ICS Technology

PADS Installation Manual
Welcome to PADS (Public Area Display System), one of the most advanced and complete digital signage software packages that are available today.

This PADS manual describes the installation of the PADS Professional software.
Before you are going to install

If you are new to PADS then it is advised first to read the information in this section before you are going to install the software. This gives you a better understanding of the PADS system itself and how the system must be installed.

In this section

System overview
Gives a overview of the main components of the PADS Professional software and how these components work together.

Possible configurations
Explains how the components of PADS Professional can be installed on one single PC (standalone installation) or on multiple PCs to work together in a network (network installation).

System requirements
Describes all requirements the PADS Professional software has on hardware, network infrastructure and other elements of a digital signage system.

PADS licenses
Explains what licenses are required to run the PADS Professional software.

What’s on the CD-ROM
Gives an overview of the folders and files on the PADS Professional CD-ROM.

PADS Installation
System overview

PADS is a software bundle of applications that cover all aspects of a digital signage/narrowcasting system: Designing, scheduling, distributing and displaying of any type of information on any public display device. In combination with PCs, a network infrastructure and public displays it gives you a state-of-the-art solution for displaying dynamic information.

Key components
The PADS software consists of a number of components, from which some run as a service (without a user interface) and other as an end-user application (with a user interface). The software can be split up in PADS Manager/Designer software, PADS Server software, PADS Viewer software and PADS Agent software.


**PADS Manager/Designer software**

- **PADS Designer** - A powerful editor that allows you to design appealing PADS presentations. Presentations can vary from simple text-oriented messages to comprehensive multimedia presentations with video and even TV broadcasts.

  An important feature of the PADS Designer application is the database connectivity. By using a simple wizard one can connect page elements to almost any data source to display real-time data.

- **PADS Manager** - The application for easy scheduling of PADS presentations. Presentations can be scheduled once or with recurrence for individual displays as well as group of displays.

**PADS Server software**

- **PADS Database** - The PADS database is the pivot of the system in which all important information is stored. This information varies from static information about the existing Viewers and Viewer groups to dynamic information about the scheduled presentations.

- **PADS Server** - (Service) The PADS Server software handles the access to the PADS Database so that the data consistency is guaranteed.

- **PADS Layout Server** - (Service) The PADS Layout Server software automatically handles the distribution of scheduled presentations to the PADS Viewers.

- **PADS Data Server** - (Service) The PADS Data Server software automatically handles the delivery of real-time data to the PADS Viewers for displaying.

- **PADS License Wizard** - This wizard helps to install and/or update PADS licenses. PADS licenses are required to use the software.

- **PADS Agent Server** - (Service) The PADS Agent Server software enables the PADS Agent application to do remote management for the PADS Server.

**PADS Viewer software**

- **PADS Viewer** - The application for displaying scheduled presentations on a public display, like a CRT monitor,
plasma display, TV, LCD display or LED board.

- **PADS Agent Controller** - The PADS Agent Controller software allows the PADS Agent application to do remote management for the PADS Viewer.

**PADS Agent software**
- **PADS Agent** - Management tool to easily inspect and control the PADS system from one central location.

As has been described in System overview the PADS Professional software consists of a number of key components. With these components various configurations are possible. This varies from having all components installed on one single PC to installing each component on a separate PC in a network.

The only common rule is that there must be some kind of network connection (LAN, Intranet or Internet) between the installed components so that they can communicate with each other.

**In this section**
- **Standalone configuration**
  - Describes the configuration whereby all PADS components are installed on one single PC.
- **Network configuration**
  - Describes the configuration whereby several PADS components are installed on separate PCs in a network.
- **Special configurations**
  - Describes special situations like large installations or installations across multiple locations.

With a standalone configuration all PADS components are installed on one single PC. The computer acts as a Manager/Designer PC, Server PC and Viewer PC.

NOTE: A Standalone configuration with the PADS Professional software must not be confused with an installation of the PADS Standalone software. This is a separate edition of the PADS software with limited functionality (no PADS Manager for instance) that has been developed for simple standalone situations.

**Advantages**
- No possibility of network problems.
- Scheduled presentations, content files (videos, pictures etc.) and real-time data don't need to be distributed.

**Disadvantages**
- PADS Viewer application and PADS Manager or Designer application can't run simultaneously in the foreground.
- Configuration can only be used for one PADS Manager/Designer and one PADS Viewer. If you want to extend the system you have to switch over to another configuration.
**Application**

Because of the disadvantages this configuration is not recommended for most situations. Only for situations where one has only the disposal of one computer and PADS Manager/Designer and PADS Viewer will not be used simultaneously this configuration is seen as a possible solution. This could be with demonstrations and exhibitions where the PADS Presentations are designed and scheduled at the beginning of the day and the rest of the day the system will run as a PADS Viewer.

The PADS Agent software has no function at all with a standalone configuration.

**Network configuration**

The most commonly used PADS configuration is a network configuration whereby a Server PC, one or more desktop PCs and a number of Viewer PCs is used.

**Server PC**

Usually the following components are installed on the Server PC of the PADS system:

- PADS Database
- PADS Server
- PADS Layout Server
- PADS Data Server
- PADS License Wizard

**Desktop PC**

Usually the following components are installed on a desktop PC:

- PADS Designer
- PADS Manager
- PADS Agent

If these applications are only used by one single user it’s recommended to install these components on the Server PC instead of a separate desktop PC if possible. This makes it easier to handle content files (pictures, videos etc.) and real-time data.

**Viewer PC**

Usually the following component is installed on each Viewer PC:

- PADS Viewer
Sometimes there are special situations that require a different configuration.

**One Viewer PC to control multiple displays**

In far most situations there will be exactly one PADS Viewer PC per display unit to create a stable and flexible configuration. This Viewer PC with the PADS Viewer software installed drives the display unit to which it has been attached or in which it has been built-in.

However it is also possible to use one Viewer PC to drive multiple display units. With this multiple instances of the PADS Viewer software will be installed on this PC, each driving one of the connected display units.

Of course this configuration has the advantage that one can save on hardware costs. On the other hand there are some disadvantages like the sharing of computer capacity and the fact that a defect with the Viewer PC will affect all connected displays.

**Large installations**

A complete PADS system can always have only one PADS Database and PADS Server. These components must be installed on the central PADS Server PC and will be used by the entire system.

For the PADS Layout Server and/or PADS Data Server software one can decide - depending on the size of the installation - not to install these components on the central PADS Server PC, but to use a separate PC for this purpose. It is even possible to use multiple PADS Layout Servers or PADS Data Servers where each instance of the software handles a number of connected PADS Viewers.

Often it's not required to use separate PADS Layout Servers or PADS Data Servers and it will be satisfying to use cluster technology to expand the capacity of the Server PC.

**Multiple locations**

The PADS system has also built-in support for multiple locations. For instance it is possible to have the Server software of the PADS system installed on a central Server PC while the Viewer software is installed on Viewer PCs at different locations. The communication between the PADS Viewers and the PADS Server will then run over the Internet.

Another example is a main office with a central PADS Server and a large number of branch offices, each having it's own complete PADS system with a PADS Server and a number of PADS Viewers.

For these situations PADS has the possibility of automatic replication from the main office to each individual branch office.

For more specific information about this functionality, please contact your local dealer or Net Display Systems.
Before you are going to install > System requirements > Hardware requirements

The hardware requirements for PADS Professional are mainly determined by the configuration you have selected. When you have a standalone installation with all PADS components on one single PC there will be different requirements compared to a network installation where each PADS component is installed on a separate PC.

**Server PC**

The Server PC is the pivot of the system. On this PC the PADS Server software runs. Of course the requirements for this PC mainly depend on the size of the system and how intensively the system is used. In general every modern PC will be satisfying to act as a PADS Server PC. Just to give you an indication we list the recommended hardware for a system with about 50 Viewers:

<table>
<thead>
<tr>
<th>Item</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>Intel Pentium 4 or compatible</td>
</tr>
<tr>
<td>CPU</td>
<td>1,5 GHz or higher</td>
</tr>
<tr>
<td>Memory</td>
<td>1,024 GigaByte</td>
</tr>
<tr>
<td>Hard disk</td>
<td>80 GigaByte</td>
</tr>
<tr>
<td>Operating system</td>
<td>Windows XP Professional, Windows 2003 Server or Windows Vista.</td>
</tr>
</tbody>
</table>

For large and/or critical systems it is recommended to use a backup Server PC or a Server PC with clustering technology and RAID facilities.

**Manager/Designer PCs**

The Manager/Designer PC is a desktop PC that is intended to run the PADS Manager, PADS Designer and optionally the PADS Agent software. There can be one or more Manager/Designer PCs, depending on the number of people that want to use the PADS system. The Manager/Designer PC has the following recommended hardware specifications:

<table>
<thead>
<tr>
<th>Item</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>Intel Pentium or compatible</td>
</tr>
<tr>
<td>CPU</td>
<td>1 GHz or higher</td>
</tr>
<tr>
<td>Memory</td>
<td>512 MB</td>
</tr>
<tr>
<td>Hard disk</td>
<td>80 GigaByte</td>
</tr>
<tr>
<td>Operating system</td>
<td>Windows XP Home or higher.</td>
</tr>
</tbody>
</table>

NOTE: Often the Server PC is also used as Manager/Designer PC to save on hardware costs.

**Public displays**

Public displays are used to display the PADS presentations. Nowadays plasma displays and LCD screens are the most commonly used display devices, but the PADS software supports any VGA-compatible display device. Non-VGA devices are also supported but require interface software as device driver.

**Viewer PCs**

The Viewer PC is mostly a small-sized PC that is attached to or built-in the public display device. Other names that are often used for this type of PC are 'display controller', 'graphical engine board (GEB)' or 'set top box'. The Viewer PC has the following recommended hardware specifications:

<table>
<thead>
<tr>
<th>Item</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>Intel Core2Duo or compatible</td>
</tr>
<tr>
<td>CPU</td>
<td>2 GHz or higher</td>
</tr>
<tr>
<td>Memory</td>
<td>1024 MB</td>
</tr>
<tr>
<td>VGA Memory</td>
<td>32 MB</td>
</tr>
</tbody>
</table>
Analog TV cards

The PADS software has a built-in analog TV-element that can be used to display TV as part of a PADS presentation. To be able to use this functionality it's required to have equip each PADS Viewer PC with a TV card. It is also strongly recommended to use exactly the same TV card for the PADS Designer PC.

The analog TV card that you use for this purpose must be 100% WDM compatible. Net Display Systems recommends to use the Hauppauge WinTV PCI card for this purpose, because the software has been tested with this card. Beside the card itself you must also install the latest WDM driver of the TV card. This driver can be downloaded from www.hauppauge.com.

Digital TV cards

Digital TV cards must comply to the BDA (Broadcast Driver Architecture) Standard. You also need to install MPG2 codec drivers (audio and video) for conversion of the stream to a video/audio signal.

Network requirements

There must be a network connection (LAN, Intranet or Internet) between the installed PADS components so that they can communicate with each other.

Network infrastructure

The PADS system requires some type of network connection between the PADS Manager/Designer PC and the PADS Server PC on one side and between the PADS Viewer PCs and the PADS Server PCs on the other side.

The most commonly used network infrastructure is a LAN (Local Area Network) with UTP (at least CAT-5 quality) cabling. Other possibilities are a WAN (Wide Area Network), Intranet or Internet connection.

Wireless connections are also supported. This includes GPRS as well UMTS.

Internet connection

When an Internet connection is used as network infrastructure between the PADS Viewer PCs and the PADS Server PC (or between a replicated PADS Server PC and a central PADS Server PC) then this requires some additional configuration settings, like port forwarding in routers etc. This will be described in more detailed further on in this help file.

Port numbers

The network communication between the components of the PADS system uses TCP/IP. By default the following port numbers are used by the PADS components to communicate:

- 5657 - Used for all communication with PADS Layout Server
- 5658 - Used for all communication with PADS Data Server
- 5659 - Used for all communication with PADS Server
- 5660 - Used for content file synchronisation between PADS Viewer and PADS Server
- 5661 - Used for content file synchronisation between PADS Replicated Server and central PADS Server in a replicated environment.
- 5677 - Used for all communication with PADS Agent Server

If you are using a firewall on the PADS Server PC this means that one or more of the above port numbers will have to be opened in order for PADS to communicate. On the client side (for instance the PADS Viewer PC) it's not necessary to
The PADS software requires certain third party software to be installed.

