

Standalone Upgrade Guide

IMPAX 6.5.1

Upgrading an IMPAX Standalone Station
to IMPAX 6.5.1



| see more | do more |

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(Topic number: 7696)

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(Topic number: 122201)

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Getting started

1

Understanding certain key concepts and system requirements helps ensure a successful upgrade.

What is an IMPAX 6.5.1 standalone?

(Topic number: 7596)

In IMPAX 5.3 and earlier releases, a standalone station contained both Server and Client components, which an installation package bundled together. Diagnostic-quality monitors were always supported. The stations could run under Windows 2000 or Windows XP.

With IMPAX 6.0 and later, the IMPAX AS300 Server, Application Server, and Client software were all installed on the same computer—but these installation packages were not bundled together. These standalone stations ran under Windows XP.

As of IMPAX 6.5, all new standalone stations were installed under Windows 7 as the host operating system. Using VMware Player, the AS300 Server and Application Server components were installed under Windows Server 2008 as the guest operating system.

Upgrades of existing standalone stations

Existing IMPAX standalone stations can be upgraded to IMPAX 6.5.1:

- If they are on IMPAX 6.5 and running on Windows 7 (host operating system) and Windows Server 2008 (guest operating system) using VMware Player.
- or
- if they are currently running on Windows XP and if they meet the minimum hardware requirements (refer to page 9). If running SQL Server 2000, an upgrade to SQL Server 2008 is required. (If running SQL Server 2005, this version can be retained.)

Primary purpose

The primary purpose of a standalone is to provide a workstation that can operate independently of a full IMPAX cluster and can communicate (send and receive studies) with other devices via DICOM.

Situations in which standalone stations may be used include:

- Quality control workstation that sits between a modality and the main PACS cluster.
- Regular workstations in which the functionality of the new release is required prior to the main PACS cluster being upgraded. In this case, studies are typically routed to the standalone workstation from the main IMPAX cluster and reviewed there.
- Regular workstations at a small site where IMPAX is being introduced.

The IMPAX 6.5 standalone station does *not* support the following:

- Direct attached archives
- PACS Store and Remember archiving or HSM archiving
- External disk options or DAS
- Connectivity Manager and RIS integration

Recommended boundaries for optimal performance

The following are the recommended boundaries inside which a standalone station should be deployed and serviced.



Note:

Exceeding one of the boundaries may reduce performance and indicate the need for a single-server configuration instead of a standalone station; a combination of these factors—even when below the maximum value—may also indicate this need. (For more about the single-server configuration, refer to “Installing an IMPAX AS300 single-server” (topic number 67064) in the *IMPAX 6.5.1 AS300 Installation and Configuration Guide*.)

- Maximum of three modalities
- Maximum of 15,000 exams/year
- Maximum of 0.5 million images/year
- Maximum yearly volume of 0.6 TB uncompressed
- Maximum of one concurrent user: Radiologist or Radiologist with QC license
- Maximum exam volume of 1.5 GB/day

Maximum peak volumes should not exceed the following:

- Exam volume peak per hour (raw data, for CR) < 1 GB/hour
- Exam image peak rate per hour (for CT) < 3000 images/hour

- Maximum of one single user

System requirements for upgrading standalone stations

(Topic number: 114785)

Existing IMPAX standalone stations can be upgraded to IMPAX 6.5.1:

- If they are on IMPAX 6.5 and running on Windows 7 (host operating system) and Windows Server 2008 (guest operating system) using VMware Player.
- or
- If they are currently running on Windows XP and if they meet the minimum hardware requirements. If running SQL Server 2000, an upgrade to SQL Server 2008 is required. (If running SQL Server 2005, this version can be retained.)

Stations that do not meet the minimum hardware requirements or that require an operating system upgrade cannot be upgraded. Instead, a new standalone installation must be performed, following the procedures in the *IMPAX 6.5.1 Standalone Installation and Configuration Guide*.

Component	Minimum hardware requirement for standalone upgrade
Workstation	HP xs6600 or equivalent
RAM	4 GB
CPU	1 x Dual-Core (Intel XEON 52xx)
Video	For enhanced CT/MR navigation, minimum BARCO MXRT-5200

IMPAX standalone: Additional documentation

(Topic number: 7599)

The *IMPAX 6.5.1 Standalone Installation and Configuration Guide* is intended for service and administrator personnel who are installing and performing the initial configuration of an IMPAX standalone station. It provides information about the required components and instructions for the installation.

The *IMPAX 6.5.1 Standalone Upgrade Guide* is intended for service and administrator personnel who are upgrading an IMPAX standalone station. It provides information about the required components and instructions for the upgrade.

Some procedures refer you to other IMPAX guides for details; notably, these ones:

- *IMPAX 6.5.1 Preparing to Upgrade Guide—IMPAX 4.5, 5.2, 5.3, or WEB1000 to IMPAX 6.5.1*
- *IMPAX 6.5.1 Preparing to Upgrade Guide—IMPAX 6.2 or later to IMPAX 6.5.1*

- *IMPAX 6.5.1 Application Server Installation, Upgrade, and Configuration Guide*
- *IMPAX 6.5.1 Client Installation, Upgrade, and Configuration Guide*

Details concerning customization and use of the IMPAX standalone software are provided in the *IMPAX 6.5.1 Client Knowledge Base: Extended*, *IMPAX 6.5.1 Application Server Knowledge Base*, and *IMPAX 6.5.1 Server Knowledge Base*.

All Knowledge Bases and all guides are available on the IMPAX Documentation DVD. This documentation also gets installed on the standalone station, as described in *Installing the IMPAX documentation* (refer to page 62).

Valid IMPAX upgrade paths

(Topic number: 6607)

Sites can upgrade to IMPAX 6.5.1 from any of these versions of IMPAX (supported versions include any applicable SUs):

- IMPAX 5.2.5—hereafter referred to as IMPAX 5.2
- IMPAX 5.3.1, 5.3.2—hereafter referred to as IMPAX 5.3
- IMPAX 6.2.1—hereafter referred to as IMPAX 6.2
- IMPAX 6.3.1—hereafter referred to as IMPAX 6.3
- IMPAX 6.4
- IMPAX 6.5

For more detailed information, refer to the *IMPAX 5.x - 6.x Service Update and Hot Fix Migration Paths* spreadsheet in the “Additional documents” section of the IMPAX Knowledge Base > Main Knowledge Base Page.



Important!

We recommend checking the migration log file after each leg of an upgrade before moving onto the next leg.

Additional information:

- For IMPAX AS300 upgrades, SQL Server 2008 is supported.
- To upgrade an IMPAX AS300 cluster from SQL Server to Oracle, contact Agfa Professional Services for assistance. The SQL Server to Oracle migration process is not documented in this guide.
- The Application Server platform is either Windows Server 2003 or Windows Server 2008. Windows 2008 is supported for fresh installations only; unless already on Windows 2008, Windows 2003 must continue to be used for upgrades. All Application Servers in a cluster must use the same operating system—either Windows 2003 or Windows 2008.

Preparing to upgrade a standalone

2



Important!

Only specific IMPAX upgrade paths are supported, and it may not be possible to upgrade certain versions or SUs. More information is provided in *Valid IMPAX upgrade paths* (refer to page 10).

Only upgrades of existing standalone stations are supported. If the standalone server hardware does not meet the minimum hardware requirements (refer to page 9), or if an operating system upgrade is required, you cannot upgrade. Instead, perform a new standalone installation on a new server, following the procedures in the *IMPAX 6.5.1 Standalone Installation and Configuration Guide*.

If the standalone is already on IMPAX 6.5 and running on Windows 7 (host operating system) and Windows Server 2008 (guest operating system) using VMware Player, or if the standalone is running Windows XP and meets the minimum hardware requirements, you can prepare it for upgrade to IMPAX 6.5.1.

1. Obtaining Server license keys

(Topic number: 7637)

IMPAX uses software license keys that are unique to the station on which the software is installed. On a standalone station, a license key is required for the Network Gateway component. If upgrading from IMPAX 5.2, 5.3, 6.2, or 6.3, you must obtain a new license. If upgrading from IMPAX 6.4 or later, you can continue to use the same license.

Obtaining Server licenses for Windows stations

(Topic number: 10699)

To obtain new license keys, if this is required, email licensekey@agfa.com. To generate the license keys, Agfa must know the Ethernet MAC (Media Access Control) address of the server.

To obtain Server licenses for Windows stations

1. For each Windows server, open a command prompt and type **ipconfig /all**.

The MAC address of all Ethernet cards installed on the station are listed. You can use any of these to generate the license from.

2. Copy one of the returned MAC addresses to a secure place.

Ensure that you copy down the address exactly as it appears, including leading zeroes.



Note:

The MAC addresses contain only the alphanumeric characters 0-9 and A-F.

3. To obtain a license key for the server, send the MAC address information to licensekey@agfa.com, along with the type of component being installed on that server.

2. Installing the IMPAX 6.5.1 Migration Toolbox

(Topic number: 9911)

The tools in the IMPAX 6.5.1 Migration Toolbox automate some of the migration and upgrade tasks. The tools are run from a command prompt and do the following:

- Extract relevant information from the database.
- Transform the database schema and data.
- Coordinate the execution of tools across multiple machines.

Installing the Migration Toolbox on a Windows station

(Topic number: 11493)

To install the Migration Toolbox, you must be logged into Windows as an administrator-level user. The migration tools are on a dedicated Migration CD.

To install the Migration Toolbox on a Windows station

1. Insert the IMPAX Migration CD.
2. Navigate to the **win32** directory and double-click **impax_65_migration-winpkg-6.5.1.xxx.exe**

where xxx is the build number.

3. In the InstallShield Self-extracting EXE dialog, click **Yes**.

Setup progress dialogs appear.

4. On the Welcome screen, click **Next**.

5. If prompted, select the type of database server and then click **Next**. (When upgrading from IMPAX 6.2 or IMPAX 6.3, skip this step.)

6. On the Select Features screen, select the checkboxes of the features that you want to install, and clear the rest.

When upgrading a standalone station, select all the features except the **Oracle on Windows Migration Tools**.

7. Click **Next**.

8. To continue, click **Install**.

9. If you selected the Worklist and Report Migration Tools on the Select Features screen, when prompted, press any key to continue.

10. On the Setup Complete screen, click **Finish**.

The Migration Tools are installed in the C:\mvf-mig6\bin directory, with the following exceptions for SQL Server databases:

Executable	Installed in
migrate-users	C:\mvf-mig6\UserMigration
Training/Traveling Server (MigrateTRServer.exe)	C:\mvf-mig6\MigrateTRServer

3. Creating the pre-migration schema on an AS300 server

(Topic number: 59199)

These steps assume that the Migration Tools have been installed on the server and that you are running the commands on the server itself. You must also be logged into Windows as an administrator-level user.

To create the pre-migration schema on an AS300 server

1. Open a command prompt.
2. If upgrading from IMPAX 6.2 or later, retrieve the sa password as follows:
 - a. Change to the **C:\mvf\bin** directory.
 - b. Type
passkey -M QUERY -u sa
The sa password is returned.

3. Change to the **C:\mvf-mig6\bin** directory.
4. If upgrading from IMPAX 5.2 or 5.3, type
build-impax-mig-schema.bat sa sa mvf
5. If upgrading from IMPAX 6.2 or later, use the sa password retrieved in step 2 in the following command:
build-impax-mig-schema.bat sa sa_password mvf

The pre-migration database schema and data are created.

4. Taking a system snapshot

(Topic number: 7613)

Before migrating to IMPAX 6.5.1, use the `migration_inventory` tool to capture the current state of the system for later comparison.

To take a system snapshot

1. At a command prompt, change to the **C:\mvf-mig6\bin** directory.
2. Type
migration_inventory -d database_name -U database_user_name -P database_password -s -D standalone_station_host_name

The output is stored in the `migration_info` table. It lists the number of IMPAX studies, total objects, and objects in cache. It also lists all IMPAX source stations and DICOM printers.

3. To create a report file with this information, type

mig_reporter -t system_inventory_tool

This command writes the output of the `migration_inventory` command to a report file in the **C:\mvf-mig6\reports** directory. For other parameters you can use with the `mig_reporter.exe` command, refer to “`mig_reporter.exe`” (topic number 10619) in the appropriate version of the *IMPAX Preparing to Upgrade Guide*.



5. Stop transmitting data to IMPAX

(Topic number: 7617)

Allow remaining SEND jobs to continue until they have finished, then stop any more studies from being transmitted in the IMPAX system.

To stop transmitting data to IMPAX

1. Open the Windows Administrative Tools and select **Services**.
2. Right-click the **DICOM Service Class Provider** service and select **Properties**.




3. To change the Service status, click **Stop**.
4. From the Startup type list, select **Disabled**.
5. To close the Properties dialog, click **OK**.
6. Launch the 5.2 or 5.3 Service Tools or the 6.2 or later Administration Tools and log in as user **service**.
7. On the Daily tab, select **Job Manager**. 
8. Monitor each **Transmit** queue and wait for all outgoing jobs to finish.
You cannot delete jobs in progress.
9. Select each Transmit queue and click **Halt Queue**. 
10. To confirm that you want to halt the queue, click **Yes**.

6. Emptying all queues

(Topic number: 7702)

Monitor the Job Manager to make sure that all the queues are empty and that all jobs are completed prior to the upgrade.

To empty all queues

1. In the 6.2 or later Administration Tools, on the Daily tab, select **Job Manager**.
In the 5.2 or 5.3 Service Tools or the 6.2 or later Administration Tools, on the Daily tab, select **Job Manager**. 
2. If an archive job remains in any of the queues, select the job and click **Expedite Selected Job(s)**.

3. If any other job remains in any of the queues, select the job and click **Delete selected job(s)**.


7. Deleting cache locations for studies

(Topic number: 7707)



Important!

This topic applies only when upgrading an existing IMPAX 5.2 or 5.3 server to 6.5.1.

If you are not restoring the files in the cache directory after the upgrade, to prevent database inconsistencies, remove all database references to images in cache.

To remove references to images in cache, find all study_refs that are in the cache and delete them.

To delete cache locations for studies

1. On a station with a cache containing database references to remove, log in as mvf user and launch CLUI and type the following:

cache query

A list of caches and their volume_refs is displayed.

2. To store all study_refs into variable *a*, type

```
save_refs a select distinct ds.study_ref from dosr_study ds, dosr_object do where ds.study_ref = do.study_ref and do.object_ref in (select object_ref from osr_location where volume_ref = volume_ref)
```

where *volume_ref* is the volume reference of the cache.

3. To enter menu mode, type

Go menu

4. Select **Study Manager**.
5. Select **Delete Studies Menu**.
6. Select **Delete Study from Cache**.
7. To process the study_refs stored in the variable *a*, at the command prompt, type **a**.
All studies in the volume_ref's cache are removed.

8. Stopping antivirus software

(Topic number: 7616)

If you have antivirus software installed on any Windows-based servers, ensure that no scan jobs are running that would interfere with the upgrade process. Stop the antivirus services.

To stop antivirus software

1. On a Windows server to upgrade, launch the antivirus software.
2. Halt the scan operation according to the vendor's instructions.

9. Deleting old log files

(Topic number: 7706)

On the server being upgraded, remove any old log files to ensure that all future log information is a result of the upgrade procedure.

To delete old log files

1. On the server to be upgraded, open a command prompt.
2. Change to the C:\mvf\bin\ directory.

3. Run **stopall.bat**.
4. For future reference, copy all files in C:\mvf\data\logs\ to a backup location.
5. Delete all the log files from C:\mvf\data\logs.

10. Uninstalling IMPAX documentation

(Topic number: 7610)

You must uninstall any existing IMPAX documentation before you can install the new IMPAX 6.5.1 documentation.

