table_values)

print dataframe before update
print(df)

Item_Description: drop rows with a missing value
df = df[(df["Item_Description"] != "")]

Quantity: extract first part of the string, the numeric part only
df['Quantity'] = df['Quantity'].str.split(' ', 1).str[0].str.strip()

print dataframe after update
print(df)

convert back from dataframe to dict to override what IQ Bot stores
table_values = df.to_dict()
```

5. Select **Test Run** to test your script and see the results before vs. after.

	Item_Description	Guid
product_id	Quantity Item_Total	
0	wafer, NO172 43ea78f4-7b9b-413a-83ce-89d671478d6c 2	
	COMS5A-18090220 4.00 PCS 5,840.00	
1	Visual Iaspection + cc774f5f-2507-4a15-8e45-7b2abf84fabe	
	1.00 EA 65.00	
2	6bddfed1-2359-4305-a0ac-a1769c113bfb 5% VAT :	
	Total - 4.00PCS GR: 5,905.00	
3	2dc642a7-8e6e-4bc6-9672-85afff8c21db	
	Total - KGD: 0.00	

	Item_Description	Guid
product_id	Quantity Item_Total	
0	wafer, NO172 43ea78f4-7b9b-413a-83ce-89d671478d6c 2	
	COMS5A-18090220 4.00 5,840.00	
1	Visual Iaspection + cc774f5f-2507-4a15-8e45-7b2abf84fabe	
	1.00 65.00	

6. If you select **See extraction results** or save the bot, your script is saved.

## IQ Bot 11.x: Use cases and examples

These are some use cases the Designer script feature supports.

For examples of user scripts and use cases, see: [IQ Bot custom logic use cases and examples](#)

Following are some use cases:

- Query an extracted value vs. a database in an ERP system to validate values.



- Extract "0123456" from "PO 0123456".
- Remove table rows that contain "Page x of y".
- Extract the currency from one table field (for example: Item Total) and save in an empty table field.
- Extract the product number from a table field (for example: Item Description).
- Extract the zip code from an address.
- Query a REST service (for example: add NLP, retrieve data from an outside system, and so on).
- Return a Boolean yes/no value on whether handwriting exists for a field.

## IQ Bot 11.x: Pre-installed Python packages

To facilitate ease of use and consistent behavior across servers, IQ Bot auto installs Python v3.5.4 and some popular Python packages mentioned as follows. For example: at C:\Python354-x86-IQBot.

**Table 8: Pre-installed Python packages**

Main package	Версия	URL-адрес
difflib	In-built Python with installer	<a href="https://docs.python.org/3/library/text.html">https://docs.python.org/3/library/text.html</a>
io	In-built Python with installer	<a href="https://docs.python.org/3/library/io.html">https://docs.python.org/3/library/io.html</a>
re	In-built Python with installer	<a href="https://docs.python.org/3/library/text.html">https://docs.python.org/3/library/text.html</a>
sqlite3	In-built Python with installer	<a href="https://docs.python.org/2/library/sqlite3.html">https://docs.python.org/2/library/sqlite3.html</a>
строка	In-built Python with installer	<a href="https://docs.python.org/3/library/text.html">https://docs.python.org/3/library/text.html</a>
stringprep	In-built Python with installer	<a href="https://docs.python.org/3/library/text.html">https://docs.python.org/3/library/text.html</a>
sys	In-built Python with installer	<a href="https://docs.python.org/3/library/sys.html">https://docs.python.org/3/library/sys.html</a>
textwrap	In-built Python with installer	<a href="https://docs.python.org/3/library/text.html">https://docs.python.org/3/library/text.html</a>
unicodedata	In-built Python with installer	<a href="https://docs.python.org/3/library/text.html">https://docs.python.org/3/library/text.html</a>
Дата/время	4,3	<a href="https://pypi.org/project/DateTime/">https://pypi.org/project/DateTime/</a>
pandas	0.24.2	<a href="https://pypi.org/project/pandas/">https://pypi.org/project/pandas/</a>
inflection	0.3.1	<a href="https://github.com/jpvanhal/inflection">https://github.com/jpvanhal/inflection</a>
dateutils	0.6.6	<a href="https://pypi.org/project/dateutils/">https://pypi.org/project/dateutils/</a>
tabulate	0.8.3	<a href="https://pypi.org/project/tabulate/">https://pypi.org/project/tabulate/</a>
numby	1.16.4	<a href="https://pypi.org/project/numpy/">https://pypi.org/project/numpy/</a>
json	2.0.9	<a href="https://docs.python.org/3/library/json.html">https://docs.python.org/3/library/json.html</a>

Main package	Версия	URL-адрес
requests	2.22.0	<a href="https://github.com/kennethreitz/requests">https://github.com/kennethreitz/requests</a>
psycopg2	2.8.3	<a href="https://pypi.org/project/psycopg2/">https://pypi.org/project/psycopg2/</a>
pymongo	3.8.0	<a href="https://pypi.org/project/pymongo/">https://pypi.org/project/pymongo/</a>
pyodbc	4.0.26	<a href="https://github.com/mkleehammer/pyodbc">https://github.com/mkleehammer/pyodbc</a>
opencv-python	4.1.0.25	<a href="https://pypi.org/project/opencv-python/">https://pypi.org/project/opencv-python/</a>
Pillow	6.0.0	<a href="https://github.com/python-pillow/Pillow">https://github.com/python-pillow/Pillow</a>
cx_Oracle  <b>Note:</b> As of Сборка 16685, this module is replaced by oracledb. See <a href="#">Upgrading from cx_Oracle 8.3 to python-oracledb</a>	7.1.3	<a href="https://github.com/oracle/python-cx_Oracle">https://github.com/oracle/python-cx_Oracle</a>
oracledb	1.2.1	<a href="https://github.com/oracle/python-oracledb">https://github.com/oracle/python-oracledb</a>
Python Arabic Reshaper	2.0.15	<a href="https://github.com/mpcabd/python-arabic-reshaper">https://github.com/mpcabd/python-arabic-reshaper</a>

## IQ Bot 11.x: Additional Python packages

To allow further empowerment, you can add more Python libraries for use in IQ Bot.

1. Open the Command Prompt.
2. In the Command Prompt, change directory to IQ Bot's Python dictionary. Пример. C:\Python354-x86-IQBot.
3. Install your Python package there. For example: *pip install PyArabic*.
4. In **IQ Bot Designer > Logic**, you can import and use that Python package.
5. If step 4 does not work, then stop/uninstall and then install/start services.

## Prevent automatic copying of documents to Staging

Prevent automatic copying of production documents to the Staging environment to keep training and production data separate and also meet information security compliance requirements.

Prevent automatic copying of production documents to Staging as follows:

1. Open the `Settings.txt` file from the `%PROGRAMFILES(X86)%\Automation Anywhere IQ Bot 6.0\Configurations` folder.
2. Assign the **False** property to the `CopyProductionFiles`.
3. From the service console, restart the **Automation Anywhere Cognitive File Manager** service.

4. Click any **Create Bot** link to open the IQ Bot Designer to view the following message: There are no training documents available for this Bot. Upload some training documents for the associated learning instance and try again.

After making this change, to train боты for the groups created in Production for this learning instance, manually upload sample documents to Staging (resembling the Production documents).

## Migration Utility

Use the IQ Bot Migration Utility to export and import learning instances between different IQ Bot installations to avoid re-creating similar learning instances. This makes the life cycle management of a learning instance and the associated боты easier.

If you are using Version 11.3, see [Using Migration Utility to import and export learning instances](#) on page 251.

If you are using Automation 360 IQ Bot, see [Migrate IQ Bot learning instances](#).

## Keep learning instance document classifier version during IQ Bot upgrade

After upgrading to another version of IQ Bot, retain the previous document classifier version. This lets user access the learning instances created in the other version of IQ Bot, and also saves the effort of re-creating and retraining the боты after an upgrade.

1. During the IQ Bot installation process, after configuring the IQ Bot installation and output folder path, verify the classifier version page appears. The document classifier is specific to the learning instance, and not to the IQ Bot system
2. Select the previous classifier version from the drop-down list to preserve the existing learning instances' classifier version. This allows access to the learning instances created in the previous version of IQ Bot, and avoids retraining the боты.
3. After installation, open the existing learning instances in the IQ Bot Version 6.5 UI. The боты show the same classification and text segmentation in the upgraded version of IQ Bot as in the previous version because the user chose to preserve the previous classifier version during installation. If the user exports or imports IQ Bot Archive (IQBA) files from one Version 6.5 machine to the same or another Version 6.5 machine, the existing learning instances and functions are preserved.

## IQ Bot 11.x: List of languages in IQ Bot

There are up to 30 languages available in IQ Bot. You can also access up to 190 languages by using an Распознавание текста (OCR) engine.

When you review the list of languages in IQ Bot, you will observe the following:

- Some languages are listed multiple times as variants, for example, Norwegian, Norwegian (Bokmal), Norwegian (Nynorsk).
- Among languages that are written from right to left, such as Arabic, Aramaic, Azeri, Divehi, Fula, Hebrew, Kurdish, N'ko, Persian, Rohingya, Syriac, and Urdu, Arabic is currently supported on IQ Bot.

- For languages not in the IQ Bot UI by default:
  - These rely on ABBYY FineReader Engine 12.2 for text segmentation and OCR, then IQ Bot for classification, extraction, and autocorrection.
  - Contact your **Cognitive Services** or **Sales Engineering** representative to create IQ Bot custom domains to access these languages.
  - In the SQL database and `.json` file, IQ Bot requires language codes for 160 of the additional languages to appear in the UI, and culture codes to allow numeric and date validation.

**Прим.:**

- For ABBYY FineReader Engine and Microsoft Azure Computer Vision OCR engine, IQ Bot uses its text segmentation + Распознавание текста (OCR).
- For Microsoft Azure Computer Vision OCR engine, user can select any language from IQ Bot's drop-down, but the API aims to auto-detect the language during processing, and override user selection.

**Supported OCR engines**

The following table provides you with links to supported languages for all IQ Bot supported Распознавание текста (OCR) engines except Tesseract4 OCR:

<b>IQ Bot supported Распознавание текста (OCR) engines</b>	<b>Supported languages by OCR</b>
Tesseract4 OCR	See table below for list of supported languages.
ABBYY FineReader Engine	<a href="#">ABBYY FineReader Engine OCR supported languages</a>
Microsoft Azure Computer Vision OCR engine	<a href="https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/language-support">https://docs.microsoft.com/en-us/azure/cognitive-services/computer-vision/language-support</a>
Google Vision API	<a href="https://cloud.google.com/vision/docs/languages">https://cloud.google.com/vision/docs/languages</a>
Tegaki API	<ul style="list-style-type: none"> <li>Японский</li> <li>Корейский</li> <li>Japanese - English</li> <li>Korean - English</li> </ul>

The following table contains the languages supported by the Tesseract4 OCR and in IQ Bot when you select **Other** in the **Document type** field.

<b>OCR language</b>	<b>Tesseract4</b>	<b>IQ BotOther domain</b>
Английский	X	X
Abkhaz		
Adyghe		
Afrikaans	X	X
Agul		
Albanian		

OCR language	Tesseract4	IQ BotOther domain
Altaic		
Armenian (Eastern)		
Armenian (Grabar)		
Armenian (Western)		
Avar		
Aymara		
Bashkir		
Basque		
Belarussian		
Bemba		
Blackfoot		
Breton		
Bugotu		
Bulgarian	X	X
Burmese (technical preview)		
Buryat		
Catalan	X	X
Chamorro		
Chechen		
Китайский (упрощенное письмо)	X	X
Китайский (традиционное письмо)	X	X
Chukcha		
Chuvash		
Corsican		
Crimean Tatar		
Croatian		
Crow		
Чехия	X	X
Датский	X	X
Dargwa		
Dungan		
Dutch		
Нидерландский (Нидерланды)		

OCR language	Tesseract4	IQ BotOther domain
Dutch (Belgium) or Flemish	X	X
Eskimo (Cyrillic)		
Eskimo (Latin)		
Esperanto		
Estonian		
Even		
Evenki		
Faeroese		
Fijian		
Finnish		
Французский	X	X
Frisian		
Friulian		
Scottish Gaelic		
Gagauz		
Galician		
Ganda		
Немецкий	X	X
German (new spelling)		
German (Luxembourg)		
Greek	X	X
Guarani		
Hani		
Hausa		
Hawaiian		
Венгерский	X	X
Icelandic		
Ido		
Indonesian	X	X
Interlingua		
Irish		
Итальянский	X	X
Японский	X	X
Kabardian		

OCR language	Tesseract4	IQ BotOther domain
Kalmyk		
Karachay-Balkar		
Karakalpak		
Kasub		
Kawa		
Kazakh		
Khakas		
Khanty		
Kikuyu		
Kirghiz		
Kongo		
Корейский	X	X
Korean (Hangul)		
Koryak		
Kpelle		
Kumyk		
Lak		
Sami (Lappish)		
Latin	X	X
Latvian		
Latvian language written in Gothic script		
Lezgin		
Lithuanian		
Luba		
Macedonian		
Malagasy		
Malay	X	X
Malinke		
Maltese		
Mansi		
Maori		
Mari		
Maya		
Miao		

OCR language	Tesseract4	IQ BotOther domain
Minangkabau		
Russian and English		
Mohawk		
Mongol		
Mordvin		
Nahuatl		
Nenets		
Nivkh		
Nogay		
NorwegianNynorsk and NorwegianBokmal		
Norwegian	X	X
Norwegian (Bokmal)		
Norwegian (Nynorsk)		
Nyanja		
Occidental		
Ojibway		
Old English		
Old French		
Old German		
Old Italian		
Old Slavonic		
Old Spanish		
Ossetian		
Papiamentto		
Tok Pisin		
Польский	X	X
Португальский	X	X
Португальский (Бразилия)		
Portuguese (Portugal)		
Provençal		
Quechua		
Rhaeto-Romanic		
Romanian	X	X
Romanian (Moldavia)		



OCR language	Tesseract4	IQ BotOther domain
Romany		
Ruanda		
Rundi		
Russian (old spelling)		
Russian	X	X
Russian (with accents marking stress position)		
Samoan		
Selkup		
Serbian	X	X
Serbian (Cyrillic)		
Serbian (Latin)		
Shona		
Sioux (Dakota)		
Slovak	X	X
Slovenian		
Somali		
Sorbian		
Sotho		
Испанский	X	X
Sunda		
Swahili		
Swazi		
Шведский	X	X
Tabassaran		
Tagalog		
Tahitian		
Tajik		
Tatar		
Thai		
Jingpo		
Tongan		
Tswana		
Tun		
Турецкий	X	X

OCR language	Tesseract4	IQ BotOther domain
Turkmen		
Turkmen (Latin)		
Tuvan		
Udmurt		
Uighur (Cyrillic)		
Uighur (Latin)		
Ukrainian		
Uzbek (Cyrillic)		
Uzbek (Latin)		
Vietnamese		
Cebuano		
Welsh		
Wolof		
Xhosa		
Yakut		
Yiddish		
Zapotec		
Zulu		

**Совет:** If you are unable to see all languages in the IQ Bot UI or if IQ Bot is unable to extract data from multiple languages in a document, troubleshoot the issue:

[Unable to extract data from Multiple languages in a document \(A-People login required\)](#)

## Стандартные формы for custom extraction

Стандартные формы provides support for customized extraction of complex, fixed format documents used across various industry verticals. For example, Acord Forms are used as fixed format documents in the global insurance industry. Form CMS1450 (UB-04) is a fixed format document used in healthcare for billing and claims.