**Operating systems**

PADS 3.1 Professional runs on the following operating systems:

**Viewer software:**
- Windows XP Home Service Pack 1 or higher
- Windows XP Professional Service Pack 1 or higher
- Windows Vista

**Other software:**
- Windows XP Professional Service Pack 1 or higher
- Windows 2003 Server
- Windows Vista

**Microsoft .NET Framework**

The PADS 3.1 Professional SR1 software requires the Microsoft .NET Framework version 3.5 software. If you use the CD-ROM version of the PADS setup then the English version of the Microsoft .NET Framework is part of the installation and will automatically be installed when necessary.

With the download version of the PADS setup the Microsoft .NET Framework is NO part of the installation. This means that in this case you have to make sure that the framework has been installed before you start the PADS installation program. The Microsoft .NET Framework can be downloaded from [http://www.microsoft.com/downloads](http://www.microsoft.com/downloads).

When you install the Microsoft .NET framework you must make sure that you install exactly the same version of the framework on all computers that will run one or more of the PADS components. If the .NET framework versions are not exactly the same then this may cause errors in the PADS software.

The CD-ROM version of the PADS setup will install the English version of the Microsoft .NET Framework. This means that any error message that is reported by the .NET Framework will be in the English language. Optionally you can separately install one of the .NET Framework language packs to have the error messages in your native language. For the Dutch, German and French language you can find these language packs in the `\Tools\DotNet Framework 3.5 Language Packs\` folder on the CD-ROM. For other languages you will have to download it from the Microsoft website [www.microsoft.com](http://www.microsoft.com).

**Microsoft Windows Media Player**

For playing videos and sounds the PADS software uses Microsoft Windows Media Player technology. For this at least version 9.0 of the Windows Media Player is required. Without the Windows Media Player PADS is not able to play any video or sound.

To support a certain video file format you have to install the correct codec driver for this file format on the PADS Designer PC as well as each PADS Viewer PC. Without the correct codec driver PADS (but also Microsoft Windows Media Player) will not be able to play the video or sound.

**IMPORTANT:** Please make sure that you use a correct codec driver. Practice has turned out that certain codec drivers have a memory leak. This can lead to PADS Viewer PCs to hang. An example of a correct codec driver is the ‘AllInOne’ code driver that can be downloaded from [www.freecodecs.com](http://www.freecodecs.com).

**Microsoft Internet Explorer**
PADS uses Microsoft Internet Explorer technology for displaying web contents in its web page element. For this it's required that you have at least version 7.0 of the Microsoft Internet Explorer installed on both the PADS Designer PC as well as each PADS Viewer PC.

**Macromedia flash or shockwave**

The web page element of the special Flash add-on element of PADS can be used for displaying Macromedia flash or shockwave files. For this it's required that you have installed the Macromedia flash or shockwave plug-in on the PADS Designer PC as well as each PADS Viewer PC. This plug-in can be downloaded from [www.macromedia.com](http://www.macromedia.com).

**Microsoft Powerpoint**

There are two page elements in PADS that can be used to run Microsoft Powerpoint presentations:

- The web page element
- The plug-in element

In both cases you must make sure that the complete Powerpoint application or at least the Powerpoint Viewer application has been installed on the PADS Designer PC as well as each PADS Viewer PC.

When you use the web page element to run Powerpoint presentations, you must be aware that this only works in combination with Microsoft Powerpoint Viewer 97 or the complete Microsoft Powerpoint application. Because of build-in limitations in the Powerpoint software it will not work in combination with Microsoft Powerpoint Viewer 2003.

With the plug-in element you can start the Powerpoint Viewer executable with the Powerpoint presentation as a command line argument. This works with any version of the Powerpoint Viewer, but the Powerpoint Viewer will always run full-screen.

For more information about how to include Microsoft Powerpoint presentations in your PADS presentation, please see the PADS Designer help file.

**Analog TV card drivers**

If the PADS Viewer PCs and the PADS Designer PCs have been equipped with an analog TV card then you must make sure that you install the latest WDM driver software for this card. If you use the TV card of Hauppauge then the driver can be downloaded from [www.hauppauge.com](http://www.hauppauge.com).

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PADS licenses

The usage of the PADS software is bound to licenses. The number of components that can be connected to the system is limited to the number of licenses that has been installed.

**Licenses**

PADS 3.1 knows the following licenses:

- PADS Manager licenses
- PADS Viewer licenses
- PADS Agent licenses

The following table demonstrates when these licenses are required.

<table>
<thead>
<tr>
<th>Application</th>
<th>Required license</th>
</tr>
</thead>
<tbody>
<tr>
<td>PADS Designer</td>
<td>Free. No license required.</td>
</tr>
<tr>
<td>PADS Manager</td>
<td>PADS Manager license required for each concurrent user.</td>
</tr>
<tr>
<td>PADS Server</td>
<td>Free. No license required.</td>
</tr>
<tr>
<td>PADS Viewer</td>
<td>PADS Viewer license required for each concurrent instance.</td>
</tr>
</tbody>
</table>
Installation

The licenses for the PADS software are installed by entering a product key that activates the license mechanism. The number of licenses or the license period can be extended by entering another product key.

In addition every purchased PADS system also uses a hardware key (dongle) that contains license information. This hardware key must always be plugged into the PADS Server PC in order for the software to run properly. As soon as the hardware key is removed the PADS software will stop working.

Time limited demo versions don't require a hardware key.

For more information about installing a product key, see Installing PADS licenses.


PADS Installation

What's on the CD-ROM

- What's on the CD-ROM
- Send Feedback

Before you are going to install > What's on the CD-ROM

The PADS software can be downloaded from the website www.nds-nl.com or it has been delivered on CD-ROM.

The main difference between the download version and the CD-ROM version is that with the CD-ROM version the Microsoft .NET Framework has been completely integrated in the installation while this is no part of the download installation. This means that with the download version the Microsoft .NET framework has to be installed separately, before starting the installation.

Apart from this the CD-ROM contains a number of additional, helpful tools.

Most important files

The CD-ROM contains among others the following files/folders:

- **Setup.exe**
  PADS 3.1 Professional SR1 installation program.

- **Releasedate.txt**
  This text file contains information about the release date of the setup on the CD-ROM.

- **\Common**
  This folder contains files that will be installed by the installation program.

- **\Documentation**
  This folder contains all documentation that comes with the product. The documentation is available in multiple languages.

- **\Program Files**
  This folder contains all PADS 3.1 Professional program files, help files and other files that will be installed by the installation program.

- **\Redist**
  This folder contains redistributable files that will be installed by the installation program.

- **\System32**
  This folder contains system files that will be installed by the installation program.

- **\Tools**
  This folder contains a number of useful tools.

- **\Add-Ons**
  This folder contains the add-ons which are installed by default.
  If you create Add-Ons yourself, they should also be location in this folder.
Tools

The Tools folder on the CD-ROM contains the following tools:

- **Codec drivers**
  For playing videos like MPEG files you need a correct codec driver to be installed. Some codec drivers have a memory leak which may cause problems. The Codec drivers in this folder have been tested by Net Display Systems without a memory leak being detected.

- **
  Microsoft .NET Framework 3.5**
  When you encounter problems with the installation of the Microsoft .NET Framework version 3.5 as part of the installation program then please use the setup in this folder to install the .NET Framework separately.

  Installation of the .NET Framework version 3.5 is required for any PADS 3.1 application to run properly.

- **Microsoft .NET Framework 3.5 Language Packs**
  By default the english version of the Microsoft .NET Framework is installed by the PADS 3.1 installation program.

  If in addition you like to have the error messages as well as any other message of the .NET Framework in your local language then you can install the language pack of your local language. Please note that this is optional and not required for the software to run correctly.

  If the language pack of your local language is not included you can download it from the web site of Microsoft.

- **HASP**
  When you encounter problems with your HASP hardware key (dongle) please use one of the installation programs in this folder to install the correct HASP drivers.

  Installation of the HASP drivers is required on the Server PC of the PADS system when your installation uses a HASP hardware key (dongle).

  **NOTE:** The HASP drivers are only included for backward compatibility. New PADS 3.1 Professional systems are always delivered with a new - not HASP - hardware key that don't need a special driver, but work with the standard USB driver.

- **WinHelp**
  When you encounter problems opening HTML help files (*.chm) please run the 'Hhupd.exe' program to install all required files to support HTML help files.

To install the PADS software you have to run the PADS installation program on all PCs where one or more components of the PADS system must be installed. After this you have to configure each PADS component so that all components can work together to have one complete system.

**In this section**

- **Quick install**
  - If you don't need specific background information about the installation then this is the quickest guideline for installation of the PADS software.

- **Installation program**
  - Gives a full explanation of the PADS installation program.

- **Finishing PADS Server installation**
  - Explains how to configure the PADS Server components.

- **Finishing PADS Manager/Designer installation**
  - Explains how to configure the PADS Manager and PADS Designer application.

- **Finishing PADS Viewer installation**
  - Explains how to configure the PADS Viewer application.

- **Finishing PADS Agent installation**
  - Explains what to do before you can start using the PADS Agent application.

- **Setting up file synchronisation**
  - Describes how you must configure the PADS Server PC and the PADS Viewer PCs to have files automatically distributed by the system.

- **Special situations**
  - Gives more information about special situations that have to deal with PADS installations.

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The quickest way to install the PADS software is to follow one of the procedures as described below. If you like to have more background information on certain parts of the installation then you should consult the other information in this installation manual.

**To quickly perform a standalone installation (all components on one single PC)**

1. **Plug the hardware key (dongle) into your PC.**
   - Depending on the type of hardware key you must use the USB port or parallel port of your PC. Some installations won't require a hardware key.

2. **Run the installation program setup.exe.**
   - The setup program can be found on the PADS 3.1 Professional CD-ROM or can be downloaded from [www.nds-nl.com](http://www.nds-nl.com). In the setup choose for a Complete installation.

3. **Run the PADS 3.1 Professional License Wizard.**
   - The License Wizard can be found in the Windows Start menu under (All) Programs, PADS 3.1 Professional, Tools.

4. **Start the PADS 3.1 Professional Viewer application.**
   - To start PADS Viewer double click the shortcut for this application on the desktop. In the PADS Viewer Configuration wizard enter 'localhost' as the name of the Server and enter a name as identification for the Viewer.
To quickly perform a network installation

1. **Plug the hardware key (dongle) into the PADS Server PC.**
   Depending on the type of hardware key you must use the USB port or parallel port of the Server PC. Some installations won't require a hardware key.

2. **Run the installation program setup.exe on the PADS Server PC.**
   The setup program can be found on the PADS 3.1 Professional CD-ROM or can be downloaded from www.nds-nl.com. In the setup choose for a Custom installation and select PADS Designer, PADS Manager and PADS Database/Server as the components to install. Optionally, PADS Designer and PADS Manager can be installed on a separate desktop PC.

3. **Run the PADS 3.1 Professional License Wizard on the PADS Server PC.**
   The License Wizard can be found in the Windows Start menu under (All) Programs, PADS 3.1 Professional, Tools.

4. **Run the installation program setup.exe on the PADS Viewer PC.**
   In the setup choose for a Custom installation and select PADS Viewer as the component to install.

5. **Start the PADS 3.1 Professional Viewer application.**
   To start PADS Viewer double click the shortcut for this application on the desktop. In the PADS Viewer Configuration wizard enter the name of the PADS Server PC as the name of the Server and enter a name as identification for the Viewer.
To install one or more components of the PADS software on your computer you must use the PADS installation program. The installation program can be found on the PADS 3.1 Professional CD-ROM or can be downloaded from www.nds-nl.com.

To start the PADS installation program


2. (Download version) Browse to the folder where you have stored the downloaded PADS setup and double click on the downloaded executable.

3. From the list of displayed languages, select the language for the installation and click OK.

4. (CD-ROM version) If the Microsoft .NET framework version 3.5 has not yet been installed on your computer, then the installation program will install it. In this case follow the guidelines of the .NET framework installation. Afterwards you might have to reboot your computer to complete the .NET framework installation.

5. On the Welcome page of the PADS 3.1 Professional Installation wizard click Next to continue.

6. If you already have a previous build version of PADS 3.1 Professional or PADS 3.0 installed on your computer the installation program will automatically detect this and ask you if it's OK to automatically uninstall this version. Select the option Uninstall the previous PADS version and click Next to continue.

7. Read the license agreement for the PADS software and if you agree then select I accept the terms in the license agreement and click Next to continue with the installation.

