Funding Information System (FIS) Installation Guidance
## Installation Guidance

### Funding Information System

### Change to this Document

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Changes made</th>
</tr>
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<tbody>
<tr>
<td>V1.0</td>
<td>20/05/2014</td>
<td>Initial version.</td>
</tr>
<tr>
<td>V1.1</td>
<td>22/05/2014</td>
<td>• ‘How Does FIS work’ altered</td>
</tr>
<tr>
<td></td>
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<td>• New section ‘Updating FIS’ added.</td>
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<tr>
<td>V1.2</td>
<td>28/07/2014</td>
<td>• Amended guidance for installing pre-requisite software (pages 5-6)</td>
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<tr>
<td>V1.3</td>
<td>23/03/2015</td>
<td>• Amended FIS Installation section changed due to the removal of the pre-download registration process.</td>
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<tr>
<td></td>
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<td>• Changed ‘Data Provider’ field selection advice to reflect new functionality.</td>
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<tr>
<td>V1.4</td>
<td>09/09/2016</td>
<td>• Amended Ports and URLs used by FIS due to the move to a new data centre.</td>
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Introduction

What does the Funding Information System (FIS) do?
The Funding Information System (FIS) is the Desktop Service application element of the Skills Funding Agency’s (SFA) DCSS data collections system. It replaces the Learner Information Suite (LIS) which was provided in previous academic years to assist with the preparation of ILR data files. It is not mandatory that FIS is used to prepare data files prior to submission to DES (Data Exchange Service). FIS can be used by data providers to do the following:

- validate Individualised Learner Record (ILR) data
- calculate funding and derived variables
- create a range of reports based on a set of ILR data.

How does FIS work?
FIS is based on thin-client technology, this enables the application to be deployed and updated via an internet service. It can run without an internet connection but requires one in order to be installed and updated. The user activates the installation of the application and chooses which elements to update the software with as and when those options are presented.

The FIS software consists of a Framework application within which component sets and resource data can be imported and then selected to give FIS its functionality for a specific funding year.

- The Component sets contain application elements a particular Funding Year such as: procedures and reports. These appear under ‘Procedures to Execute’ in the FIS front end screen.
- The Reference data resource files are lookup data sets for Learning Aims data, Provider data, postcode lookups and other data. These can be chosen through a dedicated selection screen

FIS also requires an SQL Express database to be installed which it uses as a data store and transformation application. Note that this is installed as part of the FIS installation process.
Functionality unique to FIS
Whilst some of the FIS functionality is also available through The Hub (Data Returns), a small number of activities can only be carried out using FIS. These are:

- amalgamation of datasets
- some reports

Accessing FIS
FIS is installed via a web-service, see the section ‘Installing FIS’ below. After installation, the management of FIS and its resource files is controlled by the user via the application’s ‘check for updates’ functionality.

Please note that users who are using FIS to process data for a previous funding year do not need to reinstall FIS, the existing installation will still work and present the user with available updates and component and reference data sets.

FIS Operating System compatibility
FIS is only intended to be installed on the following operating system environments:

- Microsoft Vista
- Microsoft Windows 7
- Microsoft Windows 8.

FIS is a 32 bit application but it will operate in either a 32 bit or 64 bit environment.

Prerequisite software
The following software is required to have been installed locally in order for FIS to work:

- SQL Express version2008r2, or
- SQL Express version2012
  FIS will work with either 32 bit or 64 bit versions
- .NET Framework 4.5

- While SQL Server Express 2008r2 and SQL Server Express 2012 can be downloaded and installed from the Microsoft website; we advise that the SQL Server Express instance is installed via the pre-requisite
software download and installation service which we make available for FIS users as part of the standard FIS installation process. Any other methods of installation for pre-requisite software is not fully supported

- The pre-requisite software service will deliver SQL Server Express v2012 and .NET Framework v4.5 if they are not already present.
- SQL Server Management Studio is a useful additional application and can also be installed and used alongside FIS but this is not available via the FIS pre-requisite software service.
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Installation Instructions

PC Specification

Before installing, make sure that your machine is supported. The current minimum and recommended PC specifications are listed below.

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td>Windows 7 with Service Pack 1 (32 bit or 64 bit)</td>
<td>Windows 7 with Service Pack 1 (32 bit or 64 bit)</td>
</tr>
<tr>
<td></td>
<td>Windows 8 (32 bit or 64 bit)</td>
<td>Windows 8 (32 bit or 64 bit)</td>
</tr>
<tr>
<td>RAM</td>
<td>2 GBytes</td>
<td>4 GBytes</td>
</tr>
<tr>
<td>Free disk Space</td>
<td>100 GBytes</td>
<td>300 GBytes</td>
</tr>
</tbody>
</table>

To run the installation users will need Internet access during the entire installation process and also when updating the software. The download process may take over an hour.