IQ Bot allows users to process fixed format documents without any required training. During instance creation, selecting a fixed format document domain lets the user skip the document training in the Designer, and the user only needs to select the appropriate fields. The created learning instance will have a single bot that is always in production.

IQ Bot provides the flexibility to use a custom extraction service with extraction models that are better suited for specific fixed format documents. The custom extraction services have pre-processing, extraction, and post-processing components that are optimized for extracting information from specific fixed format documents.

The custom extraction service also lets the user pre-process some forms in a different way.

## Phases of processing fixed format documents

Follow the stages to process fixed format documents as a business user:

<i>Import domains for fixed format documents</i> <b>on page 227:</b>	Obtain domain files from Services, and import them to IQ Bot.
<i>Create learning instance using fixed format documents</i> <b>on page 228:</b>	Create a learning instance using a fixed format document and set the bot to production.
<i>Process fixed format documents in production</i> <b>on page 229:</b>	Upload documents to Enterprise Client and run the bot in the production environment. Then download the processed CSV file with the extracted data from the success folder on your machine.
<i>Using Валидатор for fixed format documents processing</i> <b>on page 229</b>	Finally, validate the extractions in the IQ Bot Валидатор.

### Related concepts

[Using Валидатор for fixed format documents processing](#) on page 229  
Validate the extracted data in IQ Bot Валидатор.

### Related tasks

[Import domains for fixed format documents](#) on page 227

Import the domain file (with .dom file extension) for fixed format documents to IQ Bot.

[Create learning instance using fixed format documents](#) on page 228

Import the relevant domain file for the fixed format document.

[Process fixed format documents in production](#) on page 229

For fixed format document domains, IQ Bot uses the custom extraction service to process the documents and output the extracted result to a success folder.

### Related reference

[Hardware and software requirements for IQ Bot with Extensions](#) on page 29

The following diagram provides the deployment architecture for IQ Bot with Extensions.

## Import domains for fixed format documents

Import the domain file (with .dom file extension) for fixed format documents to IQ Bot.

- Install IQ Bot on your machine and obtain necessary access rights for an administrator.
- Reach out to your service representative/sales engineer for the relevant domain file for the fixed format documents and get the custom extraction service installed on your environment.

The domain files contain relevant metadata about the specific fixed format documents, and details of the custom extraction service for IQ Bot extensions. For example, a UB-04 domain file contains all relevant fields for that form along with the information for the UB-04 custom extraction service.

Follow this process to import a domain file specifically designed for processing a fixed format document. User can then create a learning instance using the imported domain.

1. Log in to IQ Bot as an administrator and navigate to the **Domains** tab.
2. Click the **Import new domain** button at the top right corner of the **Domains** page.
3. Select the domain from the location where you have it stored on your machine and choose **Open**.
4. A message with the domain name displays confirming the successful import.
5. Next, navigate to the **LEARNING INSTANCES** tab, and click on the **Create one now** button.

6. User can see the imported domain in the **Upload documents** field drop-down list.

Create a learning instance using the imported domain.

#### Related tasks

[Import domains for fixed format documents](#) on page 227

Import the domain file (with `.dom` file extension) for fixed format documents to IQ Bot.

## Create learning instance using fixed format documents

Import the relevant domain file for the fixed format document.

1. Navigate to the **LEARNING INSTANCE** tab.
2. On the **Create new learning instance** page, click the **Document type** drop-down list to see all imported domains available for selection. The fixed format documents domains that were imported are also visible.
3. Select a fixed format documents domain from the list. Selecting a fixed format documents domain modifies the actions/fields/buttons in the **Create new learning instance** page as follows:
  - a) The **Classify** and **Train** icons get removed from the page.
  - b) The **Upload documents** field gets replaced with a note mentioning that fixed format documents domains are pre trained and uploading training documents is not required.
  - c) The custom field selection is not available.
  - d) By default, all fields are selected. User has an option to **Clear All Fields/Select All Fields**. The **Create fixed format documents instance** button is enabled when at least one field is checked.
  - e) The user sees the assigned language for the domain (under the primary language).
4. After selecting a fixed format documents domain and the relevant fields, click the **Create fixed format documents instance** button. The system takes the user back to the **Learning instance** list page showing a list of learning instances. User gets a confirmation that the learning instance was created successfully.
5. In the **Bot** tab, user can see the created bot in production status.
6. User cannot edit the **Description** or move the bot status to staging. The system always displays the bot with **Group 0**, which is specific to fixed format documents only.
7. Next, navigate to the **Learning instances** tab and click the **View details** icon to see the **Document Groups** and **Summary** tab details.
8. User can edit the learning instance, but is limited to updating/adding the description, or selecting more fields only, if there were any unselected ones during the learning instance creation. You cannot add custom fields to the learning instance.

---

**Note:** Added/updated description is visible on the **Learning instance** details page.

---

9. Next, set the learning instance to production.  
User has successfully created a learning instance using a fixed format documents domain and has set it to production.

Log in to Enterprise Client to upload documents and run the bot the user created.

#### Related tasks

[Process fixed format documents in production](#) on page 229

For fixed format document domains, IQ Bot uses the custom extraction service to process the documents and output the extracted result to a success folder.

## Process fixed format documents in production

For fixed format document domains, IQ Bot uses the custom extraction service to process the documents and output the extracted result to a success folder.

Create a learning instance using a fixed format document domain set the instance to production. Launch Enterprise Client.

Using the IQ Bot lite command in Enterprise Client, upload documents to IQ Bot so it can process the documents.

1. In Enterprise Client, open the IQ Bot **Upload** command. User can see the learning instances in IQ Bot in the drop-down list.
2. Provide a **File Path** to upload documents and choose **Save**.
3. Once the upload is complete, IQ Bot queues the documents to the custom extraction service for execution.
4. User can see the document upload status in the log file that includes details such as, number of documents uploaded, number of documents in the processing queue, errors, and so on.
5. Save the **Upload** command, and choose **Run**.  
The custom extraction service extracts the data from the documents and sends it to a CSV file.
6. Open and run the **Download** command.
7. Navigate to **Output > learning instance name > Success** folder to see the processed document in the CSV format.

### Related concepts

[Using Валидатор for fixed format documents processing](#) on page 229

Validate the extracted data in IQ Bot Валидатор.

[Download a document from a learning instance](#) on page 207

Once documents are uploaded to a learning instance, some files process successfully, while others fail.

### Related tasks

[Upload documents to a learning instance](#) on page 205

Upload the Production-ready documents from Automation Anywhere Enterprise to IQ Bot for processing.

[Upload multiple folder files to a learning instance](#) on page 206

Use this task to upload multiple documents to the IQ Bot server. Uploading multiple documents at one time will save you time.

## Using Валидатор for fixed format documents processing

Validate the extracted data in IQ Bot Валидатор.

Follow the same validation steps for validating fixed format documents as you would for forms belonging to other domains. The following are few exceptions based on the capability of the custom extraction service used for fixed format documents:

- The number of bounding boxes displayed on the document and the accuracy of the boxes varies and is based on the capability of the custom extraction service.
- Mandatory fields are marked in the domain files or could be built into the engine. Documents that have empty extracted values for the mandatory fields are sent to the Валидатор.
- Some field validations, such as: dates, phone numbers, and dollar amounts are unique to fixed format documents, and are built into the custom extraction services.
- Auto-suggestion and auto-correction is not currently available for fixed format documents.
- Re-validation of user corrected values is not currently available for fixed format documents.

---

**Note:** See IQ Bot Validation queue for details.

---

### Related concepts

[IQ Bot Validation queue](#) on page 209

Validation eliminates the complexity of validating and fixing issues with the bot, requires less time to fix the issues, and requires minimal human intervention.

## IQ Bot database encryption

The IQ Bot database is encrypted to prevent unauthorized access to sensitive information.

The following database tables and columns are encrypted because they store potentially sensitive data from documents:

- FileManager.FieldLevelAccuracy.oldvalue
- FileManager.FieldLevelAccuracy.newvalue
- FileManager.FileDetails.filename
- FileManager.SegmentedDocumentDetails.SegmentedDocument (data stays until the document is in Validation queue)
- FileManager.VisionBot.datalob
- FileManager.VisionBotDocuments.VBotDocument
- FileManager.TestSet.DocItems
- FileManager.FileBlobs.fileblob
- FileManager.VisionBotDocuments.CorrectedData
- FileManager.DocumentPageCache.fileblob

---

**Note:** Although the data is encrypted, the APIs that use this data work as before.

---

Database encryption occurs during the following instances:

### Database is encrypted during a fresh install of IQ Bot

By default, the database is encrypted, regardless of the installation type (fresh installation or an upgrade).

All files uploaded to IQ bot (for training or production) are encrypted. The database administrator requires the encryption key to access any information in the database.

### Database is encrypted during migration of learning instance

When a learning instance is exported, the archived (.iqba) data file is not encrypted. Instead, the data is exported in plain text format. However, when importing a learning instance through an archived (.iqba) file, regardless of the import options, the updated IQ Bot database is encrypted.

---

**Note:** Impacted areas constitute the import/export functionalities.

---

### Database is encrypted during upgrade of IQ Bot from a previous version

When upgrading IQ Bot from an older version, the installer encrypts data related to the files in the database.

After completing the RabbitMQ v3.8.18 configuration step in the installer, database encryption begins, and the system shows an

explatory message. After the upgrade is complete, the system works as before.

If the encryption process fails, the installer shows an error message and the upgrade gets rolled back to the previous version.

---

**Note:** Before the upgrade, copy and keep a backup of the database so you can revert back to it if errors occur during the upgrade process.

---

As an administrator, you must be aware of the location and security of the encryption key. The encryption key file is not stored in a credential vault, but is located in the `IQ Bot installation directory/Configurations/private.key`. Secure the encryption key with appropriate access restrictions to significantly reduce the possibility that other users can decrypt the encrypted data.

The encryption key is shared across all servers of the IQ Bot cluster, to ensure seamless database encryption across all servers. If the encryption key is lost, uninstall and reinstall IQ Bot to restore functionality.

## IQ Bot Microsoft Windows authentication

The IQ Bot platform administrator can enable Microsoft Windows authentication for the database during IQ Bot platform installation. This enables the connection of SQL databases with Windows or dual authentication.

When installing IQ Bot, select the **Windows authentication** check box to enable it. In this case, the username and password fields are disabled. An error message appears for connection or credential issues.

---

**Note:** By default, the Windows authentication box is unselected.

---

The IQ Bot Installer has an advanced mode to allow the IQ Bot platform administrator to enable Windows authentication for the database.

Error messages appear for the following information:

- Invalid port number
- Empty hostname/port
- Database connection failure

## IQ Bot audit log in Control Room

IQ Bot uses audit logs to enforce accountability, reconstruct events, and detect intrusion and issues. The administrator is able to see logs for all users in the **Audit Logs** tab of the Control Room.

Actions done in IQ Bot by a user are logged in the **Audit Logs** tab in the Control Room. All successful and unsuccessful entries are logged with the reasons for failures.

The **Audit Log** tab of the Control Room is updated every 60 seconds after user actions are taken in IQ Bot.

1. Navigate to **Automation Anywhere Control Room > Audit Log**, and click the column drop-down list to select the **Source** from the list of available options.
2. From the **Choose source** drop-down list, select IQ Bot.
3. The **Audit Logs** tab shows all logs for IQ Bot.

4. Click the **Audit details** icon to view the following:
  - Action details for successful logs
  - Results for failure logs
5. Use the **All columns** field to select the column to filter by. The logs appear by the following columns:
  - Статус
  - Время
  - Action Type
  - Имя элемента
  - Action Taken By
  - Source Device
  - Источник

The following actions are logged in the **Audit Log** tab :

- **Learning instance**
  - Create, edit, or delete learning instance
  - Send learning instance to Production (and vice versa)
  - Send learning instance to Staging (and vice versa)
- **Validation of learning instance**
  - file marked as invalid
  - file validated successfully
- **Train bot**
  - Бот training
  - Send бот to Production (and vice versa)
  - Send бот to Staging (and vice versa)
- **Administration**
  - Migrate learning instances (export or import)
- **Configure domain**
  - Создать домен



# Upgrading IQ Bot

Find out how to upgrade to the latest version of IQ Bot. Learn how to migrate learning instances from an earlier version of IQ Bot to the most recent one.

## Related concepts

[Using Migration Utility to import and export learning instances](#) on page 251

Use the IQ Bot Migration Utility feature to export and import a learning instance between different IQ Bot installations to avoid recreating the learning instances.

## Related tasks

[IQ Bot upgrade options](#) on page 233

This topic gives you options and use cases in a customer environment to try a version of IQ Bot before upgrading the existing IQ Bot servers to development and production environments.

[Upgrade from IQ Bot Version 11.3.4 to Version 11.3.4.x patch](#) on page 243

Install an IQ Bot Version 11.3.4.x patch on your IQ Bot Version 11.3.4 system.

[Upgrade IQ Bot Version 6.5 or earlier to IQ Bot Version 11.3.4](#) on page 244

Find out how to upgrade your system from IQ Bot Version 6.5.x and earlier to Version 11.3.4.

[Upgrading IQ Bot to Version 11.3.3.x](#) on page 246

This topic provides instructions on upgrading IQ Bot from Version 6.5.x and older, to Version 11.3.3.x.

[Upgrading system from IQ Bot Version 5.3.x or IQ Bot 6.0.x to Version 6.5](#) on page 248

Find out how to upgrade your system from IQ Bot Version 6.0.x to Version 6.5.

[Upgrading system from IQ Bot 5.3.x to 6.0.x](#) on page 249

Find out how to upgrade your system from IQ Bot 5.3.x to 6.0.x

[Upgrading system from IQ Bot 5.1.x to 5.2.x](#) on page 250

Find out how to upgrade your system from IQ Bot 5.1.x to 5.2.x.

[Upgrading system from IQ Bot 5.0.x to 5.1.x](#) on page 250

Find out how to upgrade your system from IQ Bot 5.0.x to 5.1.x

[Export or Import learning instances within IQ Bot 5.2 installation](#) on page 257

Find out how to migrate learning instances within different installations of the same version of IQ Bot.

[Export/Import learning instances within IQ Bot 5.3.x, and later versions](#) on page 258

Find out how to migrate learning instances within different installations of IQ Bot 5.3, Version 6.0, and Version 6.5.x and above.

## IQ Bot upgrade options

This topic gives you options and use cases in a customer environment to try a version of IQ Bot before upgrading the existing IQ Bot servers to development and production environments.