Remarks

- The PADS 3.1 Professional software requires the Microsoft .NET Framework version 3.5 software. If you use the CD-ROM version of the PADS setup then the English version of the Microsoft .NET Framework is part of the installation and will automatically be installed when necessary.

With the download version of the PADS setup the Microsoft .NET Framework is NO part of the installation. This means that in this case you have to make sure that the framework has been installed before you start the PADS installation program. The Microsoft .NET Framework can be downloaded from http://www.microsoft.com/downloads.

- The language that you select does not only determine the language for the installation program itself. It also determines the language of the user interface for the applications that will be installed and the language of the help files.

The user interface language for the PADS applications can be adjusted afterwards for each application separately.

- When you select the Uninstall the previous PADS version option, the installation program will uninstall all program files of your existing PADS installation. However, the PADS Database and .XML files with program settings will remain intact. This means that if you have an existing PADS 3.1 Professional installation you will still have your existing users, viewers, schedules and program settings after running the installation program.

- When you do not agree with the license agreement, then you will not be able to install the PADS software.

Tips

- In order to prevent any security problems during the installation process it's recommended always to be logged on as Administrator, when starting the installation program. If - like with some versions of Windows Vista - it's not possible to be logged on as Administrator it's recommended to right click the Setup.exe file and use the Run As... option from the context menu to start the installation program as Administrator.

- The CD-ROM version of the PADS setup will install the English version of the Microsoft .NET Framework. This means that any error message that is reported by the .NET Framework will be in the English language. Optionally you can separately install one of the .NET Framework language packs to have the error messages in your native language. For the Dutch and German language you can find these language packs in the \Tools\Microsoft .NET Framework 3.5 Language Packs folder on the CD-ROM. For other languages you will have to download it from the Microsoft website www.microsoft.com.
After you have started the PADS installation program and went through the welcome page and license agreement page you are offered the possibility to enter user information.

To specify user information in the PADS installation wizard

1. (Optionally) Enter your User name and Organization.
2. Choose if the PADS software needs to be installed for Anyone who uses this computer (all users) or Only for me (the current user).
3. Click Next to continue with the installation.

Remarks

- The User name and Organization you enter are only used for administrative purposes within the operating system. This information is in no way used by the PADS software itself.
- To prevent any problems with running the PADS software it is strongly recommended to use the Anyone who uses this computer option whenever possible. If you use the Only for me option then you must make sure that the current user has enough permissions to install all parts of the software. In particular it's important that this user has permissions to install and start Windows services and has write permissions for the folders where the PADS software will be installed. If this is not the case then not all PADS components can be installed.
- When choosing the Only for me option you must make sure that you will be logged on as the same user when you want to run the PADS software after it has been installed. If you are logged on as another user with different permissions it might be possible that you encounter problems.

Tips

- If you want to install the PADS software for a new user account that you want to add to a domain, then it's recommended that you first create the user account and add it to the domain before you run the PADS installation program.

In the next step of the PADS installation wizard you can specify the setup type that best suits your needs.

To specify the setup type in the PADS installation wizard

1. Select Complete or Custom.
2. Click Next to continue with the installation.

Remarks

- If you are doing a standalone installation (all PADS components on one single PC) then you must choose the Complete option. In all other situations it's best to choose for a Custom installation. This allows you in the next step of the wizard to choose which PADS components you like to install.
- If you choose for a Complete installation then the installation program will install all PADS components in the subfolders of the C:\Program Files\Net Display Systems\PADS 3.1 Professional folder on your computer. If you want to choose another location you must choose the Custom option.

Tips

- If you are doing a network installation then it's best only to install the PADS components that really will be used on the computer you are installing at. Of course it is always possible to choose for a Complete installation in this case, but this means that there will be installed a number of Windows Services that are not required. These Services will automatically be started and run in the background and can unnecessarily slow down your computer.
If you only want to install the PADS Viewer software, then it might be interesting to use the separate PADS Viewer only setup program. This can save you time and offers some interesting features like performing a silent and/or remote installation. For more information see Installing PADS Viewer only.

PADS Installation
Selecting components

If you have chosen for a Custom installation in the previous step of the PADS installation wizard then you have the possibility to select the PADS components that you like to install on your computer.

The PADS software consists of a number of components. All components can be installed on separate PCs to work together over a network or several or all components can be combined on one single PC.

By default all PADS components will be selected to be installed on your computer.

To select/unselect a component in the PADS installation wizard

1. Go to the list of existing components. Optionally click the [+]-sign to expand the item.
2. Position the mouse pointer above the component you like to include/exclude and click the left mouse button.
3. From the listed context menu select one of the following options:

<table>
<thead>
<tr>
<th>Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>This feature will be installed on local hard drive.</td>
<td>The component will physically be installed on your computer.</td>
</tr>
<tr>
<td>This feature, and all subfeatures, will be installed on local hard drive.</td>
<td>The component and all subcomponents will physically installed on your computer.</td>
</tr>
<tr>
<td>This feature will be installed to run from network.</td>
<td>The component will run from a central network location.</td>
</tr>
<tr>
<td>This feature, and all subfeatures, will be installed to run from network.</td>
<td>The component and all subcomponents will run from a central network location.</td>
</tr>
<tr>
<td>This feature will be installed when required.</td>
<td>The component will automatically be installed on first</td>
</tr>
<tr>
<td>This feature will not be available</td>
<td>The component will not be installed.</td>
</tr>
</tbody>
</table>

To change the folder into which the PADS software will be installed

1. Click Change....
2. Browse for the new destination folder or manually enter the name of the folder.
3. Click OK.

To continue

1. Click Next to continue with the installation.

Remarks

- If you like to have more information about the individual PADS components, their function and possible configurations, please have a look at System overview and Possible configurations.

- The specified destination folder for the software will be used for all selected components. If the specified folder does not yet exist it will automatically be created by the installation program when the software is physically installed.

- Optionally you can click the Space button to check how much disk space is required to install the selected components and how many disk space you have available.

Tips
• It’s best only to install the PADS components that really will be used on the computer you are installing at. Of course it is always possible to install all components, but this means that there will be installed a number of Windows Services that are not required. These Services will automatically be started and run in the background and can unnecessarily slow down your computer.

• If you only want to install the PADS Viewer software, then it might be interesting to use the separate PADS Viewer only setup program. This can save you time and offers some interesting features like performing a silent and/or remote installation. For more information see Installing PADS Viewer only.

To start the installation of the selected components by the PADS installation wizard

1. Click Install.

During the installation you will be kept informed about the status of the installation process.

Remarks

• Until this point in the PADS installation wizard it is still possible to abort the installation without any of the PADS components being installed. For this you must click Cancel. After clicking Install you need to follow the procedure for Removing the installation if you want to undo the installation of the PADS software.

• Depending on the components you have selected in the PADS installation wizard one or more of the following items will be installed:

  ● **PADS Database**
  The PADS Database will be installed in the \Database subfolder of the installation folder (by default C:\Program Files\Net Display Systems\PADS 3.1 Professional.

  ● **PADS Program files**
  All PADS applications and related program files will be installed in the \Program Files subfolder of the installation folder. This also includes the .XML files with program settings.

  ● **Help Files**
  In the \Help Files subfolder of the installation folder help files in multiple languages will be installed.

  ● **Log Files**
  In the \Log Files subfolder of the installation folder several log files are created. in combination with the information of the Windows Event Viewer logs the log files are extremely helpful when you have a problem with the PADS software and want to find out the possible cause of the problem.

  ● **Content Files**
  In the \Content Files subfolder of the installation folder the installation program will place a number of content files like pictures, videos etc. These files can be used with the creation of PADS presentations.

  ● **Presentations**
  In the \Presentations subfolder of the installation folder the installation program will place a number of PADS presentations that can be used as samples.

  ● **Windows Services**
  A number of PADS services will be installed and started by the installation program. In the list of Windows services the PADS services can easily be recognized because the names of these services start with PADS.

  ● **Start menu**
  In the Windows Start menu all PADS related items can be found under PADS 3.1 Professional in the(All) Programs section. Beside the key applications of PADS also the wizards to configure the PADS system are listed here.

  If you have installed the PADS Viewer component then the PADS Viewer application is placed into the Windows
StartUp folder so that this application is automatically started when Windows is started.

- **Windows desktop shortcuts**
  On the Windows desktop shortcuts will be created to quickly start the key applications of PADS: PADS Manager, PADS Designer and PADS Viewer.


PADS Installation

Installation finished

Send Feedback

Installation of PADS > Installation program > Installation finished

After the PADS software has been successfully installed you can close the PADS installation wizard.

**To close the PADS installation wizard after a successful installation**

1. Click **Finish**.

**Remarks**

- IMPORTANT: After you have run the PADS installation wizard you have only installed the PADS software on your computer, but it has not yet been configured. Before you can start using the PADS software you must first configure each individual PADS component properly as has been described in Finishing PADS Server installation, Finishing PADS Manager/Designer installation, Finishing PADS Viewer installation, Finishing PADS Agent installation and Setting up file synchronisation.

- What has been installed by the PADS installation wizard depends on the components you have selected in the installation wizard. For a complete overview of what can be installed see Starting the installation.


PADS Installation

Finishing PADS Server installation

Send Feedback

Installation of PADS > Finishing PADS Server installation

After you have run the installation program to physically install the PADS software, you still must configure the PADS Server software so that all components can optimally work together.

**In this section**

- **PADS Server configuration settings**
  Explains how the PADS Server software can be configured by running the PADS Server configuration wizard.

- **PADS licenses**
  Demonstrates how PADS licenses can be installed with the PADS License wizard.

- **PADS Layout Server configuration settings**
  Explains how the PADS Layout Server software can be configured by running the PADS Layout Server configuration wizard.

- **PADS Data Server configuration settings**
  Explains how the PADS Data Server software can be configured by running the PADS Data Server configuration wizard.

- **PADS Agent Server configuration settings**
  Explains how the PADS Agent Server software can be configured by running the PADS Agent Server configuration wizard.

To configure the PADS Server software - the software that handles all access to the PADS database - you can use the PADS Server Configuration Wizard.

**To use the PADS Server Configuration wizard**

1. Click the **Start** button on the Windows taskbar.
2. Select **(All) Programs, PADS 3.1 Professional** and then **Tools**.
3. Select **Server Configuration Wizard**.
4. Click **Next** on the introduction page.
5. Select the **type of database** you want the PADS system to use for storage of internal information about schedules, Viewers, Viewer groups, Users etc. Afterwards click **Next**.
   
   In far most situations the best option is to select **Microsoft Jet Engine**. In this case the PADS system will use a Microsoft Access database.
   
   ONLY for large and complex installations **Microsoft SQL Server** is the recommended option.
6. **(Microsoft Jet Engine only)** Enter the name and location of the **PADS Database**. Afterwards click **Next**.
   
   The PADS Database has automatically been installed with the installation when the PADS Database component has been selected in the installation. By default the location of the PADS Database is 'C:\Program Files\Net Display Systems\PADS 3.1 Professional\Database\PADS31.mdb'.
   
   Optionally, you can use the **Browse...** button to locate the database in your network.
7. **(Microsoft SQL Server only)** Enter the **SQL Server Name** of the Microsoft SQL Server environment that holds the PADS Database and click **Next**.
8. **(Microsoft SQL Server only)** Enter the **PADS Database name** of the PADS Database in the SQL Server environment and specify the **User name** and **Password** to access the database.
   
   If the PADS Database does not yet exist you can use **Create** to have it automatically generated.
   
   Afterwards click **Next** to continue.
9. Enter the **Client port number** other applications need to use to communicate with the PADS Server software. Afterwards click **Next**.
   
   Client applications such as PADS Layout Server and PADS Manager use a specific port number to communicate with the PADS Server software over TCP/IP. For this communication to run properly it is required that both sides use the same shared port number for this communication.
   
   With this please note that this port number is not used by any other application. If you have to change the default value then you will also have to change this value into exactly the same value with the other PADS components.
   
   If the communication runs via a firewall then you must make sure that communication over the specified port is allowed by the firewall.
   
   The following clients communicate with PADS Server using the above port number:
   - PADS Manager
   - PADS Layout Server
   - External applications (developed with the PADS Software Development Kit)
10. Specify the settings for the PADS Scheduler process and click **Next**.
   
   The Scheduler is an internal process of PADS Server that automatically generates recurrent instances of scheduled presentations with recurrence.
   