Uninstalling IMPAX 5.2 or 5.3 documentation

(Topic number: 10734)

IMPAX 5.2 and 5.3 had separate Client and Server Knowledge Bases, each of which must be separately uninstalled.

Removing the IMPAX 5.2 or 5.3 Client Knowledge Base

(Topic number: 58578)

If the IMPAX 5.2 or 5.3 Client Knowledge Base is installed, you must uninstall it before upgrading.

To remove the IMPAX 5.2 or 5.3 Client Knowledge Base

1. Open Control Panel.
2. Select **Add or Remove Programs**.
3. Select **IMPAX Client Knowledge Base 5.2** or **IMPAX Client Knowledge Base 5.3** and click **Change/Remove**.
4. In the Confirmation dialog, click **OK**.
5. If also uninstalling the IMPAX Server Knowledge Base, in the Maintenance Complete dialog, select **No, I will restart my computer later**. Otherwise, select **Yes, I want to restart my computer now** and click **Finish**.
6. If you restarted the computer, log into Windows as an administrator-level user.
7. To remove any translations of the IMPAX 5.2 or 5.3 Client Knowledge Base, delete the **C:\impax\documents\client\translations** directory.

Removing the IMPAX 5.2 Server Knowledge Base

(Topic number: 58581)

The IMPAX 5.2 Server Knowledge was used for both IMPAX 5.2 and 5.3 releases. If it is installed, uninstall it before upgrading.

To remove the IMPAX 5.2 Server Knowledge Base

1. Open Control Panel.
2. Select **Add or Remove Programs**.
3. Select **IMPAX Server Knowledge Base 5.2**.
4. Click **Change/Remove**.
5. In the Confirmation dialog, click **OK**.
6. In the Maintenance Complete dialog, select **Yes, I want to restart my computer now** and click **Finish**.

Once the computer restarts, log into Windows as an administrator-level user.

Uninstalling IMPAX 6.2 documentation

(Topic number: 10736)

You must uninstall the IMPAX 6.2 documentation before you can install the new IMPAX 6.5.1 documentation. Although the three IMPAX 6.2 Knowledge Bases are installed together, they must be separately uninstalled.

To uninstall the IMPAX 6.2 documentation

1. Open Control Panel.
2. Select **Add or Remove Programs**.
3. Under Currently installed programs, select **IMPAX 6.2 Documentation**.
4. Click **Change/Remove**.
5. In the Confirmation dialog, click **OK**.
6. In the Maintenance Complete dialog, click **Finish**.
7. Under Currently installed programs, select **IMPAX Application Server Knowledge Base**.
8. Click **Change/Remove**.
9. In the Confirmation dialog, click **OK**.
10. In the Maintenance Complete dialog, click **Finish**.
11. Under Currently installed programs, select **Impax Client Knowledge Base**.
12. Click **Change/Remove**.
13. In the Confirmation dialog, click **OK**.
14. In the Maintenance Complete dialog, click **Finish**.
15. Under Currently installed programs, select **IMPAX Server Knowledge Base**.
16. Click **Change/Remove**.
17. In the Confirmation dialog, click **OK**.
18. In the Maintenance Complete dialog, click **Finish**.

Uninstalling IMPAX 6.3 or later documentation

(Topic number: 15533)

You must uninstall the IMPAX 6.3 or later documentation before you can install the new IMPAX 6.5.1 documentation.

To uninstall IMPAX 6.3 or later documentation

1. Open Control Panel.
2. In Windows XP, select **Add or Remove Programs**.
3. In the Programs and Features dialog, under Currently installed programs, select **AGFA IMPAX *version* Knowledge Base *buildnumber* Documentation**.
4. Click **Remove**.
5. In the confirmation dialog, click **OK**.

A progress dialog appears as the documentation is uninstalled, giving the amount of time remaining. When the process is complete, the dialog closes.

6. Close the Programs and Features dialog.

All installed IMPAX documentation for the version selected is uninstalled.

Installing IMPAX Business Services and migrating user data

When upgrading a standalone from IMPAX 5.2 or 5.3, you must do a new install of the IMPAX Business Services and related software on the Windows XP station.

If upgrading a standalone from IMPAX 6.2 or later, skip ahead to the tasks in *Upgrading IMPAX Server software* (refer to page 36).

1. Installing the IMPAX documentation



(Topic number: 15523)

Before installing the IMPAX 6.5.1 documentation, ensure that you have uninstalled any earlier IMPAX documentation (refer to page 17).

IMPAX is shipped with three sets of documentation: the *IMPAX 6.5.1 Client Knowledge Base: Extended* and related guides, the *IMPAX 6.5.1 Application Server Knowledge Base* and related guides, and the *IMPAX 6.5.1 Server Knowledge Base* and related guides. The IMPAX documentation set appears on its own installation DVD.

To install the IMPAX documentation

1. Insert the IMPAX Documentation DVD.
2. From the DVD root, double-click **IMPAXDocumentationSetup.exe**.
A *Preparing to install* message appears.
3. On the Welcome screen, click **Next**.
4. On the Setup Type screen, select the appropriate option and click **Next**.
 - To install all documentation in all available languages (up to 24 languages), select **All Documentation**.

- To install all English-language documentation, select **All English Documentation**. This is the default.
 - To select which documentation to install in which languages, select **Select Documentation to Install**.
5. If you selected Select Documentation to Install, on the Choose Features screen, you can select particular Knowledge Bases or languages to install.
 - To install the IMPAX Client Knowledge Base in two or more languages, click  beside the name of the language to install and select **This feature will be installed on the local hard drive**. (Note that English must be installed.)
 - To **not** install the IMPAX Server, IMPAX Application Server, or IMPAX Client documentation, click  beside the appropriate label and select **This feature will not be available**.
 6. On the Ready to Install the Program screen, click **Install**.
Installation progress messages are displayed.
 7. On the InstallShield Wizard Completed screen, click **Finish**.

The selected IMPAX documentation is now installed. Shortcuts appear in the Start menu and on the desktop. For additional details on viewing the translated documentation on the IMPAX Client see Viewing translated documentation from the IMPAX Client Help menu

2. Installing the IMPAX Business Services

(Topic number: 9873)

The IMPAX Business Services must be installed.

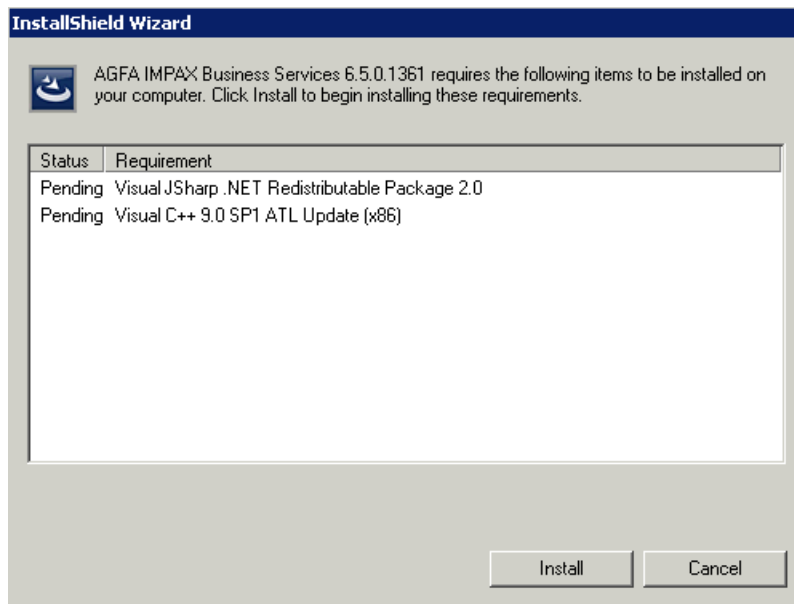
To install the IMPAX Business Services

1. Insert the IMPAX Business Services CD.
2. Navigate to the appserver folder, which contains the Business Services software.
3. Run **AGFA IMPAX Business Services Setup.exe**.
4. Select the required software packages to install.

The following packages must be installed prior to the Business Services installation.

- Visual JSharp .NET 2.0
- .NET Framework 3.5 SP1
- Visual C++ 9.0 SP1 ATL Update (x86)

If any of these packages are listed in the InstallShield Wizard dialog, select them. If any of these packages do not appear in the list, those packages are already installed.



5. Click **Install**.
6. On the Welcome screen, click **Next**.
7. At the license agreement, select the **I accept the terms in the license agreement** checkbox. Click **Next**.
8. On the Web Services Installation Folder screen, click **Change**.
9. Select **E:\wwwroot** as the location for the Web Services. Click **OK**.
Changing the location of the Web Services installs all of the web services to the same directory.
10. Click **Next**.
11. On the Setup Type screen, click **Custom**. Click **Next**.
12. On the RIS screen, click **Next**.
13. Click **Install**.
The IMPAX Business Services are installed.
14. When complete, optionally select the **Show the readme file** and **Launch IMPAX Business Services Configuration tool** checkboxes.
15. Click **Finish**.

The IMPAX Business Services are installed. If selected, the Configuration Tools are displayed.

3. Configuring IIS error messages on Windows XP

(Topic number: 118706)

Configure IIS to display the correct error message if the Knowledge Base cannot be found.

To configure IIS error messages on Windows XP

1. Open the Windows Administrative Tools and select **Internet Information Services (IIS) Manager**.
2. Expand *computer_name* > **Web Sites** > **Default Web Site**.
3. Right-click the **Documents** file and select **Properties**.
4. Switch to the **Custom Errors** tab.
5. In the list of Error messages for HTTP errors, select **404**.
6. Click **Edit**.
7. Under Message Type, select **URL**.
8. In the URL field, type **/AgfaHC.LanguageRedirect/LanguageRedirect.aspx**.
9. To close the two dialogs, click **OK** in each.
10. To close the Internet Information Services (IIS) Manager window, select **File** > **Exit**.

4. Verifying the Business Services installation

(Topic number: 7598)

You can verify the IMPAX Business Services installation by checking whether IIS works.

To verify the Business Services installation

1. Open a web browser and connect to **http://localhost**.
2. Verify that the “IMPAX Documentation” page is displayed.

or

If the IMPAX Documentation has not been installed on the server, that the “Welcome to IMPAX 6.5.1” page is displayed.

5. Establishing an SSL connection

(Topic number: 11279)

Use the Security Wizard to generate a certificate request to submit to a trusted certificate authority, import an SSL certificate, and assign it to services.

Creating an SSL certificate request

(Topic number: 7709)

Generate a certificate request that can be submitted to a trusted certificate authority (refer to page 25). The information required by the wizard to create the certificate request is prefilled from the

network settings of the server. If you already have the SSL certificate from the certificate authority, skip this topic and go to *Importing an SSL certificate in the Security Wizard* (refer to page 26).

To create an SSL certificate request

1. To open the Security Wizard, select **Programs > Agfa HealthCare > Business Services > Security Wizard**.
2. On the Select a method screen, select **Work with SSL certificates**. Click **Next**.
3. On the Agfa Certificate screen, select **Create a new certificate request**. Click **Next**.
4. On the Organizational information screen, type the name of your Organization and Organizational Unit. Click **Next**.
5. On the Your site's common name screen, type the fully qualified domain name of the machine or load balancer, as appropriate, if it is not present by default. Click **Next**.
The fully qualified domain name consists of a host, domain name, and top-level domain. For example, machinename.networkname.hospitalname.com. You should be able to ping the fully qualified domain name.
6. On the Geographical Information screen, type the Country/Region, State/Province, and City/Locality information for your site. Click **Next**.
You must type a two-letter code (ISO standard) in the Country/Region and State/Province fields, or the SSL certificate request will fail.
Example:
For Country/Region: United States, type **US**.
For Province/State: North Carolina, type **NC**.
7. On the Certificate Key Length screen, select the length of the certificate key from the list. Click **Next**.
8. On the Certificate Request File Name screen, in the File Name field, browse for or type a location and name for the request file.
The default file name and location is C:\certreq.txt. To avoid overwriting certificate request files, ensure that each request file has a unique name.
9. To copy the information in the certificate file to the Clipboard, select the **Copy certificate file contents to clipboard on creation** checkbox.
By selecting this option, the information in the certificate request is copied to the Clipboard so that you can paste it into the certificate authority's online application form.
10. If your system uses a load balancer, select the **Allow certificate to be installed on multiple machines (exportable)** checkbox. Click **Next**.
11. On the Request File Summary screen, click **Finish**.
The certificate request is created and saved as a .txt file.
12. In the Certificate Enrollment dialog, click **OK**.

Submitting a certificate request to a certificate authority

(Topic number: 11411)

You cannot use the Application Server component without an SSL certificate. Purchase a 128-bit encrypted SSL certificate from a trusted Certificate Authority to guarantee security.

To submit a certificate request to a certificate authority

1. Create an SSL certificate request (refer to page 23).
2. Open a web browser and go to the website of a certificate authority.
For a list of trusted certificate authorities, consult *Viewing the list of certificate authorities in Internet Explorer* (refer to page 25).
3. Purchase a **128-bit encrypted SSL certificate** by following the instructions on the certificate authority's website.

The exact steps may vary, depending on which trusted certificate authority is used.

After you have received the SSL certificate from the certificate authority, import and assign it.

Viewing the list of certificate authorities in Internet Explorer

(Topic number: 50237)

Use a trusted certificate authority when requesting an SSL certificate.

To view the list of certificate authorities in Internet Explorer

1. Open Internet Explorer.
2. Select **Tools > Internet Options**.
3. Switch to the **Content** tab.
4. Under Certificates, click **Certificates**.
5. Switch to the **Trusted Root Certification Authorities** tab.

The list of certificate authorities recognized by Internet Explorer is displayed.



Tip:

Trusted certificate authorities include Verisign <http://www.verisign.com>, Thawte <http://www.thawte.com>, Entrust <http://www.entrust.com>, Comodo <http://www.comodogroup.com>, and Globalsign <http://www.globalsign.com>. These certificate authorities are already trusted by Internet Explorer.

If using your own certificate authority, on each Client, ensure that Internet Explorer is configured as follows: the **Check for publisher's certificate revocation** option is selected and the **Check for server certificate revocation** option is cleared.

Importing an SSL certificate in the Security Wizard

(Topic number: 11422)

Once you have received an SSL certificate from the certificate authority, you must import it through the Security Wizard before assigning it. When installing an SSL certificate, assign it to all available services.

To import an SSL certificate in the Security Wizard

1. Open the Security Wizard.
2. On the Select a method screen, select **Work with SSL certificates**. Click **Next**.
3. On the Agfa Certificate screen, select **Import a certificate from file**. Click **Next**.
4. On the Certificate Import information screen, click **Browse** and navigate to the certificate file. Certificate files have a .cer extension.
5. Click **Finish**.

The certificate is now imported and must be assigned to services.

Assigning an SSL certificate in the Security Wizard

(Topic number: 50234)

Once you have received and imported an SSL certificate from the certificate authority, assign it to all available services.

To assign an SSL certificate in the Security Wizard

1. Open the Security Wizard.
2. On the Select a method screen, select **Work with SSL certificates**. Click **Next**.
3. On the Agfa Certificate screen, select **Assign an existing certificate to services**. Click **Next**.
4. On the Available Certificates screen, verify that the imported certificate is selected. Click **Next**.
5. On the Available Services screen, select all services listed, including **Internet Information Systems** and **ADAM/AD LDS: Agfa Healthcare**. Click **Finish**.
6. At the `Successfully applied certificate to services` prompt, click **OK**.

The certificate is now installed and will be used by all selected services.

6. Creating the administration account

(Topic number: 7708)

The administration account must be created for logging into the IMPAX Client and configuring additional users.



Note:

The administration account is available only after an SSL certificate has been installed on the standalone station.