The following are primary tools/processes involved:

### 1. Import/Export

- This is an IQ Bot feature.
- We recommend transferring staging data from one IQ Bot installation to the other, provided both belong to the same IQ Bot version.

## 2. Database backup/Restore

- This is an SQL server feature.
- Creates backup of existing database that could be restored on same or different SQL server instances.
- Prepare a database replica of the development environment.
  - Backup all IQ Bot databases.
  - Restore the backups on a new database server.
- Install the latest IQ Bot setup on or against the restored database server.
- This ensures you have the latest IQ Bot server for trial purposes that uses existing development server data.

---

**Прим.:** If any existing learning instances use Tesseract OCR v3, you should plan to train with alternative OCRs (Optical Character Readers), including Tesseract4 OCR before any upgrade.

---



---

**Прим.:** The task creates two development environments:

1. Development-old: with an older version of IQ Bot (which we will address as Dev-old)
  2. Development-new: with a newer version of IQ Bot (which we will address as Dev-new)
- 

Use the scenarios primarily where active development (such as, training of groups/ботs) continues along with the trial of new IQ Bot versions.

### 1. **Scenario 1:** Active development happens on Dev-old environment only.

- Continue trial/use of Dev-new, though we are not concerned about the data on this machine.
- At the end of trial, if satisfied with new IQ Bot version then:
  - a. Discard Dev-new, as it has trial data only.
  - b. Upgrade Dev-old by first uninstalling older version of IQ Bot and then installing the new version on it.

### 2. **Scenario 2:** Active development happens on Dev-new only.

- Stop using Dev-old. All new development happens in Dev-new environment only.
- At the end of trial, if satisfied with new IQ Bot version then:
  - a. Backup databases of Dev-new, and restore on Dev-old environment.
  - b. Upgrade Dev-old first by uninstalling older version of IQ Bot, and then installing the new version on it.

### 3. **Scenario 3:** Active development happens on neither Dev-old nor on Dev-new environments.

- Stop using Dev-old. Since Dev-new environment is being used for trial only, no active development happens on it.
- At end of trial, if we are satisfied with the new IQ Bot version then:
  - a. Discard Dev-new environment, as it has just trial data.
  - b. Upgrade Dev-old environment by first uninstalling the older IQ Bot version, and then installing the new one.

**4. Scenario 4:** Active development happens on both Dev-old and Dev-new environments.

- We intend to do active development on both the (Dev-old and Dev-new) environments.

---

**Прим.:** We cannot merge training from two different IQ Bot servers.

---

- We do not recommend doing active development on both the environments. Instead pick either scenario 1 or scenario 2.

**When transferring data from development to the production environment, do the following:**

First upgrade the production server by uninstalling the current installed version of IQ Bot, and then installing the new version of IQ Bot. This ensures that both development and production servers have the same IQ Bot version.

Migrate the data from development server to production server using import/export (standard IQ Bot process) operation.

**Задачи, связанные с данной**[Upgrading system from IQ Bot 5.0.x to 5.1.x](#)

Find out how to upgrade your system from IQ Bot 5.0.x to 5.1.x

[Upgrading system from IQ Bot 5.1.x to 5.2.x](#)

Find out how to upgrade your system from IQ Bot 5.1.x to 5.2.x.

[Upgrading system from IQ Bot 5.3.x to 6.0.x](#)

Find out how to upgrade your system from IQ Bot 5.3.x to 6.0.x

[Upgrading system from IQ Bot Version 5.3.x or IQ Bot 6.0.x to Version 6.5](#)

Find out how to upgrade your system from IQ Bot Version 6.0.x to Version 6.5.

[Upgrading IQ Bot to Version 11.3.3.x](#)

This topic provides instructions on upgrading IQ Bot from Version 6.5.x and older, to Version 11.3.3.x.

## Upgrading system to IQ Bot Version 11.3.5.7

As enhancements and bug fixes are provided with Version 11.3.5.7, use this topic to review the upgrade instructions.

1. If you are using any of the earlier IQ Bot versions (11.3.5.3, 11.3.4.3, and so on), ensure that you first upgrade to IQ Bot Version 11.3.5.6 before upgrading to Version 11.3.5.7.

[Upgrading system to IQ Bot Version 11.3.5.6](#) on page 236

2. Log in to Automation Anywhere support site and download

Automation\_Anywhere\_IQ\_BOT\_11.3.5.7.zip:

[A-People Downloads page \(Login required\)](#)

3. Perform the following steps to preserve the desktop shortcut:
  - a. Navigate to the IQ Bot installation directory.
  - b. Right-click the **Cognitive Platform** internet shortcut, go to **Properties** > **Web Document**, and copy the URL.  
After installing Version 11.3.5.7, you can use this to launch IQ Bot.
  - c. Install Version 11.3.5.7.
  - d. Use the copied URL to launch IQ Bot Version 11.3.5.7.  
The IQ Bot desktop shortcut cannot be edited. Use the copied URL to open IQ Bot Version 11.3.5.7 every time.

Alternatively, after registering IQ Bot with the Control Room, you can access the IQ Bot application by using `http://controlroom-URL/IQBot` или `https://controlroom-URL/IQBot`.

The installer stops all IQ Bot services and restarts them after the installation is complete.

1. Extract the contents from the `Automation_Anywhere_IQ_BOT_11.3.5.7.zip` file, and double-click the `Automation_Anywhere_IQ_BOT_11.3.5.7.exe` to launch the installer.  
Ensure that you run the installer as an administrator user.
  2. Click **Next** to start the installation.
  3. Click **Finish** to exit the installer.  
IQ Bot Version 11.3.5.7 is installed, and you can restart the system.
1. Navigate to **Start** > **Services**.
  2. Right-click each service and select **Properties** > **Log On** > **This account** to change to the appropriate service account user.

## Upgrading system to IQ Bot Version 11.3.5.6

As enhancements and bug fixes are provided with Version 11.3.5.6, use this topic to review the upgrade instructions.

1. If you are using any of the earlier IQ Bot versions (11.3.5.3, 11.3.4.3, and so on), ensure that you first upgrade to IQ Bot Version 11.3.5.5 before upgrading to Version 11.3.5.6.  
*[Upgrading system to IQ Bot Version 11.3.5.5](#) on page 237*
2. Log in to Automation Anywhere support site and download `Automation_Anywhere_IQ_BOT_11.3.5.6.zip`:  
*[A-People Downloads page \(Login required\)](#)*

3. Perform the following steps to preserve the desktop shortcut:
  - a. Navigate to the IQ Bot installation directory.
  - b. Right-click the **Cognitive Platform** internet shortcut, go to **Properties** > **Web Document**, and copy the URL.  
After installing Version 11.3.5.6, you can use this to launch IQ Bot.
  - c. Install Version 11.3.5.6.
  - d. Use the copied URL to launch IQ Bot Version 11.3.5.6.  
The IQ Bot desktop shortcut cannot be edited. Use the copied URL to open IQ Bot Version 11.3.5.6 every time.

Alternatively, after registering IQ Bot with the Control Room, you can access the IQ Bot application by using `http://controlroom-URL/IQBot` или `https://controlroom-URL/IQBot`.

The installer stops all IQ Bot services and restarts them after the installation is complete.

1. Extract the contents from the `Automation_Anywhere_IQ_BOT_11.3.5.6.zip` file, and double-click the `Automation_Anywhere_IQ_BOT_11.3.5.6.exe` to launch the installer.  
Ensure that you run the installer as an administrator user.
2. Click **Next** to start the installation.  
The **Finished** screen on the installer window indicates that the installation was successful.
3. Click **Finish** to exit the installer.  
IQ Bot Version 11.3.5.6 is installed, and you can restart the system.

Installing Version 11.3.5.6 removes the setting where you have configured IQ Bot services to run with a service account user. The services will then run as a local user. After the installation, use the following instructions to reconfigure each service to the appropriate account user credentials:

1. Navigate to **Start** > **Services**.
2. Right-click each service and select **Properties** > **Log On** > **This account** to change to the appropriate service account user.

## Upgrading system to IQ Bot Version 11.3.5.5

As enhancements and bug fixes are provided with Version 11.3.5.5, use this topic to review the upgrade instructions.

- Log in to Automation Anywhere support site and download `Automation_Anywhere_IQ_BOT_11.3.5.5.zip`:  
[A-People Downloads page \(Login required\)](#)

- Perform the following steps to preserve the desktop shortcut:
  1. Navigate to the IQ Bot installation directory.
  2. Right-click the **Cognitive Platform** internet shortcut, go to **Properties > Web Document**, and copy the URL.  
After installing Version 11.3.5.5, you can use this to launch IQ Bot.
  3. Install Version 11.3.5.5.
  4. Use the copied URL to launch IQ Bot Version 11.3.5.5.  
The IQ Bot desktop shortcut cannot be edited. Use the copied URL to open IQ Bot Version 11.3.5.5 every time.

Alternatively, after registering IQ Bot with the Control Room, you can access the IQ Bot application by using `http://controlroom-URL/IQBot` или `https://controlroom-URL/IQBot`.

The installer stops all IQ Bot services and restarts them after the installation is complete.

1. Extract the contents from the `Automation_Anywhere_IQ_BOT_11.3.5.5.zip` file, and double-click the `Automation_Anywhere_IQ_BOT_11.3.5.5.exe` to launch the installer.  
Ensure that you run the installer as an administrator user.
2. Click **Next** to start the installation.  
The **Finished** screen on the installer window indicates that the installation was successful.
3. Click **Finish** to exit the installer.  
IQ Bot Version 11.3.5.5 is installed, and you can restart the system.

Installing Version 11.3.5.5 removes the setting where you have configured IQ Bot services to run with a service account user. The services will then run as a local user. After the installation, use the following instructions to reconfigure each service to the appropriate account user credentials:

1. Navigate to **Start > Services**.
2. Right-click each service and select **Properties > Log On > This account** to change to the appropriate service account user.

## Upgrading system to IQ Bot Version 11.3.5.x

Find out how to upgrade your system from IQ Bot Version 5.3.x, 6.x and Version 6.5.x and Version 11.3.x to Version 11.3.5.x.

IQ Bot Version 11.3.5.x is compatible with Control Room Version 11.3.4.3 and above only.

---

**Note:** The following prerequisites do not apply if you are upgrading from IQ Bot Version 11.3.4 onward.

---

- If the SQL version on your machine is older than *SQL Server Native Client 2012*, a dialog box appears, providing you the option to upgrade. Open `services.msc` and stop `SQL Server (MSSQLSERVER)`. Then continue with the installation process.
- During the upgrade, the installer detects if you have existing learning instances from a prior version of IQ Bot. To keep the classifier version for the existing learning instances, select that prior version of IQ Bot from the drop-down list.
  - **Version 1 (IQ Bot 5.3 / 6.0.1)**, if upgrading from IQ Bot versions 5.3.0 or Version 6.0.1.
  - **Version 2 (IQ Bot 5.3.1 / 6.5 Beta)**, if upgrading from IQ Bot versions 5.3.1, 6.5 Beta, or 6.5.

- For any new learning instances created after installation, the classifier version of IQ Bot Version 5.3.1/Version 6.5.x is used.
- If upgrading from IQ Bot Version 5.3.1.x and you have learning instance that rely on 5.3.1.x check box or linked table functionality, clear the validation queue before upgrading to IQ Bot Version 11.3.5.x.
- When upgrading to IQ Bot Version 11.3.5.x, all group information gets stored in a new table, **ContentClassification**, and all data gets automatically upgraded or transferred to this table during the installation process.
- If you have customized the settings or configurations of certain files in the database, then you must create a backup of these files before upgrading to another version of IQ Bot.
- To import learning instance backups on an IQ Bot Version 11.3.5.2 environment, the backup (.iqba) file must be exported from an IQ Bot Version 11.3.5.2 environment only. Therefore, you must also upgrade your source IQ Bot environment to Version 11.3.5.2. This requirement is due to changes made in database schemas and version information in the backup (.iqba) files.

1. Refer to *[IQ Bot hardware and software requirements](#)* on page 27 before you begin with the upgrade process.
2. Open all required ports. См. раздел *[IQ Bot 11.x: IQ Bot prerequisite steps](#)* on page 100.

---

**Note:** Additionally, open ports 4369 and 25672, and add inbound firewall rules to allow traffic to these ports.

---

3. Backup the IQ Bot database on the target server where installation is to be done. (This does not apply to fresh installs).
4. Download `Automation_Anywhere_IQ_Bot_Version 11.3.5.x.zip` from Customer portal into target machine.
5. Unzip `Automation_Anywhere_IQ_Bot_Version 11.3.5.x.zip` into `Automation_Anywhere_IQ_Bot_11.3.5.x` folder.
6. Uninstall your current IQ Bot version. Refer to the note below on how to uninstall IQ Bot. (This does not apply to fresh installs).

---

**Note:** См. раздел *[Uninstalling IQ Bot 11.x](#)* on page 152.

---

7. Check that the correct versions of Control Room and Enterprise Client, that are being installed are compatible per the compatibility matrix. См. раздел *[IQ Bot version compatibility matrix](#)* on page 8.
8. Open `Automation_Anywhere_IQ_Bot_Version 11.3.5.x` folder and execute the following files:
  - a) `CleanupRabbitMQandErlang.bat`
  - b) `CleanupRabbitMQErlangPython.bat`
  - c) `UninstallPython.bat`
  - d) `UninstallPython385.bat`

The .bat files uninstall RabbitMQ v3.8.18, Erlang/OTP relevant IQ Bot Python files, and remove necessary registry entries. No other Python versions will be affected.

9. Restart your machine.

10. Open `Automation_Anywhere_IQ_Bot_Version 11.3.5.x` folder and execute the following files again:
  - a) `CleanupRabbitMQandErlang`
  - b) `CleanupRabbitMQErlangPython`
  - c) `UninstallPython`
  - d) `UninstallPython385`

This removes any empty folders from RabbitMQ v3.8.18, Erlang, and Python from the system.

11. Open `Automation_Anywhere_IQ_Bot_Version 11.3.5.x` folder and launch `Automation_Anywhere_IQ_Bot_Version 11.3.5.x.exe`.
12. Next, install IQ Bot Version 11.3.5.x as per your requirement:
  - [IQ Bot 11.x: Installing IQ Bot in Express mode](#) on page 106
  - [IQ Bot 11.x: Установка IQ Bot в пользовательском режиме](#) on page 108
  - [IQ Bot 11.x: Installing IQ Bot in Cluster mode](#) on page 113

---

**Important:** If the installation fails due to a migration issue (despite the installation checklist), contact support.

---

13. Change the load balancer port from 8100 to 3000. The default port number is selected from the previous screen.  
If you have installed an external load balancer, change the port number.
14. Complete the installation by retaining the rest of the settings, as they get auto populated during installation.  
Your upgrade is now complete.

After installing IQ Bot, ensure that you:

1. Register IQ Bot with Control Room. См. раздел [IQ Bot 11.x: Registering IQ Bot with the Control Room](#) on page 118.
2. Complete the configuration settings to ensure registration with Control Room. See [IQ Bot post installation configuration](#) on page 118 for more information.