   With the **Scheduler log file** you can specify where messages about the scheduler process must be stored.
The **Number of log files to be kept in history** setting determines the maximum number of log files that will be created.

Each day a new log file will be created. When you specify the value 7, 7 days of history will be kept. Older files will automatically be deleted from disk.

11. Specify the settings for the PADS Remover process and click **Next**.

The Remover is another internal process of PADS Server that automatically deletes schedule information that is no longer in use. This cleans up the database and prevents that the database grows unnecessarily.

The **Remove information, older than x days** setting determines when the schedule information will be removed from the database.

With the **Remover log file** you can specify where message about the remover process must be stored.

The **Number of log files to be kept in history** setting determines the maximum number of log files that will be created. One log file will be used per day.

12. Specify the **PADS Server type** and click **Next**.

The PADS Server type that you can select here ONLY has to deal with the specific situation where you have a PADS system installed across multiple locations where each location has its own PADS Server.

Select the option **Normal PADS Server** system if your PADS system does not include multiple PADS Servers being installed at multiple locations. Even if you have an installation where the PADS Viewers have been installed at another location than the PADS Server (with communication over the Internet) but you have only 1 PADS Server you should select this option.

Select the option **Replicated PADS Server** system if your system includes multiple PADS Servers where replication is used to distribute information about scheduled PADS presentations and content files.

Select the option **Central Server** when this PADS Server is the central Server from which information must be replicated to other decentral PADS Servers.

Select the option **Decentral Server** when this PADS Server is a decentral Server that must replicate information from the central server.

13. (Replicated PADS Server, Central Server only) Specify the Synchronize content files settings and click **Next**.

When you have a replicated PADS system it’s possible to have your content files like videos etc. automatically synchronized between the central PADS Server and the decentral PADS Servers.

Specify the **folder name** that must be used as the root folder for the content files on the central Server. The connected decentral PADS Servers will automatically synchronize with the files in this folder and its subfolders, depending on your settings.

In addition specify the **Port number** that the Decentral Server can use to communicate with the Central Server for synchronisation of content files.

With this please note that this port number is not used by any other application. If you have to change the default value then you will also have to change this value into exactly the same value on the Decentral Server.

If the communication runs via a firewall then you must make sure that communication over the specified port is allowed by the firewall.

14. (Replicated PADS Server, Decentral Server only) Specify the system synchronisation settings for the PADS database and click **Next**.

**IMPORTANT:** The synchronisation settings that you can enter here ONLY have to deal with the specific situation where you have a PADS system installed across multiple locations where each location has its own PADS Server. In this case the synchronisation settings allow you to have the PADS database on the decentral PC being synchronized with the PADS database on the central server.

A typical example of this is a company that has one main office and a large number of branches all over the country. At the main office one central PADS Database runs and each location has its own PADS Database with a subset of the central database. In this case the synchronisation settings determine how the branches communicate with the main office to synchronize the databases.
Checkmark **Synchronize with remote PADS Server** if your PADS Server is located at a decentral location and you want it to synchronize with the PADS Database at the central location.

Enter the network address (TCP/IP address or computer name) of the **Remote server computer** and the **Remote server port number** to use to communicate with the remote server. The port number you specify here is used to communicate with the PADS Server software on the remote computer and must correspond with the specified port number for the PADS Server software on the remote server.

If the Server PC is behind a router you must specify the public IP address of the router and use port forwarding for the specified port number for forward all communication from this router to the Server PC. Port forwarding can be specified in the configuration settings of the router.

The **Filter** options allow you to make sure that not the entire database is replicated to the local computer, but only the information that is relevant to the local PADS system. You can filter on a specific **Location** or **Viewer (group)**.

15. (Replicated PADS Server, Decentral Server only) Specify the remaining system synchronisation settings and click **Next**.

When synchronising between a central PADS Server and decentral PADS Servers there is a possibility to have a continuous connection between these two PC’s or to use a dial-up connection.

Choose **Continuous connection** when the connection between the PADS Servers is always available.

Choose **Dial-up connection** when the connection must be established with a specific interval and released afterwards.

Switch on **Always synchronize directly after a (re)start of the PADS Server** when the synchronize always must be performed at startup of the PADS Server.

Choose the option **Synchronize once a day at a specific time** when the synchronisation must be performed only once a day at a specified time.

Choose the option **Synchronize at a specific interval** when the synchronize must be performed at a specific time with a specific interval.

16. (Replicated PADS Server, Decentral Server only) Specify the content file synchronisation settings and click **Next**.

These settings determine the process of automatic synchronisation of content files (videos, pictures etc.) between the central PADS Server PC and the decentral PADS Server PC.

This means that a user only has to maintain the content files on the central PADS Server PC instead of maintaining them separately for each decentral PADS Server PC or each individual PADS Viewer PC. As soon as a certain content file is placed into the PADS content folder or one of its subfolders on the central PADS Server PC it will automatically be downloaded to a corresponding local folder on the decentral PADS Server PC. The other way around when a certain content file is removed from the PADS content folder or one of its subfolders on the central PADS Server PC it will automatically also be removed from the corresponding local folder on the decentral PADS Server PC.

From the decentral PADS Server PC the automatic synchronisation of content files settings of PADS can be used to automatically further distribute the content files to the connected PADS Viewers.

**Automatic download of missing content files.** When this setting is checked then PADS will automatically create a local PADS content folder (including subfolders) on the decentral PADS Server PC and will make sure that the content files in this folder will be an exact local copy of the PADS content folder on the central PADS Server PC.

**Download all folders.** The PADS content folder including all subfolders will be synchronised between the central PADS Server PC and the decentral PADS Server PC.

**Download specified folders only.** Only the specified subfolders of the PADS content folder will be synchronised between the central PADS Server PC and the decentral PADS Server PC. Click **Add..** to specify a new subfolder. The folder name you specify here must always be a subfolder of the PADS content folder and the name must be the EXACT name of this subfolder on the central PADS Server PC. In addition you can specify if subfolders of this subfolder must be included as well.

**Specify synchronisation period.** Optional setting for specifying a timespan during which the decentral PADS
Server is allowed to synchronize content files.

**Optional download root folder.** By default the software will create exactly the same PADS content folder name on the decentral PADS Server PC as the name of the PADS content folder on the central PADS Server PC. If you want to use a different folder name it can be specified here.

**Synchronisation port.** By default the system will use port number 5661 to communicate with the central PADS Server PC for downloading files. If a different port number must be used it can be specified here.

17. *(Normal PADS Server or Central server of Replicated PADS Server only)* Specify the settings for the Active Directory user information that is to be used by PADS Manager and click **Next**.

**Use Active Directory to receive user logon information for the PADS Manager.** The synchronization of the Active Directory user information is an internal process of PADS Server that automatically synchronizes group and user information that resides in Active Directory on a predetermined machine. If this option is checked this information will be retrieved and transformed into PADS user group and user equivalents in the PADS database. With this users of the PADS system derived from Active Directory have the ability to log on with their Windows logon credentials (user name and password).

**Active directory server.** Enter the server machine (name, fully qualified domain name, or IP address) that you want to access for the Active Directory information.

**Authorized user** and **Password.** Enter the Windows logon credentials (user name and password) to access the server machine. The user name is best entered in the form ",<domain name>,<<user name>>" to make sure the proper domain is addressed. These credentials will be encrypted, so that they won’t be visible outside the PADS Server Configuration Wizard.

**Default Viewer group.** Enter the PADS viewer group that a synchronized Active Directory group is assigned to by default. The PADS user group derived from an Active Directory group needs to be assigned to a PADS viewer group for initial viewing permissions. These permissions, i.e. the viewers and viewer groups that are available to this PADS user group and its members, can be changed from that moment on. The synchronization process will check for the existence of the PADS viewer group and if it doesn’t exist already, it will be created on the fly.

Hit the **Test** button to see if a connection to the (remote) machine and Active Directory can be made. If the connection is successful **Active Directory Root**, the root address of Active Directory will be shown. If not, a message box with the accompanying error will be shown.

Finally specify the **organizational unit** in Active Directory where the group and user information for PADS is contained. This is done in the tree view that has been populated with the available organizational units after a successful connection to the Active Directory machine.

18. Click **Finish** to make the settings effective and leave the PADS Server Configuration wizard.

After this the system will report that the PADS Server service needs to be restarted in order for the new settings to take effect. Click **Yes** to restart the PADS Server service with the new settings.

Next the system will confirm that the service has been restarted successfully. Click **OK** to close the message box.

**Remarks**

- The PADS Server Configuration wizard can be started at any time to change the settings of the PADS Server service.
- For more information about replication see also Installing PADS Replicator.
- For more information about the synchronisation of content files see also the PADS Viewer manual.
- For more information about setting up Active Directory for PADS, see Setting up Active Directory for PADS.
- For more information about users and user groups in PADS Manager, see the PADS Manager help file.
Before you can start using the PADS software you must first activate the software by installing a hardware key and entering a product key. The product key reflects the number of licenses and optionally the licensing period for the software. The product key can be entered with the PADS License wizard.

**To install the hardware key (dongle)**

1. Plug the hardware key (dongle) into the PADS Server PC.

   Depending on the type of hardware key you must use the USB port or parallel port of your Server PC. Some installations won’t require a hardware key.

2. **To install PADS licenses with the PADS license wizard**

   1. Click the **Start** button on the Windows taskbar.
   2. Select **(All) Programs**, **PADS 3.1 Professional** and then **Tools**.
   3. Select **License Wizard**.
   4. Click **Next** on the introduction page.
   5. (Only when PADS Server could not automatically be reached) Specify the settings that determine how the PADS License Wizard will communicate with the PADS Server software and click **Next**.

      **As PADS Server name** you must specify the computer where the PADS Server software has been installed. Here you must enter the computer name or TCP/IP address of this computer.

      **NOTE:** In far most situations the PADS Server software will be installed on the same computer as the PADS License Wizard software. In this case you must enter the local computer name ‘**Localhost**’ as server name.

      **As PADS Server port number** you must enter the port number that will jointly be used by the PADS License Wizard and the PADS Server to communicate with each other. **THIS PORT NUMBER MUST EXACTLY CORRESPOND WITH THE PORT NUMBER SPECIFIED IN THE PADS SERVER CONFIGURATION WIZARD.**

      With this please note that this port number is not used by any other application. If you have to change the default value then you will also have to change this value into exactly the same value with the other PADS components.

      If the communication runs via a Firewall then you must make sure that communication over the specified port is allowed by the Firewall.

   6. Enter the **Product key** and click **Next**.

      If you already entered a product key before then instead of prompting for a product key the actual product key will be displayed and the wizard assumes you want to enter a new product key. For more information about this see **Upgrading PADS licenses**.

   7. Click **Finish** to make the settings effective and leave the PADS License wizard.

**Remarks**

- By default every purchased PADS system is delivered with a USB hardware key. On request this USB hardware key can be replaced by a parallel type hardware key.

- The hardware key must ALWAYS stay plugged into the PADS Server PC. As soon as the hardware key is plugged out the PADS software will stop working properly.

- Evaluation versions of the PADS software don’t require a hardware key. Instead these systems have a demo product key that is only valid for a limited period of time.

- When upgrading from PADS 3.0 to PADS 3.1 Professional you can reuse your existing dongle. In this case you will receive a new product key in combination with a verification code that can be entered in the upgrade wizard to upgrade your dongle. For more information see Upgrading from previous PADS versions.

- If you don’t have a product key then please contact your dealer or go to the download page of **www.nds-nl.com** to request for a demo key.
To configure the PADS Layout Server software - the software that handles the automatic distribution of scheduled presentations to PADS Viewers - you can use the PADS Layout Server Configuration Wizard.

**To use the PADS Layout Server Configuration wizard**

1. Click the **Start** button on the Windows taskbar.
2. Select **(All) Programs, PADS 3.1 Professional** and then **Tools**.
3. Select **Layout Server Configuration Wizard**.
4. Click **Next** on the introduction page.
5. Specify the settings that determine how the PADS Layout Server will communicate with the PADS Server software and click **Next**.
   - Choose **PADS Server is located on this Local PC** or **PADS Server is located on a Remote PC** to specify where the PADS Layout Server is located.

   **As PADS Server name** you must specify the computer where the PADS Server software has been installed. Here you must enter the computer name or TCP/IP address of this computer.

   **NOTE:** In far most situations the PADS Server software will be installed on the same computer as the PADS Layout Server software. In this case you must enter the local computer name or 'Localhost' as server name.

