



QAD Adaptive Applications

QAD Internationalization United Kingdom Extension Installation Guide, Version 2.0.1

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Overview

This document provides instructions for installing the extended internationalization features for the United Kingdom into a QAD environment.

Product Name Changes

Starting from September 2019, the name for QAD's complete portfolio of products is QAD Adaptive Applications, and QAD Adaptive ERP is the name for QAD's flagship ERP solution. QAD Adaptive ERP includes the functionality previously associated with QAD Cloud ERP and QAD Enterprise Applications—Enterprise Edition (EE).

Requirements

The internationalization extension package for the United Kingdom requires the following items:

- QAD Enterprise Edition 2016 or higher.

Important If you use QAD Enterprise Edition 2018, you must have Financials Patch 2 (QAD Financials FIN 2018 Patch 02) installed. If you want to use the QAD Web UI, use QAD Adaptive ERP, September 2019 release or higher.

Important Due to new I19 packaging formats, you must have YAB 1.6 or higher.

- Progress OpenEdge 10.2B or higher.

Making Tax Digital Requirements

To send information to the UK tax authorities through the Making Tax Digital (MTD) Web service, the following software must be installed on the server as prerequisites:

- OpenSSL (the latest version or at least version 1.0.2.*)
- cURL

Important Install cURL compiled with OpenSSL supporting TLS 1.2 and https protocols.

For more information on cURL and OpenSSL, see “HMRC Web Service Authorization Component” on page 5.

The MTD functionality requires a folder that is readable and writable by the application in order to exchange files with the UK tax authorities. This folder must then be specified in the Exchange Folder field of UK MTD Communication Maintenance (36.5.8.21.2.2), as described in *QAD Internationalization United Kingdom Extension User Guide*.



Procedure

Table 1
Installation Procedures

QAD Environment	On-Premise or Cloud Installation	QDT or YAB	Procedure
2016 and higher versions	Cloud	YAB	“Installing United Kingdom Internationalization Extension in a YAB Environment – Cloud Installation” on page 3
	On-Premise	YAB	“Installing United Kingdom Internationalization Extension in a YAB Environment – On-Premise Installation” on page 3

Installing United Kingdom Internationalization Extension in a YAB Environment – Cloud Installation

For information about installing United Kingdom Internationalization Extension into an Enterprise Edition cloud environment, contact QAD Cloud Operations. For information about running the `Get_fraud-prevention.bat` file mentioned in “MTD Fraud Prevention Information” on page 6, contact QAD Cloud Operations.

Installing United Kingdom Internationalization Extension in a YAB Environment – On-Premise Installation

To install United Kingdom Internationalization Extension in an environment of 2016 or higher, you must use YAB.

YAB is a deployment and management toolset that covers all products installed into an Enterprise Edition environment. You can use it to start, stop, reconfigure, and maintain the consistency of your environments. Your environment is defined in terms of discrete units, or packages, which you can replace and add, as needed. For more information about using YAB, see *QAD Installation Guide*.

To install United Kingdom Internationalization Extension using YAB, perform the following steps:

- 1 Set the downtime for the environment.

Note Installation lasts from one to two hours, depending on the location of the server and how many packages are required to be downloaded.

- 2 Back up the database and Enterprise Edition.
- 3 Download the add-on file from the QAD Store or from QAD Release Fulfillment.
- 4 Move the file to a file system that is accessible from the UNIX host where your Enterprise Edition environment is installed.

- 5 Change to the directory where Enterprise Edition is installed.

```
cd directory
```

- 6 Install the United Kingdom Installation Extension by entering the following command:

```
yab install zip file
```

where `zip file` is the name of the file you received from QAD.

For example,

```
yab install i19-gb-installer-X.X.X.X.zip
```



where each X represents a number for that particular package.

The product installs. If needed, you must run the `Get_fraud-prevention.bat` file mentioned in “MTD Fraud Prevention Information” on page 6 on client Windows machine, where QAD .NET is installed.

For more information about running the file, see “MTD Fraud Prevention Information”.

License Code

Specify a valid license code to use the installed United Kingdom Internationalization Extension.

Granting User Access to United Kingdom Functionality

Granting Users Access to Menus in the Web UI

A user’s access to the QAD Internationalization United Kingdom Extension functionality in the Web UI is determined by the roles assigned to the user. The role that provides access to the United Kingdom reports is UKExt.