3. Validate the installation. См. раздел [IQ Bot post installation validation](#) on page 140.

## Upgrading system to IQ Bot Version 11.3.5

Find out how to upgrade your system from IQ Bot Version 5.3.x, 6.x and Version 6.5.x and Version 11.3.x to Version 11.3.5.

IQ Bot Version 11.3.5 is compatible with Control Room Version 11.3.4.3 and above only.

---

**Note:** The following prerequisites do not apply if you are upgrading from IQ Bot Version 11.3.4 onward.

---

- If the SQL version on your machine is older than *SQL Server Native Client 2012*, a dialog box appears, providing you the option to upgrade. Open `services.msc` and stop `SQL Server (MSSQLSERVER)`. Then continue with the installation process.



- During the upgrade, the installer detects if you have existing learning instances from a prior version of IQ Bot. To keep the classifier version for the existing learning instances, select that prior version of IQ Bot from the drop-down list.
  - **Version 1 (IQ Bot 5.3 / 6.0.1)**, if upgrading from IQ Bot versions 5.3.0 or Version 6.0.1.
  - **Version 2 (IQ Bot 5.3.1 / 6.5 Beta)**, if upgrading from IQ Bot versions 5.3.1, 6.5 Beta, or 6.5.
- For any new learning instances created after installation, the classifier version of IQ Bot Version 5.3.1/Version 6.5.x is used.
- If upgrading from IQ Bot Version 5.3.1.x and you have learning instance that rely on 5.3.1.x check box or linked table functionality, clear the validation queue before upgrading to IQ Bot Version 11.3.5.
- When upgrading to IQ Bot Version 11.3.5, all group information gets stored in a new table, **ContentClassification**, and all data gets automatically upgraded or transferred to this table during the installation process.
- If you have customized the settings or configurations of certain files in the database, then you must create a backup of these files before upgrading to another version of IQ Bot.

1. Refer to [IQ Bot hardware and software requirements](#) on page 27 before you begin with the upgrade process.
2. Open all required ports. См. раздел [IQ Bot 11.x: IQ Bot prerequisite steps](#) on page 100.

---

**Note:** Additionally, open ports 4369 and 25672, and add inbound firewall rules to allow traffic to these ports.

---

3. Backup the IQ Bot database on the target server where installation is to be done. (This does not apply to fresh installs).
4. Download `Automation_Anywhere_IQ_Bot_11.3.5.zip` from Customer portal into target machine.
5. Unzip `Automation_Anywhere_IQ_Bot_11.3.5.zip` into `Automation_Anywhere_IQ_Bot_11.3.5` folder.
6. Uninstall your current IQ Bot version. Refer to the note below on how to uninstall IQ Bot. (This does not apply to fresh installs).

---

**Note:** См. раздел [Uninstalling IQ Bot 11.x](#) on page 152.

---

7. Check that the correct versions of Control Room and Enterprise Client, that are being installed are compatible per the compatibility matrix. См. раздел [IQ Bot version compatibility matrix](#) on page 8.

---

**Important:** If you are upgrading from IQ Bot 5.x, run the `Cleanup_Components.bat` before installing the latest Control Room and IQ Bot versions.

---

8. Open `Automation_Anywhere_IQ_Bot_11.3.5` folder and execute `Cleanup_Components.bat` file. The .bat file will uninstall RabbitMQ, Erlang relevant IQ Bot Python files, and remove necessary registry entries. No other Python versions will be affected.
9. Restart your machine.
10. Open `Automation_Anywhere_IQ_Bot_11.3.5` folder and execute `Cleanup_Components.BAT` file again. This removes any empty folders from RabbitMQ v3.8.18, Erlang, and Python from the system.
11. Open `Automation_Anywhere_IQ_Bot_11.3.5` folder and launch `Automation_Anywhere_IQ_Bot_11.3.5.exe`.

**12.** Next, install IQ Bot Version 11.3.5 as per your requirement:

- [IQ Bot 11.x: Installing IQ Bot in Express mode](#) on page 106
- [IQ Bot 11.x: Установка IQ Bot в пользовательском режиме](#) on page 108
- [IQ Bot 11.x: Installing IQ Bot in Cluster mode](#) on page 113

---

**Important:** If the installation fails due to a migration issue (despite the installation checklist), contact support.

---

**13.** Change the load balancer port from 8100 to 3000. The default port number is selected from the previous screen.

If you have installed an external load balancer, change the port number.

**14.** Complete the installation by retaining the rest of the settings, as they get auto populated during installation.

Your upgrade is now complete.

After installing IQ Bot, ensure that you:

- 1.** Register IQ Bot with Control Room. См. раздел [IQ Bot 11.x: Registering IQ Bot with the Control Room](#) on page 118.
- 2.** Complete the configuration settings to ensure registration with Control Room. See [IQ Bot post installation configuration](#) on page 118 for more information.
- 3.** Validate the installation. См. раздел [IQ Bot post installation validation](#) on page 140.

## Upgrading system to IQ Bot 11.x

As enhancements and bug fixes are provided with Version 11.3.4.3, use this topic to review the upgrade instructions.

- Log in to Automation Anywhere support site and download `Automation_Anywhere_IQ_BOT_11.3.4.3.zip`:  
[A-People Downloads page \(Login required\)](#)
- Perform the following steps to preserve the desktop shortcut:
  - 1.** Navigate to the IQ Bot installation directory.
  - 2.** Right-click the **Cognitive Platform** internet shortcut, go to **Properties > Web Document**, and copy the URL.  
After installing Version 11.3.4.3, you can use this to launch IQ Bot.
  - 3.** Install Version 11.3.4.3.
  - 4.** Use the copied URL to launch IQ Bot Version 11.3.4.3.  
The IQ Bot desktop shortcut cannot be edited. Use the copied URL to open IQ Bot Version 11.3.4.3 every time.

Alternatively, after registering IQ Bot with the Control Room, you can access the IQ Bot application by using `http://controlroom-URL/IQBot` или `https://controlroom-URL/IQBot`.

The installer stops all IQ Bot services and restarts them after the installation is complete.

1. Extract the contents from the `Automation_Anywhere_IQ_BOT_11.3.4.3.zip` file, and double-click the `Automation_Anywhere_IQ_BOT_11.3.4.3.exe` to launch the installer.

Ensure that you run the installer as an administrator user.

2. Click **Next** to start the installation.

The **Finished** screen on the installer window indicates that the installation was successful.

3. Click **Finish** to exit the installer.

IQ Bot Version 11.3.4.3 is installed, and you can restart the system.

Installing Version 11.3.4.3 removes the setting where you have configured IQ Bot services to run with a service account user. The services will then run as a local user. After the installation, use the following instructions to reconfigure each service to the appropriate account user credentials:

1. Navigate to **Start > Services**.

2. Right-click each service and select **Properties > Log On > This account** to change to the appropriate service account user.

## Upgrade from IQ Bot Version 11.3.4 to Version 11.3.4.x patch

Install an IQ Bot Version 11.3.4.x patch on your IQ Bot Version 11.3.4 system.

- Ensure you have IQ Bot Version 11.3.4 installed.

This patch requires Version 11.3.4 as the base release.

- To preserve the desktop shortcut, perform the following steps:

1. Navigate to the IQ Bot installation directory.

2. Right-click the **Cognitive Platform** internet shortcut, go to **Properties > Web Document**, and copy the URL.

You can use this later to launch IQ Bot after installing Version 11.3.4.2 patch.

3. Uninstall IQ Bot Version 11.3.4.1 patch.

4. Install Version 11.3.4.2 patch.

5. Use the copied URL to launch IQ Bot Version 11.3.4.2.

The IQ Bot desktop shortcut cannot be edited. Use the copied URL to open IQ Bot Version 11.3.4.2 every time.

Alternatively, you can access the IQ Bot application by using `http://controlroom-URL/IQBot` или `https://controlroom-URL/IQBot` after registering IQ Bot with the Control Room.

- If you have Version 11.3.4.1 patch installed, then you have to uninstall it before installing the Version 11.3.4.2 patch.
- Ensure that you have downloaded `AA_IQBOT_Update_11.3.4.x.exe` patch installer.

During installation, the installer stops all IQ Bot services and restarts them after the installation is complete.

1. Double click the `AA_IQBOT_Update_11.3.4.x.exe` file to launch the installation wizard.

---

**Important:** Run the installer as an **Administrator**.

---

2. On the **Setup Wizard** welcome screen, click **Update** to begin the installation process.  
The **Finished** screen on the installer window indicates that the IQ Bot patch is successfully installed.
3. Click **Finish** to exit the installer.
4. Click **Yes** to immediately restart your system, or click **No** to restart later.

---

**Note:** Restart the system after the installation is complete.

---

If you have configured IQ Bot services to run with a service account user, installing the Version 11.3.4.x patch removes that setting. So the services run as a local user. After the patch is installed, and the services are reinstalled, follow these steps to reconfigure each service to the appropriate account user credentials:

1. Navigate to **Start > Services**.
2. Right-click each service and select **Properties > Log On > This account** to change to the appropriate service account user.

### Related tasks

[Uninstall IQ Bot Version 11.3.4.x patch](#) on page 244

Follow these steps to uninstall Version 11.3.4.x patch.

## Uninstall IQ Bot Version 11.3.4.x patch

Follow these steps to uninstall Version 11.3.4.x patch.

1. Launch the operating system **Control Panel** from the **Start** menu. Open **Programs > Programs > Uninstall a program**.
2. In the left pane, click **View Installed Updates**.
3. Locate and double-click the Automation Anywhere IQ Bot Version 11.3.4.x entry.
4. Click **Yes** in the confirmation dialog box.  
The installer uninstalls the application.
5. In the restart confirmation box, click **Yes** to immediately restart your system, or click **No** to restart later.

---

**Note:** Restart your system after the uninstall is complete.

---

If you have configured IQ Bot services to run with a service account user, uninstalling Version 11.3.4.x patch removes that setting. So the services run as a local user. After the patch uninstall is complete, and the services are reinstalled, follow the steps to re-configure each service to the appropriate account user credentials:

1. Navigate to **Start > Services**.
2. Right-click each service and select **Properties > Log On > This account** to change to the appropriate service account user.

## Upgrade IQ Bot Version 6.5 or earlier to IQ Bot Version 11.3.4

Find out how to upgrade your system from IQ Bot Version 6.5.x and earlier to Version 11.3.4.

**For IQ Bot Version 11.3.4.x**

- If your SQL machine version is older than *SQL Server Native Client 2012*, a dialog box appears, giving you the option to upgrade. Open `services.msc` and stop SQL Server (MSSQLSERVER). Then complete the installation process.
- During the upgrade, the installer detects if you have existing learning instances from a prior version of IQ Bot. Select that prior version of IQ Bot from a drop-down list to keep the classifier version for the existing learning instances. From the drop-down list the option **Version 2 (IQ Bot 5.3.1 / 6.5 Beta)** refers to IQ Bot 5.3.1 / 6.5 Beta / 6.5 .
- For any new learning instances created after installation, the classifier version of IQ Bot Version 5.3.1/Version 6.5.x is used.
- If upgrading from IQ Bot Version 5.3.1.x and you have learning instance that rely on 5.3.1.x check box or linked table functionality, clear the validation queue before upgrading to IQ Bot Version 6.5.x.
- When upgrading to IQ Bot Version 11.3.4.x, all group information gets stored in a new table **ContentClassification**, and all data gets automatically upgraded/transferred to this table during the installation process.
- If you have customized the settings or configurations of certain files in the database, then you must create a backup of these files before upgrading to another version of IQ Bot.

If you configure IQ Bot with a load balancer, ensure you are logged onto the Automation Anywhere cognitive projects service as an administrator to enable access to all nodes for migration utility.

1. Refer to [IQ Bot hardware and software requirements](#) on page 27 before you begin with the upgrade process.
2. Open all required ports. См. раздел [IQ Bot 11.x: IQ Bot prerequisite steps](#) on page 100.

---

**Note:** Additionally, open ports 4369 and 25672, and add inbound firewall rules to allow traffic to these ports.

---

3. Backup the IQ Bot database on the target server where installation is to be done. (This does not apply to fresh installs).
4. Download `Automation_Anywhere_IQ_Bot_11.3.4.zip` from Customer portal into target machine.
5. Unzip `Automation_Anywhere_IQ_Bot_11.3.4.zip` into `Automation_Anywhere_IQ_Bot_11.3.4` folder.
6. Uninstall your current IQ Bot version. Refer to the note below on how to uninstall IQ Bot. (This does not apply to fresh installs).

---

**Note:** См. раздел [Uninstalling IQ Bot 11.x](#) on page 152.

---

7. Check that the correct versions of Control Room and Enterprise Client, that are being installed are compatible per the compatibility matrix. См. раздел [IQ Bot version compatibility matrix](#) on page 8.

---

**Important:** If you are upgrading from IQ Bot 5.x, run the `Cleanup_Components.bat` before installing the latest Control Room and IQ Bot versions.

---

8. Open `Automation_Anywhere_IQ_Bot_11.3.4` folder and execute `Cleanup_Components.bat` file. The .bat file will uninstall , Erlang relevant IQ Bot Python files, and remove necessary registry entries. No other Python versions will be affected.
9. Restart your machine.
10. Open `Automation_Anywhere_IQ_Bot_11.3.4` folder and execute `Cleanup_Components.BAT` file again. This removes any empty folders from RabbitMQ v3.8.18, Erlang, and Python from the system.
11. Open `Automation_Anywhere_IQ_Bot_11.3.4` folder and launch `Automation_Anywhere_IQ_Bot_11.3.4.exe`.

**12.** Next, install IQ Bot Version 11.3.3 as per your requirement:

- [IQ Bot 11.x: Installing IQ Bot in Express mode](#) on page 106
- [IQ Bot 11.x: Установка IQ Bot в пользовательском режиме](#) on page 108
- [IQ Bot 11.x: Installing IQ Bot in Cluster mode](#) on page 113

---

**Important:** If the installation fails due to a migration issue (despite the installation checklist), contact support.

---

**13.** Change the load balancer port from 8100 to 3000. The default port number is selected from the previous screen.

If you have installed an external load balancer, change the port number.

**14.** Complete the installation by retaining the rest of the settings, as they get auto populated during installation.

Your upgrade is now complete.

After installing IQ Bot, ensure that you:

1. Register IQ Bot with Control Room. См. раздел [IQ Bot 11.x: Registering IQ Bot with the Control Room](#) on page 118.
2. Complete the configuration settings to ensure registration with Control Room. See [IQ Bot post installation configuration](#) on page 118 for more information.
3. Validate the installation. См. раздел [IQ Bot post installation validation](#) on page 140.

### Related concepts

[IQ Bot post installation configuration](#) on page 118

After installing IQ Bot complete the configuration settings to ensure registration with Control Room, confirm the creation of all required databases, create the appropriate certificates, configure the HTTP and HTTPS settings, generate the authorization token for performing any task, and verify the completion of all tasks in the post-installation checklist.