Before installing, check the following user and network privileges:

- that if FIS is being installed within an administrator profile that they have full Administrator rights on the local machine;
- that if FIS is being installed within a standard user or non-administrator profile then before the installation is attempted, the user requiring the FIS software must be added to the local administrators group on the machine. Once the installation is complete, the user can be removed from the local administrators group. Note that other methods of temporarily raising the privilege of the installation, e.g. ‘run as administrator’ will result in a partial installation, that unfortunately we will be unable to support;
- that you have considered creating or have created a system restore point;
- that the PC environment has access to the Internet and that it has permission (via both local and corporate firewalls) to download any file types (e.g. .exe files)
- that downloaded executable files can be run
- the firewall used on the PC and/or internet connection does not block the prerequisite installer ‘Funding Information System Prerequisites.exe’ or the Funding Information System application itself ‘Funding Information System.exe’

The FIS will install and use Microsoft SQL Express. It is recommended that in the interests of maximum performance that the process and
datafiles associated with this are excluded from any anti-virus software which is currently running within the host environment. This advice is intended for expert users only.

Ports and URLs used by FIS
FIS traffic uses standard ports, that is, both https secure and http non-secure ports - Port 80 and Port 443.

Prerequisite download and update/component set/data set download:
https://des.fasst.org.uk (des.fasst.org.uk:443)

Internet connectivity check URL (this is the standard Microsoft NCSI URL):
http://www.msftncsi.com

Used for downloading SQL and .NET during the Prerequisite installation:
Installing FIS

To install FIS users need to access the Hub web portal main screen and click the link named 'Funding Information System (FIS)'. See the link below for The Hub:

https://hub.fasst.org.uk/Pages/default.aspx
On the ‘Funding Information System (FIS)’ page users need to click the ‘Download FIS’ link.

Clicking the ‘Download FIS’ link will activate the Pre- requisite installation process described in the next section of this document (see circled link in the image above).
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Running the Prerequisite installation Process through Internet Explorer

When the download URL is entered into Internet Explorer a dialogue screen will appear.
Select ‘Run’ to continue.

If the browser displays a warning dialogue, click ‘Run’ again.

If a SmartScreen Filter dialogue box appears click ‘Run anyway’.

Using an Internet Browser other than Internet Explorer

If using Google Chrome, select the option to Keep the download. When the download is completed, click on the downloaded file to start the installation.
Next, the installer will display a welcome screen. Click ‘Next’.

The ‘custom’ option will install .NET 4.5 as mandatory but will give the user the option to install SQL 2012 Express Database and to run a ‘Clean Install’. The last option exists to prepare the host environment if it has previously hosted an earlier version of FIS and will remove the databases associated with it.
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Installation Guidance for Users who have already had an earlier version of FIS

If you already uninstalled the FIS prior to this

If you have selected the Clean Beta Install option, the installer prompts you for the SQL Server instance to be cleansed. If you used the default options when installing the previous FIS, accept the defaults in this screen. Otherwise, select Advanced and enter the details for the target SQL Server instance. Click on ‘Next’ to proceed.
Running a ‘Typical’ installation

Click on ‘Install’ to begin the installation of prerequisites.

The installer displays progress during the installation of the prerequisites.
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Once the prerequisites are installed, ensure a tick is shown in the checkbox and click 'Finish'.

![Image of the Funding Information System Prerequisites Setup Wizard]

Thank you

The Funding Information System Prerequisites have been successfully installed.

[ ] Start the installation of the Financial Information System application.
Running the FIS installation process

The FIS installation process will begin immediately after the prerequisite installation process has completed. The launch will begin with the following screen:

Next, an Application Install Security Warning may be displayed, click ‘Install’.

A progress bar will be displayed during the installation of the Funding Information System.

Please note: On completion of the FIS installation process the application will launch automatically.
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Setting up FIS

The first time that the Funding Information System is launched, it checks for the default SQL Server Express instance installed on the local machine. If it does not find it (because it was not selected during the prerequisite installation), the FIS prompts you to provide details.

Guidance on how to populate the fields in this screen are shown in the table below.

<table>
<thead>
<tr>
<th>Field</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Machine Name</td>
<td>If the SQL Server instance is installed locally, this should be set to “(local)”. Otherwise, enter the server name. For example, if the instance is MyServer\MyInstance, this should be set to “myserver”</td>
</tr>
<tr>
<td>Database Instance</td>
<td>Enter the instance name. For example, if the instance is MyServer\MyInstance, this should be set to “myinstance”</td>
</tr>
<tr>
<td>Connection Type</td>
<td>If your windows user account is ‘trusted’ on the database instance (i.e. it allows you to logon using your windows account), select Trusted Connection.</td>
</tr>
</tbody>
</table>
### Field

<table>
<thead>
<tr>
<th>Comments</th>
</tr>
</thead>
</table>
| Otherwise, select Specific Connection, and supply the appropriate username and password.  
Note: users must have permission to create databases in the SQL Server instance.  
To allow another user to access the database, see the FAQ: “How do I grant access to the Funding Information System database to a different user?” |
| Storage Location |
| If using a local database instance which is not being shared with other users, this may be set to any valid file path.  
If using a shared database instance, the file path entered must be accessible by all users using FIS. |
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Data Provider Search

After installation of the FIS Framework application the user is shown the following screen from which to select their actual ‘Data Provider’ identifier. Enter your Data Provider name in the Name field or UKPRN in the ID field and click ‘Search’.

