

Client Installation, Upgrade, and Configuration Guide

IMPAX 6.5.1

Detailed Instructions for Installing or Upgrading, and
Configuring the IMPAX Client



| see more | do more |

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Applicable scope of the IMPAX Client product: the acquisition, display, processing, printing, and sending of medical images.



Note: The IMPAX 6.5.1 software complies with the Council Directive 93/42/EEC Concerning Medical Devices, as amended by Directive 2007/47/EC.

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(Topic number: 122201)

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Getting started

1

Understanding IMPAX and the hardware and software components required for IMPAX helps ensure successful installations and upgrades.

Prerequisite knowledge and software

(Topic number: 7760)

The installation procedures require that you have general knowledge of computer hardware and software concepts and proficiency in operating and troubleshooting computer software. You also need the hardware and software outlined in the *Hardware and software requirements (refer to page 13)* section.

Install IMPAX Clients only after the server components of the IMPAX cluster are installed and configured. Details are available in Order of cluster installations (refer to page 12).

What is IMPAX 6.5.1?

(Topic number: 7749)

IMPAX 6.5.1 combines the traditional activities of RIS informatics management with PACS image management to provide a powerful platform for imaging-based planning, interpretation, and results distribution. IMPAX 6.5.1 enables data sharing and data synchronization in a macro enterprise using a central Data Center.

The IMPAX 6.5.1 Client focuses on the integration of PACS, RIS, and Reporting applications into a single delivery of information. A single IMPAX 6.5.1 Client application can be used by a range of users on any appropriate, networked workstation they have access to.

IMPAX cluster overview

(Topic number: 7791)

Every IMPAX installation is based on the following main components:

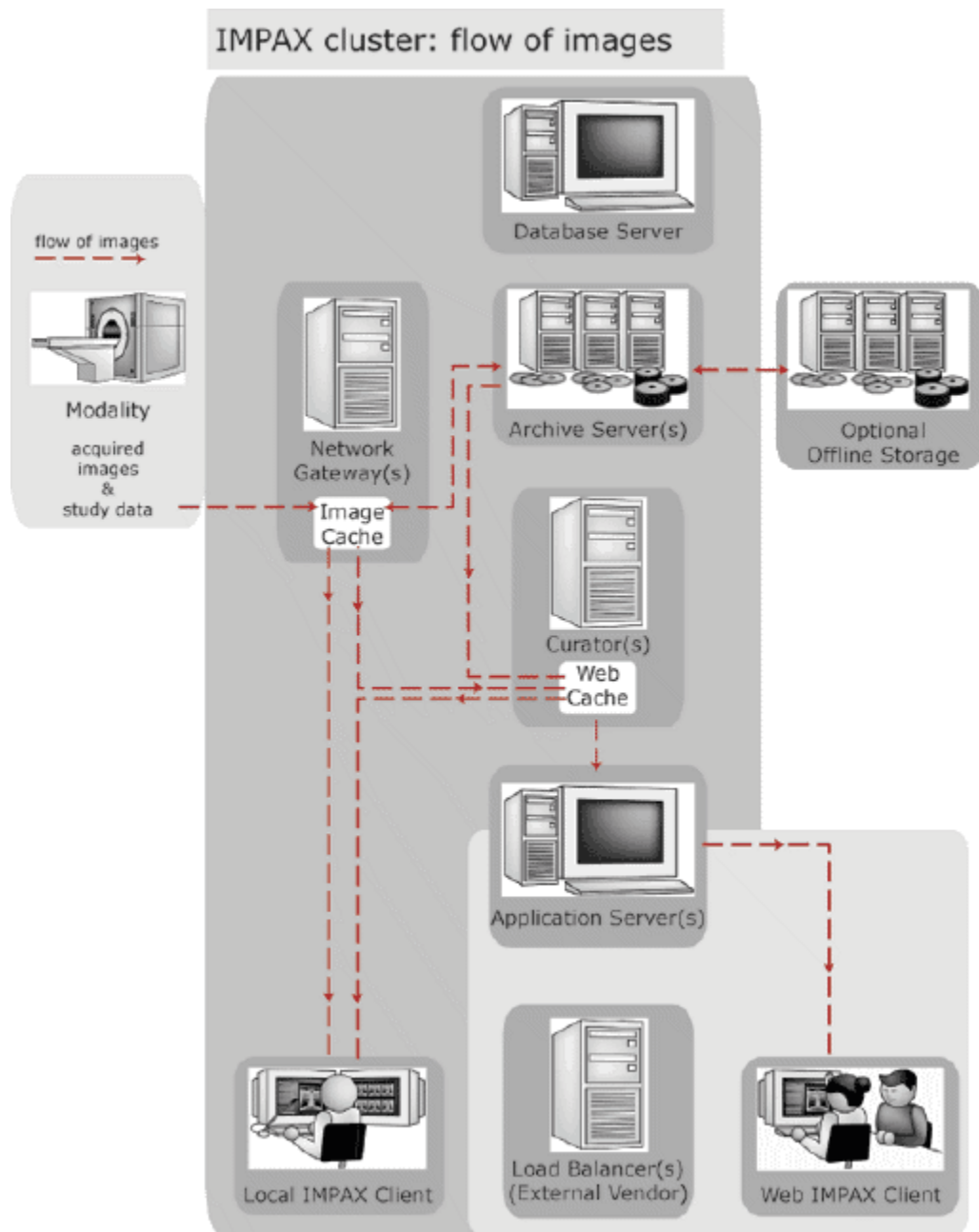
- Network Gateway
- Archive Servers
- Oracle Server or SQL Server
- Application Server
- Curator
- IMPAX Clients—local and remote

The sum of these components is called the *cluster*. An IMPAX cluster is the set of core IMPAX components that contains one database. SPFTP/ASPFTP is used for communication within the IMPAX cluster. Any third-party display stations are considered to be outside the cluster. They use DICOM to communicate with the cluster.

A typical installation has a Database Server, one or more Archive Servers, one or more Network Gateways, and one or more Curators. A third-party load balancer is optional, to help handle many Clients. Local Clients are spread throughout the entire enterprise, and remote Clients outside the enterprise firewall. These Clients connect to one or more Application Server machines, either directly or through a load balancer. The Application Server acts much like a proxy machine to handle security, authentication, and communication with the IMPAX Server components.

When images are transmitted to the IMPAX cluster, the Network Gateway performs validation of the study images and data. Validation requires the Network Gateway to query the HIS/RIS and ensure that the study and patient demographics match what is currently incoming from a modality or a transmit device. If the validation is successful, the images are “allowed” into the system. The Database Server collects and manages all patient and study demographic data.

The IMPAX Clients, both local and remote, are used to view study images. Local Clients can get images directly from the Network Gateway image cache. If images have been archived, the Network Gateway image cache gets them from the Archive Server. The Curator generates compressed wavelet images and stores them in a web cache, which may also be seen by local Clients. When a study is diagnosed and dictated, the status of the study is updated at the Database Server, and when a report is generated, it is forwarded to the HIS/RIS.



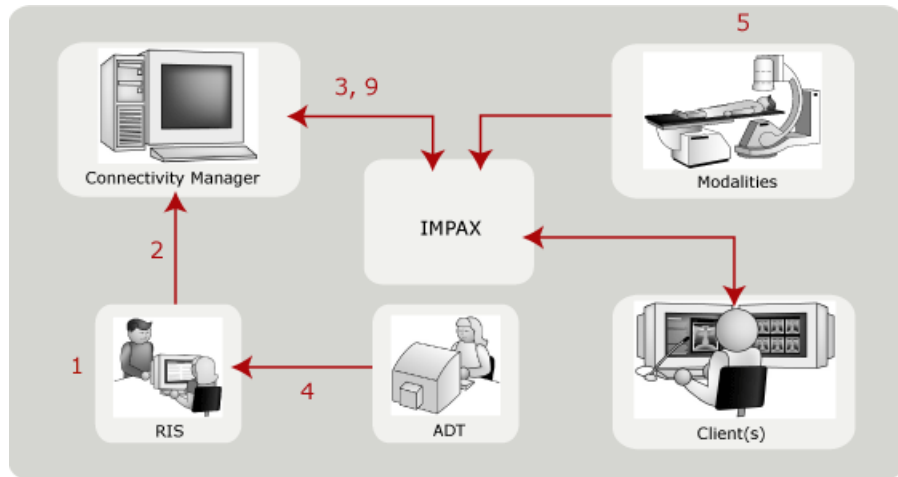
Deploying IMPAX as a data center with IMPAX spokes

(Topic number: 11647)

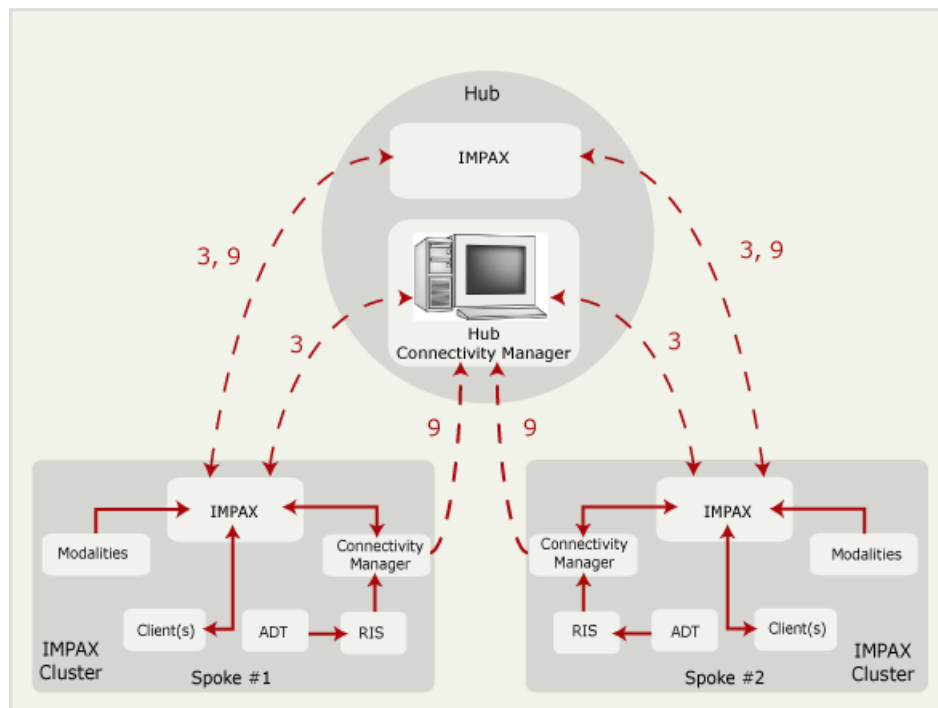
One IMPAX cluster can be set up as central repository (or hub) for archiving studies from several individual IMPAX clusters, called *spokes*. This way different sites can share studies while not each

having to maintain an extensive archive on-site. The hub IMPAX cluster acts as a *data center* for the spokes.

Single cluster



Multiple clusters



1. A study is scheduled for a patient and the details are recorded in the RIS. The study is scheduled well in advance of the actual appointment, but the order may not be recorded in the RIS until the day before the exam.
2. The RIS sends the order to the IMPAX Connectivity Manager, using an HL7 notification.

3. The night before the scheduled study, the Connectivity Manager sends IMPAX notification of the study and IMPAX automatically searches for and retrieves relevant priors images from the local archive. This process is called *prefetching*.

If the facility is part of an enterprise or a multiple IMPAX cluster installation, IMPAX also searches for relevant priors in the long-term or central storage data center.

4. The patient arrives and needs to be admitted to the facility to have a study performed. The system checks the ADT to see if a record already exists for the patient. If so, that patient ID is used; otherwise, a new patient ID is generated.
5. The study is performed on a modality and is sent to the local IMPAX cluster.
6. HIS verification is performed on the patient demographics of the study.
7. When IMPAX receives the study, it checks to see if it needs to get relevant priors from the local archive and fetches them. This process is called *autofetching*. It generally occurs when prefetching cannot be performed or when studies have been added to the archive.

In an enterprise installation, the search includes priors stored in the data center.

8. When the radiologist completes the report, it is sent to the Connectivity Manager.
9. The Connectivity Manager sends the report to the Application Server, where it is forwarded to the IMPAX archive for storage. If the RIS is an IMPAX RIS or a queryable one, the report is stored on the RIS.

In an enterprise installation, the Connectivity Manager also sends the completed report to the data center's Connectivity Manager, using HL7. At this point, the study will also be sent to the data center.

Order of cluster installations

(Topic number: 7763)

The IMPAX cluster has many components and each depends on other components in the cluster. To correctly install and configure components in the cluster, follow this order of installation:

1. **Install the Database Server, Archive Server, and Network Gateway.**

Install the core Server components and create the portable password file required to install other IMPAX components. Do not configure the AS300 Server components at this time; the Application Server must be installed before these Server components can be configured. Refer to the guide appropriate to your configuration.

Required guide: One of *IMPAX 6.5.1 AS3000 Installation and Configuration Guide* or *IMPAX 6.5.1 AS300 Installation and Configuration Guide*

2. **Install the Application Server.**

Install the Business Application services and IMPAX documentation on the Application Server.

Required guide: *IMPAX 6.5.1 Application Server Installation, Upgrade, and Configuration Guide*

3. **Begin configuration of the Application Server.**

Create and import an SSL certificate, configure ADAM (Windows Server 2003) or AD LDS (Windows Server 2008), compress web services, set connections to the image and audit servers, and set logging levels.

Required guide: *IMPAX 6.5.1 Application Server Installation, Upgrade, and Configuration Guide*

4. If you have installed a Windows-based Database Server, Archive Server, or Network Gateway, configure these components.

Configure database backups, image and web caches, and archives (if necessary). In clusters that include only Solaris-based systems, these configuration steps are done automatically during the installation.

Required guide: *IMPAX 6.5.1 AS300 Installation and Configuration Guide*

5. Install and configure Curator and the CD Export server.

If the site requires compressed web images, install and configure one or more Curator systems and set up the web cache. If you are installing multiple Curators, install and start the master Curator first, then install and start the slave Curators.

If you will be using the CD Export feature in the IMPAX Client, install the CD Export server.

Required guide: *IMPAX 6.5.1 Curator and CD Export Server Installation Guide*

6. Complete the configuration of the Application Server.

Complete the optional Application Server configuration tasks that are applicable to the site.

Required guide: *IMPAX 6.5.1 Application Server Installation, Upgrade, and Configuration Guide*

7. Install and configure Clients.

Install and configure the IMPAX Client, the PACS system used to access images.

Required guide: *IMPAX 6.5.1 Client Installation, Upgrade, and Configuration Guide*

If installing a standalone station (single-host AS300 with Application Server and Client), refer to the *IMPAX 6.5.1 Standalone Installation and Configuration Guide*.

If installing a single-server (single-host AS300 with Connectivity Manager and Application Server), consult Installing an IMPAX AS300 single-server in the *IMPAX 6.5.1 AS300 Installation and Configuration Guide*.

All documentation is available on the IMPAX Documentation DVD.

Hardware and software requirements

(Topic number: 7794)

The following lists the recommended hardware and software for an IMPAX Client workstation.

IMPAX Client: Hardware requirements

(Topic number: 7793)

The following hardware configuration is recommended for new workstations. While IMPAX Client should work on an equivalent platform, optimal results can be guaranteed only on the recommended platform.

To use the CT-MR navigation tools, we strongly recommend that, due to the high volume of data being manipulated, Client systems be equipped with a high-end video subsystem that is PCIe X16 based.



CAUTION!

For official diagnostic interpretation, we recommend setting the display to 32-bit color or more.