   **As PADS Server port number** you must enter the port number that will jointly be used by the PADS Layout Server and the PADS Server to communicate with each other. **THIS PORT NUMBER MUST EXACTLY CORRESPOND WITH THE PORT NUMBER SPECIFIED IN THE PADS SERVER CONFIGURATION WIZARD.**

   With this please note that this port number is not used by any other application. If you have to change the default value then you will also have to change this value into exactly the same value with the other PADS components.

   If the communication runs via a firewall then you must make sure that communication over the specified port is allowed by the firewall.

6. Enter the **Client port number** other applications need to use to communicate with the PADS Layout Server software. Afterwards click **Next**.

   Client applications such as PADS Viewer use this port number to communicate with the PADS Layout Server software over TCP/IP. For this port number he same rules apply as for the port number described above.

   If the communication runs via a firewall then you must make sure that communication over the specified port is allowed by the firewall.

   The following clients communicate with PADS Layout Server:
   - PADS Viewer
   - External applications (developed with the PADS Software Development Kit)

7. Specify the **Refresh interval** and click **Next**.

   The **Refresh interval** determines how quick the PADS Layout Server will offer changes in the scheduled presentations will be offered to the connected clients.

8. Specify how the PADS Layout Server should handle the automatic distribution of content files to the PADS Viewers and click **Next**.

   Choose **Do not synchronize content** or **Synchronize content** to determine if you like content files to be automatically distributed to the connected PADS Viewers.

   **As Folder name** you must enter the folder on the PADS Server PC that contains the content files that must by synchronised with the PADS Viewers.
In addition specify the **Synchronisation TCP port number** that the Layout Server can use to communicate with the PADS Viewers for synchronisation of content files.

With this please note that this port number is not used by any other application. If you have to change the default value then you will also have to change this value into exactly the same value on the PADS Viewer.

If the communication runs via a firewall then you must make sure that communication over the specified port is allowed by the firewall.

For a complete detailed description on how to configure the automatic distribution of files see [Setting up file synchronisation](#).

9. (Synchronize content only) Specify the extended content synchronisation settings and click **Next**.

   **Buffer size.** Here you can specify the packet size of the packages that will be send over during the communication.

   **Maximum upload speed per second.** Determines the maximum amount of network traffic that will be generated by the content synchronisation mechanism.

10. Click **Finish** to make the settings effective and leave the PADS Layout Server Configuration wizard.

    After this the system will report that the PADS Layout Server service needs to be restarted in order for the new settings to take effect. Click **Yes** to restart the PADS Layout Server service with the new settings.

    Next the system will confirm that the service has been restarted successfully. Click **OK** to close the message box.

**Remarks**

- The PADS Layout Server Configuration wizard can be started at any time to change the settings of the PADS Layout Server service.

**Tips**

- In situations of an unstable network you should work with a small **Buffer size** for content file synchronisation. With this you increase the chance that the pakket will be transmitted successfully.
With this please note that this port number is not used by any other application. If you have to change the
default value then you will also have to change this value into exactly the same value with the other PADS
components.

If the communication runs via a firewall then you must make sure that communication over the specified port
is allowed by the firewall.

The following clients communicate with PADS Data Server:
- PADS Viewer
- External applications (developed with the PADS Software Development Kit)

6. Specify how the PADS Data Server should log information and click Next.

You have the option to let the PADS Data Server write information to the application log of the Windows Event
Viewer as well as the possibility to use a separate log file to store information.

7. Click Finish to make the settings effective and leave the PADS Data Server Configuration wizard.

After this the system will report that the PADS Data Server service needs to be restarted in order for the new
settings to take effect. Click Yes to restart the PADS Data Server service with the new settings.

Next the system will confirm that the service has been restarted successfully. Click OK to close the message
box.

Remarks
- The PADS Data Server Configuration wizard can be started at any time to change the settings of the PADS Data
Server service.

To configure the PADS Agent Server software - the software that allows the PADS Agent application to do remote
management for the PADS Server - you can use the PADS Agent Server Configuration Wizard.

To use the PADS Agent Server Configuration wizard

1. Click the Start button on the Windows taskbar.
2. Select (All) Programs, PADS 3.1 Professional and then Tools.
3. Select Agent Server Configuration Wizard.
4. Click Next on the introduction page.
5. Specify the settings that determine how the PADS Agent Server will communicate with the PADS Server, PADS
Layout Server and PADS Data Server software and click Next.

In far most situations the default option All PADS Server components are installed on the local PADS
Agent Server computer with default port numbers can be selected.

Only in situations where one of the server components has been installed on a different computer, when using
multiple PADS Layout and/or PADS Data Servers or when using non default port numbers you must choose the
option One or more PADS Server components are installed on different computers or with different
non-default port numbers. In this case you have the possibility to manually specify the exceptions.

If the communication runs via a firewall then you must make sure that communication over the specified port
numbers is allowed by the firewall.

6. Enter the settings that determine how clients will communicate with the PADS Agent Server software and click
Next.
Enter the **Client port number** other applications need to use to communicate with the PADS Agent Server software.

Client applications such as the PADS Agent application use this port number to communicate with the PADS Agent Server software over TCP/IP.

With this please note that this port number is not used by any other application. If you have to change the default value then you will also have to change this value into exactly the same value with the other PADS components.

If the communication runs via a firewall then you must make sure that communication over the specified port is allowed by the firewall.

The following clients communicate with PADS Agent Server:
- PADS Agent
- External applications (developed with the PADS Software Development Kit)

Next specify the **Maximum network connection timeout** that is used for connections between the Agent Server and a Viewer PC. This maximum value is the time the Agent Server will wait before terminating the communication with the Viewer.

7. Specify how the PADS Agent Server should log statistics information and click **Next**.

With PADS you have the option to let PADS Viewers collect information about what information has been displayed, where and when. This collected information will automatically be sent to the PADS Server PC where it will be stored into a statistics database.

Here you have the possibility to specify where this statistics database is located on the PADS Server PC.

When working with multiple locations you have the possibility to enter a unique identification of your location which will be stored into the statistics database as well.

8. Specify how the PADS Agent Server should log information and click **Next**.

You have the option to let the PADS Agent Server write information to the application log of the Windows Event Viewer as well as the possibility to use a separate log file to store information.

9. Specify how the PADS Agent server should send e-mails and click **Next**.

One of the built-in features of PADS Agent server is to automatically send e-mails in case certain problems are detected in your PADS system. Here you can specify what configuration settings must be used in order to be able to send these e-mails.

**Specify a valid Sender address** allows you to enter the address that will automatically be filled into the From field of the e-mail. Please note that it is required to use a valid e-mail address for this.

With **Specify the SMTP mail server** you can specify the name of the mail server to use for sending e-mails. Some examples of valid mail server names are: smtp.provider.com, localmailserver or 20.55.56.101.

**Use Port** can be used to specify a specific port number for sending e-mails.

**Use Secure Sockets Layer (SSL) to encrypt the connection** enables you to send e-mails in a secured way so that they will not be readable for external parties.

10. Click **Finish** to make the settings effective and leave the PADS Agent Server Configuration wizard.

After this the system will report that the PADS Agent Server service needs to be restarted in order for the new settings to take effect. Click **Yes** to restart the PADS Agent Server service with the new settings.

Next the system will confirm that the service has been restarted successfully. Click **OK** to close the message box.

**Remarks**

- The PADS Agent Server Configuration wizard can be started at any time to change the settings of the PADS Agent Server service.
After the installation of the PADS Manager/Designer software the software must still be configured for optimal use.

**In this section**

- **PADS Manager configuration settings**
  Explains how to use the PADS Manager configuration wizard to configure your connection to the PADS Server software.

- **PADS Designer configuration settings**
  Explains what options there are to have the PADS Designer application meet your preferences.

To configure the PADS Manager software - the end-user application for scheduling PADS presentations - you can the PADS Manager configuration wizard or the **Options** item in the **Tools** menu.

When the PADS Manager application is started for the very first time or when the application is unable to connect to the PADS Server software then the system automatically starts the PADS Configuration Wizard to correct the problem.

The PADS Manager application can be unable to connect to the PADS Server software, because the PADS Server services has not been started, because the PADS Server software has been moved to another location, because one or more security settings on the Server PC are set incorrect or various other reasons. In all these situations the configuration wizard is started.

**To use the PADS Manager configuration wizard**

1. Click **Next** on the Introduction page.
2. Enter the **Server Name** of the PADS Server PC.
   
   Here you must enter the network address (computer name or TCP/IP address) of the PC that runs the PADS Server software. If the PADS Server software has been installed on the same PC as the PADS Manager software then you can enter the local computer name or 'localhost' as server name.
3. Enter the **Port number** to communicate with the PADS Server PC.
   
   The PADS Manager software communicates with the PADS Server service over TCP/IP using a jointly used port number. The default port number for this is 5659. Valid port numbers are in the range 5000 - 64000.
4. Click **Next** to continue.
5. Read the instructions and click **Next**.
6. Click **Finish** to make the configuration settings effective, leave the configuration wizard and start the PADS Manager application with the new settings.

**To use the options dialog box**

1. On the **Tools** menu click **Options**.
2. Change one or more of the program settings.
3. Click **OK** or **Apply** to make the changes effective.
For more information about the PADS Manager program settings, see the PADS Manager help file.

**Remarks**

- In order for PADS Manager to make connection with the PADS Server service it is required that the PADS Server service has been installed on the specified server PC and is up and running. To check if the service is running, go to the Services folder in Windows and look if the service with the name ‘PADS Server’ has been started.

- Please be aware that when you change the port number for PADS Manager to communicate with PADS Server that you also have to change this port number to EXACTLY THE SAME VALUE for all other PADS Manager applications as well as the PADS Server. The port number of the PADS Server service can be changed by starting the PADS Server Configuration Wizard.

- PADS Manager can only communicate with the PADS Server service using the specified port number if there is no firewall on the PADS Server PC that blocks the port number. If a firewall is active on the PADS Server PC then you should configure it so that communication with the used port number is allowed.

- If you want to change the Server name and/or Port number at a later moment e.g. to switch over to another PADS Server, then you have to call Options from the Tools menu of the PADS Manager application and change the connection settings on the General tab.

**Tips**

- If you want to you can force the PADS Manager application to show the configuration wizard at startup. For this you must manually blank out the 'ServerName' setting in the PADSManger.xml file, which is located in the same folder as where the program files are located.

- If the PADS Server service has been installed on the same PC as the PADS Manager software then it is always recommended to enter 'localhost' as Server name instead of your computer name. The reason for this is that 'localhost' will still work when you computer name will change in the future. Also using the computer name will result in a poorer performance, because the system will search your network environment for your own local computer.
Finishing PADS Viewer installation

After the installation of the PADS Viewer software the software must still be configured to communicate with the PADS Server software.

In this section

PADS Viewer configuration settings
Explains the options you have to configure the PADS Viewer application.

To configure the PADS Viewer software - the application for displaying PADS presentations - you can use the PADS Viewer configuration wizard or the PADS Viewer settings dialog box.

When the PADS Viewer application is started for the very first time then the PADS Viewer Configuration Wizard will be shown. This wizard allows you to define the required configuration settings (like the Viewer Name and the PADS Server Name) before you start using the PADS Viewer application.

To use the PADS Viewer configuration wizard

1. Click **Next** on the Introduction page.
2. Enter the **Server Name** of the PADS Server PC.
   
   Here you must enter the network address (computer name or TCP/IP address) of the PC that runs the PADS Layout Server software. If the PADS Layout Server software has been installed on the same PC as the PADS Viewer software then you can enter the local computer name or 'localhost' as server name.
3. Enter the **Port number** to communicate with the PADS Server PC.
   
   The PADS Viewer software communicates with the PADS Layout Server service over TCP/IP using a jointly used port number. The default port number for this is 5657. Valid port numbers are in the range 5000 - 64000.
4. Click **Next** to continue.
5. Enter the **Viewer Name** that uniquely identifies the Viewer within your PADS system.
6. click **Next** to continue.
7. Click **Finish** to make the configuration settings effective, leave the configuration wizard and start the PADS Viewer application with the new settings.

To use the PADS Viewer settings dialog box

1. Click the **Start** button on the Windows taskbar.
2. Select *(All) Programs, PADS 3.1 Professional.*
3. Click **Viewer** to start the PADS Viewer application.
4. Right click in within the PADS Viewer window and select **Settings** from the context menu.
5. Change one or more of the program settings.
6. Click **OK** or **Apply** to make the changes effective.