To create the administration account

1. Open the Security Wizard.
2. On the Agfa Security Wizard screen, select **Work with the Application Server default settings**. Click **Next**.
3. On the Web Services URL Configuration screen, click **Next**.
4. If you are using a production license, set up an administrator user.
 - a. On the User Management screen, select **Add Administrator**.
 - b. Type the user name and password
 - c. To confirm the password, type it a second time.
 - d. Click **Next**.
5. Click **Add Administration License**.
6. Browse to the location of the license.

The default location for licenses is C:\Program Files\Agfa\Impax Business Services\Licensing Admin Tool. The site received an administrator license with the IMPAX 6.5.1 installation package.
7. Select the administration license and click **Open**.
8. Click **Finish**.
9. At the prompt, click **OK**.

The administration license is installed and activated.

The administration account has been created and the administrator user can log into the IMPAX Client (once it is installed).

7. Connecting to the ADAM server

(Topic number: 121258)

The ADAM database maintains all the security around user profiles, access controls, and station information on the Windows XP standalone station. Connect to the ADAM server so that IMPAX Client users can be added.

To connect to the ADAM server

1. Open the Business Services Configuration Tool.
2. Switch to the **Security** tab.

3. In the Server Fully Qualified Hostname field, type the domain and host name of the ADAM server, if it is not already populated.

The fully qualified domain name consists of a host, domain name, and top-level domain. For example, machinename.networkname.hospitalname.com.

On a standalone station, the primary instance of ADAM is on the server you are configuring, and the fully qualified domain name and port number are automatically populated from the DSN information on the computer.

4. If necessary, type the Port number of the ADAM server.
The default port number of the ADAM server is 636.
5. Click **Apply**.

8. Connecting the Business Services to the SQL Server database

(Topic number: 7713)

Configure the Business Services to communicate with the SQL Server database that contains all the patient information.

To connect the Business Services to the SQL Server database

1. Open the IMPAX Business Services Configuration Tool.
2. Switch to the **Database** tab.
3. Under PACS Database Settings, select **SQL Server**.
4. In the SQL Server Name field, type the name of this standalone station.
5. Click **Configure ODBC**.
6. In the ODBC Data Source Administrator dialog, switch to the **System DSN** tab.
7. Click **Add**.
8. In the Create New Data Source dialog, select **SQL Server**. Click **Finish**.
9. In the Create a New Data Source to SQL Server dialog, as the Name, type **mvf_sql**.
10. As the Description, type **mvf**.
11. From the Server list, select the name of this standalone station. Click **Next**.
12. Click **SQL Server Authentication**.
13. Ensure that the **Connect to SQL Server to obtain** checkbox is selected.
14. As the Login ID, type **mvf**.
15. As the Password, type **mvf**.
16. Click **Client Configuration**.
17. In the Add Network Library Configuration dialog, ensure that **TCP/IP** is selected. Click **OK**.

18. Click **Next**.
19. Select the **Change the default database to** checkbox.
20. From the list, ensure that **mvf** is selected. Click **Next**.
21. Clear the **Perform translation for character data** checkbox. Click **Finish**.
22. To test the connection, click **Test Data Source**.
23. When prompted that the connection was successful, click **OK**.
24. To close the ODBC Microsoft SQL Server Setup dialog, click **OK**.
25. To close the ODBC Data Source Administrator dialog, click **OK**.
26. In the IMPAX Business Services Configuration tool, click **Test**.
27. If the message `Connection to SQL Server database successful` appears, click **OK**.
If the test fails, verify that the SQL Server Name is correct and test the connection again.

9. Armoring the Application Server

(Topic number: 7741)

After completing the previous Application Server configuration steps, you must apply them. When you apply these settings, the security settings for the Application Server are also applied.

To armor the Application Server

1. On any tab of the IMPAX Business Services Configuration tool, click **Apply**.
2. If a *Please enter an IP Address for Connectivity Manger [sic] IP Filtering* message appears, click **OK**.
3. Switch to the **Web Services** tab.
4. Under the Connectivity Manager IP Filtering section, in the Grant Access to IP textbox, type **127.0.0.1** as the IP address.
5. Click **Add**.
6. After the IP has been added, to apply the change, click **Apply**.
All configuration changes and the armoring settings are applied to the Application Server components. This process may take a few minutes to complete.
7. If prompted for an Enterprise URL Hostname, type the fully qualified host name of this standalone station.
8. Click **OK**.
9. In the Agfa Configuration Results dialog, click **OK**.



Important!

When configuring the Application Server on Windows 2003 SP2, including IMPAX RIS, the Configuration Results screen and the log file (c:\impax\logs\configurator.log) display an Oracle error that should be ignored. Example: `ERROR UpdateDatabase(): Unable to save report source configuration to the database. Any changes made to report sources will be lost. This error does not display on Windows 2008 SP2 server.`

10. Exporting user data

(Topic number: 9920)

Follow this procedure to export all IMPAX 5.2 or 5.3 user information. The exported data includes access controls, privileges, preferences, and station configurations.

The XML file created by this procedure can be used for reference, and some of the user data is later imported into the IMPAX 6.5.1 ADAM database.



CAUTION!

If you need to run the `migrate-users.exe -m mvf2xml` command a second time on the same database, you must delete all entries from the `LDAP_user_mapping` table in the database before proceeding.

To export user data

1. Open a command prompt.
2. Change to the `C:\mvf-mig6\UserMigration` directory.
3. To export IMPAX 5.2 or 5.3 user information, type

```
migrate-users.exe -m mvf2xml -d mvf_version_number -U IMPAX_5.2_or_5.3_database_user  
-P IMPAX_5.2_or_5.3_database_password
```

Depending on the number of users being exported, this step can take up to 20 minutes to complete.

The `users.xml` file is created on the server, listing all users and their preferences and station configurations. Wizards and other information that will not be migrated to IMPAX 6.5.1 are also exported to this XML file for reference.

Once an IMPAX 6.5.1 Client software has been installed and configured on this station, using the text file created from the exported IMPAX 5.2 or 5.3 Select wizards, create the appropriate IMPAX 6.5.1 standard worklists. For additional information on standard worklists, refer to “Managing studies using worklists” (topic number 8430) in the *IMPAX 6.5.1 Client Knowledge Base: Extended*.

Other parameters supported by this tool are listed in “`migrate-users.exe`” (topic number 10621) in the *IMPAX 6.5.1 Preparing to Upgrade Guide—IMPAX 4.5, 5.2, 5.3, or WEB1000 to IMPAX 6.5.1*.

Deleting special characters in user names

(Topic number: 60402)

IMPAX 6.5.1 is more restrictive on what constitutes a valid user name than IMPAX 5.3 and earlier were. To avoid problems in exporting user profiles into ADAM, delete invalid characters from the exported user names in advance.

To delete special characters in user names

1. Open the **users.xml** file in a text editor.
2. In each UserName and Fullname field, check for and delete any instances of the following characters:
= + < > # ; / \
3. Save and close the **users.xml** file.

11. Recording and disabling the password and account lockout policies

(Topic number: 6707)

The password and account lockout policies required by the site are determined by the hospital's IT department. During the preparing to upgrade phase, these policies must be disabled so that user data can successfully be migrated to IMPAX 6.5.1. IMPAX 4.5, 5.2, or 5.3 passwords are unlikely to conform to the new IMPAX 6.5.1 password standards, so they would fail if the policies were left in place.

For a description of each password and account lockout policy, refer to “Password and account lockout policies: Reference” (topic number 11366) in the *IMPAX 6.5.1 Application Server Knowledge Base*.

Before disabling the settings, record the password and account lockout policy settings.

Password policy settings

(Topic number: 6646)

Password policy	Setting
Enforce password history	
Maximum password age	
Minimum password age	
Minimum password length	

Password policy	Setting
Password must meet complexity requirements	
Store password using reversible encryption for all users in the domain	

Account lockout policy settings

(Topic number: 58212)

Account lockout policy	Setting
Account lockout duration	
Account lockout threshold	
Reset account lockout counter after	

Disabling the password and account lockout policies

(Topic number: 6734)



CAUTION!

To change the password policy settings for a standalone station on the domain, the station must first be taken off the domain, added to the Workgroup, then restarted.

Once the original password and account lockout policies are recorded, you can disable them.

To disable the password and account lockout policies

1. Open the Windows Administrative Tools and select **Local Security Settings**.
2. In the navigation pane, expand **Account Policies** and select **Password Policy**.
3. To modify the Password Policy information, double-click the policy to be changed.

Change each password policy to have the following settings:

Password policy	Setting
Enforce password history	0
Maximum password age	0
Minimum password age	0
Minimum password length	0
Password must meet complexity requirements	Disabled

Password policy	Setting
Store password using reversible encryption for all users in the domain	Disabled

4. Under Account Policies, click **Account Lockout Policy**.
5. To modify the Account Lockout Policy information, double-click **Account lockout threshold**.
6. Set its value to **0** and click **OK**.
This automatically changes the other values to Not Applicable.
7. To close Local Security Settings, select **File > Exit**.

12. Backing up the ADAM database

(Topic number: 6717)

The ADAM database maintains all the security around user profiles, access controls, and station information on the Windows XP standalone station. Backing up the ADAM database at this time is important prior to an Application Server upgrade or in advance of migrating user data into it.

To back up the ADAM database

1. Select **Start > All Programs > Accessories > System Tools > Backup**.
2. Select **Tools > Options**.
3. Switch to the **Exclude Files** tab.
4. In the list of file names, select **C:\Program Files\Microsoft ADAM** and click **Remove**. Click **OK**.
5. When the Backup or Restore Wizard is displayed, clear the **Always start in Wizard mode** checkbox and click **Advanced Mode**.
6. On the Welcome screen, click **Backup Wizard**.
7. On the Backup Wizard screen, click **Next**.
8. On the What to Backup screen, select **Backup selected files, drives, or network data**. Click **Next**.
9. On the Items to Backup screen, select the folder containing the ADAM data as well as the **World Wide Web Publishing Service** folder. Click **Next**.

The default location for the ADAM database is C:\Program Files\Microsoft ADAM\AgfaHealthcare.

10. If backing up to a tape drive, under Backup media type, select the tape drive, and in the backup media area, click **New media**. Click **Next**.

or

If backing up to any other media type, select the location where the backup is to be saved, and type a name for the backup. Click **Next**.

11. On the Completing the Backup Wizard screen, click **Advanced**.
12. On the Type of Backup screen, select **Normal**. Click **Next**.
13. On the How to Backup screen, select **Verify data after backup and Use hardware compression if available**. Click **Next**.
14. On the Backup Options screen, select **Replace the existing backups**. Click **Next**.
15. On the When to Backup screen, select **Now**. Click **Finish**.
16. In the Backup Progress dialog, click **Close**.
17. Close the Backup Utility.

13. Converting the user data to LDF

(Topic number: 6719)

In IMPAX 6.5.1, user authentication, user preferences, and user permissions are stored in an ADAM database or an external LDAP. Before the user data can be migrated from the IMPAX database into the ADAM database, the exported MVF data must first be converted into XML (as described in *Exporting user data* (refer to page 30)), then transformed into LDF (Layered Data Format).

To convert the user data to LDF

1. Open a command prompt.
2. Change to the **C:\mvf-mig6\UserMigration** directory.
3. Type

```
migrate-users.exe -m xml2ldf -I users.xml -d mvf_version_number -U  
IMPAX_5.2_or_5.3_database_user -P IMPAX_5.2_or_5.3_database_password
```

Other parameters supported by this tool are listed in “migrate-users.exe” (topic number 10621) in the *IMPAX 6.5.1 Preparing to Upgrade Guide—IMPAX 4.5, 5.2, 5.3, or WEB1000 to IMPAX 6.5.1*.

14. Migrating user data to ADAM

(Topic number: 6656)

To successfully migrate user data into ADAM, the user currently logged into the IMPAX 6.5.1 Application Server component must have ADAM administrative rights. (To check, launch ADAM Edit and select **Role > member**. The logged-in user must belong to the Administrator group.)

To migrate user data to ADAM

1. Open a command prompt.
2. Change to the **C:\mvf-mig6\UserMigration** directory.
3. Type

```
ldifde -i -s fully_qualified_domain_name_of_ADAM_host -f LDF_input_file -t 636
```

where the *LDF_input_file* is the users.ldf file produced by running the migrate-users.exe command.



Tip:

To ignore the existing users, add the -k parameter to the ldifde command.

15. Backing up the ADAM database again

(Topic number: 6727)

All user data has been migrated to the ADAM database at this point. We recommend backing up the ADAM database again—using a different backup name than used for any prior backup. Instructions are available in *Backing up the ADAM database* (refer to page 54).

16. Updating ADAM passwords

(Topic number: 6715)

To successfully update ADAM passwords, ensure that the password policy has been modified as described in *Recording and disabling the password and account lockout policies* (refer to page 31).

To update ADAM passwords

1. Open a command prompt.
2. Change to the **C:\mvf-mig6\UserMigration** directory.
3. Type

```
migrate-users.exe -m postimport -d mvf_version_number -U mvf -P mvf
```

Upgrading IMPAX Server software

4

Each IMPAX product (Server, Application Server, and Client) must be upgraded separately, starting with the IMPAX Server.

If currently using a SQL Database Server, you can upgrade to IMPAX 6.5.1 by proceeding with the *Upgrading a SQL Database Server to IMPAX 6.5.1* (refer to page 36) tasks.

If currently using an Oracle Database Server, you can upgrade to IMPAX 6.5.1 by proceeding with the *Upgrading an Oracle Database Server to IMPAX 6.5.1* (refer to page 45) tasks.

1. Upgrading a SQL Database Server to IMPAX 6.5.1

(Topic number: 130362)

If currently using a SQL Database Server, you can upgrade to IMPAX 6.5.1 by proceeding with the following tasks.

Backing up the AS300 SQL 2000 database

(Topic number: 11497)

IMPAX 6.5.1 cannot run on SQL Server 2000. If using that version, you must upgrade to SQL Server 2008. Before doing so, back up the 2000 database. The backup will then be restored in the new version of SQL.

If using SQL Server 2005, you can stay with that version. You are not required to back up the database at this point, but you can.

To back up the AS300 SQL 2000 database

1. On the server running the AS300 database, select **Start > All Programs > Microsoft SQL Server > Enterprise Manager**.

2. In the Explorer window of the Enterprise Manager, expand **Console Root > Microsoft SQL Servers > SQL Server Group > server > Databases > MVF**
where *server* is the name of the SQL Server IMPAX is running under.
3. Select **Action > All Tasks > Backup database.**
4. In the SQL Server Backup screen, in the Backup section, select **Database—complete.**
5. Click **Add** and specify the directory to back up to.
6. To start the backup, click **OK.**
7. Exit the SQL Server Enterprise Manager.