The UKExt role is automatically created during the installation procedure. Check that all users who need access to the United Kingdom functionality are assigned the UKExt role using Role Membership Maintenance (36.3.6.6) in the .NET UI or User Access in the Web UI.

Troubleshooting

Installation output is stored in the following log file:

```
build/logs/yab.log
```

Program Access

If you cannot access the programs described in *QAD Internationalization United Kingdom Extension User Guide*, run System Synchronize (36.24.3.2). For more information on System Synchronize, see *QAD System Administration Guide*.

Known Issues

YAB Installation Errors Related to `finudf` and `fin-sync`

During YAB installations, the following errors related to `finudf` or `fin-sync` may appear:

```
BuildContext - finudf-il9-gb-update ERROR
```

```
BuildContext - fin-sync-run-update ERROR
```

To resolve errors appearing during YAB installation, upgrade to the latest YAB version or assign a blank password to the `mfg` user before restarting the installation.

Running QRF Reports that Use Financial APIs

In a YAB environment, you may view an issue when running QAD Reporting Framework reports that use Financial APIs. QAD Reporting Framework crashes if the `propath` is incorrect.



To resolve this issue appearing when the QAD Reporting Framework report is running—after the extension is installed in a YAB environment—specify the following Financials proxy source to include it into the MFG application server propath:

- 1 Edit `build/config/configuration.properties`:

```
#@append  
appserver.mfg.propath=$ {packages.fin-src-proxy.dir}
```
- 2 Apply the change:

```
yab appserver-mfg-update
```
- 3 Restart the application.

Installing the Extension in an Environment with Existing Internationalization Extensions

If you install United Kingdom internationalization package in an environment that contains packages for other countries, and these packages depend on old versions of the `i19-library` package or `i19-intrastat` package, the following error occurs:

```
ERROR [main] Boot - The request does not have a solution.
```

To fix the error appearing during installation of United Kingdom, reinstall all internationalization packages using the latest version of the package that is causing this issue—`i19-library` or `i19-intrastat`.

Or, as a temporary solution:

- 1 Update the `configuration.properties` file to treat all references to `i19-library` as references to the latest package version, for example, `i19-library-1.0.0.11`:

```
dependency.redirects=i19-library=i19-library-1.0.0.11
```
- 2 Apply the change:

```
yab -check-for-updates -r -v
```
- 3 Try to install the zip file for the new package again.
- 4 Run the `yab info` command and then ensure that all expected packages are listed.

Important Review this setting with each internationalization extension installation. If a new package requires a new version of the `i19-library` or `i19-intrastat` package, update the `dependency.redirects` setting accordingly.

Example The `i19-ru-operations` package is already installed and depends on the `i19-library` package, version 1.0.0.11. Install the `i19gb-app` package, which depends on the latest version of the `i19-library` package—1.0.0.11, and then an error occurs. As a temporary solution, update the `configuration.properties` file with the latest version of the `i19-library` package, `dependency.redirects=i19-library=i19-library-1.0.0.11`, and try to install the `i19gb-app` package again.

HMRC Web Service Authorization Component

QAD United Kingdom Internationalization Extension User Guide describes the way to connect to Her Majesty's Revenue and Customs (HMRC) Web service to complete Making Tax Digital (MTD) declarations.



To connect to the HMRC Web service, the communication software should be installed. To install it, perform the following steps:

- 1 Download and install cURL software (<http://curl.haxx.se/download.html>).
- 2 Ensure that OpenSSL is installed and updated in Unix to the latest version.

MTD Fraud Prevention Information

HMRC requires all MTD declarations to include fraud prevention information. This information must be included in the header of each file with the JSON format submitted to HMRC. Detailed information about the fraud prevention headers is available on the Fraud Prevention area of the HMRC Web site.

Important This information should only be entered by a superuser with system administration knowledge.

Access UK MTD Web Service Maintenance (36.5.8.21.2.1) to add this information in the Value fields, which are accessible by clicking the Next button.