Component	Requirements
System	The Agfa preferred supplier is HP. HP xw4400, xw4600, xw6400, xw6600, z400, or z600 Dell Precision™ 490 or 690, T5400, T7400, or T7500 Motion LE1600 Tablet PC (Non-diagnostic)
CPU	2 x 2.0GHz or higher 1 x Dual/Quad Core 2.8GHz or higher 1 x Intel® Pentium® M 1.5GHz (Tablet PC – Non-diagnostic)
RAM	Windows XP: 1 GB minimum Windows Vista and Windows 7: 4 GB minimum 4 GB recommended for all new systems for optimal performance and viewing of large volume image sets 4 GB recommended for IMPAX Clinical Applications such as IMPAX Virtual Colonoscopy, IMPAX PET-CT Viewing, and IMPAX Reporting (embedded speech recognition)
RAM (Tablet OS)	512 MB min (Non-diagnostic Tablet PC only)
Hard drive space	80 GB minimum
Modem	Not applicable
DVD-ROM drive	Yes
Floppy drive	Not applicable
Network interfaces	System comes with an integrated 100/1000 Mbps Ethernet adapter
Power supply	Default
Peripherals	Scroll mouse and keyboard

Component	Requirements	
	For North America, the Logitech MX518 is used with the MA3000.	
Other	Microsoft supported DVD RW/CDRW	
Video		
Diagnostic review workstations and high-end diagnostic review workstations	Windows 7 (WDDM)*: MXRT1150, 2150 MXRT5200 (covers 98% of the diagnostic requirements) MXRT7200 (high end board for IMPAX Clinical Applications such as Oasis for IMPAX) MXRT7300 (high end board for IMPAX Clinical Applications such as Oasis for IMPAX. Supported from WDDM v1.1 May/June 2010)	Windows XP and Vista: BarcoMed PCIe for Coronis BarcoMed PCIe for Nio BarcoMed PCIe 5MP2FH (only with monitor MF GD-5621HD) MXRT 2100/5100/7100 (not sold anymore but still supported) MXRT5200 (covers 98% of the diagnostic requirements) MXRT200 and 7300 (high-end board for IMPAX Clinical Applications such as Oasis for IMPAX)
RIS/Administrator stations and Clinical review stations	Windows 7 (WDDM): NVIDIA FX 1700, FX 1800, FX 4800 ATI 3700, 3750, V3800 (third monitor board) MXRT 1150/2150 (third monitor board)	Windows XP and Vista: NVIDIA FX 1700, FX 1800, FX 4800 ATI 3700, 3750, V3800 (third monitor board) MXRT 1150/2150 (third monitor board)

*Windows 7 and WDDM drivers do not support the BarcoMed and older MXRT (2100, 5100. and 7100) boards.

IMPAX Client: External software requirements

(Topic number: 6694)

The following software is required for all new stations. Unless otherwise indicated, Agfa does not provide the software as part of the IMPAX Client installation package.

Component	Requirements
Operating system	Microsoft Windows XP Professional SP3 may be used for upgrades but is no longer available for shipment Microsoft Windows Vista™ / Windows Vista x64 (Business and Ultimate) SP2

Component	Requirements
	Windows 7 Professional 64-bit (single language support), Windows 7 Ultimate 64-bit (multi-language support) SP1 for Diagnostic review stations Note that other versions of Windows 7 can be used for non-diagnostic review stations.
Other software	Microsoft Internet Explorer 7.0 and 8.0 .NET 3.5 SP1 Latest version of Adobe® Reader® Antivirus software such as Norton Antivirus 6.1 or higher, Trend Micro, or McAfee Antivirus 4.5 or higher Note that Oracle 11 Client is required for IMPAX Reporting and IMPAX for Cardiology.

The IMPAX Client will run on 64 bit operating systems in 32bit compatibility mode. The IMPAX Client is not a 64bit application and therefore does not take advantage of 64bit processing or memory addressing.



Note:

We recommend upgrading Windows Vista to Windows 7 for systems that will be used as diagnostic workstations.

IMPAX Client: Smart card reader and driver requirements

(Topic number: 66934)

The following smart card readers are recommended for use with the IMPAX Client.

Smart card reader name	Product number	Model number	Driver version
USB smart card readers			
ActivCard USB Reader V2	ZFG-9800-AC	V2	3.2.0.1
SCM Microsystems SCR301 USB Smart Card Reader	ZFG-9800-AA	SRR200	2.9.0.0
SCRx331 USB Reader	902748 rev 1.0		1.40.0.0
SCR301 USB Smart Card Reader (Light Grey)	902890 Rev 1.0	SCR 301	2.9.0.0
CardMan 2020 (Cherry)	ST-1000UA/02	ST-1000U	3.7.3.12
Keyboards with smart card readers			

Smart card reader name	Product number	Model number	Driver version
SmartBoard XX44 (Cherry)	Article # G83-6744LUAUS-2/00	RS 6700 USB	1.1.0.32
GTI333 Smart Card Reader (Keyboard)		KFKE90YF	1.16.0.1
Dell USB Keyboard Smart Card Reader		SK-3106	2.0.0.13
Dell Smart Card Reader Keyboard		RT7D60	1.0.0.2
MPC Smart Card Reader USB Keyboard (Grey)	SK-3105S	KBR001160-00	2.0.0.13
PCMCIA smart card readers			
GemPC400 PCMCIA Smart Card Reader			2.1.10.1
Omniquey AG CardMan 4000 PCMCIA Smart Card Reader			5.1.2600.2180
CardMan 4040			1.1.0.24

IMPAX Client hardware and software recommendations

(Topic number: 121271)

Agfa recommends the following hardware and software for diagnostic, RIS stations, and clinical review stations.

High performance diagnostic workstation—HP xw4600 or HP z400

The high performance diagnostic workstations are recommended for systems used primarily for viewing large volume image sets (such as 64-slice CT) and using third-party applications such as Volume Viewing, TalkStation, Orthopaedic planning tools, and so on. These Clients are typically used inside a hospital environment such as a radiology reading area by radiologists.

Component	Requirements
RAM	8 GB (2*2, 1*4) minimum
Operating system	Windows 7 Professional or Ultimate/64 bit, 32 bit emulation
Processor	Single quad-core processor

Standard performance diagnostic workstation—HP xw4600 or HP z400

The standard performance diagnostic workstation systems can be used for the review and reporting of all diagnostic studies; however, the high performance diagnostic workstations are preferred for viewing of large volume data sets.

Component	Requirements
RAM	4 GB
Operating system	Windows 7 Professional or Ultimate/64 bit, 32 bit emulation
Processor	Single quad-core processor

RIS station—HP z200

A RIS station is not suitable to use as a diagnostic workstation.

Component	Requirements
RAM	4 GB
Operating system	Windows 7 Professional or Ultimate, 32 bit
Graphics card	ATI FirePro V3700 or V5700
Processor	Dual quad-core processor

Clinical review station—HP z200

A clinical review station is not suitable to use as a diagnostic workstation.

Component	Requirements
RAM	4 GB
Operating system	Windows 7 Professional or Ultimate/64 bit, 32 bit emulation
Graphics card	ATI FirePro V3700 or V5700
Processor	Dual quad-core processor

Installation preparation checklist

(Topic number: 7790)

Obtain the following information and equipment before installing the operating system.

Required operating system installation information	Notes
Drive letter of the CD-ROM drive (typically D)	
When you begin the installation, the screen resolution is set to 640x480. If working on a 2, 3, or 5 Mega Pixel monitor, you need the following to view the installation program:	
<ul style="list-style-type: none"> • Extra video adapter compatible with an SVGA monitor • Separate viewing monitor 	

Required operating system installation information	Notes
Organization name	
Computer name	
Administration user ID and password	
Appropriate regional settings	
Whether the network setting is Workgroup or Domain	
Which video board is on the system	

Obtain the following information before installing the IMPAX software.

Required IMPAX Client installation information	Notes
Whether accessing the Client installation program from CD, from an Installation Server, or using an automated process.	<ul style="list-style-type: none"> • If from an Installation Server, the Server name is required. • If using an automated process, the command line options must be defined and a batch file created (or software distribution tool used).
Whether one specific user or any licensed user will be logging into IMPAX on this computer.	
For specific users, their Windows user name is required.	
The fully qualified domain name of the Application Server this Client is to connect to.	
Whether the Clinical Application/third-party software is being installed.	<ul style="list-style-type: none"> • If so, whether a hardware dongle or software key is installed on each workstation or on a server. • If the dongle or key is installed on a server, the server's IP address.
Whether the TalkStation Client software is being installed.	<ul style="list-style-type: none"> • If so, the name of the TalkStation Server.
Whether the IMPAX RIS Client software is being installed.	

Opening the IMPAX Client Knowledge Base

(Topic number: 57452)

The IMPAX 6.5.1 Client Knowledge Base: Extended is a comprehensive set of information that details how radiologists, clinicians, specialists, and PACS administrators configure and use the IMPAX Client software. The Knowledge Base provides targeted getting started information, concepts, and tasks for various user groups, and focuses on task-based and workflow-based information.

The IMPAX Client Knowledge Base: Core is available in 19 languages. The IMPAX 6.5.1 Client Knowledge Base: Extended is available in English. Any or all languages can optionally be installed and can be viewed on the Documentation DVD.

Viewing the Client Knowledge Base from the documentation DVD

(Topic number: 57437)

All IMPAX Knowledge Bases, including the IMPAX Client Knowledge Base, can be viewed directly from the IMPAX documentation DVD.

To view the Client Knowledge Base from the documentation DVD

1. Insert the IMPAX documentation DVD.
2. Navigate to `/docs/client/knowledge_base`.
3. Double-click **default.htm**.
4. Select the appropriate language for the IMPAX Client Knowledge Base.

Opening the Client Knowledge Base from the List, Text, or Configure area

(Topic number: 57440)

Once the IMPAX documentation is installed, you can access it from the IMPAX Client application.

To open the Client Knowledge Base from the List, Text, or Configure area

1. Press **F1**.

or

From the List or Configure area bar, click **Help**.

The home (or main) page of the Client Knowledge Base opens in a browser window. It normally appears in the same language used for the IMPAX interface; for example, if working with IMPAX in French, the French Knowledge Base opens. If the Knowledge Base is not available in the interface language (usually because that Knowledge Base was not installed), you must manually redirect the URL to the English Knowledge each time you open the Knowledge Base.

Installing external software

2

Several external software applications must be installed to run the IMPAX 6.5.1 Client.

External software: Order of installation tasks

(Topic number: 7799)

You must install and configure the software in the order it is listed. For more information on installing the required external software, refer to the documentation provided with the software or consult the vendor's website.

Windows XP

Installed	Task
	<i>Installing Microsoft Windows XP</i> (refer to page 23)
	<i>Installing Windows XP SP3</i> (refer to page 24)
	<i>Installing device drivers on the computer</i> (refer to page 96)
	<i>Installing video drivers</i> (refer to page 27)
	<i>Installing a modem</i> (refer to page 27)
	<i>Upgrading the Internet Explorer version</i> (refer to page 28)
	<i>Installing Adobe Reader</i> (refer to page 28)
	<i>Installing and configuring antivirus software</i> (refer to page 29)
	<i>Installing and using VNC ROI</i> (refer to page 29)
	<i>Supporting integrated TalkStation</i> (refer to page 29)
	<i>Installing Microsoft Word</i> (refer to page 33)

Installed	Task
	<i>Installing the hardlock driver (refer to page 34)</i>
	<i>Installing the smart card reader (refer to page 34)</i>
	<i>Completing other initial Windows XP configurations (refer to page 37)</i>

Windows Vista

Installed	Task
	<i>Installing Microsoft Windows Vista (refer to page 24)</i>
	<i>Installing device drivers on the computer (refer to page 96)</i>
	<i>Installing video drivers (refer to page 27)</i>
	<i>Installing a modem (refer to page 27)</i>
	<i>Upgrading the Internet Explorer version (refer to page 28)</i>
	<i>Installing Adobe Reader (refer to page 28)</i>
	<i>Installing and configuring antivirus software (refer to page 29)</i>
	<i>Installing and using VNC ROI (refer to page 29)</i>
	<i>Supporting integrated TalkStation (refer to page 29)</i>
	<i>Installing Microsoft Word (refer to page 33)</i>
	<i>Installing the hardlock driver (refer to page 34)</i>
	<i>Installing the smart card reader (refer to page 34)</i>
	<i>Completing other initial Windows Vista configurations (refer to page 39)</i>

Windows 7

Installed	Task
	<i>Installing Microsoft Windows 7 (refer to page 26)</i>
	<i>Installing device drivers on the computer (refer to page 96)</i>
	<i>Installing video drivers (refer to page 27)</i>
	<i>Installing a modem (refer to page 27)</i>
	<i>Upgrading the Internet Explorer version (refer to page 28)</i>
	<i>Installing Adobe Reader (refer to page 28)</i>
	<i>Installing and configuring antivirus software (refer to page 29)</i>
	<i>Installing and using VNC ROI (refer to page 29)</i>
	<i>Supporting integrated TalkStation (refer to page 29)</i>
	<i>Installing Microsoft Word (refer to page 33)</i>

Installed	Task
	<i>Installing the hardlock driver (refer to page 34)</i>
	<i>Installing the smart card reader (refer to page 34)</i>
	<i>Completing other initial Windows 7 configurations (refer to page 42)</i>

Installing Microsoft Windows XP

(Topic number: 7781)

Follow these instructions to install Microsoft Windows XP for new Client workstations.

To install the hard disk drivers

1. Insert the Windows XP Professional CD.
2. Boot from CD.

To boot from CD on a Dell workstation, press **F12**, select **Onboard or USB CD-ROM drive**, press **Enter**, then press any key.
3. To install third-party or OEM drivers, press **F6**.

Files are loaded.
4. If installing on a Dell workstation, also perform the following steps:
 - a. On the Windows Setup screen, to specify additional drivers, type **S**.
 - b. Insert the floppy disk containing the extracted Adaptec SATA Host Raid Controller that you created in preparation.
 - c. When the driver name is displayed, to select it, press **Enter**.
 - d. When prompted to continue, press **Enter**.
 - e. When the installation is finished, remove the floppy disk.

To install Windows XP Professional

1. On the Windows Setup screen, when prompted, press **Enter**.
2. To accept the End User License Agreement, press **F8**.
3. To create a disk partition, press **C**.
4. Use the drive letter **C:**, the Volume Label **SYSTEM**, and all available disk space.
5. To save the partition, press **Enter**.
6. Select **Format the Partition using NTFS File System** (the default) and press **Enter**.

The partition is formatted and files are copied. The computer then restarts.
7. For the Regional and Language options, select the country and language appropriate for the site where the client will be used. Click **Next**.

8. Follow the setup wizard using the selections specified on the order.

Organization Name	Site's name
Computer Name	As specified on order
Administration Password	As specified on order
Date and Time	As appropriate for the system
Networking	Typical
Workgroup/Domain	Talk to the site's IS department for the appropriate setting. If intending to use integrated Windows authentication, Domain must be used.

9. To restart the computer, click **Finish**.

After the computer has restarted, log into Windows as an administrator-level user.

Installing Windows XP SP3

(Topic number: 60672)

If using Windows XP, for added security, we recommend installing Service Pack 3.

To determine whether you require Windows XP SP3

1. Right-click **My Computer** and select **Properties**.
2. If **Service Pack 3** is listed under **System** on the General tab, you do not have to install it.
3. To close the dialog, click **OK**.

To install Windows XP SP3

1. Double-click the Windows XP SP3 executable (.exe) file.
2. To accept the license agreement, click **I Accept**.
3. Accept the defaults on each screen and click **Next**.

The installation process takes over an hour.

4. After the installation completes, to restart the system, click **Restart Now**.

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

Installing Microsoft Windows Vista

(Topic number: 49316)

Follow these instructions to install Microsoft Windows Vista for new Client workstations.



Note:

If the workstation is currently running a previous version of Windows and will be upgraded to Windows Vista, upgrade the operating system before installing the IMPAX Client (refer to page 25). Windows Vista is not a supported operating system for Standalone workstations.

To install Microsoft Windows Vista

1. Insert the Windows Vista DVD and restart the computer.
2. When prompted, press any key on the keyboard.
3. Follow the installation prompts.
4. Restart the computer.
5. After the computer has restarted, complete the configuration of Windows Vista (refer to page 39).

Organization Name:	Site's name
Computer Name:	As specified on order
Administration Password:	As specified on order
Date and Time:	As appropriate for the system
Networking:	Typical
Workgroup/Domain:	Talk to the site's IS department for the appropriate setting. If intending to use integrated Windows authentication, Domain must be used.

Switching to Windows Vista from Windows XP

(Topic number: 49319)

We recommend removing the previous operating system before installing Windows Vista.



Note:

You must be connected to the internet during the upgrade to Windows Vista.

To switch to Windows Vista from Windows XP

1. Backup all important files on the computer.
2. Uninstall the previous operating system from the computer.
3. Install Microsoft Windows Vista from the DVD (refer to page 24).

Installing Microsoft Windows 7

(Topic number: 104087)

Follow these instructions to install Microsoft Windows 7 for new Client workstations.

To install Microsoft Windows 7

1. Insert the Windows 7 DVD and restart the computer.
2. When prompted, press any key.
3. Follow the installation prompts.

For diagnostic review stations, you must select Windows 7 Professional 64-bit (single language support) or Windows 7 Ultimate 64-bit (multi-language support). For non-diagnostic review stations, other versions of Windows 7 can be used.

4. Restart the computer.
5. After the computer has restarted, complete the configuration of Windows 7 (refer to page 35).



Tip:

To view an extended context menu in Windows 7, press **Shift** + right-click; for example, press **Shift** + right-click a taskbar icon and select **Restore**.

Organization Name:	Site's name
Computer Name:	As specified on order
Administration Password:	As specified on order
Date and Time:	As appropriate for the system
Networking:	Typical
Workgroup/Domain:	Talk to the site's IS department for the appropriate setting. If intending to use integrated Windows authentication, you must use Domain.