Upgrading SQL Server 2000 to SQL Server 2008

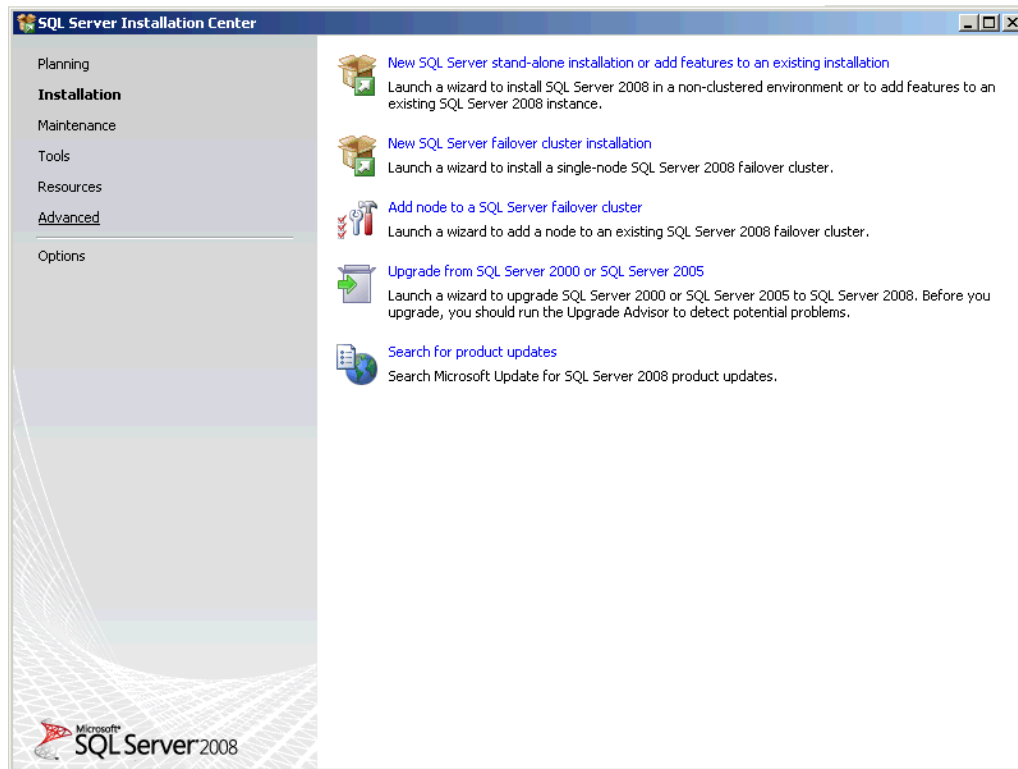
(Topic number: 109391)

Before starting the upgrade from SQL Server 2000 to SQL Server 2008, ensure that you know the SQL Server 2000 sa database password, as you must enter it as part of the upgrade. Also ensure that you are logged into Windows as an administrator-level user.

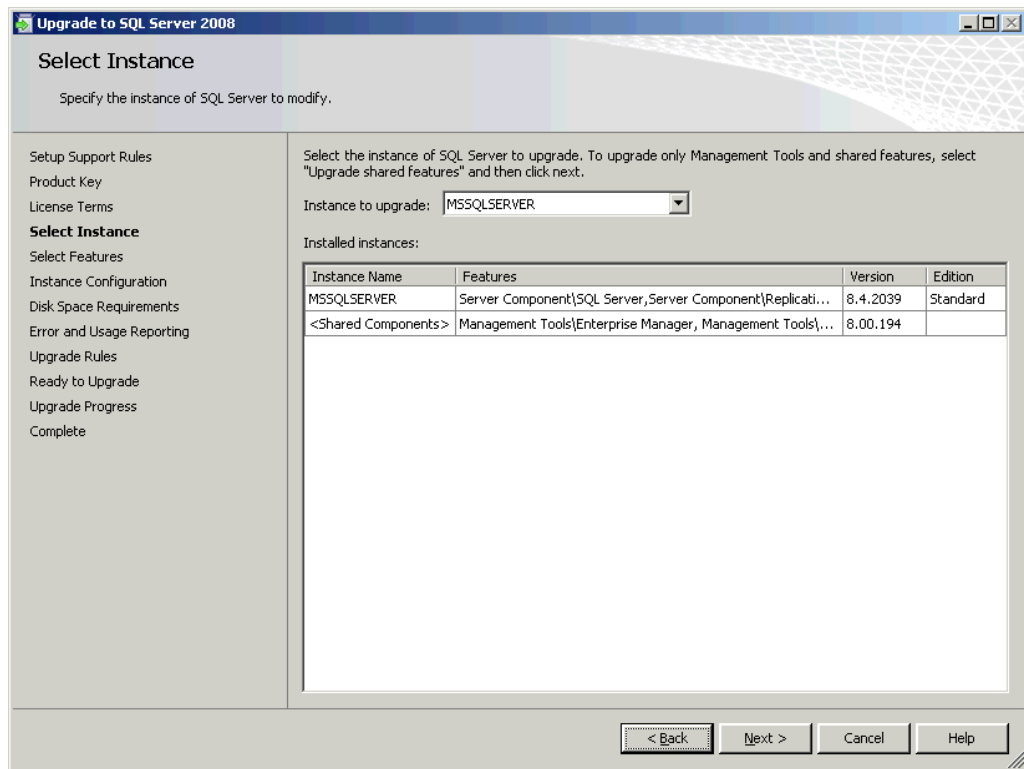
Upgrading to SQL Server 2008 requires running the same installer used for a new install of SQL Server 2008.

To upgrade SQL Server 2000 to SQL Server 2008

1. On the server you are upgrading, ensure that the Distributed Transaction Coordinator service is running:
 - a. Open the Windows Administrative Tools and select **Services.**
 - b. Select the **Distributed Transaction Coordination** service. If this service is not started, click **Start Service.**
2. Ensure that the SQLSERVERAGENT service is started.
3. To launch the installer, follow the instructions supplied with the SQL Server 2008 software.
4. When prompted, click **OK** and follow the on-screen instructions to install the Microsoft .NET Framework and updated Windows Installer. You might be asked to restart the server.
5. In the SQL Server Installation Center, select **Installation**, then select **Upgrade from SQL Server 2000 or SQL Server 2005.**



6. On the Setup Support Rules screen, ensure that all operations have completed successfully. Click **OK**.
7. On the next screen, enter the product key. Click **Next**.
8. When prompted, accept the Microsoft Software License Terms. Click **Next**.
9. On the Setup Support Files screen, click **Install**. After the support files are installed, click **Next**.
10. On the Setup Support Rules screen, ensure that all operations have completed successfully. Click **Next**.
11. In the Select Instance screen, check that **Instance to Upgrade** has been set to **MSSQLSERVER**. Click **Next**.



12. On the Select Features screen, click **Next**.
13. On the Instance Configuration screen, click **Next**.
14. Verify that the disk space requirements have been met. Click **Next**.
15. On the Server Configuration screen, click **Next**.
16. On the Full-text Upgrade screen, keep the default and click **Next**.
17. On the Error and Usage Reporting screen, click **Next**.
18. On the Upgrade Rules screen, check that no errors appear. Click **Next**.
19. On the Ready to Upgrade screen, click **Upgrade**.
20. Verify that the upgrade was successful, then click **Finish** and **Close**.
21. Restart the computer.

When the computer restarts, log into Windows as an administrator-level user.

The next steps in the upgrade process are to stop the SQL Server services, then to install SQL Server 2008 SP1.

Stopping SQL Server 2008 services

(Topic number: 109422)

Before proceeding with the next task, stop the Windows SQL Server services, if they have been started.

To stop SQL Server 2008 services

1. Open the Windows Administrative Tools.
2. Select **Services**.
3. Select each of the following services in turn and click **Stop Service**, if needed:
 - a. **SQL Server Full Text Search**
 - b. **SQL Server Full Text Filter Daemon Launcher**
 - c. **SQL Server Browser**
 - d. **SQL Server Integration Services 10.0**
 - e. **SQL Server Integration**
4. Close the Services window.

You can now install SQL Server 2008 SP1.

Upgrading SQL Server 2008 to SQL Server 2008 SP1

(Topic number: 107523)

The SQL Server 2008 SP1 executable file is **SQLServer2008SP1-KB968369-x86-ENU.exe** (32-bit). You must acquire this file from Microsoft; for example, you can download it from the Microsoft website at

<http://www.microsoft.com/downloads/en/details.aspx?FamilyID=66ab3dbb-bf3e-4f46-9559-ccc6a4f9dc19>

Before running the installer, ensure that you know the sa (system administrator) database password, as you must enter it during the installation. Install the Service Pack after installing the software and stopping the SQL services.

To upgrade SQL Server 2008 to SQL Server 2008 SP1

1. Launch the SP1 installer.
2. If you see a security warning, click **Run**.
3. On the Welcome screen, click **Next**.
4. On the License Terms screen, select **I accept the agreement**. Click **Next**.
5. On the Feature Selection screen, accept the default selections. Click **Next**.
6. On the Check Files in Use screen, wait while the processes are identified. Then, click **Next**, even if some locked files are found.
7. On the Ready to Update screen, click **Update**.
8. On the Update Progress screen, wait until the components are upgraded or installed, then click **Next**.
9. If the Computer Reboot Required prompt appears, click **OK**.

This will not automatically restart the computer.
10. On the Installation Complete screen, click **Close**.
11. Restart the computer.

When the computer restarts, log into Windows as an administrator-level user.



CAUTION!

Do not attempt to start IMPAX at this point. If you start IMPAX now, the mvf user account will be locked and you will not be able to log into the MVF database. If the mvf user account becomes locked, see *Troubleshooting: Unlocking the mvf user account* (refer to page 74) for instructions on how to unlock the account.

Upgrading the IMPAX SQL Server database schema to IMPAX 6.5.1

(Topic number: 7642)



Important!

Only specific IMPAX upgrade paths are supported, and it may not be possible to upgrade certain versions or SUs. More information is provided in *Valid IMPAX upgrade paths* (refer to page 10).

Upgrading the database schema to 6.5.1 requires the IMPAX Migration Tools.



CAUTION!

Any customization to the database—such as extra indexes, stored procedures, or triggers—may affect the schema upgrade. We recommend removing such customizations prior to the upgrade.

To upgrade the IMPAX SQL Server database schema to IMPAX 6.5.1

1. Open a command prompt.
2. Change to the **C:\mvf-mig6\bin** directory.
3. If upgrading from IMPAX 6.5, type

database-upgrade-script.bat

If upgrading from IMPAX 6.2, 6.3, or 6.4, type

database-upgrade-script.bat -v {62 | 63 | 64}

If upgrading from IMPAX 5.2 or 5.3, type

database-upgrade-script.bat -U sa -P *sapwd* -v {52 | 53}

where *sapwd* is the password for the 5.2 or 5.3 sa (system administrator) user.

4. At the prompt

```
Ready to upgrade database to version 6.5.1. Do you want to proceed [y,n]?
```

Verify that the *version_number* listed is correct—for example, that it says 62 if upgrading from IMPAX 6.2. If so, press **Enter** to continue.

- If the version is incorrect, type **q** and press **Enter**, then repeat the previous step with the correct version number specified.
5. If prompted for the fully qualified host name of the login server, type the fully qualified host name of this standalone station.
 6. If prompted for a report source, in most cases, type **UNKNOWN**.
 7. Respond appropriately to other prompts that appear.

The database is upgraded.

Checking the status of SQL Server upgrades

(Topic number: 9914)

After upgrading the database, check the log file to ensure that the upgrade was successful.



Important!

We recommend checking the migration log file after each leg of an upgrade before moving onto the next leg.

To check the status of SQL Server upgrades

1. Open the log file C:\mvf-mig6\data\logs\migrate_database_to_IMPAX6.5.1.log
2. If the following warning appears in the log file, you can safely ignore it:

Warning: The table 'CHANGE_CONTEXT_DETAIL' has been created but its maximum row size (8095) exceeds the maximum number of bytes per row (8060). INSERT or UPDATE of a row in this table will fail if the resulting row length exceeds 8060 bytes.

3. Ensure that `Migration Complete Successful` appears at the end of the log file.

If this message does not appear, review the rest of the log file to see where the upgrade failed. Solve the problem, then rerun the upgrade script.

Uninstalling the previous IMPAX software packages

(Topic number: 6744)

If you are upgrading an existing server, before installing the IMPAX 6.5.1 AS300 server packages, uninstall the previous-version IMPAX packages.

To uninstall the previous IMPAX software packages

1. Open Control Panel.
2. Select **Add or Remove Programs**.
3. Under Currently installed programs, select **Agfa IMPAX 5.2 version**, **Agfa IMPAX 5.3 version**, **Agfa IMPAX 6.2 version**, **Agfa IMPAX 6.3 version**, or **Agfa IMPAX AS300** (used for IMPAX 6.4 and later).

Under Currently installed programs, select **Agfa IMPAX 6.2 version**, **Agfa IMPAX 6.3 version**, or **Agfa IMPAX AS300** (used for IMPAX 6.4 and later).

4. Click **Change/Remove**.

or

For uninstalling IMPAX 6.4 and later, click **Remove**.

5. When prompted, type your name (minimum three characters). Click **Next**.
6. In the Confirmation dialog, click **OK** or **Yes**.
7. On the Maintenance Complete screen, click **Finish**.
8. Restart the server.

After the server restarts, log into Windows as an administrator-level user.

Upgrading the IMPAX AS300 32-bit Database Server software

(Topic number: 6783)

To upgrade IMPAX AS300 software, you must be logged into Windows as an administrator-level user.

Use the IMPAX installer to install the necessary packages on the system when upgrading an existing IMPAX server, including standalone and single-server stations. Descriptions of the packages are available in 32-bit AS300 installer packages reference.



Important!

Only specific IMPAX upgrade paths are supported, and it may not be possible to upgrade certain versions or SUs. More information is provided in *Valid IMPAX upgrade paths* (refer to page 10).

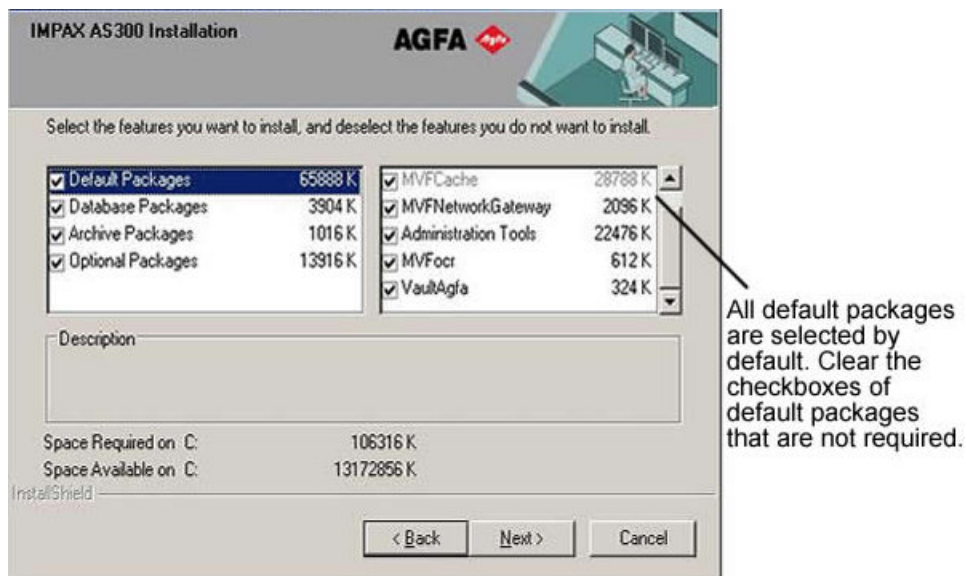
To upgrade the IMPAX AS300 32-bit Database Server software

1. Insert the IMPAX AS300 DVD.
2. Navigate to D:\programs\mvf and double-click **as300-installer.exe**.
3. Type your name (minimum three characters).

This information is recorded in the installer log file.

4. On the Welcome screen, click **Next**.
5. On the Select features screen, all Default Packages are selected. Clear the checkboxes of any packages that should not be installed.

Install all default packages except, potentially, the MVFocr package.