To update the relevant fields, perform the following steps:

- 1 Access UK MTD Web Service Maintenance.
- 2 Specify 1 – Production as the environment type and specify the web service address that is used to report to HMRC. This information is available in the QAD UK MTD Production `Credentials.pdf` file. Similar to the license code, this PDF file is available from the QAD Store as part of this internationalization package.
- 3 Click Next, and then specify the fields on UK MTD Web Service Maintenance. See Figure 2 on page 7.
- 4 To follow the requirements from HMRC regarding fraud prevention, you need to communicate details from the client machine where QAD .NET Client is installed. Normally, this is the Windows machine that has the QAD .NET Client installed. Using the content in Table 2 as a guide, specify the Value fields. You must enter data for all table rows.

To help in collecting the value data for your installation, you or your system administrator can perform the following steps:

- a Open the `docs` folder in the UK package .zip file and find the `Get_fraud-prevention.bat` file.
- b Run `Get_fraud-prevention.bat`, which is a separate program, run outside the QAD application. It should be run specifically on the Windows machine, where QAD .NET Client is installed. The .bat file collects technical data that is needed as a part of fraud prevention data to be shared with HMRC upon request and creates a .txt file (`fraud-prevention.txt`, for example) with value data from your installation. See Figure 3 on page 8.

Note All data displayed in the .txt file is fictional and for example purposes only.

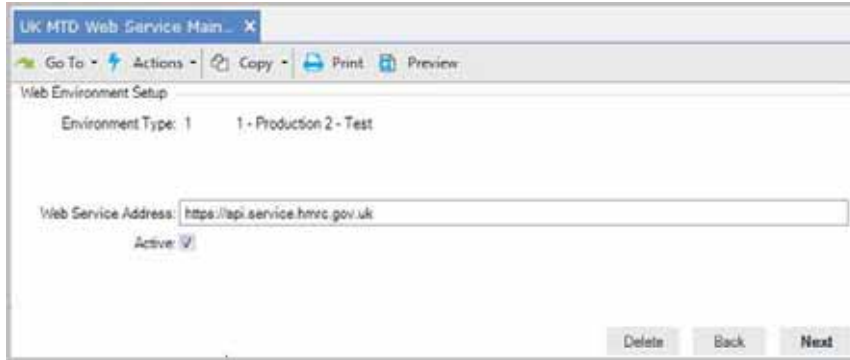
- c Use the required data from the .txt file to complete the fields in UK MTD Web Service Maintenance. The information is communicated in the file with the JSON format headers in each request to HMRC.

For more details on this requirement, see the Development Hub Fraud prevention section at <https://developer.service.hmrc.gov.uk/guides/fraud-prevention/>

- 5 Click Next to save all updates.



Fig. 1
UK Web Service Maintenance (36.5.8.21.2.1), Frame 1

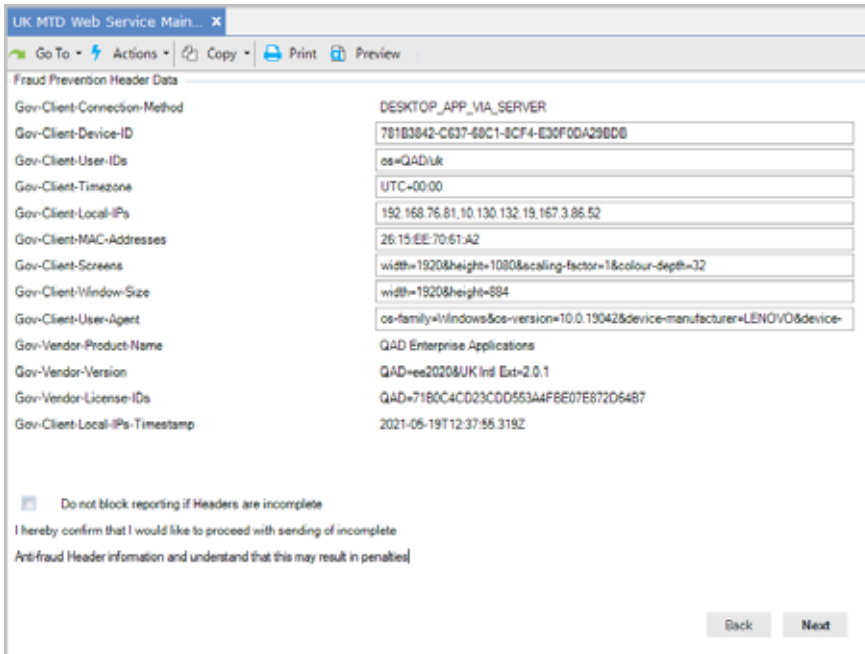


The screenshot shows a web browser window titled "UK MTD Web Service Main...". The browser's address bar and navigation buttons (Go To, Actions, Copy, Print, Preview) are visible. The main content area is titled "Web Environment Setup". It contains the following information:

- Environment Type: 1 1 - Production 2 - Test
- Web Service Address:
- Active:

At the bottom right of the form, there are three buttons: "Delete", "Back", and "Next".