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.

Installing video drivers

(Topic number: 7768)

If using Barco cards, you must install the current set of Barco drivers, which control the video boards. Follow the installation instructions you received with the Barco CD. For complete details, refer to the manufacturer's documentation.



Note:

If you are not using Barco cards, skip these installation instructions and continue with the next topic.

Installing a modem

(Topic number: 7681)

The modem is an optional component. If necessary, install the external modem according to the manufacturer's instructions.

Upgrading the Internet Explorer version

(Topic number: 131184)

If running an earlier version of Internet Explorer, we recommend that you upgrade the version. To verify which version of Internet Explorer is being used, start Internet Explorer and select **Help > About Internet Explorer**.

To upgrade the Internet Explorer version

1. Launch Internet Explorer on a computer connected to the Internet.
2. Go to
<http://windows.microsoft.com/en-US/internet-explorer/help>
3. Select the support version you want to upgrade to.
4. From this page, you can either download Internet Explorer or order it on CD.
5. Once you have obtained the software, run it on each server that needs upgrading.
6. To install the software, follow the on-screen prompts.

Installing Adobe Reader

(Topic number: 7679)



Note:

This installation procedure requires a direct Internet connection. If the system does not have a direct Internet connection, you can use a local Software Update Server instead. To set up a Software Update Server, contact your IT department.

The IMPAX 6.5.1 guides, quick references, and task summaries ship with the product in PDF format. To view and print the files, install the latest version of Adobe Reader.

To install Adobe Reader

1. Go to <http://get.adobe.com/reader>.
2. Clear the checkbox for optional software such as the Google Toolbar and McAfee Scan.
3. Click **Download now**.
4. Run the install executable.
5. In the Acrobat Reader Installation Wizard, select the appropriate options on each screen. After each selection, click **Next**.

Installing and configuring antivirus software

(Topic number: 10269)

Install and configure the antivirus software according to the manufacturer's instructions.



Note:

Once the IMPAX software is installed, create rules in the antivirus software to exclude IMPAX processes that are running on IMPAX Clients and Servers. For example, exclude .dcm and .inf files on IMPAX Client workstations and IMPAX web services on Application Servers.

Installing and using VNC ROI

(Topic number: 55096)

VNC stands for Virtual Network Computing. It is remote control software which allows you to view and fully interact with one computer desktop (the VNC server) using a simple program (the VNC viewer) on another computer desktop anywhere on the Internet. VNC can be used to select the region of interest for collaboration with other users of VNC.



Note:

All Client workstations using VNC ROI should be on the local network. VNC ROI should not be installed on remote Clients as security or performance may be adversely affected.

For instructions on installing and using VNC ROI, refer to the *VNC ROI Instructions document* (PDF).

Supporting integrated TalkStation

(Topic number: 7755)

If the TalkStation Client is to be installed on this workstation, you must also install the following Windows components.



Note:

IMPAX 6.5.1 supports integration with TalkStation 4.0.

Replacing an existing sound card or installing a new one

(Topic number: 7770)

For the TalkStation integration with IMPAX to work properly, you must install a sound card.

To replace an existing sound card or install a new one

1. Open Control Panel.
2. Select **Sounds and Audio Controls**.
3. Select the appropriate options for your sound card.

For details, refer to the sound card manufacturer's instructions.

Installing the microphone

(Topic number: 7772)

For the TalkStation integration with IMPAX to work properly, you must install the microphone.



CAUTION!

Exit from TalkStation before installing the SpeechMike. The keys are automatically mapped by TalkStation and will conflict with the installation.

To install the SpeechMike

1. From the TalkStation DVD, CD 1, or mapped network drive, navigate to **\SpeechMike\V2301405** and double-click **V2301405.exe**.
2. For details, refer to the manufacturer's instructions.

The SpeechMike has several buttons that may be mapped to TalkStation function keys. You can configure these settings after installing TalkStation. For suggested settings, refer to the *TalkStation 4.0 User Knowledge Base*.

To install a Labtec headset

1. Refer to the manufacturer's instructions.




Testing the sound system

(Topic number: 7754)

Once the sound card and microphone are installed successfully, verify that you can record audio.

To test the sound system

1. Restart the computer.

2. To open the Microsoft Sound Recorder, select **Start > All Programs > Accessories > Entertainment > Sound Recorder**.
3. If your microphone has an on/off power switch, ensure that it is on.
4. In the Sound Recorder dialog, click **Record**. 
5. Speak normally into the microphone for 2–3 seconds.
6. Click **Stop**. 
7. Click **Play**. 

You should hear your voice in a clear, audible tone. You should not hear excessive crackling or scratching. You should not have to turn the volume up high. If this is not the case:

- Check that the microphone is plugged into the appropriate jack in the sound card.
- Check that the microphone is on.
- Check that the sound card drivers are correctly installed and configured.
- Using the sound mixer, check that the microphone gain settings are adjusted properly.

Supporting integrated IMPAX Reporting

(Topic number: 107578)

If IMPAX Reporting is to be used as the reporting solution (that is, for creating reports, through either speech recognition or transcription), the Oracle Client, the SpeechMike, and the Speech client must be installed on this workstation.

The IMPAX Reporting supports Nuance SpeechMagic 5.1 and 6.1 SP2 Fix-pack 8 as its speech recognition software. Consult the *IMPAX RIS documentation* for more details.

Installing the Oracle Client

(Topic number: 114133)

The Oracle Client must be installed on the IMPAX Client workstation for any IMPAX Reporting integration. You must install Oracle Client 11 with OLEDB provider.

We recommend a minimum installation of the following Oracle Client components:

- SQL *Plus
- Oracle Windows interfaces (includes ODBC and OLE DB)
- Oracle .NET

We strongly recommend streamlining naming conventions in your TNSNAMES.ORA across the whole enterprise. Typically the IMPAX RIS database has the QPROD service name.



Important!

If the workstation's operating system is Windows Vista 64-bit, install Oracle Client 32-bit. The integrated solution does not work with Oracle Client 64-bit, because the IMPAX RIS components require 32-bit Oracle.

To install the Oracle Client

1. Install the Oracle Client software according to Oracle's installation instructions.

Installing and configuring the SpeechMike

(Topic number: 115249)

A SpeechMike must be installed on each workstation using IMPAX Reporting.

To install and configure the SpeechMike

1. For installation and configuration instructions, refer to the documentation accompanying the SpeechMike.

Installing the Speech client

(Topic number: 107581)

The Speech client must be installed on each workstation using IMPAX Reporting.



Note:

If you upgrade or reinstall Microsoft Word after the installation of the Speech client, you must reinstall the Speech client software to accept the upgraded Microsoft Word.

To install the Speech client

1. Refer to the *SpeechMagic Installation and Upgrade Guide* for current and complete instructions.



Note:

Always select **Speech Interactive**, even if the workstation is not used for online dictation (for example, only used for digital or offline dictation).

To check the Speech client installation

1. When the installation is complete, check the registry setting for COM Addins.

Operating system	COM Addins
Windows XP and Windows Vista 32-bit	[HKLM]/Software/Microsoft/Office/Word/Addins/SmIaWordDocumentAddin.Connect

Operating system	COM Addins
Windows Vista 64-bit and Windows 7	[HKLM]\Software \WOW6432Node \Microsoft\Office\Word\Addins\ SmIaWordDocumentAddin.Connect



Note:

The LoadBehavior must be set to 3. If it is set to 2, the addin has probably been disabled by Microsoft Word. To enable the COM Addin in Microsoft Word, from the Help menu, select **About Microsoft Office Word > Disabled Items**, select **COM Addins**, and click **Enable**.

2. Check if the Addin DLL is registered. If necessary, register the file manually:

regsvr32 SmIaWordDocumentAddin.dll

Installing Microsoft Word

(Topic number: 7756)

The IMPAX RIS Client software can be integrated with Microsoft Word; therefore, to fully support it, you should install Microsoft Word.



Note:

We recommend Microsoft Word 2003 SP3 or Microsoft Word 2007 SP1 for the IMPAX Reporting.

To install Microsoft Word

1. Refer to the installation instructions provided by Microsoft.
2. Once you have installed Word, launch it and accept the End User License Agreement.

Note the following when using Microsoft Word with IMPAX Reporting:

- To ensure optimal performance, you must optimize Microsoft Word. Refer to "Microsoft Word optimizations: Reference" (topic number 107256) in the *IMPAX 6.5.1 Client Knowledge Base: Extended*.
- The Microsoft Word templates cannot be on a shared drive. Ensure the templates are on a local drive for each Client.

Installing the hardlock driver

(Topic number: 10027)

The hardlock driver on the installation CD provided by HecTec does not work with Windows XP SP3. The problem can occur with standalone Agfa Orthopaedic Tools (AOT) v2.10 using the parallel or USB dongle, and with network Agfa Orthopaedic Tools (AOT) v2.10 using the USB dongle.

To install the hardlock driver

1. In Internet Explorer, navigate to:
`ftp://ftp.ealaddin.com/pub/aladdin.de/hardlock/hldinst.zip`
2. In the File Download dialog, click **Save**.
3. Save the hldinst.zip file to a location on the hard drive.
4. Open a command prompt.
5. At a command prompt, navigate to the directory where you stored the downloaded driver.
6. At a command prompt, type **hldinst -remove**.
7. At a command prompt, type **hldinst -install**.

Installing the smart card reader

(Topic number: 41227)

To authenticate users using a smart card, a smart card reader must be installed at each IMPAX Client station.

To install the smart card reader

1. For installation instructions, refer to the documentation accompanying the smart card reader.

Configuring the Windows operating system

3

We recommend changing certain default Microsoft® Windows® operating system settings to improve the display of images in the IMPAX Client, particularly on diagnostic monitors. We also recommend reviewing what languages are supported in the Client, Knowledge Base, and Administration Tools.

Windows: Order of configuration tasks

(Topic number: 49331)

You must configure Windows in the order it is listed. For more information on configuring the operating system, refer to the documentation provided with the software or consult the Microsoft website.

Windows XP

Configured	Task
	<i>Configuring the Windows XP Control Panel (refer to page 37)</i>
	<i>Overwriting Windows events as necessary (refer to page 40)</i>
	<i>Configuring Windows Explorer to show all files (refer to page 37)</i>
	<i>Creating a temporary directory (refer to page 38)</i>
	<i>Changing the desktop colors on Windows XP (refer to page 38)</i>
	<i>Enabling Automatic Updates for critical Windows XP or 2003 updates (refer to page 39)</i>
	<i>Changing the Windows taskbar settings (refer to page 45)</i>

Configured	Task
	<i>Enabling active content for the Knowledge Base</i> (refer to page 45)
	<i>Configuring languages on Windows XP</i> (refer to page 47)
	Optional: <i>Configuring the smart card removal behavior setting</i> (refer to page 55)

Windows Vista

Configured	Task
	<i>Switching to Windows Vista Control Panel classic view</i> (refer to page 39)
	<i>Overwriting Windows events as necessary</i> (refer to page 40)
	<i>Configuring Windows Explorer to show all files on Windows Vista</i> (refer to page 40)
	<i>Creating a temporary directory</i> (refer to page 40)
	<i>Disabling animation on Windows Vista</i> (refer to page 41)
	<i>Changing the desktop colors on Windows Vista</i> (refer to page 41)
	<i>Enabling Automatic Updates for critical Windows Vista updates</i> (refer to page 42)
	<i>Changing the Windows taskbar settings</i> (refer to page 45)
	<i>Enabling active content for the Knowledge Base</i> (refer to page 45)
	<i>Configuring languages on Windows Vista</i> (refer to page 50)
	Optional: <i>Configuring the smart card removal behavior setting</i> (refer to page 55)

Windows 7

Configured	Task
	<i>Configuring the Windows 7 Control Panel</i> (refer to page 42)
	<i>Overwriting Windows events as necessary</i>
	<i>Configuring Windows Explorer to show all files on Windows 7</i> (refer to page 43)
	<i>Creating a temporary directory</i> (refer to page 40)
	<i>Disabling animation on Windows 7</i> (refer to page 43)
	<i>Changing the desktop colors on Windows 7</i> (refer to page 44)
	<i>Enabling Automatic Updates for critical Windows 7 updates</i> (refer to page 44)
	<i>Changing the Windows taskbar settings</i> (refer to page 45)
	<i>Enabling active content for the Knowledge Base</i> (refer to page 45)
	<i>Configuring languages on Windows 7</i> (refer to page 53)
	Optional: <i>Configuring the smart card removal behavior setting</i> (refer to page 55)

Completing other initial Windows XP configurations

(Topic number: 7729)

We also recommend the following Windows configurations.

Configuring the Windows XP Control Panel

(Topic number: 7806)

By default, Windows XP uses different Control Panel categories than previous releases of Windows. To follow the procedures in this guide, change it to display the classic Windows categories instead.

To configure the Windows XP Control Panel

1. Open Control Panel.
2. In the left pane, under Control Panel, select **Classic View**.

The Control Panel window refreshes to display the same categories as in previous releases of Windows. In the left pane, **Icon View** is displayed under the Control Panel heading.

Overwriting Windows events as necessary

(Topic number: 47540)

IMPAX functions better when Windows events are overwritten as needed.

To overwrite Windows events as necessary

1. Open the Windows Administrative Tools and select **Event Viewer**.
2. Complete the following steps for each log under Windows logs and Application and Services logs in the Event Viewer:
 - a. Right-click the log and select **Properties**.
 - b. Under Log Size, select **Overwrite events as needed**. Click **OK**.

Configuring Windows Explorer to show all files

(Topic number: 47547)

We recommend that you display all available files in Windows Explorer.

To configure Windows Explorer to show all files

1. Open Windows Explorer.
2. Select **Tools > Folder Options**.
3. Switch to the **View** tab.

4. Under Files and Folders, select **Show hidden files and folders**.
5. Clear the **Hide extensions for known file types** checkbox.
6. To save the changes, click **OK**.

Creating a temporary directory

(Topic number: 47571)

Having a temporary directory on the server can be useful for storing files in the short term.

To create a temporary directory

1. In Windows Explorer, select the **C:** drive.
2. Select **File > New > Folder**.
3. Rename the new folder as **temp**.

Changing the desktop colors on Windows XP

(Topic number: 7739)

The default desktop colors for windows and title bars may be too bright for the lighting conditions in reading rooms, particularly on diagnostic monitors. You can change these colors as needed.

To change the desktop colors on Windows XP

1. Open Control Panel.
2. Select **Display**.
3. In the Display Properties dialog, switch to the **Appearance** tab.
4. Click **Advanced**.
5. To change the background color of windows and dialogs, from the Item list, select **Window**.
By default, windows and dialogs are pure white. White is very bright on diagnostic monitors.
6. Click **Color 1** and select an alternative color, such as gray or off-white.
7. To change the title bar color, from the Item list, select **Active Title Bar**.
Title bars are bright blue by default.
8. Click **Color 1** and select an alternative color, such as dark blue or black.
9. To change the color of title bar text, click **Font Color** and select an alternative color, such as off-white.
By default, the title bar text is white.
10. When done, click **OK**.

After a short delay, Windows is refreshed to use the new color scheme.

Enabling Automatic Updates for critical Windows XP or 2003 updates

(Topic number: 7701)

Automatic Updates allow Microsoft to automatically determine what critical system updates are needed for a system and to automatically download those updates. Only patches that Microsoft deems as critical system updates are downloaded. Critical updates are downloaded to C:\Program Files\WindowsUpdate\V4. When updates are downloaded, the Automatic Updates icon appears in the Windows taskbar.

If a critical update has a negative effect on the system, the critical update can be uninstalled using the Windows Add or Remove Programs dialog. Overall, Agfa believes that the risk to patient information is far greater if the system is not patched and does not have the prescribed critical system updates.

To enable Automatic Updates for critical Windows XP or 2003 updates

1. Open Control Panel.
2. Select **System**.
3. Switch to the **Automatic Updates** tab.
4. Select **Download updates for me, but let me choose when to install them**.
5. To apply the changes, click **OK**.

Completing other initial Windows Vista configurations

(Topic number: 49322)

We also recommend the following Windows configurations.

Switching to Windows Vista Control Panel classic view

(Topic number: 49271)

By default, Windows Vista uses different Control Panel categories than previous releases of Windows. To make it easier to follow the procedures in this guide, change the Control Panel to display the classic Windows categories instead.

To switch to Windows Vista Control Panel classic view

1. Open Control Panel.
2. In the left pane, under Control Panel, select **Classic View**.

The Control Panel window refreshes to display the same categories as in previous releases of Windows. In the left pane, **Classic View** is selected.

Overwriting Windows events as necessary

(Topic number: 47540)

IMPAX functions better when Windows events are overwritten as needed.