6. Select the **Database Packages** label.

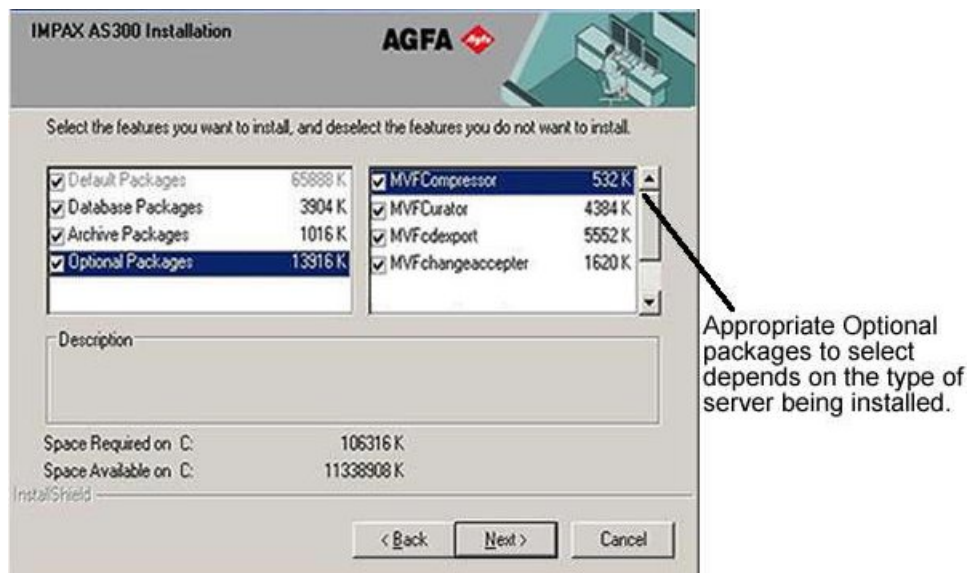
If upgrading under SQL Server, clear the **Oracle Server Extension** checkbox and select the **SQL Server Extension** checkbox.

If upgrading an IMPAX 6.4 or later Oracle Database Server, confirm that the **Oracle Server Extension** checkbox is selected.

7. Clear the **Oracle Server Extension** checkbox and select the **SQL Server Extension** checkbox.

8. Clear the **Archive Packages** checkbox.

9. Select the **Optional Packages** label, then select the checkboxes of any optional packages that should be installed.



Leave the **MVFCompressor** checkbox selected. If intending to export CDs from this station, keep the **MVFCdexport** checkbox selected. Clear all other checkboxes.

10. Click **Next**.
11. Browse to the location of the MVF license file and click **OK**.
If the mvf.lic file is not located in C:\mvf, the file is copied to that location. A dialog informs you of the success of the copy task.
12. When prompted, type the password for the AgfaService user.
The password must follow the requirements outlined in .
13. To confirm that the database is compatible, click **Yes**.
14. On the Ready to begin installation screen, click **Next**.
The files are copied to the system.
15. To display the log file for the database scripts, when prompted, click **No**.
16. After all the packages have been installed, click **Yes, I want to restart my computer now**.
If you are not prompted to restart the computer, manually restart it.

When the computer restarts, log into Windows as an administrator-level user.

2. Upgrading an Oracle Database Server to IMPAX 6.5.1

(Topic number: 130354)

If currently using an Oracle Database Server, you can upgrade to IMPAX 6.5.1 by proceeding with the following tasks.

Applying patches and upgrading Oracle

(Topic number: 106570)



Note:

This topic applies only when upgrading from IMPAX 6.4. If upgrading from IMPAX 6.5 or later, this task can be skipped.

When upgrading an IMPAX AS300 Oracle server to IMPAX 6.5, apply the latest Oracle patches.

To apply patches and upgrade Oracle

1. Log into the Database Server as the Administrator.
2. Insert either the Oracle on Windows 32-bit DVD or the Oracle on Windows 64-bit DVD, depending on the version of Windows running on the server.
3. Open a command prompt.
4. Change to the c:\mvf-mig6\bin directory.

5. Type

```
bash upgrade-oracle location_of_DVD_drive_or_Oracle_software_repository
```

For example,

```
bash upgrade-oracle d:
```

6. If the upgrade-oracle script aborts, it could be due to permission problems.

To check for permission-related errors, navigate to the c:\mvf-mig6\data/logs/upgrade-oracle.log file and search for an error similar to the following

```
SEVERE:Abnormal program termination. An internal error has occurred. Please  
provide the following files to Oracle Support :
```

```
"C:\oracle\102010\Inventory\logs\installActions2010-11-09_01-49-14PM.log"
```

```
"C:\oracle\102010\Inventory\logs\oraInstall2010-11-09_01-49-14PM.err"
```

```
"C:\oracle\102010\Inventory\logs\oraInstall2010-11-09_01-49-14PM.out"
```

If you see such an error, look in the specified .err file for the following:

```
Exception java.lang.NoSuchFieldError: numFailListEntries occurred..  
java.lang.NoSuchFieldError: numFailListEntries  
at  
oracle.sysman.oii.oaip.osd.win32.OaipwWin32NativeCalls.ssntSetPermissionsw32(Native  
Method)
```

If you see a similar error, the error is permission related. In this case, reset the owner. Then, open a command prompt and type **takeown /f c:\oracle /r** and run the upgrade-oracle command again.

7. At the prompt Ready to upgrade Oracle using repository <Oracle software location>. Do you want to proceed? [y/n]

Verify the Oracle software location. If the location is correct, type **y** and press **Enter**.

or

If an Oracle Data Guard configuration is detected, you are prompted to continue the upgrade on the primary (or standby) server. Type **y** and press **Enter**.

Oracle is upgraded with the latest patches.

Upgrading the IMPAX Oracle database schema to IMPAX 6.5.1

(Topic number: 106573)

Run oracle-database-upgrade.bat to upgrade the IMPAX Oracle database schema to IMPAX 6.5.1. On Oracle Data Guard systems, this procedure has to be done on the primary database only.



Important!

Only specific IMPAX upgrade paths are supported, and it may not be possible to upgrade certain versions or SUs. More information is provided in *Valid IMPAX upgrade paths* (refer to page 10).

To upgrade the IMPAX Oracle database schema to IMPAX 6.5.1

1. Open a command prompt.
2. Change to the C:\mvf-mig6\bin directory.
3. Type
oracle-database-upgrade.bat
4. At the prompt `Ready to upgrade database. Do you want to proceed [y,n]?`, type **y** and press **Enter**.

The database is upgraded.

Checking the status of Oracle upgrades

(Topic number: 110410)

After upgrading the database, check the log file to ensure that the upgrade was successful.



Important!

We recommend checking the migration log file after each leg of an upgrade before moving onto the next leg.

To check the status of Oracle upgrades

1. Navigate to the C:\mvf-mig6\data\logs directory.
2. Open the **database_upgrade.log** file.
3. Ensure that `Migration Complete Successful` appears at the end of the log file.
4. If this message does not appear, review the rest of the log file to see where the upgrade failed. Solve the problem, then rerun the upgrade script.

Uninstalling the previous IMPAX software packages

(Topic number: 6744)

If you are upgrading an existing server, before installing the IMPAX 6.5.1 AS300 server packages, uninstall the previous-version IMPAX packages.

To uninstall the previous IMPAX software packages

1. Open Control Panel.
2. Select **Add or Remove Programs**.
3. Under **Currently installed programs**, select **Agfa IMPAX 5.2 version**, **Agfa IMPAX 5.3 version**, **Agfa IMPAX 6.2 version**, **Agfa IMPAX 6.3 version**, or **Agfa IMPAX AS300** (used for IMPAX 6.4 and later).

Under **Currently installed programs**, select **Agfa IMPAX 6.2 version**, **Agfa IMPAX 6.3 version**, or **Agfa IMPAX AS300** (used for IMPAX 6.4 and later).

4. Click **Change/Remove**.

or

For uninstalling IMPAX 6.4 and later, click **Remove**.

5. When prompted, type your name (minimum three characters). Click **Next**.
6. In the Confirmation dialog, click **OK** or **Yes**.
7. On the Maintenance Complete screen, click **Finish**.
8. Restart the server.

After the server restarts, log into Windows as an administrator-level user.

Upgrading the IMPAX AS300 32-bit Database Server software

(Topic number: 6783)

To upgrade IMPAX AS300 software, you must be logged into Windows as an administrator-level user.

Use the IMPAX installer to install the necessary packages on the system when upgrading an existing IMPAX server, including standalone and single-server stations. Descriptions of the packages are available in 32-bit AS300 installer packages reference.



Important!

Only specific IMPAX upgrade paths are supported, and it may not be possible to upgrade certain versions or SUs. More information is provided in *Valid IMPAX upgrade paths* (refer to page 10).

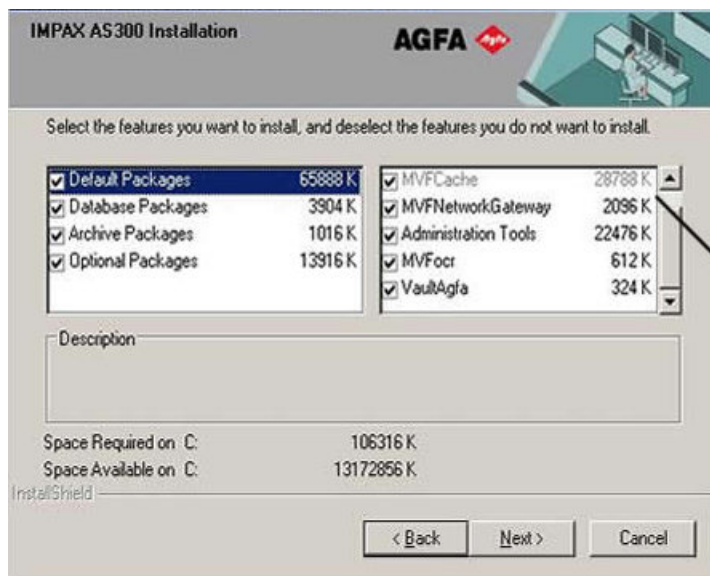
To upgrade the IMPAX AS300 32-bit Database Server software

1. Insert the IMPAX AS300 DVD.
2. Navigate to D:\programs\mvf and double-click **as300-installer.exe**.
3. Type your name (minimum three characters).

This information is recorded in the installer log file.

4. On the Welcome screen, click **Next**.
5. On the Select features screen, all Default Packages are selected. Clear the checkboxes of any packages that should not be installed.

Install all default packages except, potentially, the MVFocr package.



All default packages are selected by default. Clear the checkboxes of default packages that are not required.

6. Select the **Database Packages** label.

If upgrading under SQL Server, clear the **Oracle Server Extension** checkbox and select the **SQL Server Extension** checkbox.

If upgrading an IMPAX 6.4 or later Oracle Database Server, confirm that the **Oracle Server Extension** checkbox is selected.

7. Clear the **Oracle Server Extension** checkbox and select the **SQL Server Extension** checkbox.

8. Clear the **Archive Packages** checkbox.

9. Select the **Optional Packages** label, then select the checkboxes of any optional packages that should be installed.



Appropriate Optional packages to select depends on the type of server being installed.

Leave the **MVFCompressor** checkbox selected. If intending to export CDs from this station, keep the **MVFCdexport** checkbox selected. Clear all other checkboxes.

10. Click **Next**.
11. Browse to the location of the MVF license file and click **OK**.
If the mvf.lic file is not located in C:\mvf, the file is copied to that location. A dialog informs you of the success of the copy task.
12. When prompted, type the password for the AgfaService user.
The password must follow the requirements outlined in .
13. To confirm that the database is compatible, click **Yes**.
14. On the Ready to begin installation screen, click **Next**.
The files are copied to the system.
15. To display the log file for the database scripts, when prompted, click **No**.
16. After all the packages have been installed, click **Yes, I want to restart my computer now**.
If you are not prompted to restart the computer, manually restart it.

When the computer restarts, log into Windows as an administrator-level user.

3. Migrating a cache volume from a flat to a hierarchical structure

(Topic number: 102251)



Note:

If upgrading from IMPAX 6.5, the caches may have already been migrated to a hierarchical structure; this task can then be skipped.

Before starting the migration, verify the condition of the caches:

1. Install the MVFcachecheck package.
2. Run the mvf-clean-cache tool.
3. If the mvf-clean-cache output indicates that there are problems, resolve them.

IMPAX stores DICOM objects in cache so that they can be displayed, transmitted to other DICOM devices, and archived. Prior to IMPAX 6.5, the cache structure was flat (each cache volume contained one directory), which limited the cache size because once a certain number of objects are in the directory, access to the cache can become very slow. Large sites may resolve this by deploying numerous cache volumes, which can be difficult to manage.

As of IMPAX 6.5, a hierarchical cache structure is supported for image and web caches, permitting larger cache volumes. The old flat cache structure continues to be supported; only new images arriving in the system or existing images retrieved from archive are written to cache using the hierarchical structure. However, the cache migration tool allows a site to migrate its existing caches if it would like to immediately take advantage of the hierarchical structure.

**Note:**

The cache migration tool is included in the MVFCache (Windows) and IMPAXmvfc (Solaris) packages, which are part of the standard IMPAX install packages.

To migrate a cache volume from a flat to a hierarchical structure

1. At a command prompt on the system where the cache volume is local, type

cache_migration.exe parameters (Windows)

where *parameters* are as follows:

Parameters	Values	Default value
-S	The cache volume to migrate from. If a <i>source_volume_ref</i> is not specified, you are prompted to choose from a list. If the destination volume is different from the source volume, make sure that the source cache volume is closed before running the cache-migration tool. When closed, new images cannot be received by this volume, which will likely be removed after the migration. To close the cache volume, start the CLUI tool and type cache close volume_ref	Not applicable
-D	The cache volume to migrate to. It can be the same as the source volume. There should be enough space in the destination volume for all the studies in the source volume. If a <i>destination_volume_ref</i> is not specified, you are prompted to choose from a list.	Not applicable
-X	number —The delay in seconds before the original files are deleted. If not specified, the original files are not deleted. If 0, the original files are deleted immediately.	Not applicable
-F	number —The maximum number of cache files to be handled by each thread in the application; a performance-tuning parameter.	100
-T	number —The number of threads to handle the copying of files; a performance-tuning parameter.	3
-I	number —How often to report on the progress of the migration, in minutes.	5
-f	log_file —Log file name.	Not applicable

**Tip:**

Use the **-?** parameter to view usage or help information.

Example:

```
cache_migration.exe -F 500 -T 4 -I 2 -f migration.log
List of eligible cache volumes
1000 : /cache/mvfcache
1001 : /cache/vcacheRSNA2003
1002 : /cache/newcache
Source volume_ref? 1000
Destination volume_ref? 1000
Delete original files (Y/N)? y
How long to wait to delete (sec)? 10
```

After the migration, verify the condition of the caches:

1. Run the mvf-clean-cache tool.
2. If the mvf-clean-cache output indicates that there are problems, resolve them.

For details about configuring the cache directory structure, see “Configuring the hierarchical cache directory structure” (topic number 102687) in the *IMPAX 6.5.1 Server Knowledge Base*.

Upgrading IMPAX Application Server software

5



Important!

Upgrading the IMPAX Application Server software applies only to upgrades from 6.2 and later, since earlier versions did not include an Application Server component and you should have already installed the IMPAX Business Services (refer to page 20).

After upgrading the IMPAX Server software and database, upgrade the IMPAX Application Server by either upgrading the ADAM database (refer to page 53) for standalone stations on Windows XP, or by upgrading the AD LDS database (refer to page 59) for standalone stations on Windows 7, and then upgrading the Application Server software.

1. Upgrading the ADAM database

(Topic number: 58664)

Unlike previous versions of the IMPAX Application Server, you do not have to manually migrate the ADAM database by running migrate.bat. Instead, the migration is performed automatically during the software upgrade.

The results of the ADAM migration are recorded in the ImpaxAdam.log file in the C:\Impax\Logs directory.

Backing up the ADAM database

(Topic number: 6717)

The ADAM database maintains all the security around user profiles, access controls, and station information on the Windows XP standalone station. Backing up the ADAM database at this time is important prior to an Application Server upgrade or in advance of migrating user data into it.