For more information about the PADS Viewer program settings, see the PADS Viewer help file.
Remarks

- The **Viewer name** can have a maximum length of 50 characters. Spaces are not allowed and the specified name is not case-sensitive.

- If you specify a **Viewer name** that already exists in the PADS database then as a result PADS Viewer will automatically retrieve the scheduled presentations for this Viewer (assumed that the system has been configured properly). If the specified Viewer name does not yet exist in the PADS database then it will automatically be added.

Tips

- In many situations it is a good idea to use the computer name as viewer name, because this name is already unique within your network. Also for administrative purposes it is sometimes easiest to keep both the computer name and the viewer name the same. To fill in the computer name as viewer name you can use the Computer Name button right to the **Viewer Name** input field.

- It’s also possible to specify #computername# as **Viewer Name**. In this case PADS Viewer will automatically replace this name with the existing computer name when the Viewer starts up. With this it is possible to install a large number of PADS Viewer PCs all with the same generic XML file.


PADS Installation

Finishing PADS Agent installation

Send Feedback

Installation of PADS  >  Finishing PADS Agent installation

After the installation of the PADS Agent software the software must still be configured in order to log on and make connection with the PADS Agent Server software.

In this section

**PADS Agent configuration settings**

Explains how to create a user account for PADS Agent and how to use the PADS Agent configuration wizard to configure you connection to the PADS Agent Server software.


PADS Installation

**PADS Agent configuration settings**

Send Feedback

Installation of PADS  >  Finishing PADS Agent installation  >  PADS Agent configuration settings

Before you can start using the PADS Agent application - the end user application for (remotely) controlling your system - you first need to create a PADS Agent user and configure the PADS Agent software. A new PADS Agent user can be created with the PADS Manager application. To configure the PADS Agent software you can use the PADS Agent configuration wizard or the Options item in the Tools menu.

The PADS Agent configuration wizard is only displayed the very first time the PADS Agent application is started. Afterwards changes need to be made with the Options item in the Tools menu.

**To create a new PADS Agent user**

1. Start the **PADS Manager** application.
2. On the **Tools** Menu click **User Management**.
3. In the left pane click **User** under **PADS Agent**.
4. Click **Add...** to start creating a new PADS Agent user.
5. Enter a **User name** for the new user.

   Please note that user names must be unique throughout the entire PADS system. This means that user names that are used for PADS Manager users can not also be used as the name of a PADS Agent user.

6. Enter a **Password** for this user and **Confirm Password** for verification.

7. Click **OK** to add the new user.

**To use the PADS Agent configuration wizard**

1. Click **Next** on the Introduction page.

2. Enter the location of PADS Agent server.

   If the PADS Agent Server software have been installed on the same PC as the PADS Agent software then you can choose the option **Local Computer**. Otherwise choose **Other Computer** and enter the network address (computer name or TCP/IP address) of the PC that runs the PADS Agent Server software.

   In most situations the PADS Agent Server software will be installed on the same PC as where the PADS Layout Server, PADS Data Server and PADS Server software has been installed.

3. Enter the **Port number** to communicate with the PADS Agent Server PC.

   The PADS Agent software communicates with the PADS Agent Server service over TCP/IP using a jointly used port number. The default port number for this is 5677. Valid port numbers are in the range 5000 - 64000.

4. Click **Next** to continue.

5. Click **Finish** to make the configuration settings effective, leave the configuration wizard and start the PADS Agent application with the new settings.

**To use the options dialog box**

1. On the **Tools** menu click **Options**.

2. Change one or more of the program settings.

3. Click **OK** or **Apply** to make the changes effective.

   For more information about the PADS Agent program settings, see the PADS Agent help file.

**Remarks**

- In order for PADS Agent to make connection with the PADS Agent Server service it is required that the PADS Agent Server service has been installed on the specified server PC and is up and running. To check if the service is running, go to the Services folder in Windows and look if the service with the name 'PADS Agent Server' has been started.

- Please be aware that when you change the port number for PADS Agent to communicate with PADS Agent Server that you also have to change this port number to EXACTLY THE SAME VALUE for all other PADS Agent applications as well as the PADS Agent Server. The port number of the PADS Agent Server service can be changed by starting the PADS Agent Server Configuration Wizard.

- PADS Agent can only communicate with the PADS Agent Server service using the specified port number if there is no firewall on the PADS Agent Server PC that blocks the port number. If a firewall is active on the PADS Agent Server PC then you should configure it so that communication with the used port number is allowed.

- If you want to change the Server name and/or Port number at a later moment e.g. to switch over to another PADS Agent Server, then you have to call Options from the Tools menu of the PADS Agent application and change the PADS Agent Servers settings.
PADS has the possibility to automatically distribute content files (pictures, videos etc.) from the central PADS Server PC to the connected PADS Viewer PCs.

For this you must have a certain folder (optionally with a number of subfolders) on the PADS Server PC where the content files are located and a corresponding folder on each PADS Viewer PC to where the files will be distributed.

IMPORTANT: Only files in the synchronisation folder (or one of its subfolders) on the PADS Server PC will automatically be distributed to the PADS Viewer PCs. Files in other folders can not be 'seen' by the synchronisation mechanism and thus will not be distributed.

The PADS file synchronisation functionality not only distributes content files to the connected Viewers, but completely synchronises the content of one or more folders. So if a file is placed in the synchronisation folder on the PADS Server PC it will automatically be copied to the PADS Viewer PC, but also if a file is removed from one of the synchronisation folders on the PADS Server PC it will automatically be removed from the PADS Viewer PC.

The file synchronisation process is a background process that is automatically started when the PADS Viewer software is started. When the PADS Viewer software does not run then the file synchronisation process will also not run. The file synchronisation process uses free computer resources to transfer files from the PADS Server PC to the PADS Viewer PC. This means that depending on the available bandwidth and free CPU time it may take some time before files will be copied from the PADS Server PC to the PADS Viewer PC.

To set up the automatic file synchronisation mechanism you must install a number of items on the PADS Server PC as well as on each PADS Viewer PC.

In this section

Setting up file synchronisation - Server PC
Expects the steps you must take to configure the PADS Server PC for automatic synchronisation of content files.

Setting up file synchronisation - Viewer PC
Expects the steps you must take to configure the PADS Viewer PC for automatic synchronisation of content files.

Sharing content files between Designer PC and Server PC
Expects how file synchronisation must be set up when PADS Designer/Manager and PADS Server have been installed on different computers.
You must make sure that the PADS Layout Server software knows where to find the synchronisation folder and what port number must be used to access it over the network or over the Internet.

**To adjust PADS Layout Server settings**

1. Click the Start button on the Windows taskbar.
2. Select (All) Programs, PADS 3.1 Professional and then Tools.
4. Click Next multiple times until you reached the synchronisation page.
5. As Folder name enter then name of the synchronisation folder (for example C:\PADS).
6. As port number enter the port number that the PADS Viewer and PADS Layout Server can use to communicate with each other for the synchronisation of content files and click Next.
7. Finish the wizard.

**Remarks**

- For more information about the PADS Layout Server configuration wizard see PADS Layout Server configuration settings.

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To automatically have a certain folder with content files (picture files, video files etc.) on the PADS Server PC automatically synchronised with a corresponding folder on the PADS Viewer PCs a number of settings need to be set on the PADS Viewer PC.

In case of a replicated PADS system these criteria must be met on the decentral PADS Server PC for synchronisation with the central PADS Server PC and on the PADS Viewer PCs for synchronisation with the decentral PADS Server PC.

**In this section**

Adjusting PADS Viewer settings

Describes how the PADS Viewer settings that have to deal with file synchronisation can be set.

-----

You must make sure that the PADS Viewer software knows that it must synchronize with the PADS Server PC and how the synchronisation must take place.

**To adjust the PADS Viewer settings**

1. Click the Start button on the Windows taskbar.
2. Select (All) Programs, PADS 3.1 Professional.
3. Click Viewer to start the PADS Viewer application.
4. Right click in within the PADS Viewer window and select **Settings** from the context menu.

5. Go to the **Synchronisation** tab.

6. Switch on **Automatic synchronisation of content files**.

7. Optionally select **Only during the following periods** if you want to prevent network traffic for some periods of the day.

   In this case use the **Add** button to add one or more periods of the day during which synchronisation of content files will be allowed.

8. Select **Synchronize all folders** if you want the PADS Viewer to synchronize with the synchronisation folder AND ALL SUBFOLDERS on the PADS Server PC.

9. Select **Synchronize specified folders only** if you want the PADS Viewer only to synchronize certain subfolders of the synchronisation folder on the PADS Server PC.

   In this case use the **Add** button to add one or more subfolders to the list of subfolders. With this you must ONLY enter the name of the subfolder without the path and name of the root synchronisation folder. The name of the (sub)folder entered is seen from the PADS Server PC’s point of view.

   So for instance when the synchronisation folder on the PADS Server PC is named C:\Temp and the subfolder that must be synchronised is C:\Temp\Folder1 then you must enter Folder1 as **Download folder**. For C:\Temp\Folder1\FolderA you must enter Folder1\FolderA.

10. Optionally set the **Priority** for the synchronisation process.

11. Optionally if you want the local synchronisation folder name on the PADS Viewer PC to be different than the synchronisation folder name on the PADS Server PC then you can specify the **Optional local download folder**. If no folder is specified then exactly the same folder name as on the PADS Server PC will be used.

12. By default the system will use port number 5660 to synchronize with the PADS Server PC. Optionally, you can specify a different port number with **Port number**.

13. Click **OK** to apply the settings and leave the Viewer settings window.

**Remarks**

- For more information about the above PADS Viewer settings, see the PADS Viewer help file.

**Tips**

- It is recommended not to fill in the **Local download root folder** whenever possible to keep it the same as the corresponding folder on the Server PC, especially when you run the PADS Designer software on the Server PC. In this case you are ensured that the paths of linked content files (like pictures, videos, etc.) in your presentations are always valid for the PADS Viewer PC. If this is not the case then the content can not be displayed by the PADS Viewer application, because the linked files can not be found.

- The synchronisation process has been developed to download content files from the PADS Server PC to the PADS Viewer PCs. The mechanism can however also be used to distribute other files to the PADS Viewers like custom developed applications.
disadvantage is that this will generate a lot of network traffic, because each PADS Viewer will download the content over the network each time it is required. No downloading will be done in advance and the automatic synchronisation function between PADS Server and the PADS Viewers will not be used.

Another possible solution is to work with a local content folder on the PADS Designer PC and use a separate batch procedure that copies the files in this folder to a corresponding folder on the PADS Server PC. This solution however has the disadvantage that it requires a manual procedure to be executed, which increases the chance for mistakes.

Most likely the best solution is to use a combination of a mapped network drive and the automatic synchronisation functionality of PADS.

**To setup a combination of a mapped network drive and automatic synchronisation**

1. On the PADS Server PC create a C:\PADS folder (optionally with subfolders) to place the content files in.
2. From the PADS Manager/Designer PC use a mapped network drive (e.g. P:\) that points to this C:\PADS folder on the PADS Server PC.
3. In the PADS presentations that are created on the PADS Manager/Designer PC, use the P:\ reference to point to the content files.
4. In the PADS Layout Server Configuration wizard on the PADS Server PC specify C:\PADS as the synchronisation folder name and have the PADS system automatically synchronize this folder with a corresponding C:\PADS folder on the PADS Viewer PCs.
5. On the PADS Viewer PCs place a batch file in the Windows Startup folder. The batch file must contain the DOS command: 'SUBST P:\ C:\PADS'. This will create a mapped network drive that points to the local C:\PADS folder.

In this way a configuration is created that uses both the advantages of sharing content files between PADS Designer and PADS Server and will still minimise the network traffic between the PADS Server and the PADS Viewers.

**Remarks**

- The above mechanism will even work when the network infrastructure between the PADS Server PC and the PADS Viewer PCs is an Internet connection.


PADS Installation

Special situations

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Installation of PADS > Special situations

In this section you find more information about some special situations that have to do with PADS installations.

**In this section**

- Creating a network image for installations
  Describes how you can create a location in your network from where clients can install the PADS software.

- Installing multiple PADS Viewers on one single PC
  Explains how you can combine multiple PADS Viewers on one single PC to save on hardware costs.

- Installing PADS Viewer only
  Describes the possibilities of the separate Viewer only installation program.