To overwrite Windows events as necessary

1. Open the Windows Administrative Tools and select **Event Viewer**.
2. Complete the following steps for each log under Windows logs and Application and Services logs in the Event Viewer:
 - a. Right-click the log and select **Properties**.
 - b. Under Log Size, select **Overwrite events as needed**. Click **OK**.

Configuring Windows Explorer to show all files on Windows Vista

(Topic number: 49274)

We recommend that you display all available files in Windows Explorer.

To configure Windows Explorer to show all files on Windows Vista

1. Open Control Panel.
2. Select **Folder Options**.
3. Switch to the **View** tab.
4. Under Files and Folders, select **Show hidden files and folders**.
5. Clear the **Hide extensions for known file types** checkbox.
6. To save the changes, click **OK**.

Creating a temporary directory

(Topic number: 49277)

Having a temporary directory on the server can be useful for storing files that you do not have to keep long-term.

To create a temporary directory

1. In Windows Explorer, select the C: drive.
2. Under Organize, select **New Folder**.
3. Rename the new folder **temp**.

Disabling animation on Windows Vista

(Topic number: 67266)

To ensure optimal performance of the IMPAX Client, we recommend disabling animation (such as fading in and out of dialog boxes, rounding of corners, and so on) on Windows Vista.

To disable animation on Windows Vista

1. Open Control Panel.
2. Select **System**.
3. Select **Advanced system settings**.
4. In the System Properties dialog, under Performance, click **Settings**.
5. In the Performance Options dialog, select **Adjust for best performance**.
6. When done, click **OK**.
7. When done, in the System Properties dialog, click **OK**.

Changing the desktop colors on Windows Vista

(Topic number: 49283)

The default desktop colors for windows and title bars may be too bright for the lighting conditions in reading rooms, particularly on diagnostic monitors. You can change these colors as needed.

To change the desktop colors on Windows Vista

1. Open Control Panel.
2. Select **Personalization**.
3. Select **Window Color and Appearance**.
4. Select **Open classic appearance properties for more color options**.
5. Click **Advanced**.
6. To change the background color of windows and dialogs, from the Item list, select **Window**.
By default, windows and dialogs are pure white. White is very bright on diagnostic monitors.
7. Click **Color 1** and select an alternative color, such as gray or off-white.
8. To change the title bar color, from the Item list, select **Active Title Bar**.
Title bars are blue by default.
9. Click **Color 1** and select an alternative color, such as dark blue or black.
10. When done, click **OK**.
After a short delay, Windows displays the new color scheme.

Enabling Automatic Updates for critical Windows Vista updates

(Topic number: 113245)

Automatic Updates allow Microsoft to automatically determine what critical system updates are needed for a system and to automatically download those updates. Only patches that Microsoft deems as critical system updates are downloaded. Critical updates are downloaded to C:\Program Files\WindowsUpdate\V4. When updates are downloaded, the Automatic Updates icon appears in the Windows taskbar.

If a critical update has a negative effect on the system, the critical update can be uninstalled using the Windows Add or Remove Programs dialog. Overall, Agfa believes that the risk to patient information is far greater if the system is not patched and does not have the prescribed critical system updates.

To enable Automatic Updates for critical Windows Vista updates

1. Open Control Panel.
2. Select **System and Maintenance**.
3. Select **Windows Update**.
4. In the left-hand pane, click **Change Settings**.
5. Select **Download updates for me, but let me choose when to install them**.
6. To apply the changes, click **OK**.

Completing other initial Windows 7 configurations

(Topic number: 104090)

We also recommend the following Windows configurations.

Configuring the Windows 7 Control Panel

(Topic number: 104095)

By default, Windows 7 uses different Control Panel categories than previous releases of Windows. To make it easier to follow the procedures in this guide, change the Control Panel to display all Control Panel items.

To configure the Windows 7 Control Panel

1. Open Control Panel.
2. From the View by list, select **Small icons** or **Large icons** (depending on user preference).
The Control Panel window refreshes to display each available Control Panel item.

Configuring Windows Explorer to show all files on Windows 7

(Topic number: 104101)

We recommend that you display all available files in Windows Explorer.

To configure Windows Explorer to show all files on Windows 7

1. Open Control Panel.
2. Click **Appearance and Personalization**.
3. Select **Folder Options**.
4. Switch to the **View** tab.
5. Under Files and Folders, select **Show hidden files, folders, and drives**.
6. Clear the **Hide extensions for known file types** checkbox.
7. Click **OK**.

Creating a temporary directory

(Topic number: 104107)

Having a temporary directory on the server can be useful for storing files that you do not have to keep long-term.

To create a temporary directory

1. In Windows Explorer, select the C: drive.
2. Click **New Folder**.
3. Rename the new folder **temp**.

Disabling animation on Windows 7

(Topic number: 104110)

To ensure optimal performance of the IMPAX Client, we recommend disabling animation (such as fading in and out of dialog boxes, rounding of corners, and so on) on Windows 7.

To disable animation on Windows 7

1. Open Control Panel.
2. Select **System and Security**.
3. Select **System**.
4. Select **Advanced system settings**.
5. In the System Properties dialog, under Performance, click **Settings**.
6. In the Performance Options dialog, select **Adjust for best performance**.

7. When done, click **OK**.
8. When done, in the System Properties dialog, click **OK**.

Changing the desktop colors on Windows 7

(Topic number: 104113)

The default desktop colors for windows and title bars may be too bright for the lighting conditions in reading rooms, particularly on diagnostic monitors. You can change these colors as needed.

To change the desktop colors on Windows 7

1. Open Control Panel.
2. Select **Appearance and Personalization**.
3. Select **Window Color**.
4. To change the background color of windows and dialogs, from the Item list, select **Window**.
By default, windows and dialogs are pure white. White is very bright on diagnostic monitors.
5. Click **Color 1** and select an alternative color, such as gray or off-white.
6. To change the title bar color, from the Item list, select **Active Title Bar**.
Title bars are blue by default.
7. Click **Color 1** and select an alternative color, such as dark blue or black.
8. When done, click **OK**.

After a short delay, Windows displays the new color scheme.

Enabling Automatic Updates for critical Windows 7 updates

(Topic number: 104367)

Automatic Updates allow Microsoft to automatically determine what critical system updates are needed for a system and to automatically download those updates. Only patches that Microsoft deems as critical system updates are downloaded. Critical updates are downloaded to C:\Program Files\WindowsUpdate\V4. When updates are downloaded, the Automatic Updates icon appears in the Windows taskbar.

If a critical update has a negative effect on the system, the critical update can be uninstalled using the Windows Add or Remove Programs dialog. Overall, Agfa believes that the risk to patient information is far greater if the system is not patched and does not have the prescribed critical system updates.

To enable Automatic Updates for critical Windows 7 updates

1. Open the Control Panel.
2. Select **System and Security**.
3. Click **Windows Update**.
4. Click **Change Settings**.

5. Select **Download updates for me, but let me choose when to install them**.
6. To apply the changes, click **OK**.

Changing the Windows taskbar settings

(Topic number: 7986)

To ensure that the IMPAX taskbar is always shown in the Image area, change the properties of the Windows taskbar. Otherwise, some IMPAX features may get hidden behind the taskbar and thus be inaccessible.



Note:

Windows 7 has a translucent taskbar and this procedure can be skipped.

To change the Windows taskbar settings

1. Right-click the Windows taskbar and select **Properties**.
2. Clear the **Keep the taskbar on top of other windows** and **Auto-hide the taskbar** checkboxes.
3. Click **OK**.

Enabling active content for the Knowledge Base

(Topic number: 7700)

In Internet Explorer 7, all scripts on web pages are blocked by default. The IMPAX Knowledge Bases use JavaScript for their Search functionality and to render glossary definition popups. If JavaScript is blocked by the browser, when you view a Knowledge Base page, the definitions of the glossary terms rendered with JavaScript cannot be viewed, and searching is impossible. Therefore, enable active content.

Enabling local access to Knowledge Bases

(Topic number: 10017)

To access the Knowledge Base from the IMPAX Documentation DVD or from a local drive, you must allow active content (including JavaScript) to run locally.

To enable local access to Knowledge Bases

1. In Internet Explorer, select **Tools > Internet Options**.
2. In the Internet Options dialog, switch to the **Advanced** tab.
3. Under Security, select the **Allow active content from CDs to run on My Computer** and the **Allow active content to run in files on My Computer** checkboxes. Click **OK**.

4. For the changes to take effect, close and restart Internet Explorer.

You can now run the Knowledge Bases from the DVD or from a local drive.

Enabling remote access to Knowledge Bases

(Topic number: 10019)

Perform this task to access Knowledge Bases installed on a different server (such as the Application Server).

To enable remote access to Knowledge Bases

1. In Internet Explorer, select **Tools > Internet Options**.
2. In the Internet Options dialog, switch to the **Security** tab.
3. Select **Trusted sites**.
4. Click **Sites**.
5. In the Trusted sites dialog, if you are connecting to the Knowledge Base using http:// rather than https://, clear the **Require server verification (https:) for all sites in this zone** checkbox.
We recommend that https:// be used.
6. In the Add this website to the zone field, type or paste the name of the Application Server that the Knowledge Bases are installed on (**https://server_name**).
7. Click **Add**.
8. Click **Close**.
9. Click **Custom Level**. In the Security Settings dialog, under Scripting, ensure that **Active scripting** is enabled. Click **OK**.
10. Click **OK**.

Configuring system languages

(Topic number: 10091)

You can display the IMPAX Client interface and Knowledge Base and the Administration Tools interface in various languages:

Bulgarian	Finnish	Polish
Chinese (Simplified and Traditional)	French	Portuguese
Croatian	German	Romanian
Czech	Hungarian	Russian
Danish	Italian	Spanish
Dutch	Norwegian	Swedish

The language used is based on the Windows regional settings. Some initial Windows configuration is therefore required.

Configuring languages on Windows XP

(Topic number: 7966)

Information about Windows Vista language configuration can be found in *Configuring languages on Windows Vista* (refer to page 50). Information about Windows 7 language configuration can be found in *Configuring languages on Windows 7* (refer to page 53).

To configure languages on Windows XP

1. Install East Asian language files (refer to page 47) (if these languages are required)
2. Add all required languages (refer to page 48)
3. Select the region for the IMPAX Client (refer to page 49)
4. Optionally, enable language switching (refer to page 49) from the Windows taskbar

Installing East Asian language files

(Topic number: 49289)

Install East Asian files only if entering or receiving text in Chinese (Simplified or Traditional). To install these files, you must be logged into Windows as an administrator-level user.

The East Asian files require approximately 230 MB hard disk space. Input Method Editors are also installed for each language.

To install East Asian language files

1. Open Control Panel.
2. Select **Regional and Language Options**.
3. Switch to the **Languages** tab.
4. Under Supplemental language support, select the **Install files for East Asian languages** checkbox.
5. If Thai is required, also select the **Install files for complex script and right-to-left languages (including Thai)** checkbox.
6. At the prompt, confirm the selection.
7. Click **OK** or **Apply**.
8. At the prompt, insert the Windows CD or browse to a network location where the files are located.

The language files are installed.

9. Restart the computer.

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

Setting the Client interface language on Windows XP

(Topic number: 49292)

The IMPAX Client is available in 20 languages: Bulgarian, Chinese (Simplified), Chinese (Traditional), Croatian, Czech, Danish, Dutch, English, Finnish, French, German, Hungarian, Italian, Norwegian, Polish, Portuguese, Romanian, Russian, Spanish, and Swedish.

The interface language used is determined by the Language settings in Windows. To view the Client in a different language than it is currently appearing in, you must change these settings. Add no more languages than are required; each language is loaded into memory when the computer starts, potentially affecting processing speed.



Note:

If the user name contains special characters due to language settings, images cannot be calibrated. Ensure that the system locale is changed to handle any special characters for a particular language.

To set the Client interface language on Windows XP

1. Open Control Panel.
2. Select **Regional and Language Options**.
3. Switch to the **Languages** tab.
4. Under Text services and input languages, click **Details**.
5. Under Installed services, click **Add**.
6. From the Input language list, select the language to add.
7. From the Keyboard Layout/IME list, select the keyboard type for this workstation. Click **OK**.
This option defines what keys are listed in the Keys list when defining IMPAX Client keyboard shortcuts, when this language is used. (For Dutch and the East-Asian languages, English key names are always used.)
8. To add other languages, repeat steps 5–7.



Note:

It may be necessary to first download and install a language (MUI) pack using Windows Update.

9. Under Default input language, select the language to use by default—the one required most often.
10. Click **OK**.
11. Restart the station.
12. Log into the IMPAX Client.

The language used for Client should now match the language selected in Control Panel.

Selecting the region for the IMPAX Client

(Topic number: 49295)

While the IMPAX Client interface can be displayed in various languages, it should be set to one region—normally, the one that matches its geographic location. The region setting affects how numbers, dates, and currencies are displayed.

To select the region for the IMPAX Client

1. In the Regional and Language Options dialog, switch to the **Regional Options** tab.
2. From the Standards and formats list, select the region to use.
If you would like to choose your own format, click **Customize**.
3. Click **Apply**.
4. Switch to the **Advanced** tab.
5. To ensure that installation and updates work correctly, from the Language for non-Unicode programs list, select the same language selected as the region.
6. Click **Apply**. Click **OK**.

Enabling language switching from the taskbar on Windows XP

(Topic number: 49298)

If this workstation will be used by speakers of various languages, it would be beneficial to make language switching available from the taskbar.

To enable language switching from the taskbar on Windows XP

1. Open Control Panel.
2. Select **Regional and Language Options**.
3. Switch to the **Languages** tab.
4. Under Text services and input languages, click **Details**.
5. Under Preferences, click **Language Bar**.
6. Select the **Show the Language bar on the desktop** checkbox.
7. Select the **Show additional Language bar icons in the taskbar** checkbox.
8. Click **OK** three times.

A floating Language Bar appears on the desktop.

9. To have the Language Bar appear on the taskbar instead, minimize the floating bar.

Users can then change the Windows language by clicking on the language icon in the taskbar and selecting a different language.

Configuring languages on Windows Vista

(Topic number: 49301)

Information on Windows XP language configuration can be found in *Configuring languages on Windows XP* (refer to page 47). Information on Windows 7 language configuration can be found in *Configuring languages on Windows 7* (refer to page 53).

To configure languages on Windows Vista

1. Install East Asian language files (refer to page 50) (if these languages are required).
2. Add all required languages (refer to page 51).
3. Select the region for the IMPAX Client (refer to page 52).
4. Optionally, enable language switching (refer to page 52) from the Windows taskbar.

Installing East Asian language files

(Topic number: 49304)

Install East Asian files only if entering or receiving text in Chinese (Simplified or Traditional). The files require approximately 230 MB hard disk space. Input Method Editors are also installed for each language.



Note:

The Display Language section is only available if you have already installed a Language Interface Pack (LIP) or your edition of Windows Vista supports Multilingual User Interface Pack (MUI). MUI packs are only available for Windows Vista Ultimate and Windows Vista Enterprise.

To install East Asian language files

1. Log into Windows as an administrator.
2. Open Control Panel.
3. Select **Regional and Language Options**.
4. Switch to the **Keyboard and Languages** tab.
5. Under Supplemental language support, select the **Install files for East Asian languages** checkbox.
6. If Thai is required, also select the **Install files for complex script and right-to-left languages (including Thai)** checkbox.
7. At the prompt, confirm the selection.
8. Click **OK** or **Apply**.
9. At the prompt, insert the Windows CD in the CD-ROM drive or browse to a network location where the files are located.

The language files are installed.

- Restart the computer.

Adding all required languages and selecting a default language on Windows Vista

(Topic number: 49307)

If you expect IMPAX to be accessed in more than one language on this workstation, you must add each language through the Windows Control Panel. Add no more languages than are required; each language is loaded into memory when the computer starts, potentially affecting processing speed.



Note:

If the user name contains special characters due to language settings, images cannot be calibrated. Ensure that the system locale is changed to handle any special characters for a particular language.

To add all required languages and select a default language on Windows Vista

- Open Control Panel.
- Select **Regional and Language Options**.
- Switch to the **Keyboard and Languages** tab.
- Click **Change keyboards**.
- Switch to the **General** tab.
- Under Default input language, select the language to use by default—the one required most often.
- Under Installed services, click **Add**.
- From the language list, select the language to add.



Note:

It may be necessary to first download and install a language (MUI) pack using Windows Update.

- From the Keyboard Layout/IME list, select the keyboard type for this workstation. Click **OK**.
This option specifies the keys in the Keys list that define IMPAX Client keyboard shortcuts when this language is used. (For Dutch and the East-Asian languages, English key names are always used.)
- To add other languages, repeat steps 5–7.
- Click **OK**.

Selecting the region for the IMPAX Client

(Topic number: 49310)

While the IMPAX Client interface can be displayed in various languages, it should be set to one region—normally, the one that matches its geographic location. The region setting affects how numbers, dates, and currencies are displayed.