To back up the ADAM database

1. Select **Start > All Programs > Accessories > System Tools > Backup**.
2. Select **Tools > Options**.
3. Switch to the **Exclude Files** tab.
4. In the list of file names, select **C:\Program Files\Microsoft ADAM** and click **Remove**. Click **OK**.
5. When the Backup or Restore Wizard is displayed, clear the **Always start in Wizard mode** checkbox and click **Advanced Mode**.
6. On the Welcome screen, click **Backup Wizard**.
7. On the Backup Wizard screen, click **Next**.
8. On the What to Backup screen, select **Backup selected files, drives, or network data**. Click **Next**.
9. On the Items to Backup screen, select the folder containing the ADAM data as well as the **World Wide Web Publishing Service** folder. Click **Next**.

The default location for the ADAM database is C:\Program Files\Microsoft ADAM\AgfaHealthcare.

10. If backing up to a tape drive, under Backup media type, select the tape drive, and in the backup media area, click **New media**. Click **Next**.

or

If backing up to any other media type, select the location where the backup is to be saved, and type a name for the backup. Click **Next**.

11. On the Completing the Backup Wizard screen, click **Advanced**.
12. On the Type of Backup screen, select **Normal**. Click **Next**.
13. On the How to Backup screen, select **Verify data after backup and Use hardware compression if available**. Click **Next**.
14. On the Backup Options screen, select **Replace the existing backups**. Click **Next**.
15. On the When to Backup screen, select **Now**. Click **Finish**.
16. In the Backup Progress dialog, click **Close**.
17. Close the Backup Utility.

Stopping services on the Application Servers

(Topic number: 10144)

To ensure that IMPAX Client workstations do not attempt to connect during the upgrade process, stop the Windows services on the Application Servers.

To stop services on the Application Servers

1. On an Application Server, open the Windows Administrative Tools and select **Services**.
2. In the list of services, highlight the **World Wide Web Publishing Service**.
3. Click **Stop**.
4. Repeat steps 2 and 3 for the following services:
 - a. **IMPAX Distributed License Manager**
 - b. **IMPAX Messaging Service**
 - c. **IMPAX App Server Data Manager**
 - d. **IMPAX Audit Event Log Manager**
 - e. **IMPAX Dicom Object Sender**
 - f. **AGFA HealthCare Service**

Uninstalling IMPAX 6.2 documentation

(Topic number: 10736)

You must uninstall the IMPAX 6.2 documentation before you can install the new IMPAX 6.5.1 documentation. Although the three IMPAX 6.2 Knowledge Bases are installed together, they must be separately uninstalled.

To uninstall the IMPAX 6.2 documentation

1. Open Control Panel.
2. Select **Add or Remove Programs**.
3. Under Currently installed programs, select **IMPAX 6.2 Documentation**.
4. Click **Change/Remove**.
5. In the Confirmation dialog, click **OK**.
6. In the Maintenance Complete dialog, click **Finish**.
7. Under Currently installed programs, select **IMPAX Application Server Knowledge Base**.
8. Click **Change/Remove**.
9. In the Confirmation dialog, click **OK**.
10. In the Maintenance Complete dialog, click **Finish**.
11. Under Currently installed programs, select **Impax Client Knowledge Base**.

12. Click **Change/Remove**.
13. In the Confirmation dialog, click **OK**.
14. In the Maintenance Complete dialog, click **Finish**.
15. Under Currently installed programs, select **IMPAX Server Knowledge Base**.
16. Click **Change/Remove**.
17. In the Confirmation dialog, click **OK**.
18. In the Maintenance Complete dialog, click **Finish**.

Uninstalling IMPAX 6.3 or later documentation

(Topic number: 15533)

You must uninstall the IMPAX 6.3 or later documentation before you can install the new IMPAX 6.5.1 documentation.

To uninstall IMPAX 6.3 or later documentation

1. Open Control Panel.
2. In Windows XP, select **Add or Remove Programs**.
3. In the Programs and Features dialog, under Currently installed programs, select **AGFA IMPAX version Knowledge Base *buildnumber* Documentation**.
4. Click **Remove**.
5. In the confirmation dialog, click **OK**.
A progress dialog appears as the documentation is uninstalled, giving the amount of time remaining. When the process is complete, the dialog closes.
6. Close the Programs and Features dialog.

All installed IMPAX documentation for the version selected is uninstalled.

Upgrading the IMPAX Application Server software to 6.5.1

(Topic number: 9863)



Important!

Only specific IMPAX upgrade paths are supported, and it may not be possible to upgrade certain versions or SUs. More information is provided in *Valid IMPAX upgrade paths* (refer to page 10).

After backing up the ADAM database (refer to page 54), you can upgrade the Application Server software.

**Note:**

This installation does not overwrite the existing ADAM database.

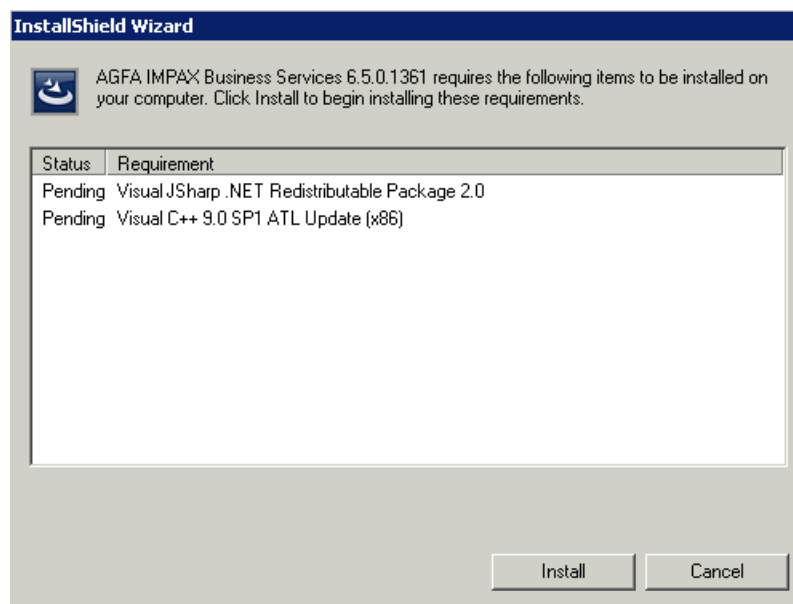
To upgrade the IMPAX Application Server software to 6.5.1

1. Insert the IMPAX Business Services CD.
2. Navigate to the CD ROM drive, which contains the Business Services software.
3. Run **AGFA IMPAX Business Services Setup.exe**.

The following packages are installed on the Application Server prior to the upgrade.

- Visual JSharp .NET 2.0
- .NET Framework 3.5 SP1
- Visual C++ 9.0 SP1 ATL Update (x86)

If any of these packages are listed in the InstallShield Wizard dialog, they are installed when you click **Install**. If any of these packages do not appear in the list, those packages are already installed on the machine.



4. Click **Install**.
5. On the Welcome screen, click **Next**.
6. On the license agreement screen, select **I accept the terms in the license agreement**. Click **Next**.
7. On the Web Services Installation Folder screen, click **Change**.
8. Set the path to the **wwwroot** directory so that it matches the pre-upgrade installation location. Click **OK**.
For example, set the path to J:\wwwroot rather than C:\inetpub\wwwroot.
9. Click **Next**.

10. On the Setup Type screen, select **Custom**. Click **Next**.
11. On the RIS screen, click **Next**.
12. If you are using SmartCard authentication, verify that **NHS SmartCard Web Services** is selected. If it is not selected, select it. Select **This feature will be installed on local hard drive**.
13. Click **Next**.
14. Click **Install**.
15. On the InstallShield Wizard Completed screen, select **Launch IMPAX Business Services Configuration tool**. Click **Finish**.
16. When the message `Previous configuration found from version 6.X.X...` appears, click **Yes**. This message is not displayed when upgrading from IMPAX 6.5 to IMPAX 6.5.1.
17. In the Configuration Tool, click **Apply**.
18. To close the Configuration Tool, click **OK**.

The Application Server software is upgraded.

Installing the IMPAX documentation



(Topic number: 15523)

Before installing the IMPAX 6.5.1 documentation, ensure that you have uninstalled any earlier IMPAX documentation (refer to page 17).

IMPAX is shipped with three sets of documentation: the *IMPAX 6.5.1 Client Knowledge Base: Extended* and related guides, the *IMPAX 6.5.1 Application Server Knowledge Base* and related guides, and the *IMPAX 6.5.1 Server Knowledge Base* and related guides. The IMPAX documentation set appears on its own installation DVD.

To install the IMPAX documentation

1. Insert the IMPAX Documentation DVD.
2. From the DVD root, double-click **IMPAXDocumentationSetup.exe**.
A `Preparing to install` message appears.
3. On the Welcome screen, click **Next**.
4. On the Setup Type screen, select the appropriate option and click **Next**.
 - To install all documentation in all available languages (up to 24 languages), select **All Documentation**.
 - To install all English-language documentation, select **All English Documentation**. This is the default.
 - To select which documentation to install in which languages, select **Select Documentation to Install**.
5. If you selected **Select Documentation to Install**, on the Choose Features screen, you can select particular Knowledge Bases or languages to install.

- To install the IMPAX Client Knowledge Base in two or more languages, click  beside the name of the language to install and select **This feature will be installed on the local hard drive**. (Note that English must be installed.)
- To **not** install the IMPAX Server, IMPAX Application Server, or IMPAX Client documentation, click  beside the appropriate label and select **This feature will not be available**.

6. On the Ready to Install the Program screen, click **Install**.

Installation progress messages are displayed.

7. On the InstallShield Wizard Completed screen, click **Finish**.

The selected IMPAX documentation is now installed. Shortcuts appear in the Start menu and on the desktop. For additional details on viewing the translated documentation on the IMPAX Client see Viewing translated documentation from the IMPAX Client Help menu

2. Upgrading the AD LDS database from IMPAX 6.5 to IMPAX 6.5.1

(Topic number: 130063)

Unlike previous versions of the IMPAX Application Server, the AD LDS database must be migrated when upgrading from IMPAX 6.5 to 6.5.1. The migration is performed automatically during the software upgrade.

The results of the AD LDS migration are recorded in the ImpaxAdam.log file in the C:\Impax\Logs directory.

Creating a one-time backup of AD LDS

(Topic number: 113662)

On Application Servers running Windows Server 2008, all IMPAX user information is stored in the AD LDS database.

Backing up the AD LDS database at this time is important in the event that user migration fails.

Follow this procedure to create a one-time backup of the AgfaHealthcare AD LDS instance.

To create a one-time backup of AD LDS

1. To open an elevated command prompt, click **Start**, right-click **Command Prompt** and select **Run as administrator**.
2. At the command prompt, type
dsdbutil
3. At the dsdbutil prompt, type
activate instance AgfaHealthcare

4. At the dsdbutil prompt, type

ifm

5. At the ifm prompt, type

create full *location*

where *location* is the path to the folder where you want the installation media to be created. You can save the installation media to a network shared folder or to any other type of removable media.

Example:

ifm: create full C:\Backup\AgfaHealthcare

6. At the ifm prompt, type

quit

At the dsdbutil prompt, type

quit

The AD LDS instance is backed up.

Stopping services on the Application Servers

(Topic number: 10144)

To ensure that IMPAX Client workstations do not attempt to connect during the upgrade process, stop the Windows services on the Application Servers.

To stop services on the Application Servers

1. On an Application Server, open the Windows Administrative Tools and select **Services**.
2. In the list of services, highlight the **World Wide Web Publishing Service**.
3. Click **Stop**.
4. Repeat steps 2 and 3 for the following services:
 - a. **IMPAX Distributed License Manager**
 - b. **IMPAX Messaging Service**
 - c. **IMPAX App Server Data Manager**
 - d. **IMPAX Audit Event Log Manager**
 - e. **IMPAX Dicom Object Sender**
 - f. **AGFA HealthCare Service**

Uninstalling IMPAX 6.3 or later documentation

(Topic number: 15533)

You must uninstall the IMPAX 6.3 or later documentation before you can install the new IMPAX 6.5.1 documentation.

To uninstall IMPAX 6.3 or later documentation

1. Open Control Panel.
2. In Windows XP, select **Add or Remove Programs**.
3. In the Programs and Features dialog, under Currently installed programs, select **AGFA IMPAX version Knowledge Base *buildnumber* Documentation**.
4. Click **Remove**.
5. In the confirmation dialog, click **OK**.

A progress dialog appears as the documentation is uninstalled, giving the amount of time remaining. When the process is complete, the dialog closes.

6. Close the Programs and Features dialog.

All installed IMPAX documentation for the version selected is uninstalled.

Upgrading the IMPAX Application Server software to 6.5.1

(Topic number: 126080)



Important!

Only specific IMPAX upgrade paths are supported, and it may not be possible to upgrade certain versions or SUs. More information is provided in *Valid IMPAX upgrade paths* (refer to page 10).

After backing up the ADAM database (refer to page 54), you can upgrade the Application Server software.



Note:

This installation does not overwrite the existing ADAM database.

To upgrade the IMPAX Application Server software to 6.5.1

1. Insert the IMPAX Business Services CD.
2. Navigate to the CD ROM drive, which contains the Business Services software.
3. Click **Install**.
4. On the Welcome screen, click **Next**.

5. On the license agreement screen, select **I accept the terms in the license agreement**. Click **Next**.
6. On the Web Services Installation Folder screen, click **Change**.
7. Set the path to the **wwwroot** directory so that it matches the pre-upgrade installation location. Click **OK**.
For example, set the path to J:\wwwroot rather than C:\inetpub\wwwroot.
8. Click **Next**.
9. On the Setup Type screen, select **Custom**. Click **Next**.
10. On the RIS screen, click **Next**.
11. If you are using SmartCard authentication, verify that **NHS SmartCard Web Services** is selected. If it is not selected, select it. Select **This feature will be installed on local hard drive**.
12. Click **Next**.
13. Click **Install**.
14. On the InstallShield Wizard Completed screen, select **Launch IMPAX Business Services Configuration tool**. Click **Finish**.
15. In the Configuration Tool, click **Apply**.
16. To close the Configuration Tool, click **OK**.

The Application Server software is upgraded.

Installing the IMPAX documentation



(Topic number: 15523)

Before installing the IMPAX 6.5.1 documentation, ensure that you have uninstalled any earlier IMPAX documentation (refer to page 17).

IMPAX is shipped with three sets of documentation: the *IMPAX 6.5.1 Client Knowledge Base: Extended* and related guides, the *IMPAX 6.5.1 Application Server Knowledge Base* and related guides, and the *IMPAX 6.5.1 Server Knowledge Base* and related guides. The IMPAX documentation set appears on its own installation DVD.

To install the IMPAX documentation



1. Insert the IMPAX Documentation DVD.
2. From the DVD root, double-click **IMPAXDocumentationSetup.exe**.
A *Preparing to install* message appears.
3. On the Welcome screen, click **Next**.
4. On the Setup Type screen, select the appropriate option and click **Next**.
 - To install all documentation in all available languages (up to 24 languages), select **All Documentation**.
 - To install all English-language documentation, select **All English Documentation**. This is the default.

- To select which documentation to install in which languages, select **Select Documentation to Install**.
5. If you selected Select Documentation to Install, on the Choose Features screen, you can select particular Knowledge Bases or languages to install.
 - To install the IMPAX Client Knowledge Base in two or more languages, click  beside the name of the language to install and select **This feature will be installed on the local hard drive**. (Note that English must be installed.)
 - To **not** install the IMPAX Server, IMPAX Application Server, or IMPAX Client documentation, click  beside the appropriate label and select **This feature will not be available**.
 6. On the Ready to Install the Program screen, click **Install**.
Installation progress messages are displayed.
 7. On the InstallShield Wizard Completed screen, click **Finish**.

The selected IMPAX documentation is now installed. Shortcuts appear in the Start menu and on the desktop. For additional details on viewing the translated documentation on the IMPAX Client see Viewing translated documentation from the IMPAX Client Help menu

3. Running Healthcheck from a URL to check the status of web services

(Topic number: 11405)

Healthcheck checks the status of each web service running on the Application Server. When you run Healthcheck, it attempts to connect to each of the web services. If it succeeds, Healthcheck sets the status to Passed (green) . If Healthcheck fails, the status is set to Failed (red) . The comment field indicates where the failure occurred.