[IQ Bot post installation validation](#) on page 140

After installing IQ Bot and completing the post-installation tasks, validate the installation by creating IQ Bot specific roles, accessing the Валидатор without a license, accessing the product without a device license, and understanding permissions for role-based access control to the learning instances.

### Related tasks

[IQ Bot 11.x: Configure IQ Bot with HTTP and HTTPS](#) on page 132

This section describes single and multiple domain scenarios when installing IQ Bot and Control Room with various server certificates.

### Related reference

[Configure IQ Bot 11.x with HTTPS using multiple domains](#) on page 135

Configure IQ Bot with HTTPS when Control Room is configured with HTTP using multiple domains.

[Configure IQ Bot 11.x with HTTPS using single domain](#) on page 134

Configure IQ Bot with HTTPS when Control Room is configured with HTTPS using single domain.

[Configure IQ Bot 11.x with HTTP when Control Room is configured with HTTPS](#) on page 136

Configure IQ Bot with HTTP and HTTPS to access IQ Bot using HTTPS and HTTP in the IQ Bot URL.

## Upgrading IQ Bot to Version 11.3.3.x

This topic provides instructions on upgrading IQ Bot from Version 6.5.x and older, to Version 11.3.3.x.

### For IQ Bot Version 11.3.3.x

- If your SQL machine version is older than *SQL Server Native Client 2012*, a dialog box appears, giving you the option to upgrade. Open `services.msc` and stop `SQL Server (MSSQLSERVER)`. Then complete the installation process.
- During the upgrade, the installer detects if you have existing learning instances from a prior version of IQ Bot. Select that prior version of IQ Bot from a drop-down list to keep the classifier version for the existing learning instances. From the drop-down list the option **Version 2 (IQ Bot 5.3.1 / 6.5 Beta)** refers to IQ Bot 5.3.1 / 6.5 Beta / 6.5 .
- For any new learning instances created after installation, the classifier version of IQ Bot Version 5.3.1/Version 6.5.x is used.
- If upgrading from IQ Bot Version 5.3.1.x and you have learning instance that rely on 5.3.1.x check box or linked table functionality, clear the validation queue before upgrading to IQ Bot Version 6.5.x.
- When upgrading to IQ Bot Version 11.3.3.x, all group information gets stored in a new table **ContentClassification**, and all data gets automatically upgraded/transferred to this table during the installation process.
- If you have customized the settings or configurations of certain files in the database, then you must create a backup of these files before upgrading to another version of IQ Bot.

If you configure IQ Bot with a load balancer, ensure you are logged onto the Automation Anywhere cognitive projects service as an administrator to enable access to all nodes for migration utility.

1. Refer to [IQ Bot hardware and software requirements](#) on page 27 before you begin with the upgrade process.
2. Open all required ports. См. раздел [IQ Bot 11.x: IQ Bot prerequisite steps](#) on page 100.

---

**Note:** Additionally, open ports 4369 and 25672, and add inbound firewall rules to allow traffic to these ports.

---

3. Backup the IQ Bot database on the target server where installation is to be done. (This does not apply to fresh installs).
4. Download `Automation_Anywhere_IQ_Bot_11.3.3.x.zip` from Customer portal into target machine.
5. Unzip `Automation_Anywhere_IQ_Bot_11.3.3.x.zip` into `Automation_Anywhere_IQ_Bot_11.3.3.x` folder.
6. Uninstall your current IQ Bot version. Refer to the note below on how to uninstall IQ Bot. (This does not apply to fresh installs).

---

**Note:** См. раздел [Uninstalling IQ Bot 11.x](#) on page 152.

---

7. Ensure the correct versions of Control Room and Enterprise Client are installed as per the IQ Bot compatibility matrix. См. раздел [IQ Bot version compatibility matrix](#) on page 8.
8. Open `Automation_Anywhere_IQ_Bot_11.3.3.x` folder and execute `Cleanup_Components.BAT` file. The .bat file will uninstall , Erlang relevant IQ Bot Python files, and remove necessary registry entries. No other Python versions will be affected.
9. Restart your machine.
10. Open `Automation_Anywhere_IQ_Bot_11.3.3.x` folder and execute `Cleanup_Components.BAT` file again. This removes any empty folders from RabbitMQ v3.8.18, Erlang, and Python from the system.
11. Open `Automation_Anywhere_IQ_Bot_11.3.3.x` folder and launch `Automation_Anywhere_IQ_Bot_11.3.3.x.exe`.

**12.** Next, install IQ Bot Version 11.3.3.x as per your requirement:

**Option 1:**

[IQ Bot 11.x: Установка IQ Bot в пользовательском режиме](#) on page 108.

**Option 2:**

[IQ Bot 11.x: Installing IQ Bot in Cluster mode](#) on page 113.

**Option 3:**

[IQ Bot 11.x: Installing IQ Bot in Express mode](#) on page 106.

**13.** Change the load balancer port from 8100 to 3000. The default port number is selected from the previous screen.

If you have installed an external load balancer, change the port number.

**14.** Complete the installation by retaining the rest of the settings, as they get auto populated during installation.

Your upgrade is now complete.

After installing IQ Bot, ensure that you:

- 1.** Register IQ Bot with Control Room. См. раздел [IQ Bot 11.x: Registering IQ Bot with the Control Room](#) on page 118.
- 2.** Complete the configuration settings to ensure registration with Control Room. See [IQ Bot post installation configuration](#) on page 118 for more information.
- 3.** Validate the installation. См. раздел [IQ Bot post installation validation](#) on page 140.

**Related concepts**

[IQ Bot 11.x: RabbitMQ v3.8.18 and Erlang/OTP upgrade](#) on page 103

The IQ Bot Version 11.3.x installation package includes the RabbitMQ v3.8.18 version 3.7.17 and Erlang/OTP version 22.0.

**Related tasks**

[Uninstall previous version of RabbitMQ v3.8.18 / Erlang/OTP](#) on page 104

When upgrading to IQ Bot Version 11.3.x, you need to uninstall the previous version of RabbitMQ v3.8.18 / Erlang/OTP.

## Upgrading system from IQ Bot Version 5.3.x or IQ Bot 6.0.x to Version 6.5

Find out how to upgrade your system from IQ Bot Version 6.0.x to Version 6.5.

**For IQ Bot Version 6.5**

- If your machine version is older than *SQL Server Native Client 2012*, a dialog box appears, giving you the option to upgrade. Open `services.msc` and stop `SQL Server (MSSQLSERVER)`. Then complete the installation process.
- During the upgrade, the installer detects if you have existing learning instances from a prior version of IQ Bot. Select that prior version of IQ Bot from a drop-down list to keep the classifier version for the existing learning instances.
- For any new learning instances created after installation, the classifier version of IQ Bot Version 5.3.1/Version 6.5 is used.
- When upgrading from IQ Bot Version 5.3.1.x, if you have learning instance that relies on 5.3.1.x check box or linked table functionality, clear the validation queue before upgrading to IQ Bot Version 6.5.



- If you have customized the settings or configurations of certain files in the database, then you must create a backup of these files before upgrading to another version of IQ Bot.

### For IQ Bot Version 6.5 Beta

- If you have a prior version of IQ Bot in a current environment, install and use IQ Bot Version 6.5 in a fresh development environment, rather than uninstalling your prior version in your current environment.
- If you have multiple tables in a bot in IQ Bot Version 5.3.1, after upgrade, multiple tables migrate, but as one consolidated table in that bot of IQ Bot Version 6.5.

If you still prefer to upgrade, follow these steps:

- Keep a valid PFX format certificate handy for HTTPS.
- Before upgrading from IQ Bot Version 6.0.x to Version 6.5, take a backup of the database. If any encryption issues occur after upgrading IQ Bot, you can restore your system using this backup.

Perform these steps on a machine with IQ Bot 6.0.x installed.

After upgrading from previous IQ Bot version, for example, from 5.3.0 to the current version, if you are using an existing TaskBot to read the output CSVs, change the encoding in the **Read from CSV command** to **UTF-8**. The output format has been updated to enable RPA task to read UTF-8 characters starting from IQ Bot 5.3.0 and later.

If you configure IQ Bot with load balancer, ensure you are logged onto the Automation Anywhere cognitive projects service as an administrator to enable access to all nodes for migration utility.

1. Uninstall your current IQ Bot version from **Add remove programs** in the Control Room.
2. Ensure the correct versions of Control Room (Version 11.3.1 base + either Version 11.3.1.1 patch or Version 11.3.1.2 patch) and Enterprise Client are installed, and not the 10.x versions.
3. Uninstall and Erlang.
4. Next, install IQ Bot Version 6.5 in custom mode.
5. Change the load balancer port from 8100 to 3000. The default port number is selected from the previous screen.

If you have installed an external load balancer, change the port number.

6. Complete the installation by retaining the rest of the settings, as they get auto populated during installation.

Your migration is now complete.

You can launch IQ Bot.

## Upgrading system from IQ Bot 5.3.x to 6.0.x

Find out how to upgrade your system from IQ Bot 5.3.x to 6.0.x

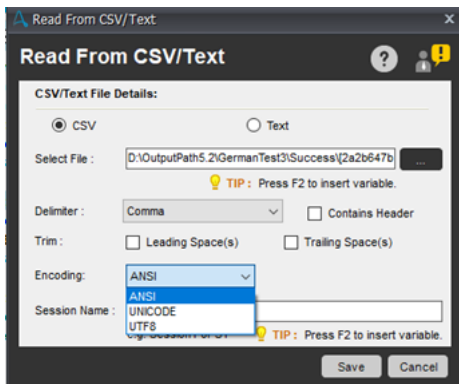
Perform these steps on a machine with IQ Bot 5.3.x installed.

---

**Note:** keep the PFX format certificate handy for HTTPS.

---

After upgrading from previous IQ Bot version to the current version, if you are using an existing TaskBot to read the output CSVs, change the encoding in the **Read from CSV command** to **UTF-8**. In IQ Bot 5.3.x, the output format has been updated to enable RPA task to read UTF-8 characters.



If you configure IQ Bot with Load Balancer, ensure you are logged onto the Automation Anywhere cognitive projects service as an administrator to enable access to all nodes for migration utility.

1. Uninstall IQ Bot 5.3.x from **Add remove programs** in the Control Room.
2. Uninstall and Erlang.
3. Next, install IQ Bot 5.3.x in custom mode.  
For an HTTPS based installation, add the PFX format certificate.
4. Change the load balancer port from 8100 to 3000. The default port number is selected from the previous screen.  
If you have installed an external load balancer, change the port number.
5. Complete the installation by retaining the rest of the settings, as they get auto populated during installation.
6. Your migration is now complete.

Launch IQ Bot.

## Upgrading system from IQ Bot 5.1.x to 5.2.x

Find out how to upgrade your system from IQ Bot 5.1.x to 5.2.x.

- Perform the followig tasks on a machine with IQ Bot 5.1.x installed.
- Keep the PFX format certificate handy for HTTPS.

This task walks you through the steps to upgrade your IQ Bot system from 5.1.x to 5.2.x.

1. Uninstall IQ Bot 5.1.1 from **Add remove programs** in the Control Room.
2. Next, install IQ Bot 5.2.1 in custom mode.  
For an HTTPS based installation, add the PFX format certificate.
3. Change the auto-populated load balancer port from 8100 to 3000.
4. Complete the installation by keeping the rest of the settings as is, that get auto populated during installation.
5. Your migration is now complete.

Launch IQ Bot.

## Upgrading system from IQ Bot 5.0.x to 5.1.x

Find out how to upgrade your system from IQ Bot 5.0.x to 5.1.x

- Perform the following tasks on a machine that has MS SQL database installed.
- The MS SQL server database must belong to the same version on the source and destination database servers.
- Before restoring the database, stop all IQ Bot services and ensure none of the services are running.
- Have the migration utility available for use, consisting of the following batch files required for upgrade:
  - Backup\_DB.BAT
  - Restor\_DB.BAT

**Note:** The migration utility script supports migration of learning instances and bots from one IQ Bot v5.1.x installation instance to another IQ Bot v5.1.x installation instance. It does not work for migration from IQ Bot 5.0.x to IQ Bot 5.1.x.

This task walks you through the steps to upgrade your IQ Bot system from version 5.0.x to 5.1.x.

1. Back up the database using the Backup\_DB.BAT file. The file contains the following:
 

```
@ECHO
OFFSETLOCALREMARK Build a list of databases to backupFOR %%G IN
(ClassifierData,FileManager,MLData) DO (ECHO %%G.BAK SqlCmd -S
ec5-55-555-555-555.ap-south-1.compute.amazonaws.com -U username -P
password -Q "BACKUP DATABASE [%%G] TO Disk='C:\kj\%%G.bak'")ENDLOCAL.
```

File objects	Ссылка
(ClassifierData,FileManager,MLData)	Picks one or more databases to back up. Here all three databases are selected.
ec5-55-555-555-555.ap-south-1.compute.amazonaws.com	This is a placeholder for the MS SQL database server name. Replace it with your database server name.
'C:\kj\	This is a placeholder for the output path of the backup files. Change this based on your requirements.

2. To restore one or more back up files, copy all the database backup files (.bak) into the database server and run the following from the command-line:
 

```
sqlcmd -S ec5-55-555-555-555.ap-south-1.compute.amazonaws.com -U username -P password -Q "RESTORE DATABASE AliasData FROM Disk='C:\IQBot DB Backup\AliasData.bak'
```

File objects	Ссылка
ec5-55-555-555-555.ap-south-1.compute.amazonaws.com	This is a placeholder for the MS SQL database server name. Replace it with the name of your database server.

Change the backup file path depending on your requirements. Additionally, change the database user name and password depending on the settings of your database.

## Using Migration Utility to import and export learning instances

Use the IQ Bot Migration Utility feature to export and import a learning instance between different IQ Bot installations to avoid recreating the learning instances.

Document groups, боты, and all learning associated with a learning instance are exported. Training documents used to train the боты during staging also get exported. However, the production documents do not get exported.

**Прим.:**

- Export learning instances to create a backup.
- Back up your database before importing learning instances.
- Select the right import option to avoid losing information.
- If migration is related to a learning instance created using custom domains, contact Automation Anywhere Enterprise support.
- Ensure that the source and destination systems are running the same IQ Bot version. Learning instances from different IQ Bot versions cannot be imported because their database schema will not match.

If you have IQ Bot administrator rights, go to **IQ Bot > Administrator > Migration**. The Migration Utility page displays a list of all available learning instances.

**Задачи, связанные с данной**[Export a learning Instance](#)

Export a learning instance using the Migration Utility.

[Import a learning instance](#)

Import a learning instance using the **Migration Utility**.

[Export or Import learning instances within IQ Bot 5.2 installation](#)

Find out how to migrate learning instances within different installations of the same version of IQ Bot.

[Export/Import learning instances within IQ Bot 5.3.x, and later versions](#)

Find out how to migrate learning instances within different installations of IQ Bot 5.3, Version 6.0, and Version 6.5.x and above.