- Large, scalable installations
  Explains the possibilities to create large, fully scalable configurations.

- Working with Internet connections
  Lists some special actions that must be taken to use PADS in combination with the Internet.

- Installing PADS Replicator
  Explains the possibilities of PADS Replicator and how to install this functionality.
You can create a server-based setup location and then allow clients to connect to the share in order to install the PADS software. Use the following procedure to achieve this.

**To install PADS in Admin Mode**

1. Map a drive to the network location where you want to create an image of the PADS Setup. This location can be entered as `\networkshare` during setup.
2. From the PADS CD-ROM, run `setup.exe /a`.
3. From the list of displayed languages, select the language for the installation and click **OK**.
4. On the Welcome page of the PADS 3.1 Professional installation wizard click **Next** to continue.
5. Point to the mapped drive to provide the network share where you want to create the admin image and click.
6. Click **Install** to create the network image.
7. Click **Finish**.

With PADS it is possible to install and use multiple PADS Viewers on one single PC. In combination with multiple VGA cards each driving one display, this can be used to save on hardware costs. Another interesting application is to have each PADS Viewer drive a part of the total screen, completely independent of the other PADS Viewers driving the other parts of the screen.

With multiple PADS Viewers on one single PC each PADS Viewer requires its own unique XML file with program settings.

**To install multiple PADS Viewers on one single PC**

1. Install the first PADS Viewer as usual by running the PADS installation program.
2. Make a copy of the `PADSViewer.xml` file in the `\Program Files` folder for each PADS Viewer you like to install. Possible names could be `Viewer1.xml`, `Viewer2.xml`, etc.
3. Edit each individual `.xml` file with a text editor like Notepad.
4. Change the `ViewerName` setting in the `.xml` file to the unique name of the PADS Viewer you want to address.
5. Change the `Left`, `Top`, `Width` and `Height` settings to meet the required window position and size of the PADS Viewer.
6. Create a shortcut for each PADS Viewer with the unique `.xml` file of this Viewer as a command line argument. For example:
   ```
   ..\PADS 3.1 Professional\Program Files\PADSViewer.exe C:\Viewer1.xml
   ..\PADS 3.1 Professional\Program Files\PADSViewer.exe C:\Viewer2.xml
   ```
7. Place the shortcuts in the Windows **StartUp** folder so that they are automatically started when Windows starts up.

**Remarks**
Please note that running multiple PADS Viewers on one single PC has the disadvantage that hardware malfunctions will affect all PADS Viewers that run on the same PC.

Besides the standard PADS installation program Net Display Systems also offers a separate installation program that only includes the PADS Viewer software. This offers a lot of advantages, like:

- Using the PADS Viewer installation program can save you a lot of time when you have to perform a lot of PADS Viewer installations. Instead of having to unselect in the standard installation program all components you don't want to be installed you can simply run the installation program.
- The PADS Viewer installation program can easily be used to perform a remote installation of the PADS Viewer software.
- With the right command line parameters the PADS Viewer installation program can perform a silent installation. This can be extremely helpful when you want the installation to be part of an automatic (remote) process.
- The PADS Viewer installation program can perfectly be used in combination with the PADS Agent application to easily remotely install new updated build versions of the PADS software.

To install PADS Viewer only

1. Make sure you have the PADS Viewer only setup.
2. Start the installation program on the PADS Viewer computer and follow the instructions.

Remarks

- The standard PADS installation program and the PADS Viewer only installation program are fully compatible and can be used in combination with each other without any problem. This means you can for instance use the standard PADS installation program to perform the initial installation and afterwards use the PADS Viewer installation program in combination with the PADS Agent application to install new updates of the PADS software.

With the right configuration PADS offers the possibility to be a fully scalable solution that can handle up to thousands of PADS Viewers being connected.

Single server configuration

By default the PADS Server software, PADS Layout Server software and the PADS Data Server software are all installed on one single Server PC. Depending on the way the system will be used this can be a good solution for a system with up to a couple of hundred PADS Viewers.

If you have a really large PADS system or when the system performs a critical task and therefore must be fully reliable under all circumstances, it might be important to think about other possible configurations. One of the possibilities is to install the PADS Server software, PADS Layout Server software and the PADS Data Server software on a Windows Cluster environment. In this case a more fault tolerant solution can be created.

Multiple server configuration
Another possibility is to split the PADS Layout Server software and PADS Data Server software from the PADS Server software and work with a number of so-called distribution servers. In this configuration there is only one central Server PC (which can be a Windows Cluster) on which the PADS Server software runs, but there are various distribution Servers which all run the PADS Layout Server and/or PADS Data Server. Each distribution Server can have a number of PADS Viewers connected to it and optionally one distribution Server can act as a backup Server for another distribution Server.

**Multiple sites**

Large installations often include many PADS Viewers being installed on various locations and connected to a central PADS Server over the Internet.

In configurations like these the amount of network traffic over the Internet plays an important role. Most of the network traffic is caused by the distribution of content files (videos, pictures etc.). To offer a good solution for this it’s very important to pay extra attention to the available capacity for the connected clients to download the files. This is mainly determined by the upload speed of the central Server PC to the Internet. To create enough capacity it might be required to work with multiple modems/routers.

When you have multiple PADS Viewers per location it is strongly recommended to use the PADS Replicator functionality to minimize network traffic. For more details about PADS Replicator, see [Installing PADS Replicator](#).

**Remarks**

- It’s also possible to work with a combination of the above proposed solutions. For instance with multiple sites one can use a combination of PADS Replicator and multiple servers on the server side.

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PADS Installation

**Working with Internet connections**

[Send Feedback](#)

[Installation of PADS](#) > [Special situations](#) > Working with Internet connections

Besides an installation in a local area network (LAN) environment, the PADS software also supports using the Internet as a network connection. This means that the connections between the PADS Viewer PC and the PADS Server PC can be an Internet connection, but also the connection between the PADS Manager PC or the PADS Agent PC and the PADS Server PC.

When using an Internet connection there are some additional actions that must be taken after performing a standard installation of PADS. These actions are described below.

**To set up an Internet connection between the PADS Viewer PC and the PADS Server PC**

1. Start the PADS Viewer application on the PADS Viewer PC.
2. Right click in the PADS Viewer window and select **Settings** from the context menu.
3. On the **Network connections** tab as **Server name** for the **PADS Layout Server** fill in the public IP address of the router that connects the PADS Server PC to the Internet.
4. In the router of the PADS Server PC open the port numbers 5657 (PADS Layout Server), 5658 (PADS Data Server), 5660 (content file synchronisation) and 5677 (PADS Agent Server).
5. In the router configure port forwarding so that all calls that are received for port numbers 5657, 5658, 5660 and 5677 are automatically forwarded to the PADS Server PC.

**To set up an Internet connection between the PADS Manager PC and the PADS Server PC**

1. Start the PADS Manager application on the PADS Manager PC.
2. Click **Options** in the **Tools** menu.
3. On the **Connections** tab as **Server name** fill in the public IP address of the router that connects the PADS Server PC to the Internet.
4. In the router of the PADS Server PC open the port number 5659 (PADS Server).
5. In the router configure port forwarding so that all calls that are received for port numbers 5659 are automatically forwarded to the PADS Server PC.

**To set up an Internet connection between the PADS Agent PC and the PADS Server PC**

1. Start the **PADS Agent** application on the PADS Agent PC.
2. Click **Options** in the **Tools** menu.
3. Add a new server to the list of PADS Agent Servers by clicking the **Add...** button. As server name fill in the public IP address of the router that connects the PADS Server PC to the Internet.
4. In the router of the PADS Server PC open the port number 5677 (PADS Agent Controller).
5. In the router configure port forwarding so that all calls that are received for port number 5677 are automatically forwarded to the PADS Server PC.

**Remarks**

- For communication over the Internet it is required that the router that connects the PADS Server PC to the Internet has a fixed IP address. However the router that connects the PADS Viewers to the Internet can have a dynamic IP address.
- A firewall can be switched on for the PADS Viewer PC without any problem. Because the PADS Viewers use a pull mechanism to communicate with the PADS Server software no ports need to be opened in the firewall. These same states for PADS Manager and PADS Agent.
7. Optionally specify the Active Directory settings and click Next.

8. Finish the wizard.

**To configure PADS Replicator on the decentral PADS Server PC (local site)**

1. On the decentral PADS Server PC click the Start button on the Windows taskbar.
2. Select (All) Programs, PADS 3.1 Professional and then Tools.
4. Click a number of times on Next until you reach the Server type settings page.
5. Choose the option Replicated PADS Server system and then Decentral Server and click Next.

   For more information about this wizard see PADS Server configuration settings.

6. Specify the system synchronisation settings for the PADS database and click Next.

   Please note that when using an Internet connection as the Remote Server Computer name you must enter the public IP address of the router that connects the central PADS Server PC to the Internet.

7. Specify the remaining system synchronisation settings and click Next.

8. Specify the content file synchronisation settings and click Next.

9. Finish the wizard.

**Remarks**

- If you have only 1 PADS Viewer installed at a certain location then in most situations it gives no advantages to install a PADS Replicator on this location. It these situations it's probably a better solution to connect the PADS Viewer directly to the central PADS Server PC over the Internet.

- Using the PADS Replicator functionality requires a hardware key (dongle) on each PADS Server PC that is included. This means that a hardware key is required for the central PADS Server PC on the main location as well as for each decentral PADS Server PC on a local site.

- The PADS Replicator performs a one-way only synchronisation. All information from the central PADS Server PC is distributed to the decentral PADS Server PC, but not the other way around. As a result it is not possible to use the PADS Manager application on the decentral PADS Server PC for making local changes to the schedule information. Changes to the schedule information must always be made on the central PADS Server PC. Optionally this can be done from the local site over a VPN connection.

**Tips**

- PADS Replicators can also be nested. This means you can have one central PADS Server PC which will replicate the information to a number of decentral PADS Server PCs, which in their turn will further replicate the information additional PADS Server PCs, etc. This way you can further reduce the server load on PADS Server PCs and create a robust, fully scalable solution.

Updating and upgrading

Not every installation of the PADS 3.1 Professional SR1 software will start with a clean situation. Previous versions of PADS or the PADS 3.1 Standalone product might already be installed. These situations require some special actions to be taken.

In this section

Installing new build versions
Explanation how install new updated versions with bug fixes and new features.

Upgrading from previous PADS versions
Describes what actions must be taken to upgrade from previous versions to PADS 3.1 Professional SR1.

Migrating from PADS 3.1 Standalone
Explains how you can replace your PADS 3.1 Standalone installation with PADS 3.1 Professional SR1.

From time to time Net Display Systems releases new build versions of PADS 3.1 Professional. These build versions include bug fixes and/or new features. It is recommended to work with the latest build version of the PADS software as much as possible to make optimal use of the ongoing developments.

New build versions of the PADS software can be installed manually or by using the PADS Agent application. The PADS Agent is only intended to be used for the remote installation of new PADS Viewer software.

When running the PADS installation program on a computer where you have already installed one or more PADS components, the system will automatically detect this and perform an update of your installation. With this your existing data, program settings and selected components will be taken into account so that after performing the upgrade your system will still operate exactly the same way as before.

To manually install a new build version

1. Make sure you have the setup containing the latest build version of the PADS software.
2. Start the installation program on each computer where you have one or more PADS components installed and follow the instructions.

To remotely install a new build version of PADS Viewer using the PADS Agent application

1. Make sure you have the PADS Viewer only setup containing the latest build version of the PADS software.
2. Start the PADS Agent application and log on if required.
3. On the left pane expand the Software Update item and select Viewers.
4. Follow the instructions of the Viewers software update wizard.

Remarks

- Each new build version of the PADS software is available as a full installation program as well as a PADS Viewer only installation program. In some cases it offers great advantages to use the PADS Viewer only installation program. For more information about this, see Installing PADS Viewer only.
When you install a new build version it’s strongly recommended to update all your computers that have one or more PADS components installed. In most situations the system will still function properly when only parts of the system are updated with new software, but this can not be guaranteed.

For more information about the PADS Agent application, see the PADS Agent help file.

Tips

In most situations the system will tell you to reboot your computer after installing a new build version. This has to do with the PADS services being updated. This can be prevented by manually stopping the PADS services before you start the installation of the new build version and start them again afterwards.

If you have a service contract for the PADS software you will always have direct access to the latest build versions of the PADS software in the restricted area of the web site of Net Display Systems. In addition you can find here complete release notes in which all bug fixes and new features of each published build version have been described. Ask your dealer for more information about the possibilities for a service contract.