Note:

Healthcheck verifies only installed services. It does not indicate if a service is not installed.

To run Healthcheck from a URL to check the status of web services

1. Ensure that the Healthcheck web.config file has been configured to the site's needs.
2. On the standalone station, launch Internet Explorer.
3. In the address bar, if Healthcheck has not been configured to automatically log in, type

`https://fully_qualified_domain_name/AgfaHC.Healthcheck.Escrow`

or

If Healthcheck has been configured to automatically log in, type

`https://fully_qualified_domain_name/AgfaHC.Healthcheck.Escrow/EscrowForm.aspx`

To	Append	Example
View the results in HTML	?format=html to the end of the URL	https://appserver.hospital.com/AgfaHC.Healthcheck.Escrow/EscrowForm.aspx?format=html
Add a refresh frequency	?refresh=seconds to the end of the URL	https://appserver.hospital.com/AgfaHC.Healthcheck.Escrow/EscrowForm.aspx?refresh=60
View the results in HTML and add a refresh frequency in the same URL	?format=html&refresh=seconds to the end of the URL	https://appserver.hospital.com/AgfaHC.Healthcheck.Escrow/EscrowForm.aspx?format=html&refresh=60



CAUTION!

Setting the refresh interval below five seconds impacts performance.

4. If Healthcheck has not been configured to automatically log in, type an IMPAX Administrator username and password, select the login domain, and click **Log in**.
On the Agfa Web Services: Healthcheck page, all web services are listed with a status of Passed (green) ● or Failed (red) ●.
5. To determine what the problem is for any web services with the status Failed, review the **Comments**.
6. To check the status of the web services again, in Internet Explorer, click **Refresh**.

Installing and configuring the IMPAX Client software

6

Complete the IMPAX Client software upgrade tasks after upgrading and initially configuring the IMPAX Server and IMPAX Business Services software.

1. Installing Windows 7 SP1

(Topic number: 130089)

If using Windows 7, we recommend installing Service Pack 1.

To install Windows 7 SP1

1. Right-click **Computer** and select **Properties**.
2. If Service Pack 1 is listed under Windows Edition, you do not have to install it.

To install Windows 7 SP1

1. Go to
<http://www.microsoft.com/downloads/en/details.aspx?FamilyID=c3202ce6-4056-4059-8a1b-3a9b77cdfda&displaylang=en>
2. Click **Continue**.
3. Choose either the 32-bit (x86) or the 64-bit (x64) version of SP1 depending on whether you are running the 32-bit or the 64-bit version of Windows 7.

To find out which version you are running, right-click **Computer** and select **Properties**. Under System, next to System type, you can view the operating system.

4. Click **Download**.
5. To install SP1 immediately, click **Open** or **Run**.

6. Follow the instructions on your screen.
7. On the Install Windows 7 Service Pack 1 page, click **Next**.
8. Follow the instructions on your screen.
Your computer might restart during the installation.
9. After the installation completes, log on to your computer at the Windows logon prompt.
You might see a notification indicating whether the update was successful.

2. Manually uninstalling the IMPAX 5.2 or 5.3 Client software

(Topic number: 51525)

IMPAX 5.2 or 5.3 Client software must be uninstalled before the IMPAX 6.5.1 Client software can be installed.

To manually uninstall the IMPAX 5.2 or 5.3 Client software

1. Open Control Panel.
2. Select **Add or Remove Programs**.
3. Under Currently installed programs, select **IMPAX Client ES** and click **Remove**.
4. At the *Are you sure you want to remove this program?* prompt, click **Yes**.
5. If a Files Not Removed dialog opens, to remove the remaining files, click **Yes**.
6. At the Uninstall Successful message, click **OK**.
7. Restart the computer.
8. After the computer has restarted, verify that the C:\mvf directory has been deleted. If the directory is still present, delete it.

3. Installing the IMPAX Client

(Topic number: 7776)

The following explains how to install IMPAX Client using the default InstallShield package. An alternative is to automate the installation through a batch file. For instructions on installing IMPAX Client that way, refer to “Enabling automated installation of the IMPAX Client software from a command prompt” (topic number 7802) in the *IMPAX 6.5.1 Client Installation, Upgrade, and Configuration Guide*.



Note:

To install the IMPAX Client, you must be logged in as a user in a Administrators role that has permissions to the Windows Services.

To install the IMPAX Client

1. From the IMPAX Client CD or the IMPAX Client Installation web page (https://install_server_name/clientinstaller/language_code), start the IMPAX Client installation program, **IMPAXClientSetup.exe**.

For information on setting up a Client installation server, refer to “Installing the IMPAX Installation Server” (topic number 7773) in the *IMPAX 6.5.1 Client Installation, Upgrade, and Configuration Guide* or the *IMPAX 6.5.1 Preparing to Upgrade Guide—IMPAX 4.5, 5.2, 5.3, or WEB1000 to IMPAX 6.5.1*.



CAUTION!

Do not use a standalone IMPAX workstation as an IMPAX Client Installer server. Instead, place the IMPAX Client Installer server program on another server.

2. If a File Download dialog appears, click **Open** or **Run**.
A *Preparing to Install* message appears.
3. If a prompt appears about downloading and installing missing components, click **OK**.
4. Follow the prompts to download and install Microsoft .NET Framework 3.5, Microsoft .NET Framework 3.5 SP1, or all.



Note:

After installing a component, the installer may stop running or you may receive an *Installation is not yet complete* message. In either case, rerun the **IMPAXClientSetup.exe** program.

Depending on network speed, downloading and installing the Microsoft .NET Framework can take over 30 minutes.

For the .NET Framework 3.5 install, after the download, agree to the installation, accept the license agreement, and after the installation is complete click **OK**. If prompted, restart the computer.

If you do not have a live Internet connection, the downloading will not work. Instead, install the Microsoft .NET Framework 3.5 from the Client Installer server (https://install_server_name/clientinstaller/redis/dotnetfx35.exe).

For the .NET Framework 3.5 SP1 install, after the download, if prompted to start the installation, click **OK**. If prompted, restart the computer.

5. On the Welcome to the InstallShield Wizard for IMPAX Client screen, click **Next**.
6. On the License Agreement screen, read the license agreement. If you agree, select **I accept the terms in the license agreement**. Click **Next**.
7. To install the application into C:\Program Files\Agfa\IMPAX Client, on the Destination Folder screen, click **Next**.

or

To install the application to another location, click **Change**. In the Change Current Destination Folder dialog, browse for the directory location to install into and click **OK**. On the Destination Folder screen, click **Next**.

8. On the IMPAX Application Server screen, in the Get or confirm application server name field, type the fully qualified domain name of this standalone station. Click **Next**.

A *fully qualified domain name* is the full name of a system, including its local host name and complete domain name. For example, if the standalone station is called *qastation*, it is on the network domain called *radnet*, and *radnet* is within the *healthorg.com* domain, the name to type would be *qastation.radnet.healthorg.com*.

9. On the IMPAX Login Type screen, select the appropriate authentication method: Windows, IMPAX, or Smart Card.
 - **Windows Authentication**—Logs into IMPAX using the Windows session credentials after launching the IMPAX Client or logging in with a Windows smart card.
 - **IMPAX Authentication**—Logs into the IMPAX Client separately from Windows. (If unsure of which option to select, use **IMPAX Authentication**.)
 - **Smart Card Authentication**—Logs into the IMPAX Client with a smart card in the **National Health Service (NHS) environment only**.
10. Click **Next**.
11. On the Ready to Install the Program screen, click **Install**.

The program is installed.
12. On the InstallShield Wizard Completed screen, click **Finish**.

The IMPAX Client software is installed. You do *not* have to restart the computer.

4. Installing related Client software

(Topic number: 7661)

The following software packages can be integrated with the Client software. Which of these you need to install depends on who will be using the workstation, where the workstation is located (within or outside the network firewall), and what licenses are available at your site.

- **Voxar 3D**—Fully integrated application used for 3D, MPR, and MIP modeling and analysis.
- **Orthopaedic Application software**—Used for applying digital templates and completing measurements in preparation for orthopaedic surgery. This software is available on a separate installation CD and requires a hardware dongle.

For instructions on installing these software packages, refer to the topic “Installing related software” (topic number 7779) in the *IMPAX 6.5.1 Client Installation, Upgrade, and Configuration Guide*. If upgrading from IMPAX 6.2 or later, this software may already be installed.

5. Restarting antivirus software

(Topic number: 9916)

If you have antivirus software installed and have halted any scan jobs, restart the antivirus services.

To restart antivirus software

1. On a Windows server where scanning was stopped, launch the antivirus software.
2. Start the scan operation according to the vendor's instructions.

6. Renaming and assigning Client licenses

(Topic number: 7629)



Important!

This topic applies only when upgrading an existing IMPAX 5.2 or 5.3 server to 6.5.1.

Client license files have generic names that do not clearly identify their purpose. Use the License Manager Administrator Tool to give the license file a unique name that describes the role or abilities associated with this license. For example, the name can be changed to IMPAX Administrator or to Radiologist.

To rename and assign Client licenses

1. Select **Start > All Programs > Agfa Healthcare > Business Services > License Manager Administrator Tool**.
2. Ensure that you are at the **C:\Program Files\Agfa\Impax Business Services\Licensing Admin Tool** prompt.
3. At the prompt, type **aladmin -setAdminName *serial* "*name*"**
where *serial* is the serial number of the license to be renamed and *name* is the new name for the license. For example, type **aladmin -setAdminName 1234567 "Entry Level Radiologist"**.
4. To close the License Manager Administrator Tool, type **exit** and press **Enter**.

You can then assign licenses to roles in the Client. A role is collection of users or other roles that holds permissions and preferences as well as licensing options. For example, a role can represent the enterprise, the institution, a department, or a team.

5. In the IMPAX Client, assign the license to the appropriate roles.

Refer to “Assigning licenses to roles” (topic number 9353) in the *IMPAX 6.5.1 Client Knowledge Base: Extended*.

**Note:**

When a license has been installed through the ALMAdmin tool, then assigned to a role in the IMPAX Client, it may take up to 15 minutes before the users in that role can log into the system.

7. Completing other IMPAX Client configuration tasks

(Topic number: 7730)

**Important!**

When upgrading a standalone station from IMPAX 6.2 or later, key Client settings are migrated and do not have to be reconfigured.

When first implementing IMPAX at a site, the PACS Administrator must complete many other Client configuration tasks. These include:

- Configuring the workstation settings, including monitors
- Defining roles and users, including permissions and operations
Operation defaults can differ between an install and upgrade of the Client. Check the settings for the operations to ensure the appropriate access to features is given.
- Creating and adding worklists
- Defining relevance rules for opening priors
- Setting hanging protocols for viewing studies (for radiologists)
- Configuring modality and body part preferences, including Image area tools
- Configuring DICOM printers and printing
- Ready image wizards and enabling preconfigured ones
- Defining the dictation workflow (for radiologists)
- Setting up logging of system activity

Information on how to complete these tasks is provided in the *IMPAX 6.5.1 Client Knowledge Base: Extended*, “Administering IMPAX” section (topic number 11588).

As you upgrade IMPAX servers, you may encounter various problems.

Troubleshooting: Web services do not run after installing or upgrading the Application Server

(Topic number: 118488)

Issue

After installing or upgrading the Application Server, web services do not start and applications such as the Configuration Tool do not run.

Details

During installation, InstallShield may have failed to install all the necessary files.

Solution

1. Check that all the expected files are present in the Web Services directory on the Application Server. Also check that the C:\Program Files\Agfa\Impax Business Services\Configurator directory is present and that this directory contains more than a few files.
2. If some of the files are missing from the Web Services directory, or if the C:\Program Files\Agfa\Impax Business Services\Configurator directory is missing or contains just a few files, run the Business Services installation program again and select the **Repair** option.
3. If the procedure you ran in the preceding step fails, uninstall (refer to page 82) and then reinstall the Application Server.



Important!

If you have to reinstall the Application Server, do not reinstall the ADAM or AD LDS database.

Troubleshooting: Application Server is unavailable after reinstalling IIS

(Topic number: 7743)

Issue

The Application Server is unavailable after IIS is uninstalled and reinstalled, and does not respond.

Details

The Microsoft Distributed Transaction Coordinator service must be running before IIS is reinstalled on a standalone station where the IMPAX Business Services component has already been installed.

To confirm the problem

1. Open the Windows Administrative Tools and select **Internet Information Services (IIS) Manager**.
2. Expand *computer_name (local computer)* > **Web Sites**.
3. Navigate to **Default Web Site** > **iisstart.asp**.
4. Right-click **iisstart.asp** and select **Browse**.

If a problem exists, an Internal Server Error message is returned.

Solution

To determine whether IIS was reinstalled successfully

1. Open the Windows Administrative Tools and select **Component Services**.
2. Navigate to **Component Services** > **Computers** > **My Computer** > **COM+ Applications**.
3. Ensure that the following COM+ Applications are listed:
 - IIS In-Process Application
 - IIS Out-Of-Process Pooled Applications
 - IIS Utilities
4. If the IIS applications are not listed, enable the Distributed Transaction Coordinator service and reinstall IIS.

To enable the Distributed Transaction Coordinator service

1. Open the Windows Administrative Tools and select **Services**.

2. Right-click **Distributed Transaction Coordinator** and select **Properties**.
3. On the General tab, from the Startup type list, select **Automatic**.
4. Click **Start**. Click **OK**.

Troubleshooting: Unsure whether certificates are installed

(Topic number: 7698)

Issue

Unsure whether certificates are installed.

Details

Solution

You can determine whether the certificates have been installed properly using the following steps.

To check whether any certificates are installed

1. Open the Windows Administrative Tools and select **Internet Information Services (IIS) Manager**.
2. Expand *computername* > **(local computer)** > **Web Sites**.
3. Right-click **Default Web Site** and select **Properties**.
4. Switch to the **Directory Security** tab.

The installed certificate can be viewed using the **View Certificate** button. If the View Certificate button is disabled, no certificate is installed.

To use Console Management to check which certificates are installed

1. Open a command prompt.
2. Type **mmc**.
3. In the Console1 window, select **File** > **Add/Remove Snap-in**.
4. In the Add/Remove Snap-in dialog, click **Add**.
5. In the Add Standalone Snap-in dialog, from the list, select **Certificates**.
6. Click **Add**.
7. In the Certificates snap-in dialog, select **Computer account**. Click **Next**.
8. Click **Finish**.

The certificate is added for the Computer account and appears in the list in the Add/Remove Snap-in dialog.

9. In the Add Standalone Snap-in dialog, click **Add** again.

10. In the Certificates snap-in dialog, select **Service account**. Click **Next**.
11. Click **Next** again.
12. From the Service account list, select **Agfa Healthcare**.
13. Click **Finish**.

The certificate is added for the Service account and appears in the list in the Add/Remove Snap-in dialog.

14. In the Add Standalone Snap-in dialog, click **Close**.
15. Click **OK**.

To view whether the certificates are installed for the proper accounts

1. In the Console Root window, expand **Certificates (Local Computer) > Personal > Certificates**.
On the right pane, the certificate should be issued to *machinename.fully_qualified_domain_name*.
2. On the left pane, expand **Trusted Root Certification Authorities > Certificates**.
On the right pane, the certificate issued by the certificate authority should appear in the list.
3. Repeat steps 1 and 2 for **Certificates-Service (Agfa Healthcare) > ADAM_AgfaHealthcare\Personal** and **ADAM_AgfaHealthcare\Trusted Root Certification Authorities**.



Tip:

In case you ever need to check on installation again, in the Console window, choose **File > Save As** to save the certificates as an MSC file.