To select the region for the IMPAX Client

1. In the Regional and Language Options dialog, switch to the **Formats** tab.
2. From the **Current format** list, select the region to use.
If you would like to choose your own format, click **Customize this format**.
3. Click **Apply**.
4. Switch to the **Administrative** tab.
5. To ensure that installation and updates work correctly, in the **Language for non-Unicode programs** area, verify the Current language for non-Unicode programs is the same language selected in step 2.
6. Click **Apply**. Click **OK**.

Enabling language switching from the taskbar on Windows Vista

(Topic number: 49313)

If this workstation will be used by speakers of various languages, make language switching available from the taskbar.

To enable language switching from the taskbar on Windows Vista

1. Open Control Panel.
2. Select **Regional and Language Options**.
3. Switch to the **Keyboards and Languages** tab.
4. Click **Change keyboards**.
5. In the Text Services and Input Languages dialog, switch to the **Language Bar** tab.
6. In the Language Bar area, select **Floating On Desktop**.
7. Select the **Show additional Language bar icons in the taskbar** checkbox.
8. Click **OK** twice.

A floating Language Bar appears on the desktop.

9. To have the Language Bar appear on the taskbar instead, minimize the floating bar.

To change the Windows language, users can click the language icon in the taskbar and select a different language.

Configuring languages on Windows 7

(Topic number: 104328)

Information on Windows XP language configuration can be found in *Configuring languages on Windows XP* (refer to page 47). Information on Windows Vista language configuration can be found in *Configuring languages on Windows Vista* (refer to page 50).

To configure languages on Windows 7

1. Install East Asian language files (refer to page 53) (if these languages are required).
2. Add all required languages (refer to page 53).
3. Select the region for the IMPAX Client (refer to page 54).
4. Optionally, enable language switching (refer to page 54) from the Windows taskbar.

Installing East Asian language files

(Topic number: 104334)

Install East Asian files only if entering or receiving text in Chinese (Simplified or Traditional). Windows 7 Multilingual User Interface (MUI) files require a license to be used. Contact Microsoft to obtain a license for East Asian files.

Adding all required languages and selecting a default language on Windows 7

(Topic number: 104337)

If you expect IMPAX to be accessed in more than one language on this workstation, you must add each language through the Windows Control Panel. Add no more languages than are required; each language is loaded into memory when the computer starts, potentially affecting processing speed.



Note:

If the user name contains special characters due to language settings, images cannot be calibrated. Ensure that the system locale is changed to handle any special characters for a particular language.

To add all required languages and select a default language on Windows 7

1. Open Control Panel.
2. Select **Region and Language**.
3. Switch to the **Keyboard and Languages** tab.
4. Click **Change keyboards**.
5. Switch to the **General** tab.
6. Under Default input language, select the language to use by default—the one required most often.

7. Under Installed services, click **Add**.
8. From the language list, expand the language to add.



Note:

It may be necessary to first download and install a language (MUI) pack via Windows Update.

9. Expand **Keyboard**.
10. From the Keyboard list, select the keyboard type for this workstation. Click **OK**.
This option specifies the keys in the Keys list that define IMPAX Client keyboard shortcuts when this language is used. (For Dutch and the East-Asian languages, English key names are always used.)
11. To add other languages, repeat the previous three steps.
12. Click **OK**.

Selecting the region for the IMPAX Client

(Topic number: 104343)

While the IMPAX Client interface can be displayed in various languages, it should be set to one region—normally, the one that matches its geographic location. The region setting affects how numbers, dates, and currencies are displayed.

To select the region for the IMPAX Client

1. In the Region and Language dialog, switch to the **Formats** tab.
2. From the Format list, select the region to use.
3. Click **Apply**.
4. Switch to the **Administrative** tab.
5. To ensure that installation and updates work correctly, under Language for non-Unicode programs, verify that the Current language for non-Unicode programs is the same as the region selected in step 2.
6. Click **Apply**. Click **OK**.

Enabling language switching from the taskbar on Windows 7

(Topic number: 104355)

If this workstation will be used by speakers of various languages, make language switching available from the taskbar.

To enable language switching from the taskbar on Windows 7

1. Open Control Panel.
2. Select **Region and Language**.

3. Switch to the **Keyboards and Languages** tab.
4. Click **Change keyboards**.
5. Switch to the **Language Bar** tab.
6. Under Language Bar, select **Floating On Desktop**.
7. Select the **Show additional Language bar icons in the taskbar** checkbox.
8. Click **OK** twice.

A floating Language Bar appears on the desktop.

9. To have the Language Bar appear on the taskbar instead, minimize the floating bar.

To change the Windows language, users can click the language icon in the taskbar and select a different language.

Configuring the smart card removal behavior setting

(Topic number: 67001)

The smart card removal behavior setting tells Windows how to react when users remove their smart cards from the reader.

To configure the smart card removal behavior setting

1. Open the Windows Administrative Tools.
2. Select **Domain Security Settings**.
3. Expand the Local Policies folder.
4. Select **Security Options**.
5. From the right-hand pane, right-click **Interactive logon: Smart card removal behavior** and select **Properties**.
6. Select **Define this policy setting**.
7. From the list, select one of the following choices:
 - **No Action**—Windows takes no action, which causes the user to remain logged into the IMPAX Client. We do **not** recommend this option.
 - **Lock Workstation**—Windows locks the workstation but does not log the user out of the IMPAX Client. If the IMPAX Client remains idle for a certain period of time, the user is logged out automatically.
 - **Force Logoff**—Windows forces the user to log out of both the IMPAX Client and Windows.
8. Click **OK**.

Installing the IMPAX Client software

4

The following information explains how to install the IMPAX Client software, including setting up an Installation Server. It also explains how to automate the installation of the IMPAX Client software.

IMPAX Client installation types: Reference

(Topic number: 46790)

The following provides an overview of the different types of installation available for the IMPAX Client.

- **IMPAX Client Installation CD**—The default InstallShield package provided by Agfa.
- **Installation Server**—A web page with links to each installer and installation instructions that allow users to download and install Client software and updates.
- **Portable installation CD**—A portable IMPAX Client installation CD that contains all prerequisite and IMPAX Client software. The script can be customized to identify the Application Server and authentication type, making the installation silent.
- **Silent or Automated installation**—A command line process that installs the IMPAX Client using the default IMPAX Client installation CD or IMPAX Installation Server silent, or automated. The various installation settings and their values can be specified eliminating the need for any user input during the installation.
- **Automatic Client Updates**—Background updates of the IMPAX Client that are automatically sent to each IMPAX Client workstation.

Installing the IMPAX Installation Server

(Topic number: 7773)

You can choose to install the IMPAX Client software onto each workstation from CD, in which case you can skip this procedure and continue with *Installing the IMPAX Client* (refer to page 75).

Alternatively, you can set up an IMPAX Installation Server by running the IMPAXInstallationServerSetup.exe on a Windows-based server.

Setting up the Installation Server makes it easier to install the Client software from a central website. You can also use it to install updates to the Client software when they become available throughout the site and to remote Clients. (Details regarding how to update Clients are provided in *Configuring automatic Client updates* (refer to page 81).)

You may choose to install the Installation Server program on an IMPAX Application Server (in which case you can continue with *Running the IMPAX Installation Server package* (refer to page 61)) or on a separate, dedicated Windows-based server.



Note:

If your site has a large number of IMPAX Clients, or they are regularly updated, using an Application Server as an Installation Server may affect the performance of Clients connected to that Application Server. This is because the Clients all check for a new version every 30 minutes and, although staggered, performance issues have been reported when many Clients are downloading the new IMPAX Client software.

Therefore, we recommend:

- Using a third-party software distribution application (for example, Microsoft SMS or Altiris) to avoid saturation of the Application Server. Consult your regional Agfa representative for options.
- Placing the Installation Server on a dedicated server.

If you choose to install the IMPAX Installation Server package on a dedicated server, use the Web Server Certificate Wizard to create a certificate request to submit to a trusted certificate authority, and install the certificate. You must install the SSL certificate on the dedicated server before installing the IMPAX Installation Server package.

The Installation Server Setup package contains:

- The installers (or links) for the IMPAX Client prerequisites:
 - .NET Framework 3.5 SP1
 - Visual C++ 9.0 SP1
 - DirectX
- The IMPAX Client Installer

- A web page with links to:
 - IMPAX Client system requirements
 - IMPAX Client installation instructions (available in 19 languages)
 - Links to the IMPAX Client Installer
 - Links to the individual prerequisites

Installing an SSL certificate on a dedicated server

(Topic number: 7786)



Important!

This procedure does not need to be completed if the IMPAX Installation Server is being installed on an IMPAX Application Server.

The IMPAX Installation Server cannot be used without an SSL certificate. Purchase a 128-bit encrypted SSL certificate from a trusted Certificate Authority to guarantee the security of users accessing IMPAX using a remote Client.

Creating an SSL certificate request

(Topic number: 51218)

Generate a certificate request that can be submitted to a trusted certificate authority. 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.

To create an SSL certificate request

1. On the desktop, select **Start > Administrative Tools > Internet Information Services (IIS) Manager**.
2. In the Internet Information Services (IIS) Manager dialog, expand **local computer > Web Sites**.
3. Right-click **Default Web Site** and select **Properties**.
4. In the Default Web Site Properties dialog, switch to the **Directory Security** tab.
5. Click **Server Certificate**.
6. In the Welcome to the Web Server Certificate Wizard dialog, click **Next**.
7. In the Server Certificate dialog, select **Create a new certificate**. Click **Next**.
8. In the Delayed or Immediate Request dialog, select **Prepare the request now, but send it later**. Click **Next**.
9. In the Name and Security Settings dialog, in the **Name** field, type a name for the new certificate. From the **Bit length** list, select **1024**. Click **Next**.

10. In the Organization Information dialog, type the name of your **Organization** and **Organizational unit**. Click **Next**.
11. In the Your Site's Common Name dialog, type the fully qualified domain name of the machine if it is not already present by default.

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.
12. Click **Next**.
13. In the Geographical Information dialog, type or select the **Country/Region, State/province,** and **City/locality** information for your site. Click **Next**.
14. In the Certificate Request File Name dialog, type a location and name for the request file.

The default file name is c:\certreq.txt. To avoid overwriting certificate request files, ensure that each request file has a unique name.
15. Click **Next**.
16. In the Request File Summary dialog, confirm that all the information is correct. Click **Next**.
17. In the Completing the Web Server Certificate Wizard dialog, click **Finish**.
18. Open the certificate request file and copy the information in the file to the Clipboard so that it can be pasted into the certificate authority's online application form.

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.

Submitting a certificate request to a certificate authority

(Topic number: 11411)

You cannot use a dedicated IMPAX Installation Server 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.
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 59).
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.

Importing an SSL Certificate

(Topic number: 51227)

Once you have received an SSL certificate from the certificate authority, you must import it onto the computer.

To import the SSL certificate

1. On the desktop, select **Start > Administrative Tools > Internet Information Services (IIS) Manager**.
2. In the Internet Information Services (IIS) Manager dialog, expand **local computer > Web Sites**.
3. Right-click **Default Web Site** and select **Properties**.
4. In the Default Web Site Properties dialog, switch to the **Directory Security** tab.
5. Click **Server Certificate**.
6. On the Web Server Certificate Wizard Welcome screen, click **Next**.
7. In the Pending Certificate Request dialog, select **Process the pending request and install the certificate**. Click **Next**.
8. In the Process a Pending Request dialog, type the location and file name for the pending certificate. Click **Next**.

9. In the SSL Port dialog, in the **SSL port this web site should use** field, accept the default of 443. Click **Next**.
10. In the Certificate Summary dialog, confirm that all the information is correct. Click **Next**.
11. In the Completing the Web Server Certificate Wizard dialog, click **Finish**.
12. Open the Default Web Site Properties dialog, if it is not already open, and switch to the **Directory Security** tab.
13. Click **View Certificate**.
14. In the Certificate dialog, switch to the **General** tab, and confirm that the statement “You have a private key that corresponds to this certificate” exists.

You can now install the IMPAX Installation Server package on this Server.

Running the IMPAX Installation Server package

(Topic number: 7758)



CAUTION!

Do not install the IMPAX Installation Server on a standalone IMPAX workstation (a workstation running the AS300, Application Server, and Client software).

The following explains how to install the IMPAX Installation Server to use as a distribution tool for Client installations and updates.

To run the IMPAX Installation Server package

1. From the IMPAX Client CD or a network location, run **IMPAXInstallationServerSetup.exe**.
A Preparing to install message appears.
2. On the Welcome to the InstallShield Wizard for IMPAX Installation Server screen, click **Next**.
3. To install the application into C:\Inetpub\wwwroot\ClientInstaller, 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**.

4. On the Ready to Install the Program screen, click **Install**.
The first installer runs.
5. On the Installation Wizard Completed screen, click **Finish**.
Another installer starts. (It may start before the first one finishes.) The second one opens a command prompt that creates a manifest file.
6. On the second Installation Wizard Completed screen, click **Finish**.
In the folder where the application was installed, several subfolders appear, including:

- de, en, es, fr, and other two-letter country codes—each containing a web page that users can point to for a link to the executable and instructions for installing the IMPAX Client. A file folder exists for each language that IMPAX supports. (More details are available in *Configuring system languages* (refer to page 46).)
- redistrib—contains the .NET Framework installers.
- installer—contains the ImpaxClientSetup.exe, the IMPAX Client installation software.

For the updater service, which allows all installed Clients to receive automatic updates, public and private key pairs are installed in C:\Program Files\Agfa\IMPAX Client, as described in *Configuring automatic Client updates* (refer to page 81).

Accessing the Client Installer page

(Topic number: 56669)

The Client Installer page contains instructions for installing the IMPAX Client. These instructions are available in 24 languages. Details on how to change the language are available in *Changing the default language of the Client Installer page* (refer to page 86).

To access the Client Installer page

1. In the address field of a browser, type:

```
https://<install_server_name>/clientinstaller
```

Where *<install_server_name>* is the name of the IMPAX Installation Server.

Creating an IMPAX Client installation CD

(Topic number: 10048)

CAUTION!

To create an IMPAX Client installation CD, you must perform these steps on a computer with a CD burner installed.

Use the following instructions to create a portable IMPAX Client installation CD. This CD contains all prerequisite software and the IMPAX Client installation package. You can also customize the C:\client\impax-client-setup_impax65Se_<build_number>\InstallCD\script.vbs file (default location) to identify the Application Server name and authentication type, making the installation silent. Before creating the CD, contact your Agfa representative for the files required to create the CD.

To create an IMPAX Client installation CD

1. Contact your Agfa representative for the files required to create the CD.
2. From the IMPAX Client CD-ROM or a network location, navigate to **\InstallCD**.

3. Copy the InstallCD folder to the computer hard drive.
4. Open the InstallCD folder on the hard drive and open the **script.vbs** file with a text editor such as Notepad.
5. Modify the `appServerName = ""` value to include the fully qualified domain name of the Application Server for the cluster. For example:
`appServerName = "machinename.networkname.hospitalname.com"`
6. Modify the `authenticationType = ""` value to identify how users will authenticate in IMPAX. Possible values include:
`authenticationType = "1"` for Basic IMPAX Authentication
`authenticationType = "2"` for Windows Authentication
`authenticationType = "3"` for Smart Card Authentication
7. Save and close the script.vbs file.
8. Copy the contents of the InstallCD folder to a CD.
9. To start the automatic installation, insert the IMPAX Client Installation CD into a workstation CD-ROM drive.

Installing the IMPAX Client

(Topic number: 7776)



Important!

If installing the Client as part of the upgrade process, .NET Framework 3.5 SP1 must be installed prior to starting the Client installation.

The following explains how to install IMPAX Client using the default InstallShield package. An alternative is to automate the installation through a batch file or software distribution tool. Instructions on installing IMPAX Client that way are provided in *Enabling automated installation of the IMPAX Client software from a command prompt* (refer to page 65) and *Installing the IMPAX Installation Server* (refer to page 57).



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**.
2. If a File Download dialog appears, click **Open** or **Run**.

A `Preparing to Install` message appears.

If on Windows Vista, a `cscript.exe` prompt may appear. To run it, click **OK**.

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/redist/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 the Application Server to use. 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 Application Server is called *radserver*, it is on the network domain called *radnet*, and *radnet* is within the *healthorg.com* domain, the name to type would be *radserver.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.

Enabling automated installation of the IMPAX Client software from a command prompt

(Topic number: 7802)

Installation of the IMPAX Client can be completely silent, or automated. This can simplify an IMPAX Client rollout, and eliminates the need for any user input during the installation.

Through a line command issued on the client workstation, the various installation settings and their values can be specified; otherwise, defaults are applied. The command can be distributed to users through a batch file, or through a software distribution tool such as Microsoft Systems Management Server (SMS).