Fig. 2
UK Web Service Maintenance (36.5.8.21.2.1), Frame 2



The screenshot shows a web browser window titled "UK MTD Web Service Main...". The browser's address bar and navigation buttons (Go To, Actions, Copy, Print, Preview) are visible. The main content area is titled "Fraud Prevention Header Data". It contains a list of fields and their values:

Gov-Client-Connection-Method	DESKTOP_APP_VIA_SERVER
Gov-Client-Device-ID	781B3842-C637-68C1-8CF4-E30F00A29BD8
Gov-Client-User-IDs	os=QAD/uk
Gov-Client-Timezone	UTC+00:00
Gov-Client-Local-IPs	192.168.76.81,10.130.132.19,167.3.86.52
Gov-Client-MAC-Addresses	28:15:EE:70:61:A2
Gov-Client-Screens	width=1920&height=1080&scaling-factor=1&colour-depth=32
Gov-Client-Window-Size	width=1920&height=884
Gov-Client-User-Agent	os-family=windows&os-version=10.0.19042&device-manufacturer=LENOVO&device-
Gov-Vendor-Product-Name	QAD Enterprise Applications
Gov-Vendor-Version	QAD=ee2020&UK Inf Ext=2.0.1
Gov-Vendor-License-IDs	QAD=71B0C4CD23CDD553A4FBE07E872D6487
Gov-Client-Local-IPs-Timestamp	2021-05-19T12:37:58.319Z

Below the table, there is a checkbox labeled "Do not block reporting if Headers are incomplete" which is checked. Below that, there is a confirmation statement: "I hereby confirm that I would like to proceed with sending of incomplete Anti-fraud Header information and understand that this may result in penalties". At the bottom right of the form, there are two buttons: "Back" and "Next".

Fig. 3
 Freud Prevention, .txt output file

```

fraud-prevention - Notepad
File Edit Format View Help
Gov-Client-Connection-Method : DESKTOP_APP_VIA_SERVER
Gov-Client-Public-IP : 194.156.251.254
Gov-Client-Public-Port : 33040
Gov-Client-Device-ID : 90DA4E2B-9E15-7A93-AF8D-1FA799D649A1
Gov-Client-User-IDs : os=QAD\ies
Gov-Client-Timezone : UTC+02:00
Gov-Client-Local-IPs : 192.168.1.254
Gov-Client-MAC-Addresses : 40:84:B4:27:F9:3A
Gov-Client-Screens : width=1920&height=1080&scaling-factor=1&colour-depth=32
Gov-Client-Window-Size : width=1920&height=1080
Gov-Client-User-Agent : Windows/10.0.18362 (HP/HP ProBook 440 G6)
Gov-Client-Multi-Factor :
Gov-Vendor-Version :
Gov-Vendor-License-IDs :
Gov-Vendor-Public-IP :
Gov-Vendor-Forwarded :
Ln 17, Col 1 100% Windows (CR LF) UTF-8
  
```

Table 2
 Fraud Prevention Header Data

Name	Value	Comment
Gov-Client-Local-IPs- Timestamp	For example: Gov-Client-Local-IPs- Timestamp: 2020-09- 21T10:30:05.123	A timestamp indicates when Gov-Client-Local-IPs is collected. It is collected immediately before the client makes the request to the backend server that triggers a request to the API.
Gov-Vendor-Product-Name	For example: Gov-Vendor-Product-Name: QAD Enterprise Applications	The name of the product marketed to end users. The value is percent encoded when sent to HMRC.
Gov-Client-Connection- Method	For example: Gov-Client-Connection-Method: DESKTOP_APP_VIA_SERVER	A string representing the connection method used for the request.
Gov-Client-Timezone	For example: Gov-Client-Timezone: UTC+01:00 Gov-Client-Timezone: UTC-01:15	The local timezone of the originating device, expressed as UTC±<hh>:<mm>.