Troubleshooting: Unlocking the mvf user account

(Topic number: 114829)

Issue

You cannot log into SQL Server 2008 using the mvf account because the mvf user account is locked.

Details

The mvf user account gets locked if you start IMPAX immediately after upgrading to SQL Server 2008 SP1.

Solution

To unlock the mvf user account

1. Log into SQL Server 2008 using the Administrator account.
2. In the SQL Server Management Studio, open a new query window.

3. Type

```
ALTER LOGIN mvf ENABLE;
ALTER LOGIN mvf with PASSWORD = 'mvf' UNLOCK;
GO
```
4. Click **Execute**. ▶

Troubleshooting: Installation of IMPAX software unsuccessful; must reinstall packages

(Topic number: 7685)

Issue

IMPAX Server was not installed successfully.

Details

If the IMPAX Server software installation was not successful, you may have to uninstall the IMPAX software and retry the IMPAX installation.

Solution

Before retrying the installation, attempt to determine why the installation failed and correct the problem, if possible. You can find specific error messages and more information on the installation in these log files:

- C:\mvf\data\logs\mitra_install.log
- C:\mvf\data\logs\build_mvf.log
- C:\mvf\data\logs\build-database.log
- C:\mvf\data\logs\add_impax_mvf.log

After the problem is determined and resolved, reinstalling the IMPAX software requires four steps:

1. Restart the system as indicated by the installer, even if failures have occurred.
2. Determine whether the security components were applied.
If the installation failed after the security components were applied, you must log in using the AgfaService account to reinstall the IMPAX software. If the installation failed before the security components were applied, you must log in as a Windows administrator to reinstall the IMPAX software. Refer to the instructions that follow.
3. Uninstall the IMPAX software.
4. Install the IMPAX packages again, using the correct user account.

To uninstall the IMPAX software

1. Open Control Panel.

2. Select **Add or Remove Programs**.
3. Select **AGFA IMPAX AS300**.
4. Click **Change**.
5. At the prompt, type your name and click **Next**.
6. On the Welcome screen, select **Modify**. Click **Next**.
7. Clear the checkboxes of all installed packages. Click **Next**.
8. On the Maintenance Complete screen, select **Yes, I want to restart my computer now** and click **Finish**.



Important!

Do not manually delete the C:\mvf folder as part of the uninstall. If you do, you will have to re-create and reimport the portable password files.

9. Log into Windows as the AgfaService user.

You can then reinstall the IMPAX packages.

Troubleshooting: Confirming that the correct IMPAX Server packages are installed

(Topic number: 100280)

You can determine whether the correct IMPAX Server packages have been installed using the following steps.

To confirm that the correct IMPAX Server packages are installed

1. Open Control Panel and select **Add or Remove Programs**.
2. Select **AGFA IMPAX AS300** and click **Change**.
3. After the installer launches, click **Modify**.
4. Click **Next**.
5. Verify that the list of installed packages is correct and remove any if necessary.
If necessary, uninstall IMPAX 6.5.1 Server (refer to page 83) and reinstall.

Troubleshooting: Server license keys do not work

(Topic number: 7649)

Issue

Programs do not start because of Server license key problems.

Details

Server license keys can present problems if they are not stored in the correct directory or are not matched to the MAC addresses of the machines. To function properly, the correct number of license keys must be located in the correct directory.

Solution

Ensure that the appropriate license keys are installed in the correct location. Information on obtaining a MAC address is available in *Obtaining Server license keys* (refer to page 11).

To install the mvf license key

1. Match up the correct license key with the machine's MAC address.
The license key name is the MAC address with a .lic file extension.
2. Open Windows Explorer.
3. Copy the license key file to the mvf directory on the hard drive.
4. Rename the license key file to **mvf.lic**.

Troubleshooting: Receiving errors when installing the MVF SQL database software

(Topic number: 7640)

Issue

You receive error messages when installing the MVF AS300 packages with the SQL Server Extension.

Details

If an error occurs while installing the SQL MVF database, it may relate to the security components not being applied, which requires reinstalling the software. Otherwise, you can try rebuilding the database.

Solution

To determine if the security components were applied

1. On the Database Server, open a command prompt.
2. Type **sqlcmd -E**.
3. Note whether the response is a failure message.
If this fails, the security components have been installed but not applied.
4. If the command failed, rebuild the database.

To rebuild the database

1. Select **Start > All Programs > Microsoft SQL Server 2008**, right-click **SQL Server Management Studio** and select **Run as**.
2. In the Connect to Server dialog, select **Windows Authentication** in the Authentication field.
3. From the User name list, select **AgfaService**.
4. In the Password field, type the password for the AgfaService account and click **OK**.
The SQL Server Enterprise Manager is opened using the AgfaService account permissions.
5. In the Object Explorer window of the Management Studio, expand **server > Databases** where *server* is the name of the SQL Server that IMPAX is running under.
6. Right-click the MVF database and select **Stop**.
7. To confirm stopping the database, click **Yes**.
Stopping the database may take a few minutes.
8. Right-click the MVF database again and select **Delete**.
9. To confirm the deletion of the database, click **Yes**.
10. Run the **build-mvf-sqlserver-database** script.

If you receive an error a second time, contact your vendor.

Troubleshooting: After installing IMPAX AS300 Server packages, SQL Server does not start

(Topic number: 59020)

Issue

After installing the IMPAX AS300 Server packages and restarting the server, the SQL Server 2005 service does not start.

Details

This problem happens intermittently under Windows XP SP3, when using SQL Server 2005 SP2.

Solution

If the SQL Server 2005 service does not start after installing the AS300 Server packages and restarting the system, follow these steps to start them manually.

1. Open the Windows Administrative Tools and select **Services**.
2. In the list of services, right-click **SQL Server (MSSQLSERVER)** and select **Properties**.
3. In the Properties dialog, from the Startup type list, select **Manual**. Click **OK**.
4. Right-click the **SQL Server (MSSQLSERVER)** service name again and select **Start**.
5. Right-click **SQL Server (MSSQLSERVER)** and select **Properties**.
6. In the Properties dialog, from the Startup type list, select **Automatic**. Click **OK**.
7. Right-click **SQL Server (MSSQLSERVER)** and select **Stop**, then right-click it again and select **Start**.
8. Close the Services and Administrative Tools windows.

Troubleshooting: "Failed to load DLL: MtCmnSec" exception during AS300 server packages installation

(Topic number: 120619)

Issue

During the IMPAX 6.5.1 AS300 server packages installation, after typing your name and clicking **Next**, an exception occurs and the message `Failed to load DLL: MtCmnSec` is displayed.

Details

This exception could indicate that a different version of the `LIBEAY32.dll` file in the `C:\windows\system32` directory is causing a version conflict.

Solution

1. Before closing the exception message, in Windows Explorer, search for the location of the `MtCmnSec.dll` that is used by the AS300 installer. The file is usually located in a directory under `C:\Documents and Settings\Administrator\Local Settings\Temp\{some_string}\Disk1`. For example:

```
C:\Documents and Settings\Administrator\Local
Settings\Temp\{61BCE0ED-5E0C-4A36-9F55-C23DAAB20C9D}\Disk1
```

2. Open a command prompt and change directories to the folder found in the previous step.
3. Type

```
rundll32 mtcmnsec.dll,mtGetWindowsVersion
```

An error similar to the following may appear:

```
The ordinal 3823 could not be located in the dynamic link library
LIBEAY32.dll
```

This error indicates that a different version of the LIBEAY32.dll file in the C:\windows\system32 directory is causing a version conflict.

4. Rename the copy in C:\windows\system32 and run the AS300 installer again.

Troubleshooting: Server name registered in SQL Server is incorrect

(Topic number: 7625)

Issue

If the server name registered in SQL Server is not the same as the server name registered in Windows, you must update the server name in SQL Server.

Details

This discrepancy may happen if you use a ghost image when installing the third-party applications.

Solution

To check the server name registered in Windows

1. Right-click **My Computer** and select **Properties**.
2. Switch to the **Computer Name** tab.

The server name is listed as the full server name.

To check the server name registered in SQL Server

1. In a SQL Server query window, type **select @@servername**

To update the server name registered in SQL Server

1. In the SQL Server query window, type:
sp_dropserver *old_server_name*
go
sp_addserver *server_name_as_in_Windows*, local
go

Uninstalling IMPAX 6.5.1

B

If you encounter installation problems or need to redeploy the workstation, you may have to uninstall some of the IMPAX software.

Uninstalling the IMPAX Migration Tools from a Windows computer

(Topic number: 47239)

Once all migration tasks and post-migration checks are completed, you must uninstall the IMPAX Migration Tools from all Windows-based computers on which they are installed. This is a legal requirement.

To uninstall the IMPAX Migration Tools from a Windows computer

1. Open Control Panel.
2. Select **Add or Remove Programs**.
3. Select **IMPAX 6.5.1 AS300 Migration 6.5.0.xxx**
where xxx is the build number.
4. Click **Remove**.
5. In the Confirm File Deletion dialog, click **Yes**.
6. At the Uninstall complete prompt, click **Finish**.

Uninstalling IMPAX 6.5.1 Client

(Topic number: 7607)

The following procedure removes the IMPAX Client software, but not any integrated software (such as the Orthopaedic Application, TalkStation, or Voxar).

To uninstall IMPAX 6.5.1 Client

1. If the IMPAX Client is running, log out of it and close the Login window.
2. Open the Control Panel.
3. Select **Add or Remove Programs**.
4. Under Currently installed programs, select **IMPAX Client**.
5. Click **Remove**.
6. When asked to confirm the removal, click **Yes**.

A Preparing to remove dialog opens, then the IMPAX Client software is uninstalled.

Uninstalling IMPAX 6.5.1 Business Services

(Topic number: 7608)

If you must back out of an installation, or reinstall the IMPAX Business Services, use the following instructions.

To uninstall IMPAX 6.5.1 Business Services

1. Open Control Panel, select **Add or Remove Programs**.
2. Select **Adam Instance AgfaHealthcare** or **AD LDS Instance AgfaHealthcare** and click **Remove**.
3. Ensure that C:\Program Files\Agfa is empty.
4. Ensure that the AgfaHC virtual directories are removed. These directories are located wherever the web services were installed.

Uninstalling the IMPAX 6.5.1 documentation

(Topic number: 118482)

If required, you can uninstall the IMPAX 6.5.1 documentation.

To uninstall the IMPAX 6.5.1 documentation

1. Open Control Panel.

2. Select **Add or Remove Programs**.
3. In the Add or Remove Programs dialog, under Currently installed programs, select **AGFA IMPAX version Knowledge Base *buildnumber* Documentation**.
4. Click **Remove**.
5. In the confirmation dialog, click **OK**.
A progress dialog appears as the documentation is uninstalled, giving the amount of time remaining. When the process is complete, the dialog closes.
6. Close the Add or Remove Programs dialog.

All installed IMPAX 6.5.1 documentation is uninstalled.

Uninstalling IMPAX 6.5.1 Server

(Topic number: 7605)

To uninstall IMPAX 6.5.1 Server

1. Open Control Panel.
2. Depending on the version of Windows, select **Add or Remove Programs** or **Programs and Features**.
3. Under Currently installed programs, select **AGFA IMPAX AS300**.
4. Click **Change**.
5. At the prompt, type your name and click **Next**.
6. At the Welcome dialog, select **Modify**. Click **Next**.
7. Click **Next**.
8. In the Maintenance Complete dialog, select **Yes, I want to restart my computer now** and click **Finish**.
9. If no longer required on this server, you can also delete any Server license files stored in the C:\mvf directory.

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Cygwin

(Topic number: 121758)

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Editline 1.2-cstr

(Topic number: 121768)

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OpenSSL

(Topic number: 121771)

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Xerces C++ Parser, version 1.2

(Topic number: 121761)

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Zlib

(Topic number: 7595)

zlib.h -- interface of the 'zlib' general purpose compression library Version 1.2.1, November 17th, 2003

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Glossary

A

ADAM

Active Directory Application Mode. Directory services for an individual application that controls user login and privilege information.

Administration Tools

Administration Tools control the configuration and management of the entire IMPAX cluster. The Administration Tools are a Java-based application that run in a web browser.

C

CLUI

Command Line User Interface. A command-line tool to help in the service of IMPAX MVE. CLUI allows you to execute SQL statements.

D

diagnostic monitor

High-quality, grayscale monitors in sizes ranging from 1.3 to 5 MegaPixels, with either a portrait or landscape orientation.

DICOM

Digital Imaging and Communications in Medicine. The standard communication protocol used by a PACS, HIS, or modality to exchange information or images with other systems.

F

firewall

On a local area network (LAN) connected to a larger network, the security system that prevents outside intrusion and that keeps internal information from getting out. Typically, all traffic must pass through the machine on which the firewall is implemented.

H

hardware dongle

A device that attaches to a computer to control access to a particular application. Dongles provide the most effective means of copy protection. Typically, the dongle attaches to a PC's USB port.

HTTP

Hypertext transfer protocol, a TCP-based protocol for transferring hypertext requests and information between servers and browsers.

HTTPS

Hypertext transfer protocol, secure, a URL access method for connecting to http servers using SSL (secure sockets layer).

L

LDAP

Lightweight Directory Access Protocol, the technology for storing user names and IDs, passwords, and user-related preferences. This information is stored in an LDAP depository.

license, IMPAX Client

IMPAX Client licenses define which IMPAX features users in a role can be given permission to access. They include standard and optional features. IMPAX Client license files are installed on Application Servers and are assigned to roles.

log file

A file or set of files containing a record of the actions and modifications made in an application. Service teams use log files during setup and configuration of the system or its components. Logs are also used to diagnose problems. Logging can typically be set to record varying levels of detail.

M

MAC address

Media Access Control address. The unique physical address of each device's network interface card.

MIP

Maximum Intensity Projection. Refers to a projection of the 3D object that shows the tissues of highest density.

modality

An imaging discipline, such as CT, or a device that gathers digital information, such as digitizers for X-ray film, MRI scanners, and CR devices.

MPR

Multi-Planar Reformatting. A method of visualization in three-dimensional medical imaging. This method allows you to view anatomy along its central axis, or perpendicularly to that central axis.

O

operations, IMPAX

The IMPAX actions allowed by a permission. For example, operations include dictation, printing to paper, and executing SQL statements through CLUI. You can further refine some operations by setting a study status flag on the operation. For example, you can allow printing only on dictated studies.

Orthopaedic Application

Application integrated with the IMPAX Client, used to do pre-surgical and postoperative planning for orthopaedics.

P

PACS

A Picture Archive and Communication Systems (PACS) makes it possible to electronically store, manage, distribute, and view images.

permissions, IMPAX

Permissions define the available IMPAX features and types of studies that users in a particular role have access to. Permissions are made up of a set of operations.

S

site

A type of resource, referring to the overall hospital facility that houses departments, locations, specialties, and stations.

SSL certificate

A digital certificate with the SSL protocol that has been issued by a certificate authority.

stations

Within the context of the IMPAX Client configuration interface, refers to a computer that has the IMPAX Client installed. Stations

can be in a radiology reading room, in the offices of clinicians, or in the homes of radiologists, for example. When a user logs into IMPAX for the first time, the computer name is listed in the navigation pane of the Configure area - Stations section. Stations are organized under station containers. You can set configuration options, such as diagnostic monitor settings, memory usage, and so on, for a specific station, or the station can inherit its configuration from the station container.

W

wizard

Wizards are used to automate processes. Wizards perform a predetermined sequence of actions after they are selected and applied.

workflow

A sequence of events, initiated by a trigger event.

worklist

A collection of patients and their studies. For radiologists, the worklist is analogous to a pile of film jackets. They use the worklist to know which studies they must interpret during a specific time period. For technologists, a worklist is a list of the studies they must perform at specific times for each patient.

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