Upgrading from previous PADS versions

If you want to install the PADS 3.1 Professional software on a computer where you already have a previous release version of the PADS software installed then there are certain rules you must follow.

To upgrade from PADS 3.1 Professional to PADS 3.1 Professional SR1

1. Start the PADS 3.1 Professional installation program.
2. The installation program will automatically that a previous version of PADS 3.1 Professional has been installed on your computer and ask you if it’s OK to automatically uninstall this version. Select the option Uninstall the previous PADS version and click Next to continue.

   When you select the Uninstall the previous PADS version option, the installation program will uninstall all program files of your existing PADS installation. However, the PADS Database and .XML files with program settings will remain intact. This means that if you have an existing PADS 3.1 Professional installation you will still have your existing users, viewers, schedules and program settings after running the installation program.
3. Follow the further instructions of the installation program.

To upgrade from PADS 3.0 to PADS 3.1 Professional SR1

1. Optionally, you can perform an uninstall of the PADS 3.0 software although this is not required.

   IMPORTANT: Please do not manually remove the PADS 3.0 database (PADS30.mdb) as well as the XML files with program settings after performing an uninstall, because the information in these files will be used to upgrade to PADS 3.1 Professional (see below).

2. Start the PADS 3.1 Professional installation program and follow the instructions.

   If PADS 3.0 has still been installed the installation program will automatically try to uninstall this software before installing the PADS 3.1 Professional software.

3. After the software has been successfully installed, start the PADS Upgrade wizard and follow the instructions.

   The PADS Upgrade wizard enables you to upgrade your existing PADS hardware key (dongle) so that it can be reused with PADS 3.1 Professional. In addition it offers the possibility to upgrade your PADS 3.0 database with existing schedules, Viewers, Viewer groups and users as well as to reuse the program.
settings and/or PADS presentations of your PADS 3.0 installation.

To upgrade from PADS 2.x to PADS 3.1 Professional SR1

1. Install the PADS 3.1 Professional software as described at Installation of PADS.
2. Uninstall the PADS 2.x software.

To upgrade from any PADS 2.x version to PADS 3.1 Professional you can simply install the PADS 3.1 Professional software as if it is a complete new installation and before or afterwards uninstall the PADS 2.x software. Because PADS 2.x was not yet based on the Microsoft .NET platform both versions have nothing in common and can run simultaneously without any problem.

When upgrading from PADS 2.x it is recommended first to upgrade the PADS Server computer and afterwards switch each individual PADS Viewer from 2.x to 3.1 Professional by upgrading the PADS Viewer software.

To upgrade the PADS presentations from PADS 2.x to PADS 3.1 Professional you can use the PADS Screen conversion tool that is available on request. This tool will convert the PADS presentations into a PADS 3.0 format after which they can be imported into PADS 3.1 Professional. However, if possible it is recommended to create the PADS presentations completely new in PADS 3.1 Professional, because many new features have been added.

Remarks

- In order to upgrade your existing system from PADS 3.0 to PADS 3.1 Professional you always need a new product key as well as an upgrade verification code.
- PADS 3.0 presentations can automatically be upgraded to PADS 3.1 Professional with the Upgrade wizard. But it's also possible to directly open a PADS 3.0 presentation with the PADS 3.1 Professional Designer application. After being opened the presentation will automatically be upgraded to PADS 3.1 and stored in the PADS 3.1 format. No confirmation about this will be asked.
- IMPORTANT: PADS 3.0 presentations being upgraded to PADS 3.1 Professional can no longer be used in PADS 3.0. This means that as soon as you have opened a PADS 3.0 presentation in the PADS 3.1 Professional Designer it can no longer be used within PADS 3.0.

 PAD Installation  
 Migrating from PADS 3.1 Standalone

If you initially used PADS 3.1 Standalone, but like to add scheduling functionality or want to extend your system with additional PADS Viewers then you must migrate to PADS 3.1 Professional.

To migrate from PADS 3.1 Standalone to PADS 3.1 Professional you always need a new hardware key (dongle) in combination with a new product key, except when you will be running on a demo key. The existing PADS 3.1 Standalone hardware key can not be reused with PADS 3.1 Professional.

To migrate from PADS 3.1 Standalone to PADS 3.1 Professional

1. Install the PADS 3.1 Professional software as described at Installation of PADS.
2. Uninstall the PADS 3.1 Standalone software.

Remarks

- The PADS 3.1 Standalone and PADS 3.1 Professional software has been designed in such way that both systems can run simultaneously on the same computer without any problem.
- It depends on the build version of your PADS 3.1 Standalone software whether or not the PADS presentations between PADS 3.1 Standalone and PADS 3.1 Professional are exchangeable. If you are running an older build version of the Standalone software, then your PADS presentations can be opened in PADS 3.1 Professional, but afterwards can no longer be used with PADS 3.1 Standalone. With newer versions of PADS 3.1 Standalone the
PADS presentations of both products are fully compatible.
After you have installed and configured the PADS software you have several tools to administer the installation.

In this section

Modifying the installation
Explains how you can redetermine which components of the PADS software must be installed on your computer.

Upgrading PADS licenses
Describes how to extend the number of licenses or the licensing period of the PADS software with the PADS License wizard.

Repairing the installation
Describes how you can automatically repair the installation when for instance certain parts of the installation have been removed or got corrupted.

Removing the installation
Demonstrates how you can safely rollback an entire PADS installation.

Administering the installation

To modify the PADS installation on your computer
1. Click the Start button on the Windows task bar.
2. Select Control Panel.
3. Double click Add or Remove Programs (XP) or Programs and Features (Vista).
4. Click Net Display Systems PADS 3.1 Professional In the list of installed programs to select it.
5. Click the Change button.
6. Click Next > in the introduction page of the PADS 3.1 Professional installation wizard.
7. Select the Modify option and click Next >.
8. Select the components you like to be installed/uninstalled and click Next >.
9. Click Install.
10. Click Finish to close the wizard.

Remarks
- The working of the PADS 3.1 installation wizard when modifying the installation is almost the same as with the initial installation. The only real difference is that the installation wizard will find out which components already have been installed and will show this in the installation wizard when it comes to selecting components.
- If you have installed the PADS 3.1 software and start the installation program Setup.exe again then the installation wizard will automatically notice that the PADS software has already been installed and will startup the wizard for modifying the installation.

Tips
Please note that the modification procedure as described above can only be used to install or uninstall one or more of the components of PADS. It cannot be used to make changes to the configuration settings you have done after running the initial installation. If you want to make adjustments to the configuration settings you have to use one of the wizards of the PADS system that have been created for this purpose.

With a new product key it is possible to extend the number of licenses or the license period for the PADS software. To install such a new product key you must use the PADS License wizard.

**To upgrade PADS licenses with the PADS license wizard**

1. Click the **Start** button on the Windows taskbar.
2. Select *(All) Programs, PADS 3.1 Professional* and then **Tools**.
3. Select **License Wizard**.
4. Click **Next** on the introduction page.
5. (Only when PADS Server could not automatically be reached) Specify the settings that determine how the PADS License Wizard will communicate with the PADS Server software and click **Next**.
   - **As PADS Server name** you must specify the computer where the PADS Server software has been installed. Here you must enter the computer name or TCP/IP address of this computer.
   - **NOTE:** In far most situations the PADS Server software will be installed on the same computer as the PADS License Wizard software. In this case you must enter the local computer name 'Localhost' as server name.
   - **As PADS Server port number** you must enter the port number that will jointly be used by the PADS License Wizard and the PADS Server to communicate with each other. **THIS PORT NUMBER MUST EXACTLY CORRESPOND WITH THE PORT NUMBER SPECIFIED IN THE PADS SERVER CONFIGURATION WIZARD.** With this please note that this port number is not used by any other application. If you have to change the default value then you will also have to change this value into exactly the same value with the other PADS components.
   - If the communication runs via a firewall then you must make sure that communication over the specified port is allowed by the firewall.
6. Review the current product key information and click **Next**.
7. Enter the **New product key** that reflects the new number of licenses or the extended licensing period and click **Next**.
8. Click **Finish** to make the settings effective and leave the PADS License wizard.

**Remarks**

- If you want a new product key then please contact your dealer or go to the download page of [www.nds-nl.com](http://www.nds-nl.com) to request for a demo key.

PADS offers the possibility to have your installation automatically repaired when one or more of the installed components got lost or corrupted.

**To repair the PADS installation on your computer**

1. Click the **Start** button on the Windows task bar.
2. Select **Control Panel**.
3. Double click **Add or Remove Programs (XP)** or **Programs and Features** (Vista).
4. Click **Net Display Systems PADS 3.1 Professional** in the list of installed programs to select it.
5. Click the **Change** button.
6. Click **Next >** in the introduction page of the PADS 3.0 installation wizard.
7. Select the **Repair** option and click **Next >**.
8. Click **Install**.
9. Afterwards click **Finish** to close the wizard.

**Remarks**

- The repair routine will check if all selected components of the PADS installation have been installed correctly. When a certain component turns out not to be installed correctly it will be repaired automatically whenever possible.

**Tips**

- Please note that the repair procedure as described above can only be used to reinstall one or more of the installed components of your PADS installation. It can not be used to make changes to the configuration settings you have done after running the installation. If you want to make adjustments to the configuration settings you have to use one of the wizards of the PADS system that have been created for this purpose.


PADS Installation

Removing the installation

Send Feedback

**Administering the installation** > Removing the installation

If you no longer want to make use of the PADS software you can choose to remove it entirely from your computer.

**To remove the PADS installation from your computer**

1. Click the **Start** button on the Windows task bar.
2. Select **Control Panel**.
3. Double click **Add or Remove Programs (XP)** or **Programs and Features** (Vista).
4. Click **Net Display Systems PADS 3.1 Professional** in the list of installed programs to select it.
5. Click the **Remove** button.
6. Click **Yes** to confirm that you like to remove the PADS 3.1 software from your computer.

**Remarks**

- With the above procedure all installed components of PADS 3.1 will be removed from your computer. So if you have installed PADS Manager as well as PADS Viewer then both applications will be removed. If you only want to remove some of the installed components but not all then you should follow the procedure as described under **Modifying the installation**.

- There are some files of the PADS installation that are not automatically removed from your computer. This includes the PADS database (pads31.mdb) and a number of .XML files with program settings (PADSManager.xml,
To make sure that the PADS software is completely removed you can best manually remove the folder C:\Program Files\Net Display Systems\PADS 3.1 Professional and all of its subfolders after uninstalling the PADS software.

- With removing the installation only files that have been installed by the PADS installation program itself can be removed. Files that have been created afterwards with using the PADS software (like .PADS files with the designed presentations) are not removed and will have to be removed manually afterwards.

- The uninstall routine will also NOT uninstall the Microsoft .NET framework. If you want to have this removed from your computer as well you should uninstall this separately. However, please be careful with this, because there might be other applications on your computer that use this Microsoft component.

**Tips**

- When you want to remove PADS from your computer then it is strongly recommended to use the procedure as described above. Of course you could also choose to manually remove the folder on your computer in which the PADS software have been installed. However, this will not remove certain parts of the installation like items in the Windows Start menu and shortcuts on the Windows desktop.
If you encounter a problem after the installation of the PADS software then the first action to take is to collect as much information as possible about the problem.

With some end-user applications like PADS Manager you usually get an error message telling you more about the problem. However, other applications usually store their messages in the Windows Event Viewer logs like the PADS Server, PADS Layout Server and PADS Data Server service on the PADS Server PC or in a log file on disk like the PADS Viewer application on the PADS Viewer PC.

**To view Microsoft Event Viewer log information**

1. In the Windows **Start** menu click **Control Panel**.
2. Double click **Administrative Tools**.
3. Double click **Event Viewer**.
4. Check the **Application log**, **Security log** and **System log** to see if there are any messages from one of the PADS applications or services.
   
   The messages generated by PADS can be recognized by a source name that starts with PADS like PADSServer, PADSLayoutServer or PADSDataServer.

**To view PADS log file information**

1. Go to the C:\Program Files\Net Display Systems\PADS 3.1 Professional\Log files folder.
2. Open the log files in this folder with a text editor like e.g. Notepad.

**Remarks**

- The above description is based on a standard PADS installation. If you have changed certain program settings of the PADS applications like the log file setting of the PADS Viewer application then information may be stored at a different location.