Please note that users are no longer advised to only use “SKILLS FUNDING AGENCY” (all capitals) for this setting but may continue to do so until advised otherwise.

The Funding Information System should find the Data Provider Name if it is a valid name and display it in Search Results. If your organisation is missing then please let us know via our helpdesk and use SKILLS FUNDING AGENCY (all capitals) instead. Click ‘Select’ and the following screen click ‘Save’.

From this point the accompanying User Guidance document will assist users with configuring and using FIS. To remove FIS users are advised to follow the Uninstallation Guidance document.
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Updating the FIS Framework application

FIS will display update prompts to the user as and when Framework application updates are made available. Unlike Component Set and Reference data updates historical Framework versions are not made available but users are still advised to upgrade the Framework when they are informed to by the installation service. If the application is open and in use at the time that updates are deployed then these will not be offered until 'Check for Updates' is run or the application has been closed and then reopened at which time 'Check for Updates' runs automatically.

When a new Framework application is made available the following prompt screen will appear during a 'Check for Updates' process:

![FIS Update Checks](image)

Clicking ‘Download and Apply Update’ will trigger an installation option screen:

![Application Install: Security Warning](image)

Selecting ‘Install’ will begin the installation process. When this has completed, FIS will re-start and prompt the user that new component sets and data sets
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are available. Select the latest versions of component sets and data sets and update.
Once the update process has completed, select Tools, followed by Data Set and Reference. Choose the relevant year from the Drop Down box and select save. The FIS main screen will now show the relevant procedures for the year you have selected.

There is more guidance around updating FIS in the accompanying User Guidance document.
## Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check for Updates</td>
<td>The update facility used by FIS to obtain new resource files such as reference data data sets and component sets.</td>
</tr>
<tr>
<td>Component Set</td>
<td>A set of resource modules that contain data validation, funding calculation and derived variable calculation business rules. Used by FIS to generate enriched data based on the imported ILR data.</td>
</tr>
<tr>
<td>Data Provider</td>
<td>The identifier of the organisation for whom the imported ILR data pertains. This is most likely to be a college or other education provider.</td>
</tr>
<tr>
<td>Data Set</td>
<td>Tables of referential factors used by the component set business rule modules when generating values. In FIS these are:</td>
</tr>
<tr>
<td></td>
<td>DSOrganisation – Factors assigned to each organisation for the purpose of funding calculation, used by the funding calculation business rules.</td>
</tr>
<tr>
<td></td>
<td>LRG-EMP – Reference table that identifies the ‘large employer’ status of organisations used in the ‘Employer_ID’ field of the imported ILR data.</td>
</tr>
<tr>
<td></td>
<td>PST Factor 13-14 – Area-cost and Disadvantage Uplift factors based upon Widening Participation indexes and Disadvantage uplift factors based upon Multiple Deprivation indexes UK geographical wards assigned to relative Post-codes.</td>
</tr>
<tr>
<td></td>
<td>DS LARS – Learning Aims Reference (LARS) data</td>
</tr>
<tr>
<td>Database Instance</td>
<td>A database entity, not the database application itself but a database file which holds all relevant data and structures for a particular model, in this case the FIS and its Component Sets.</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Default Selection</td>
<td>This functionality records which procedures are selected at the time and recalls those settings when FIS is opened.</td>
</tr>
<tr>
<td>The Hub (DES)</td>
<td>Data Exchange Service available through The Hub web portal. This is the data collections portal which Data Providers will submit their ILR Data File submissions.</td>
</tr>
<tr>
<td>Framework</td>
<td>The application which houses component sets and reference data. Together, these constitute FIS.</td>
</tr>
<tr>
<td>Prerequisite</td>
<td>The prerequisite software required for FIS to run is .NET Framework 4.5 and SQL Express (2008r2 as a minimum). There is an installation service available online as part of the FIS installation process which allows users to install .NET Framework 4.5 and SQL Express 2012 (database only)</td>
</tr>
<tr>
<td>Procedure</td>
<td>A discrete area of functionality selected by the user and called by FIS during an execution cycle. For example “Import, amalgamate and validate an ILR Submission” or “View Learner Data”. These can be run individually or in series, the sequence of procedures shown in the FIS front screen cannot be altered.</td>
</tr>
<tr>
<td>SQL Express</td>
<td>A free to download and distribute Relational Database Management System produced by Microsoft. This provides the back-end database to FIS.</td>
</tr>
<tr>
<td>SQL Express</td>
<td>A set of GUI tools that can be installed</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Management Studio</th>
<th>alongside or with SQL Express to allow management of an SQL instance via script and graphical editors. This allows users to configure, manage and administrate the database.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Template</td>
<td>A set of activities that FIS will undertake recorded as an XML file and called during the Command Line functionality.</td>
</tr>
<tr>
<td>Workspace</td>
<td>The folder directory to which FIS outputs are sent during execution.</td>
</tr>
</tbody>
</table>