To enable automatic installation of the IMPAX Client software from a command line

1. At a command prompt, type

ImpaxClientSetup.exe /S /v"setting=value... /quiet"

where **/S** suppresses the initial InstallShield Wizard screen,

and **/v** allows for the specification of installation settings and their values,

and **/quiet** suppresses all the installation screens.

Installation setting	Description	Value
ALLUSERS	Specifies installation for current user only, or all machine users	Default—All users, if person installing has administrative privileges; otherwise, current user NULL—Current user 1—All users, if person installing has administrative privileges; otherwise, installation fails

Installation setting	Description	Value
		2—All users, if person installing has administrative privileges; otherwise, current user Any other value—default is applied
USERNAME	User name	Default—Name registered during Windows installation
COMPANYNAME	Organization name	Default—Name registered during Windows installation
INSTALLDIR	Root installation directory	Default—C:\Program Files\Agfa\IMPAX Client
APPSERVER	Application Server name	Default— <i>blank</i>
AUTHENTICATION_TYPE	Authentication mode	Default—IMPAX authentication 1—IMPAX authentication screen prompts user for user ID and password 2—User ID and password of current Windows or Windows smart card user is used to log into IMPAX 3—Smart card authentication requires the user to have an NHS smart card to log into IMPAX Any other value—Default is applied

Spacing rules for installation settings

(Topic number: 7757)

When specifying installation settings values using the /v flag, certain rules regarding spacing of the settings must be followed.

- Leave no spaces between the /v flag and its settings. For example:
/v"ALLUSERS=2" (valid)
/v "ALLUSERS=2" (invalid)
- Separate each setting and value pair by a space from another setting and value pair. For example:
/v"ALLUSERS=2 USERNAME=Peter" (valid)
/v"ALLUSERS=2USERNAME=Peter" (invalid)
- Delimit spaces within a value with a \". For example:
/v"USERNAME=\"Peter Smith\"" (valid)

`/v"USERNAME=Peter Smith" (invalid)`

Examples of installation settings

(Topic number: 7801)

The following contains example combinations of settings to be used at the command line. Following each installation command is a table detailing what each value changes.

`ImpaxClientSetup.exe /v"APPSERVER=radserver.radnet.healthorg.com ALLUSERS=NULL"`

Initial InstallShield Wizard screen displayed?	Yes
All installation screens displayed?	Yes
User name	Agfa
Organization name	Agfa
Installation type	Current user
Installation directory	C:\Program Files\Agfa\IMPAX Client
Application server	radserver.radnet.healthorg.com
Authentication mode	IMPAX authentication

`ImpaxClientSetup.exe /v"INSTALLDIR="C:\Rad Tools\Agfa\IMPAX Client" APPSERVER=radserver.radnet.healthorg.com /quiet"`

Initial InstallShield Wizard screen displayed?	Yes
All installation screens displayed?	No
User name	Agfa
Organization name	Agfa
Installation type	All users, if person installing has administrative privileges; otherwise, current user
Installation directory	C:\Rad Tools\Agfa\IMPAX Client
Application server	radserver.radnet.healthorg.com
Authentication mode	IMPAX authentication

`ImpaxClientSetup.exe /S /v"APPSERVER=radserver.radnet.healthorg.com AUTHENTICATION_TYPE=2"`

Initial InstallShield Wizard screen displayed?	No
All installation screens displayed?	Yes
User name	Agfa
Organization name	Agfa

Installation type	All users, if person installing has administrative privileges; otherwise, current user
Installation directory	C:\Program Files\Agfa\IMPAX Client
Application server	radserver.radnet.healthorg.com
Authentication mode	Windows authentication

Upgrading the IMPAX Client

5

Before installing the new version of the IMPAX Client, you must remove the previous IMPAX 5.2 or 5.3 releases of IMPAX (removing IMPAX 6.2 or later software is optional) and Oracle 9.2 (if installed) from your workstations.

Manually upgrading the IMPAX Client from IMPAX 5.2 or 5.3

(Topic number: 51453)

Before upgrading the IMPAX Client, ensure that IMPAX 5.2 or 5.3 Select wizards information is exported to the users.xml file. For more details, consult the *IMPAX 6.5.1 Preparing to Upgrade Guide—IMPAX 4.5, 5.2, 5.3, or WEB1000 to IMPAX 6.5.1*.

Perform the following steps when upgrading an IMPAX 5.2 or 5.3 Client workstation to IMPAX 6.5.1.



Note:

If you have many Clients to install, we recommend considering a third-party software distribution application (for example, Microsoft SMS or Altiris) to automate the add/removal of software.

To manually upgrade the IMPAX Client from IMPAX 5.2 or 5.3 to IMPAX 6.5.1

1. Verify the hardware and operating system are compatible with IMPAX 6.5.1. (refer to page 71)
2. Uninstall the IMPAX Client. (refer to page 72)
3. Uninstall the IMPAX 5.2 or 5.3 documentation. (refer to page 73)
4. Uninstall the Oracle client. (refer to page 75)

5. Run the Microsoft .NET Framework 3.5 SP1 installer package. (refer to page 71)
6. Install the IMPAX 6.5.1 Client. (refer to page 56)

This step explains how to install IMPAX Client using the default InstallShield package on each station. An alternative is to automate the installation through a batch file or third-party software distribution tool. Instructions on installing IMPAX Client that way are provided in *Enabling automated installation of the IMPAX Client software from a command prompt* (refer to page 65) and *Installing the IMPAX Installation Server* (refer to page 57).

7. Verify the IMPAX Client upgrade. (refer to page 77)
8. Configure the IMPAX Client. (refer to page 80)
9. Create standard worklists from the users.xml file. (refer to page 78)
10. Change the permissions for migrated teaching files. (refer to page 78)
11. Install any related software. (refer to page 91)

Manually upgrading the IMPAX Client from IMPAX 6.2 or later

(Topic number: 51459)

Perform the following steps when upgrading an IMPAX 6.2 or later Client workstation to IMPAX 6.5.1.



Important!

You must update existing Clients to the .NET Framework 3.5 SP1 before installing the IMPAX 6.5.1 Client.

To manually upgrade the IMPAX Client from IMPAX 6.2 or later to IMPAX 6.5.1

1. Verify the hardware and operating system are compatible with IMPAX 6.5.1. (refer to page 71)
2. Optionally, manually uninstall the IMPAX Client. (refer to page 104)
3. Run the Microsoft .NET Framework 3.5 SP1 installer package. (refer to page 71)
4. Install the IMPAX 6.5.1 Client. (refer to page 56)

This step explains how to install IMPAX Client using the default InstallShield package on each station. An alternative is to automate the installation through a batch file or third-party software distribution tool. Instructions on installing IMPAX Client that way are provided in *Enabling automated installation of the IMPAX Client software from a command prompt* (refer to page 65) and *Installing the IMPAX Installation Server* (refer to page 57).

5. Verify the IMPAX Client upgrade. (refer to page 77)
6. Configure any new functionality in the IMPAX Client. (refer to page 80)
7. Install any related software. (refer to page 91)

Verifying hardware and operating system compatibility with IMPAX 6.5.1

(Topic number: 7992)

Ensure that any existing IMPAX 5.2 and 6.2 or later Client workstations meet the minimum requirements for hardware and software before upgrading the workstation to IMPAX 6.5.1.

Detailed instructions on installing the external software required for IMPAX Client workstations are available in *Installing external software* (refer to page 21) or the documentation provided with the software.

You must install and configure the software in the order listed in *External software: Order of installation tasks* (refer to page 21).

Running the Microsoft .NET Framework 3.5 SP1 installer package

(Topic number: 107096)



Important!

.NET Framework 3.5 SP1 must be installed prior to starting the Client installation. We recommend using Group Policies or SMMS to download and install .NET Framework 3.5 SP1. However, if these methods are not available, the .NET Framework 3.5 SP1 installer package is available.

The Microsoft .NET Framework 3.5 SP1 installer package is a modified version of the IMPAX Installation Server. It distributes the .NET upgrade to Client workstations throughout the site and to remote Clients.

A week prior to upgrading the IMPAX Client software, run the installer package on the Application Server or a dedicated Windows-based server. We recommend running the installer package during the site's off-hours as downloading and installing the Microsoft .NET framework can take over 30 minutes, depending on network speed.

If you choose to run the installer package on a dedicated server that does not already have the IMPAX Installation Server installed and using https mode, use the Web Server Certificate Wizard to create a certificate request to submit to a trusted certificate authority, and install the certificate. You must install the SSL certificate on the dedicated server (refer to page 58) before running the installer package. If using http mode, you do not need to install the SSL certificate. For more details on how to get clients to point to the correct location of the Installation Server, see *Installing the IMPAX Installation Server* (refer to page 57).



Note:

The PACS Client Updater service downloads and installs the .NET Framework 3.5 SP1. The services run as administrator, so you do not have to log in as the administrator user.

To run the Microsoft .NET Framework 3.5 SP1 installer package

1. From the IMPAX Client CD or a network location, run **IMPAXInstallationServer_DotNet35Updater.exe**.
2. On the Welcome to the InstallShield Wizard for Agfa IMPAX Installation Server - .NET 3.5 SP1 Updater screen, click **Next**.
3. To install the application into C:\Inetpub\wwwroot\ClientInstaller, 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**.

4. On the Ready to Install the Program screen, click **Install**.
The installer runs.
5. On the Installation Wizard Completed screen, click **Finish**.

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. On Windows 2003 servers, select **Add or Remove Programs**. On Windows 2008 servers, select **Programs and Features**.
3. On Windows 2003 servers, under Currently installed programs, select **IMPAX Client ES** and click **Remove**.

or

On Windows 2008 servers, select **IMPAX Client ES** and click **Uninstall**.

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.

Manually uninstalling the IMPAX 6.2 or later Client software (optional)

(Topic number: 7752)



Important!

This procedure is optional. You should not have to uninstall the IMPAX 6.2 or later Client software prior to installing the IMPAX 6.5.1 Client software. However, if the IMPAX Client is installed on Windows Vista, we recommend uninstalling it prior to the installation of the new version.

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

To manually uninstall the IMPAX 6.2 or later Client software

1. If running, log out of the IMPAX Client and close the Login window.
2. Open Control Panel.
3. Select **Add or Remove Programs**.
4. Under Currently installed programs, select **AGFA IMPAX Client *build_number***.
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.

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. On Windows 2003 servers, select **Add or Remove Programs**.

or

On Windows 2008 servers, click **Programs and Features**.

3. On Windows 2003 servers, select **IMPAX Client Knowledge Base 5.2** or **IMPAX Client Knowledge Base 5.3** and click **Change/Remove**.

or

On Windows 2008 servers, select **IMPAX Client Knowledge Base 5.2** or **IMPAX Client Knowledge Base 5.3** and click **Uninstall**.

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 System DSN entries for any Oracle ODBC driver

(Topic number: 57993)



CAUTION!

This step is unnecessary if you are upgrading an IMPAX 6.2 or later Client workstation.

You must perform two procedures to remove the Oracle 9.2 Client. First, you must remove the System DSN entries for any Oracle ODBC driver in the ODBC Data Source Administrator. Second, you must uninstall the Oracle 9.2 Client software.

To remove the System DSN entries for any Oracle ODBC driver

1. Open the Windows Administrative Tools.
2. Select **Data Sources (ODBC)**.
3. Switch to the **System DSN** tab.
4. Select **MVF**.
5. Click **Remove**.
6. At the confirmation message, click **Yes**.

Uninstalling the Oracle 9.2 Client software on an IMPAX Client workstation

(Topic number: 7993)

This step is unnecessary if you are upgrading an IMPAX 6.2 or later Client workstation.



Note:

If IMPAX Reporting is integrated, the Oracle Client is required. For details on the required version and installation instructions, refer to the *IMPAX RIS InstallShield Technical Guide*.

You must perform two procedures to remove the Oracle 9.2 Client. First, you must remove the System DSN entries for any Oracle ODBC driver in the ODBC Data Source Administrator (refer to page 74). Second, you must uninstall the Oracle 9.2 Client software.

To uninstall the Oracle 9.2 Client software on an IMPAX Client workstation

1. To open the Universal Installer, click **Setup**.
2. Select **Deinstall Products**.
3. In the Inventory dialog, select **Oracle Homes > OraHome92 > Oracle9i Client 9.x**.
4. Under Independent Products, select **Java Runtime Environment, Oracle Universal Installer, and Oracle Snap-In Common Files** and any files under those headings.
5. Click **Remove**.
6. At the confirmation message, click **Yes**.

Oracle 9.2 Client is uninstalled from the workstation.

Installing the IMPAX Client

(Topic number: 7776)



Important!

If installing the Client as part of the upgrade process, .NET Framework 3.5 SP1 must be installed prior to starting the Client installation.

The following explains how to install IMPAX Client using the default InstallShield package. An alternative is to automate the installation through a batch file or software distribution tool. Instructions on installing IMPAX Client that way are provided in *Enabling automated installation of the IMPAX Client software from a command prompt* (refer to page 65) and *Installing the IMPAX Installation Server* (refer to page 57).



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**.
2. If a File Download dialog appears, click **Open** or **Run**.
A *Preparing to Install* message appears.
If on Windows Vista, a *cscript.exe* prompt may appear. To run it, click **OK**.
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/redist/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 the Application Server to use. 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 Application Server is called *radserver*, it is on the network domain called *radnet*, and radnet is within the *healthorg.com* domain, the name to type would be *radserver.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.

Verifying the IMPAX Client upgrade

(Topic number: 15423)

After completing the IMPAX Client upgrade, you should verify that it was successful.

To verify the Client upgrade

1. Open Control Panel.
2. Select **Add or Remove Programs**.
3. In the Currently installed programs list, verify that Agfa IMPAX Client 6.5.1.xxxx is listed, where xxxx is the correct build number.
4. Check to ensure that the Client is working as expected, including any wizards.

Creating standard worklists from the users.xml file

(Topic number: 8021)

During the preparatory phase of migration, the IMPAX 5.2 or 5.3 Select wizards are exported into the users.xml file created when exporting the IMPAX 5.2 or 5.3 user ID information. Once an IMPAX Client workstation has been installed and configured, using the users.xml 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*.



Note:

When creating a standard worklist in IMPAX 6.5.1, the commands to reset the search criteria, clear the current worklist, or add search results to the worklist do not have to be specified as they are all performed automatically.

Controlling permissions for teaching files

(Topic number: 8023)

During migration, the IMPAX 5.2 or 5.3 teaching file folders are migrated to IMPAX 6.5.1, but the permissions to access these folders are not. To allow users to view the teaching files, the PACS Administrator must manually configure the access to each teaching file folder.

For additional information, refer to "Controlling permissions for teaching files" (topic number 8586) in the *IMPAX 6.5.1 Client Knowledge Base: Extended*.

To control permissions for teaching files

1. In the Text area > Study List, on the **Teaching Files** tab, right-click on a teaching file folder.
2. Select **Configure Access**.
3. In the Configure Access dialog, for the required role, select the checkbox in the appropriate column:
 - **Read**—allows users in that role to view teaching files in the selected folder.
 - **Write**—allows users in that role to add and modify teaching files to the selected folder.
 - **Modify Permissions**—allows users in that role to use the Configure Access command. Selecting this checkbox also enables the Read and Write permissions for the role.

Enabling access for a role enables access for all of its sub-roles.

4. Click **OK**.
5. Repeat steps 1-4 for all teaching file folders.

Context Server integrations in IMPAX 6.5.1

(Topic number: 8024)

The Context Server is installed when you install the IMPAX Client. After the upgrade, you may find that some of your integrations no longer work as expected or at all and must be updated. For more information on using the Context Server and changing your integrations, consult Agfa Professional Services.

Initially configuring the IMPAX Client

6

The following information explains how to enable Windows authentication if the Client was installed under IMPAX authentication, how to configure the automatic update service, how to accelerate Client startup by adding the software to the Startup menu, how to set up a smart card enrollment station, and how to add users to the smart card enrollment station. More configuration information is available in the *IMPAX 6.5.1 Client Knowledge Base*.

Enabling integrated Windows authentication

(Topic number: 10214)

You can configure IMPAX such that users can log into Windows and into IMPAX at the same time. This single sign-on option saves users the time involved in logging into IMPAX separately.

If you installed the IMPAX Client with the Windows Authentication option, no configuration is necessary. If you installed it with the IMPAX Authentication option, to use Windows authentication instead, you must modify the `impax-client-main.exe.config` file.



Note:

For configuration purposes, at least one IMPAX Client in the site must be installed with the IMPAX Authentication option.

To enable integrated Windows authentication

1. Ensure that the IMPAX Client is not running.
2. In Windows Explorer, navigate to the location where the IMPAX Client software is installed; by default, this is `C:\Program Files\Agfa\IMPAX Client`.