## Export a learning Instance

Export a learning instance using the Migration Utility.

Follow these steps to export a learning instance using the Migration Utility:

1. Navigate to the **Administration tab > Migration** from the left panel to open that page.
2. Select one or more learning instances as per your requirement and click **Export**.
3. Enter an appropriate name for the IQ Bot archive (IQBA) data file, and click to begin the export process.

The name of the backup file is appended with a time stamp to make it unique.

4. Wait for the export process to complete. Once completed, the exported data file with the .iqba extension becomes available in the BackupData folder in the IQ Bot output directory.

C:\Users\Public\Documents\Automation Anywhere IQBot Platform\Output  
\BackupData

When an export process is in progress, limited user interaction is allowed with the IQ Bot Портал because export is a CPU-intensive activity.

**Прим.:** Exporting learning instances does not export production data; therefore, the Dashboard might not be displayed.

## Import a learning instance

Import a learning instance using the **Migration Utility**.

**Прим.:** To import learning instance backups on an IQ Bot Version 11.3.5.2 environment, the backup (.iqba) file must be exported from an IQ Bot Version 11.3.5.2 environment only. Therefore, you must also upgrade your source IQ Bot environment to Version 11.3.5.2. This requirement is due to changes made in database schemas and version information in the backup (.iqba) files.

Select from the various available options. Before initiating an import, backup your IQ Bot database.

Although Role-Based Access Control (RBAC) applies to the creation of new learning instances in IQ Bot Version 6.5, it does not apply to the following:

- Keep existing learning instances from previous IQ Bot versions.
- Import/export learning instances from one IQ Bot Version 6.5 environment to another.

As a workaround, an administrator can do the following:

- Ensure users and roles are updated in the Automation Anywhere Control Room.
- Manually insert a row in the **projected** and **role** columns in the database table `[FileManager].[dbo].[LearningInstanceRoles]`.

That database table is automatically created empty during IQ Bot Version 6.5 installation.

Do the following to import learning instances using the **Migration Utility** feature:

1. Copy the exported data file in the `BackupData` folder in the IQ Bot installation output directory to import.
2. Click **Import**, and select the IQ Bot Archive (IQBA) backup data file to import.
3. Select the required learning instance and click **Import**. You are asked to select from the following import options :

**Прим.:** The Migration Utility feature in IQ Bot Version 6.5 does not work well in scenarios where learning instances exist in both the source and target systems, and new groups were added to the source system for migration. In these scenarios, the new groups are not migrated to the target system for options 1, 2, and 3 of the **Migration Utility** feature. Customers are required to upgrade to IQ Bot Version 11.3.3.1 and above to avail these scenarios.

Import option	When to use
<b>Вариант 1. Append imported groups and trained bots to duplicate existing learning instances:</b>	<p>Use when you must merge new groups and trainings (bots) in existing learning instances.</p> <hr/> <p><b>Прим.:</b></p> <ul style="list-style-type: none"> <li>• When you import archive (.iqba) files using append mode, a trained group in a source environment can overwrite an untrained group in the destination environment.</li> <li>• If a learning instance is edited (for example, adding new fields), it cannot be imported using the Append option.</li> </ul>

Import option	When to use
<b>Вариант 2. Import learning instances, and ignore duplicate learning instances:</b>	Use when you must append only new learning instances, where the learning instance ID in the <code>.iqba</code> file (for example, from the Development environment) differs from the ID in the target environment (for example, Production environment). If a learning instance ID in the <code>.iqba</code> file is the same as an ID in the target environment, the <code>.iqba</code> learning instance is not appended.
<b>Вариант 3. Overwrite duplicate existing learning instances with imported learning instances:</b>	All groups, trainings (bots), and machine learning of existing learning instances on the destination system get replaced with the ones from source system. This does not impact the processing (dashboard data) done by those learning instances.  This is also the only option to update an existing learning instance that was edited to include additional fields or table columns.
<b>Вариант 4. Remove all existing learning instances and replace with imported learning instances:</b>	When starting fresh and it is okay to lose all work done so far on an IQ Bot installation.

**Прим.:** If you merge the `iqba` files, it does not merge the machine learning (ML) part from one learning instance to another. Instead, it keeps the ML from the existing learning instance, but not the imported learning instance.

4. Select an import option that best meets your requirement. Click **Import**. You are asked to confirm the import.
5. Click **Yes Import** to begin the import process. When the import finishes, you are returned to the **Migration Utility** home page with the list of learning instances. A successful import shows a `Last Migration status COMPLETE` message with the time stamp.

The imported learning instance retains its environment and that of all associated боты.

## Варианты импорта

Find out about the impact of each import option.

The table explains the impact of learning instances using the four import options mentioned in the section before.

System before file import (Destination)	Import file (Source)	System after file import (Destination)			
		Option 1: Append imported groups and trained боты to duplicate existing learning instances.	Option 2: Импортировать обучаемые экземпляры, игнорируя дубликаты существующих обучаемых экземпляров	Option 3: Перезаписать дубликаты существующих обучаемых экземпляров импортированными обучаемыми экземплярами	Option 4: Удалить все существующие обучаемые экземпляры и заменить импортированными обучаемыми экземплярами
L1	L1	L1 + L1	L1	L1 + L1	L1
L2	L2	L2 + L2	L2	L2 + L2	L2
L3		L3	L3	L3	
	L4	L4	L4	L4	L4
	L5	L5	L5	L5	L5

L1=Learning Instance L2=Learning Instance2

The following table explains the import options in detail. The impact on the learning instances, groups, documents, and bots is explained when using the four import options.

System before importing IQBA file (Destination)			Import IQBA file (Source)			System after importing IQBA file (Destination)											
Learning Instance 1 (LI1)			Learning Instance 1 (LI1)			Learning Instance 1 (LI1)			Learning Instance 1 (LI1)			Learning Instance 1 (LI1)			Learning Instance 1 (LI1)		
						Option 1: Append imported groups and trained bots to duplicate existing learning instances, LI1			Option 2: Import learning instances, ignoring duplicate existing learning instances, LI1			Option 3: Overwrite duplicate existing learning instances with imported learning instances, LI1			Option 4: Remove all existing learning instances and replace with imported learning instances, LI1		
Group	Files	Bot	Group	Files	Bot	Group	Files	Bot	Group	Files	Bot	Group	Files	Bot	Group	Files	Bot
G1	F1, F2, F3	B1	G1	F1, F2, F3	B1	G1	F1, F2, F3	B1	G1	F1, F2, F3	B1	G1	F1, F2, F3	B1	G1	F1, F2, F3	B1
G2	F4	B2	G2	F4, F10	B2	G2	F4, F10	B2	G2	F4	B2	G2	F4, F10		G2	F4, F10	
			G3	F11, F12	B3	G3	F11, F12	B3				G3	F11, F12	B3	G3	F11, F12	B3
G4	F5, F6		G4	F5		G4	F5, F6	G4	G4	F5, F6		G4	F5, F6		G4	F5	
G5	F7, F8, F9	B5				G5	F7, F8, F9	B5	G5	F7, F8, F9	B5	G5	F7, F8, F9		G5		
			G6	F13, F14	B6	G6	F13, F14	B6				G6	F13, F14	B6	G6	F13, F14	B6



Learning Instance=L1 Group=G Files=F Bots=B

### Задачи, связанные с данной

[Export/Import learning instances within IQ Bot 5.3.x, and later versions](#)

Find out how to migrate learning instances within different installations of IQ Bot 5.3, Version 6.0, and Version 6.5.x and above.

## Export or Import learning instances within IQ Bot 5.2 installation



Find out how to migrate learning instances within different installations of the same version of IQ Bot.

To use migration utility, log into the IQ Bot portal. The **Migration Utility** screen displays a list of all learning instances available on IQ Bot.



IQ Bot supports migration of learning instances from one IQ Bot 5.2 installation to another instance of IQ Bot 5.2 installation, using the export/import feature. Groups, bots, and learning associated with a learning instance are exported, along with training documents, that are used to train the bots during staging.

Launch migration utility by adding `/migration-utility` at the end of the portal URL in the browser, and choose **Enter** on the keyboard (`<IQ bot portal hostname:port>/migration-utility`)

### 1. Perform the following procedure to export learning instances using the migration utility.

- a) Select one or more learning instances as per your requirement and click  .
- b) Enter an appropriate name for the backup data file, and click  to begin the export process.  
Name of the backup file is appended with timestamp to make it unique.
- c) Wait for the export to complete; after which, the exported data file with `.iqba` extension becomes available in the `OutputBackupData` folder within the IQ Bot output directory. As export is a CPU-intensive activity, limited user interaction with IQ Bot is allowed when any export process is in progress.

### 2. The following procedure walks you through the task of importing the learning instances using the migration utility:

- a) Place the exported data file in `OutputBackupData` folder within the output directory of the IQ Bot installation, where you want to import the learning instances.
- b) Click  , and then select the backup data file to import.  
Import replaces all existing learning instances with the instances that you import. Before initiating an import, back up your existing learning instances in case you need them later.
- c) Select the required learning instance and click  to begin the import process.
- d) Once the import completes, you can see the imported learning instances.  
The imported learning instance retains its environment state and the state of all the associated bots.

## Export/Import learning instances within IQ Bot 5.3.x, and later versions

Find out how to migrate learning instances within different installations of IQ Bot 5.3, Version 6.0, and Version 6.5.x and above.

- IQ Bot Version 6.5.x and above uses unique delimiters "->:" for group of checkboxes and ":" for linked tables: "Gender\_ID->Female" and "Patient\_Table->Services".
- IQ Bot Version 5.3.1 uses non-unique delimiters: Gender\_ID\_Female and Patient\_Table\_Services, which is harder to split.

That difference between Version 6.5.x and above and 5.3.1. will create field name conflicts, unless the Валидатор queue in Version 5.3.1 is cleared. Version 6.5.x and above supports IQ Bot and RPA process better.

Import learning instances using the migration utility within IQ Bot 5.3, Version 6.0, and Version 6.5.x and above.

Control Room 11.3.1.2 supports migration of IQ Bot from 5.3.x to Version 6.5 and later.

### Note:

- Role-based access control (RBAC) is not migrated when learning instances are migrated using the migration utility. For more information on using RBAC with IQ Bot, see [Define access to learning instances using custom roles](#) on page 141.
- The Migration utility of IQ Bot does not support any manual changes to the database and the IQBA file. After migration, you get only staging data.

1. Copy the exported data file in the *BackupData* folder within the output directory of the IQ Bot installation, where you want to import the learning instances.
2. Click **Import** and select the *IQBA* backup data file to import.
3. Select the required learning instance and click **Import**. Select one of the import option from the list of import options:

Вариант	Описание
<b>Option 1: Добавить импортированные группы и обученные боты для дублирования существующих обучаемых экземпляров</b>	<ul style="list-style-type: none"> <li>• Merges new groups and trainings bots in existing learning instances.</li> <li>• Appends any new learning instances found in import data file.</li> <li>• Retains validator learning of existing learning instances.</li> </ul> <p><b>Note:</b> During import with this option, an existing group without a bot gets a bot if it is available in the import data file.</p> <p><b>When to use:</b></p> <p>When you want to append newer groups and training bots to an existing learning instance of an IQ Bot installation, without impacting the processing (dashboard data) done by that learning instance.</p>

Вариант	Описание
<b>Option 2: Импортировать обучаемые экземпляры, игнорируя дубликаты существующих обучаемых экземпляров</b>	<p>Appends only new learning instances.</p> <p><b>When to use:</b></p> <p>When you want to import only new learning instances and or bots on an IQ Bot installation keeping the existing learning instances intact.</p>
<b>Option 3: Перезаписать дубликаты существующих обучаемых экземпляров импортированными обучаемыми экземплярами</b>	<ul style="list-style-type: none"> <li>Overwrites existing learning instances including all groups and training of bots.</li> <li>Appends any new learning instances found in import data file.</li> <li>Replaces validator learning of existing learning instances.</li> <li>During import with this option, if any new group is found, it is retained to preserve the associated documents.</li> </ul> <p><b>When to use:</b></p> <ul style="list-style-type: none"> <li>When you want to replace all groups, trainings bots and learnings of an existing learning instance of an IQ Bot installation without impacting the processing (dashboard data) done by that learning instance.</li> <li>This is also the only option to update an existing learning instance which has been edited to include additional fields/table column.</li> </ul>
<b>Option 4: Удалить все существующие обучаемые экземпляры и заменить импортированными обучаемыми экземплярами</b>	<p>Deletes all existing learning instances before importing the new instances.</p> <p><b>When to use:</b></p> <p>When you want to start afresh and do not mind losing all the work done so far on an IQ Bot installation.</p>

- Select an import option that you need. Click **Import**. A confirmation is requested to confirm the import.
- Click on **Yes, import** to begin the import process.
- Once import completes, the migration utility home page is displayed with the list of imported learning instances.

- If import is successful, **Last Migration** status is shown as COMPLETE along with the timestamp.
- If the import fails, **Last Migration** status is shown as FAILED along with the timestamp.

The imported learning instance retains its environment state and the state of all the associated bots.

### Related concepts

[Варианты импорта](#) on page 254

Find out about the impact of each import option.

# Troubleshooting IQ Bot

---

Use the following information to troubleshoot your IQ Bot application.

## Large IQBA files failing import

Using the migration utility feature in IQ Bot you are trying to import a large IQBA file from development to the production server.

*Large IQBA files failing import IQ-bot-v6.5 (A-People login required)*

## Installation error in output path configuration screen

When the user clicks **Next** on the **Destination Folders** screen, an error message is displayed that the output path does not have read, write, and delete permissions.

Troubleshoot the issue: *Installation error in output path configuration screen IQ-Bot-v6.5 (A-People login required)*

## No learning instance for command in Enterprise Client

No learning instance is available to select in IQ Bot command in Enterprise Client.

Troubleshoot the issue: *No learning instance for command in Enterprise client IQ-Bot-v6.5 (A-People login required)*

## Learning instance classification issue on restarting AWS instance

All the documents are classified as Yet to be Classified.

Troubleshoot the issue: *Learning instance classification issue on restarting AWS instance IQ-Bot-v6.5 (A-People login required)*

## IQ Bot does not load after restarting AWS instance

IQ Bot does not load after stopping and starting an AWS instance.

Troubleshoot the issue: *IQ Bot does not load after restarting AWS instance IQ-Bot-v6.5 (A-People login required)*

## Error message displays indefinitely

Updating instance and uploading files message is displayed indefinitely for an HTTPS-enabled IQ Bot installation

Troubleshoot the issue: *Unable-to-upload-files.html - Error message displays indefinitely IQ-Bot-v6.5 (A-People login required)*

**Related information**[Intrusion detection system](#)

## IQ Bot installation fails to run in RabbitMQ cluster mode

IQ Bot installation fails to run in RabbitMQ cluster mode

Troubleshoot the issue: [IQ Bot installation fails to run in RabbitMQ cluster mode IQ-Bot-v6.5 \(A-People login required\)](#)

## IQ Bot HTTPS SSL certificate expiry

In your browser window, the HTTPS entry is crossed out and displays as not secure.