Name	Value	Comment
Gov-Client-User-Agent	<p>Linux server minimum value: Linux/ (/);</p> <p>Windows server minimum value: Windows/ (/)</p> <p>OS Family/OS Version+ (Device Manufacturer/Device Model+)</p> <p>Each value (OS Family, OS Version, Device Manufacturer and Device Model) must be percent encoded but not the separators themselves. The separators are / ().</p> <p>For example:</p> <p>Gov-Client-User-Agent: Windows/ (Dell/XPS15)</p> <p>Gov-Client-User-Agent: / (Dell/XPS15)</p> <p>Gov-Client-User-Agent: Windows/XP (/)</p> <p>Gov-Client-User-Agent: Windows/XP (/XPS15)</p> <p>Gov-Client-User-Agent: Windows/XP Windows/98 (/)</p>	<p>Gov-Client-User-Agent identifies the operating system and device.</p> <p>These fields are submitted as the following list of key-value data structures:</p> <ul style="list-style-type: none"> • os-family is the operating system family, for example, Windows or MacOS • os-version is the operating system version, for example, 10 or 10.15.7 • device-manufacturer is the manufacturer of the device, for example, Dell or Apple • device-model is the model of the device, for example XPS13 or MacBookPro15,2 <p>Every key and value is percent encoded.</p>
Gov-Vendor-Version	<p><software-name>=<version-number>&<software-name-2>=<version-number-2>& ...</p> <p>For example:</p> <p>QAD=ee2017</p>	<p>A key-value data structure of software versions involved in handling a request</p>
Gov-Client-Device-ID	<p>For example:</p> <p>Gov-Client-Device-ID: beec798b-b366-47fa-b1f8-92ced14alce</p>	<p>An identifier unique to an originating device. This should be generated by an application and persistently stored on the device. The identifier should not expire.</p>
Gov-Client-User-IDs	<p>The os field should contain the identifier of the user signed in on the originating device. Additional fields should contain the user's identifiers with the vendor services involved in the request.</p> <p>For example:</p> <p>Gov-Client-User-IDs: os=alice_desktop&my-vendor-online-account=alice_online_account_user_id_w ith_vendor</p>	<p>A key-value data structure containing the user identifiers. The keys should indicate accounts the user holds.</p>
Gov-Client-Local-IPs	<p>For example:</p> <p>Gov-Client-Local-IPs: 10.1.2.3,10.3.4.2</p>	<p>A list of all local IP addresses (IPv4 and IPv6) available to the originating device. If local device IP addresses cannot be discovered — for example, through a web browser due to permissions or lack of WebRTC — then submit the header with an empty value or omit it entirely.</p>

Name	Value	Comment
Gov-Client-Screens	For example: Gov-Client-Screens: width=1920&height=1080&scaling-factor=1&colour-depth=16	Information related to the originating device's screens. The fields include the following items: <ul style="list-style-type: none"> width is the reported width of the screen, in pixels height is the reported height of the screen, in pixels scaling-factor is the reported scaling factor of the screen colour-depth is the color depth of the screen, in bits
Gov-Client-Window-Size	For example: Gov-Client-Window-Size: width=1256&height=803	The number of pixels of the window on the originating device in which the user initiated (directly or indirectly) the API call to HMRC.
Gov-Vendor-License-IDs	For example: Gov-Vendor-License-IDs: my-licensed-software=8D7963490527D33716835EE7C195516D5E562E03B224E9B359836466EE40CDE1	A key-value data structure of hashed license keys relating to the vendor software initiating the API request on the originating device.
Gov-Client-MAC-Addresses	For example: Gov-Client-MAC-Addresses: ea%3A43%3A1a%3A5d%3A21%3A45,10%3A12%3Aacc%3Afa%3Aaa%3A32	The list of MAC addresses available on the originating device. If you cannot retrieve them due to operating system restrictions, submit the header with an empty value or omit it entirely.

Note The following fields are not applicable for QAD:

- Gov-Client-Public-IP
- Gov-Client-Public-Port
- Gov-Client-Multi-Factor
- Gov-Vendor-Public-IP
- Gov-Vendor-Forwarded
- Gov-Client-Public-IP-Timestamp