In this folder are numbered folders (such as `6.5.x.x`) that indicate which version of the Client is being used.

3. In the numbered folder of the most recent version of the IMPAX, double-click **impax-client-configure.exe**.
4. From the Authentication list, select the **Windows Authentication** option.
5. To save the change, click **Save**.
6. To close the dialog, click **Close**.
7. Restart the Client.

Two domain options are now available on the Client Login screen: AgfaHealthcare and the site's domain.

To ensure that the login information is handled correctly, you may also have to add the Application Server to the local intranet zone on the Client.

To add the Application Server to the Clients local intranet zone

1. Launch Internet Explorer.
2. Select **Tools > Internet Options**.
3. In the Internet Options dialog, switch to the **Security** tab.
4. Click **Local intranet**.
5. Click **Sites**.
6. In the Local intranet dialog, click **Advanced**.
7. In the Add this Web site to this zone field, type **https://<appserver>**, where *<appserver>* is the fully qualified domain name of the Application Server.

A fully qualified domain name is the full name of a system, including its local hostname and complete domain name. For example, if the Server is called appserver, on a network domain called radnet, and if radnet is within the healthorg.com domain, the fully qualified domain name would be appserver.radnet.healthorg.com.

8. Click **Add**. Click **OK**.
9. In the Local intranet dialog, click **OK**, then again in the Internet Options dialog.
10. For the change to take effect, restart the **Client workstation**.

Configuring automatic Client updates

(Topic number: 10054)

You can configure the IMPAX Clients to automatically use an updated version of the software when it becomes available, without having to uninstall and reinstall the software. These updates occur in the background when the Client is idle; they do not interrupt clinical work.

Automatic updates are installed and configured on the IMPAX Installation Server. Detailed instructions on installing the Installation Server package are available in *Installing the IMPAX Installation Server* (refer to page 57).



Note:

For large sites, if the Installation Server is installed on the same machine as the Application Server, applying a Client update can significantly affect performance of the Application Server. The Installation Server should either be deployed to a separate IIS-enabled server, or done during off hours.

Starting the Background Intelligence Transfer service

(Topic number: 10058)

If the Installation Server is armored, as would be the case if an IMPAX Application Server is used as the Installation Server, the component needed for Client updates to work is disabled. You must start this service manually.

To start the Background Intelligence Transfer Service

1. On the Installation Server, open Control Panel.
2. Select **Administrative Tools**.
3. In the Administrative Tools window, select **Services**.
4. In the Services window, right-click the **Background Intelligence Transfer Service** row and select **Start**.

If the Start command is disabled, the service is already started.


5. Close the Services and the Administration Tools windows.

Enabling automatic Client updates

(Topic number: 10065)

The default fully qualified domain name of the Installation Server, both on the Application Server and the Client (on installation) is the same as the Application Server. Therefore, a newly installed Client immediately checks to see if the Installation Server is installed on the Application Server, and if so, updates if required.

To enable automatic Client updates

1. Install the IMPAX Installation Server. Details are provided in *Installing the IMPAX Installation Server* (refer to page 57).
2. Note the fully qualified domain name of the Server
A fully qualified domain name is the full name of a system, including its local hostname and complete domain name. For example, if the server is called updateserver, on a network domain called radnet, and if radnet is within the healthorg.com domain, the fully qualified domain name would be updateserver.radnet.healthorg.com.
3. On a Client workstation, log into IMPAX Client as an Administrator user.
4. From the **Configure** drawer menu , select **Stations**

5. In the navigation pane, select the station container that this Client station resides in.
6. In the details pane, expand the General bar.
7. Switch to the **Services Access** tab.
8. For Service **ClientInstaller**, in the **URL** column, type protocol://localhost/ ClientInstaller/, where protocol is **http** or **https**, and localhost is the full server name noted in step 2.

Following the step 2 example, you would type:

```
http://updateserver.radnet.healthorg.com/ClientInstaller
```

Note that updates are set for all Client stations organized under the station container you have configured.

The changes are saved automatically when you switch context (for example, by selecting a different station container, selecting a different section of the Configure area, closing the Configure area, or logging out).


9. For the change to take effect, log into and out of each Client installed on workstations in the configured station container.
10. When a Client gets a new update while the user is working, the user must log out of the Client and log in again for the new version to take effect.

Disabling automatic Client updates

(Topic number: 10067)

Conversely, you may find it necessary to disable automatic updates at some times or for certain stations.

To disable automatic Client updates


1. Log into the IMPAX Client as an Administrator user.
2. From the **Configure** drawer menu , select **Stations**.
3. In the navigation pane, select the station container that the Client station to be disabled resides in.
4. In the details pane, expand the **General bar**.
5. Switch to the **Services Access** tab.
6. For Service **ClientInstaller**, delete the information in the **URL** column.
The changes are saved automatically when you switch context.
7. For the change to take effect while a user is working, log out of and restart each Client.

Testing an update

(Topic number: 10069)

A common practice is to test a particular update on a few Clients before rolling it out to the entire site.

To roll out an update on test Clients first

1. Log into the IMPAX Client as an Administrator user.
2. From the **Configure** drawer menu , select **Stations**.
3. To create a station container for the test Clients right-click on a container and select **Add Station Container**.

For details, refer to "Adding containers and station containers" (topic number 9364) in the *IMPAX 6.5.1 Client Knowledge Base: Extended*.
4. Move the test client stations into that container by dragging them.

For details, refer to "Moving stations and station containers" (topic number 9357) in the *IMPAX 6.5.1 Client Knowledge Base: Extended*.
5. Enable automatic updates for the test Clients, as described in *Enabling automatic Client updates (refer to page 82)*.
6. Disable automatic updates for the remaining Clients, as described in *Disabling automatic Client updates (refer to page 83)*.
7. On the Installation Server providing the Client updates, install the updated version of the Client.
8. To get the updates onto the test Clients, log out of and restart each workstation in the configured station container.

If the update works well, enable the update on the remaining Clients, as described in *Enabling automatic Client updates (refer to page 82)*.

Reconfiguring the Manifest file with the correct Server name

(Topic number: 10071)

If the Installation Server name does not match the security ticket name, the update causes an error message in the log file as follows:

The BITS service error message for this job is `The requested URL does not exist on the server . Some misfile may be causing BITS to have trouble with a source or destination path.`

To correct this problem, you can reconfigure the Manifest file with the correct Server name.

To reconfigure the Manifest file with the correct Server name

1. At a command prompt, type:

```
CreateManifest.exe -f <RootInstallFolder> -v <IMPAXversion> -m <MachineName>
```

Where:

- <RootInstallFolder> is the path to the IMPAX Installation Server package directory. This argument defaults to the folder that CreateManifest was run from.
- <IMPAXversion> is the version number of the update.
- <MachineName> is the fully qualified domain name of the local machine. This argument defaults to the name in the network's DNS.

Additional parameters for the CreateManifest command include:

Parameter	Description
PostProcessor	The assembly to use to complete post-install configuration. This argument defaults to <i>Agfa.Client.Updater.PostProcessor.dll</i> .
URLProtocol	The URL protocol the client will use to retrieve the updated files contained in the manifest. This argument defaults to <i>http</i> .
VirtualDirectory	The name of the virtual directory for the Installation Server. This argument defaults to <i>ClientInstaller</i> .

Backing out of a particular Client update

(Topic number: 10073)

If the update causes problems, whether on test Clients or all Clients, you can back out of it without doing an uninstall on individual Client workstations.

To back out of a particular Client update

1. Ensure the **Background Intelligent Transfer** and **PACS Client Updater** services are running.
2. On the Installation Server, uninstall the update.
3. Reinstall the old version on the Installation Server.

When the Clients configured to detect automatic updates start, they detect that the version has changed. They also detect that the version number (which is older) is already available. Instead of updating, the Clients simply switch back to running the previous version. They continue to do so until a new update is available.

Adding IMPAX Client to the Startup menu

(Topic number: 7747)

On startup, the IMPAX Client performs some initial configuration tasks. If the user logs in before these tasks are completed, a delay occurs before the IMPAX Client window opens. To reduce this delay, add the IMPAX Client to the Windows Startup menu. This task is not required; it is an option for improving performance.

To add IMPAX Client to the Startup menu

1. Select **Start > All Programs**.
2. Go to **Agfa IMPAX > IMPAX Client**.
3. Right-click and drag **IMPAX Client** to the **Startup** menu.
4. Select **Copy Here**.
5. Confirm that you want to make this change for all users.

Configuring IMPAX to burn CJK studies to CD

(Topic number: 49325)

Complete the following steps to enable CJK support when exporting a study to CD.

To configure IMPAX to burn CJK studies to CD

1. On the IMPAX Server where the MVF CD Export server component is installed
 - a. Ensure that **Perform translation for character data** in the ODBC connection to the database is cleared, as specified in "Configuring the connection to the SQL Database Server" in the *IMPAX 6.5.1 AS300 Installation and Configuration Guide*.
 - b. To enable CJK language support on Windows XP, install the East Asian language files (refer to page 47) and select the region for the IMPAX Client (refer to page 49) as needed.
2. On the IMPAX Application Server, complete "Viewing East Asian characters in the IMPAX Client" in the *IMPAX 6.5.1 Application Server Installation, Upgrade, and Configuration Guide*.
3. On each IMPAX Client workstation:
 - a. Specify which East Asian characters are used for patient names. Refer to "Defining which East Asian characters are used for patient names in the Image area" (topic number 8724) in the *IMPAX 6.5.1 Client Knowledge Base: Extended*.
 - b. For IMPAX Client workstations running Windows XP or Windows 2003, complete all tasks in *Configuring languages on Windows XP* (refer to page 47).

For IMPAX Client workstations running Windows Vista, complete all tasks in *Configuring languages on Windows Vista* (refer to page 50).



Important!

Any computer used to view the study on CD must have the language installed or the characters will not display properly.

Changing the default language of the Client Installer page

(Topic number: 56657)

By default, the Client Installer page is displayed in English. You can change the URL of the page to point at Client Installer page in the language appropriate for your site.

To change the default language of the Client Installer page

1. Log onto the Installation Server.

2. Navigate to the clientinstaller folder.

The default location is C:\inetpub\wwwroot\clientinstaller. The clientinstaller folder contains a list of folders for different languages, with either two letters (for example, en) or four letters (for example, zh-cn). Each language folder has the Client Installer page translated into the appropriate language.

3. In Notepad, open the **index.html** file.
4. Search for **URL=en**.
5. Change the en to match the folder name of the language you want.

For example, to display the Client Installer page in French, change the URL to **URL=fr**. To display the Client Installer in Simplified Chinese, change the URL to **URL=zh-cn**.

Setting up the smart card enrollment station

(Topic number: 67021)

To enable smart cards, one IMPAX Client workstation with a smart card reader installed must be set up as an enrollment station. Smart card users are then added to the enrollment station and must be mapped to the IMPAX roles and users.

To set up the smart card enrollment station

1. On the workstation to be used as the smart card enrollment station, log in as the enrollment user.
2. Open Internet Explorer.
3. Select **Tools > Internet Options**.
4. Switch to the **Security** tab.
5. From the list of zones, select **Internet**.
6. Click **Custom level**.
7. Under Download unsigned ActiveX controls, select **Prompt**.
8. Under Initialize and script ActiveX controls not marked as safe, select **Prompt**.
9. To save the changes, click **OK**.
10. In the Warning! dialog, click **Yes**.
11. In the Select a Web content zone to specify its security settings field, select **Local Intranet**.
12. Repeat steps 5 to 9.
13. To close the Internet Options dialog, click **OK**.
14. Navigate to http://your_domain/certsrv/.
15. Select **Retrieve the CA certificate or certificate revocation list**. Click **Next**.
16. Click **Install this CA certificate path**.
17. In the Potential Scripting Violation dialog, click **Yes**.

18. To return to the home page, click **Home**.
19. Select **Request a certificate**. Click **Next**.
20. Select **Advanced request**. Click **Next**.
21. Select **Submit a certificate request to this CA using a form**. Click **Next**.
22. From the Certificate Template list, select **Enrolment Agent**.
23. From the CSP list, select **Microsoft Base Cryptographic Provider v1.0**.
24. Beside Key Usage, select **Both**.
25. Select **Create new key set**.
26. Select **Mark keys as exportable**.
27. From the Hash Algorithm list, select **HSA-1**.
28. Click **Submit**.
29. Click **Yes**.
30. To install the certificate, click **Install the certificate**.
31. In the Potential Scripting Violation dialog, click **Yes**.

The workstation is set up as an enrollment station. You can now add users (refer to page 88).

Adding smart card users to the enrollment station

(Topic number: 67024)

The following conditions must be met before this procedure can be completed.

- The enrollment station must be set up (refer to page 87)
- A smart card reader with appropriate drivers must be installed on the enrollment station
- You must be able to log into the enrollment station directly . A remote desktop connection cannot be used.

To enable smart cards, add each smart card user to the enrollment station.

To add a smart card user to the enrollment station

1. Log into the enrollment station as the enrollment user.
2. Open Internet Explorer.
3. Navigate to http://your_domain/certsrv/.
4. Select **Request a certificate**. Click **Next**.
5. Select **Advanced request**. Click **Next**.
6. Select **Request a certificate for a smart card on behalf of another user using the Smart Card Enrollment Station**. Click **Next**.

7. At the ActiveX prompt, click **Yes**.
8. From the Certificate Template list, select **Smartcard User**.
9. Under User To Enrol, click **Select User**.
10. In the Enter the object name to select field, type the name of the user to add.
11. Click **Check Names**.
12. Click **OK**.
13. In the Select Certificate dialog, select the enrol certificate. Click **OK**.
14. Remove the enrollment user smart card from the card reader.
15. Insert a blank smart card.
16. Click **Enrol**.

The user is added to the enrollment station. Repeat this procedure for each smart card user.

Mapping smart card users to IMPAX roles and users

(Topic number: 114058)

Smart card users must be mapped to the IMPAX roles and users before using the IMPAX Client.

To map smart card users to IMPAX roles and users

1. Refer to the section "Mapping existing groups or users into IMPAX roles and users" (topic number 9436) in the *IMPAX 6.5.1 Client Knowledge Base: Extended*.
2. From this section, select and implement the procedure that is correct for your site.

Disabling hyperthreading on the Client

(Topic number: 67680)

When hyperthreading is enabled, many IMPAX performance and stability issues occur. To help prevent these issues, disable hyperthreading on the IMPAX Clients.

To disable hyperthreading on the Client

1. To access the BIOS, restart the IMPAX Client.
2. When the setup prompt appears, press **F10**.
3. In the Language Select window, select **English**.
4. Select **Advanced > Multi-core**.
5. To disable hyperthreading, select **Disabled**.
6. To accept the change, press **F10**.

7. To save the change and exit the BIOS, select **Save and exit**.

Completing other IMPAX Client configuration tasks

(Topic number: 7730)

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).

When configuring a newly installed Client station container for a new user at a site where IMPAX is already implemented, special configuration may or may not be required. In some cases, you only have to assign the new user to a role that has already been configured. In other cases, you have to define new preferences and worklists for the new user.

If installing another instance of the Client software for an existing IMPAX user, you may not have to perform any configuration tasks other than those detailed here, and some station configuration.

Installing related software

7

You can install software packages that are integrated with the IMPAX 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.

Installing the Agfa Orthopaedic Tools software

(Topic number: 7771)

The Agfa Orthopaedic Tools software is used for applying digital templates and completing measurements in preparation for orthopaedic surgery. The IMPAX Orthogon and OrthoView applications are also available. This software is available on a separate installation CD and requires a hardware dongle.

To install the Agfa Orthopaedic Tools software

1. Refer to the Agfa Orthopaedic Tools installation documentation for current and complete instructions.

Installing IMPAX Clinical Application software

(Topic number: 113248)

IMPAX can be integrated with a variety of clinical applications

- IMPAX Volume Viewing basic (MIP, MPR) and IMPAX Volume Viewing extended (3D)
- IMPAX Virtual Colonoscopy
- IMPAX PET-CT Viewing

- Oasis for IMPAX

This software is available on a separate installation CDs.

To install IMPAX Clinical Application software

1. Refer to the appropriate IMPAX Clinical Application installation documentation for current and complete instructions.

Installing the IMPAX RIS Client software

(Topic number: 7777)

If the IMPAX Reporting is to be used as the reporting solution through either speech recognition or transcription, IMPAX RIS Client software must be installed on the workstation. Before installing the IMPAX RIS Client on the IMPAX Client workstation, ensure you follow these recommendations.

IMPAX 6.5.1 supports integration with IMPAX RIS 5.7.