Troubleshoot the issue: [IQ Bot HTTPS SSL certificate expiry IQ-Bot-v6.5 \(A-People login required\)](#)

## Automation Anywhere Control Room login error

IQ Bot login: Control Room returns the Certificate path validator signature check failed error.

Troubleshoot the issue: [Automation Anywhere Enterprise Control Room login error IQ-Bot-v6.5 \(A-People login required\)](#)

## Connect ECONNREFUSED error during login

Connect ENCONNREFUSED error message is displayed during login.

Troubleshoot the issue: [Connect ECONNREFUSED error during login IQ-Bot-v6.5 \(A-People login required\)](#)

## Unable to install IQ Bot in express mode

Unable to install IQ Bot in express mode because Control Room is not installed in express mode.

Troubleshoot the issue: [Unable to install IQ Bot in express mode IQ-Bot-v6.5 \(A-People login required\)](#)

**Related reference**

[IQ Bot 11.x: IQ Bot installation prerequisites](#) on page 99

Verify the hardware, software, and configuration required to install IQ Bot in your environment. Follow the pre-installation checklist before installing IQ Bot.

## Uninstall error

Error when uninstalling IQ Bot.

Troubleshoot the issue: [Uninstall error IQ-Bot-v6.5 \(A-People login required\)](#)

## Unable to view learning instance listing

IQ Bot command does not display any learning instances and does not return specific errors when Control Room and IQ Bot are configured in cluster mode.

Troubleshoot the issue: [Unable to view learning instance listing IQ-Bot-v6.5 \(A-People login required\)](#)

## Your connection is not private error

Your connection is not private error is displayed on IQ Bot.

Troubleshoot the issue: [Your connection is not private error IQ-Bot-v6.5 \(A-People login required\)](#)

## Stalled Classifier

Classifier service stalls, and timer continues to spin after restarting IQ Bot services.

Troubleshoot the issue: [Stalled Classifier IQ-Bot-v6.5 \(A-People login required\)](#)

## Unresponsive Designer while drawing a User-Defined Region (UDR)

Designer becomes unresponsive when drawing a User-Defined Region (UDR)

Troubleshoot the issue: [Unresponsive Designer while drawing a User-Defined Region \(UDR\) IQ-Bot-v6.5 \(A-People login required\)](#)

## Installer unable to create platform database tables

The IQ Bot installer is sometimes unable to create platform database tables.

Troubleshoot the issue: [Installer unable to create platform database tables IQ-Bot-v6.5 \(A-People login required\)](#)

## Classification stalls while training documents

Classification stalls while training documents in IQ Bot.

Troubleshoot the issue: [Classification stalls while training documents IQ-Bot-v6.5 \(A-People login required\)](#)

## Export process hangs

Export process hangs while creating learning instances.

Troubleshoot the issue: [Export process hangs IQ-Bot-v6.5 \(A-People login required\)](#)

## Documents not classified after migrating learning instances

Documents are not classified after migrating learning instance to a new machine with a custom domain.

Troubleshoot the issue: [Documents not classified after migrating learning instances IQ-Bot-v6.5 \(A-People login required\)](#)

## Installer error 1334

IQ Bot installer error 1334, file cannot be installed.

Troubleshoot the issue: [Installer error 1334 IQ-Bot-v6.5 \(A-People login required\)](#)

## Access Denied message

Access denied: You are not authorized to log into IQ Bot.

Troubleshoot the issue: [Access Denied message IQ-Bot-v6.5 \(A-People login required\)](#)

## Installation fails while installing RabbitMQ

While installing RabbitMQ, users see a message that installation failed.

Troubleshoot the issue: [Installation fails while installing RabbitMQ IQ-Bot-v6.5 \(A-People login required\)](#)

## Cannot upgrade to IQ Bot 6.0 on Control Room 11.3

Unable to upgrade from IQ Bot 5.3 on Control Room 10.7 to IQ Bot 6.0 on Control Room 11.3.

Troubleshoot the issue: [Cannot upgrade to IQ Bot 6.0 on Control Room 11.3 IQ-Bot-v6.5 \(A-People login required\)](#)

## IQ Bot services not getting uninstalled

IQ Bot services not getting uninstalled during an installation rollback.

Troubleshoot the issue: [IQ Bot services not getting uninstalled during an installation rollback IQ-Bot-v6.5 \(A-People login required\)](#)

## Output folder path change from local to shared drive

After changing the path, when user tries to save a document in Validator, an error message is displayed.

Troubleshoot the issue: [Output folder path change from local to shared drive IQ-Bot-v6.5 \(A-People login required\)](#)

## Windows authentication with services in local system is not working

Windows authentication with services in local system is not working, none of the services are able to access the database.

Troubleshoot the issue: [Windows authentication with services in local system is not working IQ-Bot-v6.5 \(A-People login required\)](#)

## Database encryption errors

Sometimes IQ Bot is unable to encrypt the database causing the installation process to rollback.

Troubleshoot the issue: [Database encryption errors IQ-Bot-v6.5 \(A-People login required\)](#)

## SIRs not getting generated consistently

Sometimes Распознавание текста (OCR) fails to extract data from the documents, and occasionally documents with same layout get categorized into different groups.

Troubleshoot the issue: [SIRs not getting generated consistently IQ-Bot-v6.5 \(A-People login required\)](#)

## IQ Bot installation FAQs

Find answers to the frequently asked questions related to IQ Bot.

[IQ Bot installation FAQs IQ Bot-v6.5 \(A-People login required\)](#)

## IQ Bot user FAQs

Refer to Frequently Asked Questions (FAQs) to know more about IQ Bot.

[IQ Bot user FAQs IQ Bot -V6.5 \(A-People login required\)](#)

### **Related reference**

[IQ Bot validator FAQs](#) on page 264

View FAQs related to Validator.

[IQ Bot classifier FAQs](#) on page 264

View FAQs related to the Classifier.

## IQ Bot classifier FAQs

View FAQs related to the Classifier.

[IQ Bot classifier FAQs IQ Bot v6.5 \(A-People login required\)](#)

## IQ Bot validator FAQs

View FAQs related to Validator.

[IQ Bot validator FAQs IQ Bot v-6.5 \(A-People login required\)](#)



# IQ Bot Community Edition quick start guide

---

IQ Bot processes semi-structured or unstructured information and converts it into structured data that is used by Robotic Process Automation (RPA) bots for end-to-end automation. This lets you train the computer system to autonomously capture and understand unstructured information within a known domain and convert it into actual data.

We'll walk you through the entire process to show how easy it is to use cognitive automation.

---

**Прим.:** We recommend using the Chrome browser.

---

## Начните с IQ Bot

Register to use the IQ Bot Community Edition, then login with credentials from the welcome email you receive.

We will walk you through the entire process of:

- creating a learning instance and uploading sample documents
- training and reviewing your learning instance
- sending your learning instance to production

## Register to use the Community Edition

Sign up for Automation Anywhere Community Edition and register as a new user.

1. Click on **Register** to register as a new user.  
You will receive an email providing you with login credentials and a link to the IQ Bot Community Edition. The email provides other helpful information as well.
2. Check your registered email account for your credentials and use them to log into the IQ Bot Community Edition portal.
3. On the Control Room home page, choose **COGNITIVE AUTOMATION > LAUNCH IQ BOT**.
4. The IQ Bot Community Edition **Home page** displays in a new window.

## Creating a learning instance in Community Edition

IQ Bot leverages machine learning for continuous enhancement through user training. Let's begin by creating a learning instance.

A learning instance defines the type of document you need to process, the language of documents, and a list of data fields you want captured from each document.

---

**Прим.:** Use documents in various formats such as: TIFF, JPEG, PNG, and PDF, to train your learning instance.

---

1. On the IQ Bot Home page, click the **Get started** button to display the **Create new learning instance** page.
2. Define a name for the new learning instance. The description field is optional.

3. Select the domain or the document type, and the language from the drop-down list.
4. To create a custom domain, select **Document type > Others**. See [Custom domain](#) for details.
5. Click the **Browse** button and upload documents for training.
6. Download and use the sample documents as well. To use the sample documents, click the **Download sample documents** button, unzip the folder, and save the sample files to your local drive. Then click the **Browse** button and upload documents to train.
7. In the **Fields to extract** section, select fields from where the data needs to be extracted. For additional fields, expand the **Additional form fields** section and select additional fields.
8. Select common table fields and additional table fields, as required.
9. Next, click the **Create Learning Instance** button.
10. The system analyzes and sorts the training documents into logical groups based on field identification.

Next, train the documents, and review field mappings.

#### Задачи, связанные с данной

##### [Custom domain](#)

A domain contains information about the language of the documents, and the fields which the system would extract from the documents. Community Edition supports five domains out-of-the-box such as: Invoices, Purchase orders, Utility Bills, Bank Statements, and Credit Memos. For any other document type, create a custom domain.

## Custom domain

A domain contains information about the language of the documents, and the fields which the system would extract from the documents. Community Edition supports five domains out-of-the-box such as: Invoices, Purchase orders, Utility Bills, Bank Statements, and Credit Memos. For any other document type, create a custom domain.

1. Begin by creating a learning instance, and then select the **Document type > Other** option to add a custom domain.
2. Add the **Domain name** and **Primary language of documents**.
3. Upload your sample documents to train.
4. In the **Instance fields**, enter the name of the label as it appears in the training documents and then choose to **Add as form** or **Add as table/repeated section** that require extraction.  
Use the same form and table/repeated section field names as it appears in the training documents. Otherwise, the documents will remain unclassified.

## Train your learning instance

IQ Bot analyzes documents, and groups them based on similar content, structure, and layout.

IQ Bot performs an initial field mapping based on existing knowledge from any pretrained document types. When the first group is created, you can start reviewing the results of the initial mapping, and train the learning instance by making corrections. There are three panels in the training window:

- left panel displaying a list of fields
- center panel displaying field label, value, and parameter for each selected field
- right panel displaying the document in training

1. Select each field in the left panel to verify that the label of the field in the center panel are correctly identified, and the location of the value is correct.

2. If the label location is incorrect, choose the correct one by clicking directly on the text in the training document to auto populate the text in the center panel.
3. The Designer tries to find the appropriate value for the selected field label from the training document. However, if the displayed value is incorrect, you can either choose the correct one by clicking directly on the value in the training document, or use the **Draw** tool to select a bigger area for the value directly in the training document. The selected value displays in the center panel value field.
4. In addition to individual fields, IQ Bot captures data from tables. Verify the mapping for table columns as well.
5. Ensure each table field has a correct corresponding column name.
6. In the Table settings, select the best column for row detection, as well as an optional end of table indicator which tells IQ Bot that anything that comes after it will not be considered as a line item. Click on the text in the right panel or type the value manually in the **End of Table Indicator** field, in the center panel.
7. Enter multiple labels in the **End of Table Indicator** field in this format: *Subtotal | Tax (USD)*. The | pipe symbol separates the labels.

Once you complete training the current document, click the **See Extraction Results** button to review the extracted fields as well as the table line items on the left, and compare them to the document on the right. You can review other documents in this group. Since IQ Bot grouped similar documents, it can train one document and process others in the group in the same way.

The **See Extraction Results** menu lists all the uploaded training documents in an alpha-numeric sequence. The files are listed in old to new sequence.

As per the file names, the training documents in a batch are listed in the following order:

- Files names starting with special characters.
- File names starting with numbers.
- File names starting with alphabets.

## Export data to a CSV file

In the **See Extraction Results** view, you have the option to export the extracted data to a CSV file for ease of review.

Export data to a CSV file:

1. During training when you click the **See Extraction Results** button, you can view the correct/incorrect data extraction for the current training document.
2. In this view, you have the option to export the data to a CSV file for further review.
3. Click the **Export to CSV** option to export data and view it in a spreadsheet.

The CSV file is downloaded with the data extracted from the document.

Click the > next to the document name at the top to see other documents in the group. This allows you to download the data extracted from other documents.

---

**Прим.:** The sequence of fields in the .csv output is dependent on the training and configurations applied at the bot level. You can access field data using the field names instead of the index.

---

## IQ Bot 11.x: Set learning instance to production

Once the training and data extraction review process is complete, set your learning instance to production. Use this learning instance to run on documents (belonging to the same document type) hence automating the data extraction process.

1. In the **My Learning Instances** window, click your learning instance. Then click the **Set to production** icon.
2. Confirm the message that comes up and choose **Yes, send to production** button.
3. The **production** label displays next to the learning instance name.
4. To edit your learning instance, go to the **LEARNING INSTANCES tab**, select your learning instance, and click **Set to staging** button to set it back to staging.

You can edit your learning instance at any time, but have to set it to staging first before you can edit.

## Use IQ Bot in RPA

Use the RPA TaskBot to automate data extraction. One TaskBot uploads documents to IQ Bot as another one downloads the results from IQ Bot to a local folder. Ensure you have trained learning instances in production status, to complete the process.

### Задачи, связанные с данной

#### Using Upload Document action

The **Upload Document** action enables you to upload a document with IQ Bot. IQ Bot extracts fields from the document and exports them to CSV files.

#### Использование action «Загрузить все документы»

Используйте action **Загрузить все документы** для загрузки с сервера IQ Bot извлеченных результатов, которые созданы в результате выполнения Бот при помощи action **Загрузить документ**.

## Using Upload Document action

The **Upload Document** action enables you to upload a document with IQ Bot. IQ Bot extracts fields from the document and exports them to CSV files.

- Gain access to an Control Room.
- Ensure your local host is a registered device in the Control Room.

---

**Прим.:** To perform these tasks using APIs, see [using APIs to upload files, check file status, and download CSV files \(A-People login required\)](#).

---

Use the **Upload Document** action to upload a single document to the Control Room.

---

**Прим.:** Azure confidential computing enables organizations to upload encrypted data to secured storage, such as private folders on a virtual machine. If you upload documents from such secured folders to IQ Bot, these are moved to **Unclassified** status as data extraction is not supported for such documents.

---

Follow these steps to upload a document:

1. In the **Действия** palette, double-click or drag the **Upload Document** action from the **IQ Bot** пакет.

---

**Прим.:** A file size of 50 MB is supported for the upload action.

---

**Прим.:** The file names of the documents that you upload should not start with special characters, such as the hyphen (-).

---

2. В поле **Имя обучаемого экземпляра** выберите имя.
3. In the **File path** field, specify the location or type of the file.
4. Необязательно: В поле **Метка группы** укажите строковую переменную, содержащую имя папки, в которой находятся отсортированные документы.  
Это необходимо для определения группы документов, созданной пользователем. .
5. Необязательно: In the **Save the response to variable** field, add a variable. For example: select **prompt-assignment - string** from the drop-down list.  
A variable value in this field provides information about the file upload process: if the upload was successful or failed, and the reason for the failure.