Recommendations and tips

- If the workstation's operating system is Windows Vista 64-bit, do not install IMPAX RIS in the Program Files (x86) folder. We recommend creating a new folder (for example, C:\Agfa) and installing the IMPAX RIS Client suite here.
- To ensure the workstation is configured correctly, refer to IMPAX RIS Client hardware specifications in the *IMPAX RIS documentation*.

IMPAX RIS Client modules required for IMPAX Reporting

When IMPAX Reporting is required, you must run other IMPAX RIS modules on the IMPAX Client workstation. During the installation, select:

- Centura
- Speech Integration Text area
- MS Word templates (sub feature of QDoc)

To install the IMPAX RIS Client software

1. Refer to the *IMPAX RIS InstallShield Technical Manual* for current and complete instructions.
2. For the speech integration to work, the IMPAX RIS must also be configured appropriately. Consult Agfa Professional Services for assistance.

Installing the TalkStation Client software

(Topic number: 7769)

TalkStation is a flexible dictation interface allowing for real-time or batch-mode dictation. Before installing, be aware that:

- TalkStation Client does not work outside the network cluster, on remote clients.
- All TalkStation Server components must be installed first. Refer to the *TalkStation 4.0 Server Installation Guide*.
- If the TalkStation Client is already installed on the workstation, you do not have to reinstall it.

To install TalkStation Client software

1. Refer to the *TalkStation 4.0 Client Installation Guide* for current and complete instructions.



Note:

If intending to use TalkStation with the IMPAX RIS, special installation and configuration of the IMPAX RIS software is required. For more information, refer to the IMPAX RIS documentation and consult Agfa Professional Services.

To install the TalkStation 4.0 User Knowledge Base

1. Refer to the *TalkStation 4.0 Client Installation Guide* for current and complete instructions.

Installing license servers

(Topic number: 7810)

IMPAX Client can be integrated with the Orthopaedic application (Agfa Orthopaedic Tools), the Agfa Clinical applications, and third-party applications. Refer to the installation documentation for the appropriate product to install the license server.



Note:

We do not recommend using the Application Server as the license server.

Integrating the IMPAX Enterprise Solution

A large, bold, black letter 'A' is positioned in the upper right corner of the page. To its left is a vertical black line that extends from the top of the page down to the level of the letter 'A'.

The IMPAX Enterprise Solution offers a fully integrated RIS, PACS, and Reporting solution.

What is the IMPAX Enterprise Solution?

(Topic number: 56712)

The IMPAX Enterprise Solution is an integrated offering designed to meet the needs of large healthcare organizations. The IMPAX Enterprise Solution:

- Leverages the diversity and depth of the Agfa IMPAX product portfolio
- Forms an integrated solution for large-scale healthcare institutions with multi-disciplinary and multi-departmental needs
- Delivers consistent and predictable workflow and outcomes, employing workflow-aware adaptability and scalability

Key modules in the IMPAX Enterprise Solution

The foundations of the IMPAX Enterprise Solution are the key modules in a fully integrated offering:

- PACS
- RIS
- Reporting

Integrating into the IMPAX Enterprise Solution

(Topic number: 56715)

As part of the IMPAX Enterprise Solution, this product must be configured to fully support an integrated RIS-PACS-Reporting solution. For details about planning and implementing a RIS-PACS-Reporting integration, contact your local Agfa representative.

Installing device drivers on the computer

B

Device drivers are files that provide the computer with the configurations and specifications of certain hardware devices. Without the driver file, the computer cannot communicate with the device.

Installing device drivers

(Topic number: 97907)

Device drivers are files that provide the computer with the configurations and specifications of certain hardware devices. Without the driver file, the computer is unable to communicate with the device. Configure the appropriate drivers on the IMPAX Client.

To install device drivers

1. For each network adapter installed on the server, install the network adapter driver. Do not install the SNMP option.
2. Install the Chipset Software Installation Utility.
3. Install the video drivers.

Installing Windows device drivers

(Topic number: 7766)

On Dell workstations, the Windows drivers are located on the Dell Resource CD. This topic provides instructions on how to install the drivers on this type of workstation. When installing on another type of workstation, the method will be similar, but refer to the manufacturer documentation for details.

**Tip:**

After installing a device driver, you do not have to restart the computer when prompted. You can wait until all drivers have been installed, then restart it only once.

Installing the Dell Resource CD

(Topic number: 50968)

On Dell workstations, the Windows drivers are located on the Dell Resource CD. Install the Resource CD before installing any device drivers.

To install the Dell Resource CD

1. Insert the Dell Resource CD.
2. When prompted to install it, click **OK**.
3. To start the installation program, click **Next**.
4. When the installation is finished, click **Finish**.

Installing the controller driver

(Topic number: 50971)

Install the drivers that control the transfer of data from a computer to a peripheral device.



CAUTION!

You *must* install this device driver before any others.

To install the controller driver

1. On the Resource CD screen, click **Next**.
2. Under Controller Drivers, double-click **Intel Chipset Software Installation**.
3. Scroll down the page and click **Extract**.
4. To start the extraction, click **Continue**.
5. To unzip the files to the default directory, click **OK**.
6. When asked if you want to create the directory, click **Yes**.
7. To confirm that the files were extracted successfully, click **OK**.
8. To start the installation, click **Next**.
9. To accept the license agreement, click **Yes**.
10. On the Readme screen, click **Next**.
11. If you prefer to restart the computer after each driver is installed, click **Yes** and wait for the computer to restart. Otherwise, click **No**.

Installing device drivers

(Topic number: 50977)

Complete the installation for all device drivers listed on the Resource CD.

To install device drivers

1. From the list of drivers in the Resource CD screen, for each type of driver that has a checkmark beside its name and has not already been installed:
 - a. Double-click the driver name.
 - b. Scroll down the page and click **Extract**.
 - c. To start the extraction, click **Continue**.
 - d. To unzip the files to the default directory, click **OK**.
 - e. To create the directory, click **Yes**.
 - f. To confirm that the files were extracted successfully, click **OK**.
 - g. To start the installation, click **Next**.
 - h. If you prefer to restart the computer after each driver is installed, click **Yes** and wait for the computer to restart. Otherwise, click **No**.
2. After all drivers are installed, restart the computer.

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

Verifying that all device drivers were correctly installed

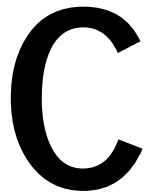
(Topic number: 50980)

Once all device drivers have been installed, verify that the installation was completed successfully.

To verify that all device drivers were correctly installed

1. From the **Start** menu, right-click **Computer** and select **Properties**.
2. Switch to the **Hardware** tab.
3. Click **Device Manager**.
4. Check all listed drivers.
5. If any errors are indicated, reinstall that type of driver.

Troubleshooting IMPAX Client



As you install the IMPAX Client, you may encounter various installation problems.

Troubleshooting: Path not found after workstation restart

(Topic number: 7761)

Issue

After installing the .NET Framework, the computer has to be restarted. The IMPAX Client installation program is then supposed to resume automatically. Instead, an error message appears: `Cannot find the path specified`. The IMPAX Client installation program has to be restarted manually.

Details

This problem occurs only when installing the Client from a network drive that is not permanently mapped.

Solution

If installing from a network drive, first map the network drive to a drive letter and select the **Reconnect at logon** checkbox.

Troubleshooting: IMPAX Client cannot contact the Application Server

(Topic number: 7792)

Issue

When trying to start the IMPAX Client, an error message appears:

```
Cannot contact Application Server. Please contact your system administrator.
```

Details

This message appears when the certificate is not installed or has expired.

Solution

Install or renew the certificate on the Application Server. Refer to the *IMPAX 6.5.1 Application Server Installation, Upgrade, and Configuration Guide*.

Troubleshooting: IMPAX Client slow and erratic post-upgrade

(Topic number: 10210)

Issue

After upgrading, IMPAX Client display is very slow at a site using McAfee Antivirus software.

Details

A McAfee Antivirus setting called Buffer Overflow Protection (BOP) can cause this behavior.

Solution

Disable BOP in McAfee. Alternatively, use McAfee EPO or Protection Pilot to reconfigure the BOP to run only at fixed intervals, such as every five minutes.

Troubleshooting: Failure to get data from the Application Server

(Topic number: 7797)

Issue

IMPAX Client login succeeds, but then an error message appears:

```
A request for data from the Application Server has failed.
```

Details

The problem is related to the security certificate validation.

Solution

1. In Internet Explorer, select **Tools > Internet Options**.
2. Switch to the **Advanced** tab.
3. Under Security, ensure that the **Check for server certification revocation (requires restart)** checkbox is cleared.
This checkbox is selected by default on Windows 2003 but cleared by default on Windows XP.
4. Click **OK**.
5. If you had to clear the checkbox, restart the computer.

Troubleshooting: When launching the IMPAX Client, an application error occurs

(Topic number: 120052)

Issue

When launching the IMPAX Client, I received the following error:

```
The application failed to initialize properly (0xc0000135). Click on OK to terminate the application.
```

Details

The IMPAX 6.5.1 Client requires .NET 3.5 SP1 be installed.

Solution

1. Uninstall the IMPAX Client (refer to page 104).

2. Install .NET 3.5 SP1 (refer to page 71).
3. Re-install the IMPAX Client (refer to page 75).

Troubleshooting: Agfa Ortho Tools does not launch due to network dongle error

(Topic number: 7762)

Issue

The Agfa Ortho Tools does not launch, giving an `Error 7 Hardlock not found` message.

Details

Communication problems can arise when using a network dongle for the Agfa Ortho Tools.

Solution

To troubleshoot this problem:

- If the dongle network Server is running on Windows XP SP3 or Windows 2003 SP1, ensure that the connection is not being blocked by the Windows firewall.
- Ensure that the correct `<dongle_id>.alf` appears on the Server. If in doubt, delete the existing file and create a new one.
- Ensure that the network dongle is inserted in the servers USB port.
- Ensure that the Client can ping the Server.
- To ensure that the Client is using the correct IP address, on the client workstation, open Control Panel and select **System**. Switch to the **Advanced** tab. Click **Environment Variables**. Ensure that the value for **HL_SEARCH** is **IP** and the value for **HLS_IPADDR** is the dongle server's IP address. If the values are missing completely, add them.
- On the Client, ensure that the `C:\Program Files\mediCAD II\CONFIG\global.ini` file is neither missing nor damaged.

Uninstalling IMPAX software

D

The following information explains how to uninstall the IMPAX Installation Server package and the IMPAX Client software, if needed.

Uninstalling the IMPAX Installation Server package

(Topic number: 7751)

If you need to reinstall the IMPAX Installation Server package, you must first uninstall the previous version first through Control Panel. Otherwise, the reinstallation fails.

To uninstall the IMPAX Installation Server package

1. On the IMPAX Installation Server machine, open Control Panel.
2. Select **Add/Remove Programs**.
3. Under Currently installed programs, select **AGFA IMPAX Installation Server <build number>**.
4. Click **Remove**.
5. When asked to confirm the removal, click **Yes**.

A Preparing to remove dialog opens, then the IMPAX Installation Server package is uninstalled.

Manually uninstalling the IMPAX 6.2 or later Client software (optional)

(Topic number: 7752)



Important!

This procedure is optional. You should not have to uninstall the IMPAX 6.2 or later Client software prior to installing the IMPAX 6.5.1 Client software. However, if the IMPAX Client is installed on Windows Vista, we recommend uninstalling it prior to the installation of the new version.

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

To manually uninstall the IMPAX 6.2 or later Client software

1. If running, log out of the IMPAX Client and close the Login window.
2. Open Control Panel.
3. Select **Add or Remove Programs**.
4. Under Currently installed programs, select **AGFA IMPAX Client *build_number***.
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 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

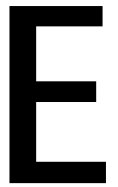
1. Open Control Panel.
2. In Windows 2003, select **Add or Remove Programs**. In Windows 2008, select **Programs and Features**.
3. In the Add or Remove Programs dialog, under Currently installed programs, select **AGFA IMPAX *version* Knowledge Base *buildnumber* Documentation**.
4. Click **Remove**.
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.

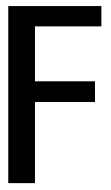
Migration references



The *IMPAX 6.5.1 Migrations Reference Guide* provides reference material to support migrations from IMPAX 5.2 to IMPAX 6.5.1. The information includes:

- Obsolete IMPAX 5.2 privileges
 - New operations for IMPAX 6.5.1
 - Privileges from IMPAX 5.2 that are common to IMPAX 6.5.1
 - Default operations for each role
-

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AutoFac 2.1.13

(Topic number: 121742)

Autofac IoC Container

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Editline 1.2-cstr

(Topic number: 121768)

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Flexgrid for .NET

(Topic number: 7695)

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ICU License - ICU 1.8.1 and later

(Topic number: 13533)

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Log4Net

(Topic number: 7648)

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OpenSSL

(Topic number: 121771)

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TCL 8.5.3

(Topic number: 121781)

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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

ADT

Admission, Discharge, Transfer. An ADT message contains patient demographic and visit information that is stored by a HIS or RIS.

Application Server

Intermediary server between IMPAX Client and IMPAX Server machines. LDAP, Documentation, and other Business Services reside on the Application Server.

Archive Server

The IMPAX server that manages the archive. The Archive Server handles requests to store studies to the archive and to retrieve studies from the archive. The Archive Server stores studies in its cache before archiving them to long-term storage.

C

cluster

A networking solution combining two or more otherwise independent computers, enabling them to work together in managing hospital data.

Connectivity Manager

A middleware component in the integration between hospital information systems and other hospital imaging departments.

Connectivity Manager also provides connectivity to each modality and the PACS.

D

database

A collection of data that is organized so that its contents can easily be accessed, managed, and updated.

device driver

A software program that controls data transfer between a computer and a peripheral device, such as a printer, CD-ROM, or cartridge driver. It may control internal system features, such as digital video or audio playback.

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.

HIS

Hospital Information System. The database used by a hospital to manage patient information and scheduling.

HIS verification

An option that forces the PACS to verify all incoming images from an acquisition station or modality against specific criteria, such as the patient ID and accession number. The PACS sends a message through the RIS Gateway to verify the criteria against what is contained in the HIS. If the criteria match, then the images can be stored permanently.

HL7

Stands for Health Level 7, a standard communication protocol used for the transmission of medical information. HL7 is used primarily by HIS systems and does not support transmission of images.

HTTPS

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

I

Image area

Component of the IMPAX Client application that displays study images. The Image area includes many tools for viewing and marking up images.

IP address

The Internet Protocol address is a numeric address that identifies the station to other TCP/IP devices on the network.

L

load balancing

Distributing processing and communications activity evenly across a computer network so that no single device is overwhelmed.

M

Macro enterprise

A Macro enterprise is an environment comprised of multiple clusters or Micro enterprises and coordinated by a central Data Center. It is the most common deployment type.

master Curator

When using multiple Curators, the first Curator that runs, which owns the job queue.

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.

N

network

A group of computers, peripherals, or other equipment connected to one another for the purpose of passing information and sharing resources. Networks can be local or remote.

Network Gateway

The Network Gateway is part of the IMPAX MVF cluster. Essentially, this is the workflow manager of the IMPAX 6.0 and later system. The Network Gateway controls the studies

coming into the cluster from an acquisition station, validates these incoming studies against information from the HIS or RIS, and routes the validated studies to cache or archive.

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.

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.

R

RIS

Radiology Information System. Responsible for scheduling exams and for report management in the Radiology department.

S

single-host configuration

A configuration in which the Database, Archive Server, and Network Gateway server components are all installed on a single server.

single-server configuration

An IMPAX single server is a Windows server that runs the AS300 Server software in a

single-host configuration along with the Application Server and Connectivity Manager software.

slave Curator

When using multiple Curators, the secondary Curators. Though the master Curator owns the job queue, PREPARE jobs are associated with the Curator that started the job.

SSL

Secure Sockets Layer. A protocol from Netscape Communications Corporation, which is designed to provide secure communications on the Internet.

SSL certificate

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

standalone station

Windows server on which the IMPAX Client, AS300, and Application Server software are installed. Runs under Windows XP SP3. The standalone does not have its own installation program. To create a standalone, the AS300, Application Server, and Client installation programs are each run separately.

station containers

In the navigation pane of the Configure area - Stations section, the station containers are like folders that organize groups of stations. You can set configuration options for the station containers, and all stations within that container inherit those configuration options.

T

TalkStation

TalkStation is voice recognition software that can be integrated with IMPAX. TalkStation can convert spoken speech to typed text

without having to go through a transcription phase.

Text area

Component of the IMPAX Client that displays study, order, and report information.

U

user

Users represent individuals, such as a radiologist or a clinician. Each user must belong to at least one primary role. A user can also belong to other secondary roles. Users inherit permissions, licenses, and preferences from their role.

W

web cache

Images that have been compressed by Curator are stored in the web cache. These images are compressed using Mitra Wavelet compression to reduce their size for access over low bandwidth.

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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