6. Щелкните **Применить**.
7. Щелкните **Сохранить**.
8. Щелкните **Запустить сейчас**.
9. Щелкните **Заккрыть**.

To upload multiple files, see [Upload multiple files to IQ Bot using Loop action](#).

## Upload multiple files to IQ Bot using Loop action

Automate uploading multiple files by inserting the **Upload Document** action into a **Loop** action.

Follow these steps to upload multiple documents:

1. In the **Действия** palette, double-click or drag the **Loop** action from the **Loop** пакет.
2. In the **Loop Type** field, select the **Iterator** option.
3. In the **Iterator** field, select **For each file in folder** from the drop-down list.
4. In the **Folder path** field, select the folder path.
5. In the **Assign file name and extension to this variable** field, create or select a dictionary variable to store the names and extensions of the files in the selected folder path.  
For this example, we will use a dictionary variable named dictFile.
6. In the **Действия** palette, double-click or drag the **Upload Document** action from the **IQ Bot** пакет.
7. Complete the information, except the **File Path** field.
8. In the **File path** field, enter a dynamic file path using a variable.
  - a) Add a file path pointing to the folder, for example `C:\input\`.
  - b) Add the dynamic file name string: `$dictFile(name)$. $dictFile(extension) $`.

The *name* and *extension* keys are predefined. When inserted and run in a loop, the action iterates through the entire folder and calls all files in the folder one at a time. The **File path** value looks like this: `C:\input\dictFile(name)$.dictFile(extension) $`

9. Щелкните **Сохранить**.

To read results from variable, use the **Message box** action.

## Использование action «Загрузить все документы»

Используйте action **Загрузить все документы** для загрузки с сервера IQ Bot извлеченных результатов, которые созданы в результате выполнения Бот при помощи action **Загрузить документ**.

---

**Прим.:** Чтобы выполнить эту задачу с помощью API, см. [использование API для загрузки файлов, проверки статуса файлов и загрузки CSV-файлов \(требуется вход на сайте A-People\)](#).

---

IQ Bot извлекает поля из документов и экспортирует их как файлы CSV. Это action также позволяет загружать любые неклассифицированные, неподготовленные и недействительные документы в ваш локальный каталог.

Выполните следующие шаги, чтобы загрузить извлеченные результаты с сервера IQ Bot.

1. На палитре **Действия** дважды щелкните или перетащите action **Загрузить все документы** из пакет **IQ Bot**.
2. В поле **Имя обучаемого экземпляра** выберите имя.
3. В поле **Статус документа** выберите подходящий статус для документов.
  - **Успешные.** Документы обработаны и представлены в формате `.csv`.
  - **Недействительные.** Документы отмечены как недействительные во время процесса проверки.
  - **Неклассифицированные.** Не удалось классифицировать документы по группам.
  - **Неподготовленные.** Документы классифицированы по новым группам в процессе обработки и требуют обучения.
  - **Сбой.** Документы, которые не удалось обработать и которые требуют повторной обработки. Документ отражает **Статус документа** как **Не удалось**, если при извлечении данных, проверке или сохранении конечного результата в базе данных возникает исключение.

Необработанные документы в папках **Недействительные**, **Неклассифицированные**, **Неподготовленные** и **Сбой** доступны в исходном формате. Например, если входные документы были в формате `.pdf`, то выходные файлы в указанных выше папках будут также представлены в формате `.pdf`.

---

**Прим.:** После загрузки документа с помощью action **Загрузить** необходимо периодически выполнять action **Загрузить** для получения последних результатов с сервера. Поддерживайте интервал от 30 секунд до 1 минуты между выполнением двух последовательных и одинаковых action **Загрузить** для IQ Bot.

---

4. In the **Local output folder** field, provide the path to the file that will hold the output.
5. Для флажка **Удалить файлы с сервера после загрузки** выберите вариант удаления документов.  
 При выборе этого варианта сжатый файл `.zip`, содержащий неудачные документы, будет доступен для повторной загрузки, даже если загрузка не удалась. Поэтому следует выбрать этот параметр.
6. Необязательно: В поле **Сохранить ответ в переменную** добавьте переменную. Например, выберите в раскрывающемся списке **prompt-assignment - string**.  
 Значение переменной в этом поле предоставляет информацию о том, была ли загрузка успешной или неудачной, а также сведения о причине сбоя.
7. Щелкните **Обновить**.
8. Щелкните **Сохранить**.
9. Щелкните **Запустить сейчас**.

**10. Щелкните **Заккрыть**.**


---

**Прим.:** Если загрузка не удалась, проверьте переменную, используя **Окно сообщений** или action **Записать в файл**. См. описание поля **Сохранить ответ в переменную**.

---

**11. Перейдите в локальную папку вывода, чтобы просмотреть загруженные файлы.**

## FAQs for Community Edition

This topic answers frequently asked questions about the IQ Bot Community Edition.

### Обзор

IQ Bot is a purpose-built cognitive automation that you can train to automate business processes to work fast and efficiently, and also eliminate human error.

Use IQ Bot, and Automation Anywhere Enterprise in conjunction to automate your business processes that rely on semi-structured or unstructured data hidden in electronic documents, images, emails, and other areas. IQ Bot leverages computer vision and multiple Artificial Intelligence (AI) techniques to intelligently digitize and extract data to make your Robotic Process Automation (RPA) and Optical Character recognition (OCR) technology even more effective. Using this approach IQ Bot can adapt its data extraction from specific domains or document types, and quickly learn from the environment to improve the results.

For the Community Edition, we have made five domains available for use such as: Invoices, Purchase Orders, Bank Statements, Credit Memos, and Utility Bills. IQ Bot uses the OCR technology to extract information from a document. Though OCR tools measure results based on accuracy, IQ Bot uses the Straight Through Processing (STP) technique to measure how many documents can be processed end-to-end without human intervention.

### Basic Concepts

**1. How does IQ Bot work?**

IQ Bot leverages computer vision and multiple AI techniques to intelligently digitize and extract data to make your RPA more effective. IQ Bot uses OCR as one of the underlying technologies used to extract information from a document. This approach allows IQ Bot to adapt the data extraction from specific domains and document types, and quickly learn from the environment to improve results.

**2. What is a learning instance?**

You would create a learning instance for a specific use case that an IQ Bot can learn from. It is domain-specific and has the capability to learn from documents classified and processed by it, and validation corrections performed by humans. This learning is translated to tangible benefits such as: improved STP and accuracy figures for the instance over a period.

**3. What is the difference between bots and learning instance?**

A learning instance consists of training for the business process around a specific document type.

Bots contain training files that were classified by IQ Bot in different groups based on content.

You can activate or deactivate a bot in a learning instance to improve its training; as the learning instances would process documents that match the active bots as others remain in a queue, until that group is trained.

**4. What is the accuracy rate of IQ Bot?**

The most primary metric for IQ Bot is STP. It is dependent on the accuracy of field capture. Field accuracy impacts STP directly.

For example, if a customer captures one to two fields across a Grade A quality document, an accuracy of 86% is achieved. A customer who captures 11 differentially weighted fields across highly-varying document quality would see lower accuracy.

**5. How does the dashboard help?**

The dashboard displays all production information and results that helps us identify how we could improve the training.

---

**Прим.:** The production information is not available for the Community Edition.

---

**6. What is percent (%) training?**

The percent (%) training helps us estimate the STP that is calculated based on the number of bots trained and active bots.

## Using IQ Bot Community Edition

**1. What are the limitations of the Community Edition?**

**Processing Limitations:** The user can create up to five learning instances and upload up to 100 documents for each learning instance.

**2. I have trained the learning instance but cannot see the output.**

For each trained group, you can select **See Extraction Results** > **Export CSV** to see the output.

**3. I cannot edit a group as the **Edit Bot** link is disabled.**

The **Edit Bot** link appears disabled when the group is in production or when it is in training in another tab.

**4. I have completed processing and need to process files in batch mode. How can I do that?**

IQ Bot can process files in batch mode when connected to RPA.

**5. I have to add a new domain that is available in the Bot Store.**

Importing domains is not available for the Community Edition.

**6. I cannot see the results on the dashboard.**

The dashboard displays information of processed files that are in production. This option is not available in the Community Edition.

**7. What is the prerequisite step to creating a learning instance in IQ Bot?**

Before you start creating a new learning instance, know what information you want to extract from the documents you would be processing.

It is best practice is to have some sample documents, which you can use as reference to decide what you want to extract. Use them as the first set of documents to train against the new learning instance.

**8. How many simultaneous documents can be loaded into IQ Bot?**

In the Community Edition, IQ Bot accepts up to a limit of 100 documents for each learning instance. The full license would support millions of documents per year that can be uploaded in a queue.

**9. What is the license requirement for IQ Bot?**

Community Edition includes a license for IQ Bot. No user action is required.



**10. How many tables can I configure to extract in a Bot?**

You can configure unlimited number of tables for extraction.

**11. Can I test a document different than that used for training?**

Yes, you can. Use the Preview option to navigate to other documents to verify if training was effective.

## Learning

**1. Does IQ Bot learn from user inputs?**

IQ Bot learns from the user inputs over time.

Пример. If a date is extracted often with an extra character such as spaces and dots between numbers, and the user corrects it a dozen times, IQ Bot would automatically correct the error when it encounters a similar problem the next time.

**2. How does IQ Bot differ from OCR solutions?**

OCR is one of the underlying technologies in IQ Bot but is used only as a first step. IQ Bot is designed for business users, so anyone can start training an IQ Bot after a 3-hour training. The setup costs are 10x lower.

Automation Anywhere is the only vendor that combines the best of RPA solution with cognitive automation to significantly reduce the cost and complexity in automating document-centric processes.

**3. How many templates do I have to train the IQ Bots on before it is ready for use?**

The training requirement has been kept to a minimum, and in most cases, you are able to get the required value in just one pass.

## Capabilities

**1. What are supported file types for IQ Bot?**

The following are supported file types:

- PDF (Vector PDF, Raster PDF or Hybrid PDF)
- TIF or TIFF
- JPG or JPEG
- PNG

**2. Does IQ Bot support handwritten documents?**

No, not yet. Processing handwritten document to achieve high STP is a challenge, but it is part of our roadmap.

**3. Does IQ Bot support tabular data extraction?**

Yes, it does. IQ Bot has advanced table extraction features to support complex use cases such as: Explanation of Benefits.

**4. What are supported languages for IQ Bots?**

IQ Bot supports the following languages out of box:

- Английский
- Испанский
- Французский
- Немецкий
- Итальянский
- Additionally, it also supports over 25+ languages including all Latin scripts.

**5. Does IQ Bot support documents other than invoices?**

Yes, IQ Bot supports a variety of domains, and you can also easily add new domains. You can also create a custom domain when you select the value **Other** from the domain drop-down list.

The following domains are available in the Community Edition:

- Invoices
- Purchase orders
- Bank statements
- Credit Memo
- Utility bills

---

**Прим.:** You can select the required domain when you create a learning instance.

---

**6. Does IQ Bot support documents with multiple color text?**

Yes, but this is true for darker shades of color only.

**7. Can I remove the default (pre-loaded) sample document for training and replace it with another from the group in a Bot?**

Да. If the default training document on the Train tab reflects all documents in that group, you can remove that document from the Train tab and upload a different one from the same group, and train it.

**8. Can I stop document analysis or processing in between?**

No, you cannot stop a document analysis or processing mid-way.

**9. What is the maximum number of learning instances I can create? What is the maximum number that can simultaneously exist in the system at once?**

The Community edition is limited to five learning instances. The Automation Anywhere Enterprise version has no such limitations.

**10. Is there a restriction to the number of characters for naming a learning instance?**

You cannot exceed 50 characters when naming a learning instance.

**11. What is the average time to process a single page document? Is the time dependent on the complexity of the page?**

There is no fixed time for processing a single page document as this depends on the following factors:

- CPU strength and availability
- Available free RAM
- Page clarity OR noise level
- Data on page

**12.** Can I process MS Excel invoices using IQ Bot?

If the invoices have a standard format, they can be processed using RPA tasks. In case the Excel formats vary, they need to be converted to PDFs, so they can be processed in IQ Bot.

# Index

## A

A2019 IQ Bot [91](#), [140](#)  
 A2019 IQ Bot installation [91](#), [140](#)  
 A2019 IQBot [91](#), [140](#)  
 architecture [63](#)  
 asynchronous replication [79](#)

## B

Bot Runner [81](#)  
 bug fixes [6](#)

## C

changed features [6](#)  
 client services [81](#)  
 cluster [78](#)  
 cluster mode [113](#)  
 components [68](#)  
 configuration [79](#)  
 configuring Control Room with HTTPS [132](#), [134](#), [135](#), [136](#)  
 configuring IQ Bot with HTTP [132](#), [134](#), [135](#), [136](#)  
 Control Room [81](#)

## D

data center [68](#)  
     components [78](#)  
     protocols [78](#)  
 database [81](#)  
 database servers [63](#)  
 deploy [78](#)  
 deprecated features [6](#)  
 disaster recovery [79](#), [81](#)

## E

encyption [81](#)  
 encryption [73](#)

## F

file shares [63](#)  
 firewall [63](#)

## H

HA [78](#)  
 HA high availability [78](#)  
 hardware requirements [91](#)  
 healthcheck api response [147](#)

## I

Install A2019 iqbot [140](#)

Install IQ Bot [118](#), [140](#)  
 Install IQBot [91](#), [108](#), [118](#), [140](#)  
 installing IQ Bot Platform [113](#)  
 iq bot custom logic [214](#)  
 IQ Bot Custom Logic [214](#)  
 IQ Bot Custom Logic examples [216](#)  
 IQ Bot custom logic user guide [216](#)  
 IQ Bot Custom Logic User Guide [216](#)  
 IQ Bot migration [233](#)  
 IQBot Custom Logic [214](#)

## L

load balancer [63](#)

## M

Microsoft SQL server [78](#)

## N

new features [6](#)

## P

postgreSQL server [78](#)  
 pre-configuration requirements [79](#)  
 prerequisites [6](#)  
 primary site [78](#), [81](#)  
 processes [78](#)  
 protocols [78](#)

## R

Rabbit MQ startup failure [137](#), [147](#)  
 recovery site [81](#)  
 register [118](#)  
 restore primary site [83](#)

## S

secondary site [78](#), [81](#)  
 SMB file share [78](#)  
 SMB share [81](#)  
 software requirements [91](#)  
 subversion (SVN) server [78](#)

## T

troubleshooting IQ Bot [260](#)

## U

uninstalling IQ Bot [152](#)  
 uninstalling platform [152](#)  
 unregistering [118](#)

upgrade considerations [6](#)  
upload control room [268](#)  
upload document [268](#)

## **Б**

браузеры [63](#)

## **О**

операционные системы [91](#)

## **С**

Сервер SVN [78](#)

## **У**

учетные данные [81](#)