
IMARKUP SOLUTIONS, INC.

iMarkup Server v6

Installation Guide

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Installing the iMarkup Server v6

This chapter describes how to install the iMarkup Server. The iMarkup Server runs on a Windows 2000/2003 Server. All data is stored in a database repository. The iMarkup Server can use an existing database or an embedded database shipped with the product. It can be installed on an existing Windows server, or a standalone PC. The iMarkup Server runs under a virtual directory inside Windows IIS allowing it to safely coexist with other applications. The administrative server interface for the iMarkup Server is implemented as a Microsoft Management Console (MMC) Snap-In.

Intended Document Audience

This **Installation Guide** is intended for the administrator or IT user that will perform the initial installation and configuration of the server. It is assumed the reader is familiar with Windows OS, IIS, and the database the iMarkup Server will use.

Server System Requirements

- Microsoft Windows 2000/2003 Server;
- Microsoft IIS (Internet Information Server) 5.0 higher;
- Microsoft SMTP Server (packaged with IIS) or MS Exchange Server 5.0 or higher;
- Microsoft SQL Server 7 or higher, IBM DB2 version 8 or higher, Oracle 8i or higher, or the SQL Server engine* (i.e. MSDE) packaged with the iMarkup Server;
- Pentium grade CPU, minimum 512 MB memory (1 Gig or higher recommended), 500 MB hard drive space.

* The MSDE database packaged with the iMarkup Server has limitations. It cannot exceed 2gig in size and has limited administrative functions. It is recommended that the full SQL Server be used in a production environment.

Installation Environment

The iMarkup Server can be installed on a standalone Windows host, or an existing host that is running other applications. The best practice for initial implementations is to install the iMarkup Server on a standalone host and use all of the installation program defaults. This will also install a database (i.e. SQL Server runtime called MSDE) on the local host if SQL Server is not already installed. Many advanced configuration options exist (different port numbers, multiple IP addresses, address translation, etc.) but are only needed in special installation environments. Additional information can be located using our online help pages at: <http://imarkup.com/help/workgroup/>.

Hardware Recommendations

Many factors affect hardware requirements, such as the number of users, the number of objects in the repository (documents, eForms etc.), the number of running workflows, frequency of searches, how often documents are modified, etc. For most configurations it is easiest to install the database server on the same host, unless you already have a corporate database server installed somewhere else that you would prefer to use. Separating the database server from the iMarkup Server for performance reasons may be needed for larger installations. Additionally, load balancing with multiple iMarkup Servers is not typically needed with less than 500 configured users. One of the more effective ways to increase performance for the database and the iMarkup Server is to increase the server's memory.

Disk space usage increases as objects (documents, eForms, folders) are added to the repository. Databases are efficient with disk space, but it is still recommended that you provide ample space for the database to grow over time. Documents generally take up most of the storage so calculate the number of documents the system will hold and the average number of times they will be updated.

Here are some general guidelines for iMarkup Server, with SQL Server running on the same host:

- 50 users or less: Single CPU, 1 gig memory
- 50-100 users: 2 GHz CPU, 2 gig memory
- 100-200 users: 3 GHz CPU, 3 gig memory
- 200-500 users: Dual CPU, 4 gig memory
- Installations with more than 500 users or heavy concurrent usage should consider separating the database, possibly using a cluster of load-balanced iMarkup Servers.

Server Installation

To install the iMarkup Server, exit all applications and follow these steps:

1. Download the iMarkup Server install program from the iMarkup Solutions Web site and save it to your hard drive*. The download URL page is located at: <http://imarkup.com/download/server/serverdownload.asp>
2. Choose Run... from the Windows Start menu in the taskbar
3. In the open box type the file name where the downloaded install program exists (e.g. C:\iMarkupServer_install.exe)
4. Click OK
5. Follow the instructions on the screen

* Two installation programs are available for the iMarkup Server, `iMarkupServer_install.exe` (approx. 50 meg) and `iMarkupServer_upgrade.exe` (approx. 8 meg). The first includes the optional free SQL Server runtime engine (i.e. MSDE) for sites that do not already have SQL Server and the other install program does not contain the embedded database and can be used for upgrades only.

On completion of the installation procedure, the iMarkup Server will have added several items to the Windows program group. Unless you change the directory during the installation, the iMarkup Server will be installed in the `C:\Program Files\iMarkup Workgroup\` directory. The following components are also installed or configured as part of the installation program:

- Sample users, usergroups, workgroups and permissions are added to the database for a new installation.
- The Microsoft SQL Server runtime engine (i.e. MSDE) is optionally installed if SQL Server is not available. This is installed in the default `C:\Program Files\SQL Server` directory.
- A virtual directory is created in IIS. The default name is “imarkupwg”.
- Two ODBC System DSN’s are created. One for the administrator and another for the iMarkup Server running under IIS. The respective data source names are `iMarkup Workgroup Admin` and `iMarkup Workgroup IIS Server`.

Server Install Program Command Line Options

The iMarkup Server full install (`iMarkupServer_install.exe`) accepts command line options that control the installation process. These command line options are only needed when

doing automated software delivery/installation. These parameters are not supported on the upgrade, only the full install program. The following command line options are supported (they are case insensitive):

- `/DB` This allows a specific type of database to be used for the installation of the iMarkup Server. The following values are supported: “LocSQL”, “RemSQL”, “Oracle” and “DB2”. The database type must be enclosed in double quotes (e.g. `/db “oracle”`).
- `/REMSQL` This allows a remote SQL Server hostname to be specified. The database name must be enclosed in double quotes (e.g. `/REMSQL “remotehost”`).
- `/A_IIS_M` This controls the Authentication Mode for the IIS ODBC DSN when using SQL Server. It supports the values “WIN” and “SQL”. “WIN” indicates that the IIS anonymous Windows user account will be used to connect to the database. “SQL” indicates that a SQL Server user ID and password will be used to connect to the database. The authentication mode must be enclosed in double quotes and in uppercase (e.g. `/a_iis_m “WIN”`).
- `/A_IIS_U` This is the SQL Server user ID the iMarkup Server in IIS should use to connect to the database. This is only used with the `/A_IIS_M “SQL”` flag. The user ID must be enclosed in double quotes (e.g. `/a_iis_u “sa”`).
- `/A_IIS_P` This is the SQL Server password the iMarkup Server in IIS should use to connect to the database. This is only used with the `/A_IIS_M “SQL”` flag. The password must be enclosed in double quotes (e.g. `/a_iis_p “a_pwd”`).
- `/P` This is a default installation path for the server installation. The path must be enclosed in double quotes. For example: `/p “c:\imarkup workgroup\”`
- `/L` This is can be used to pass a license key on the command line. The key must be enclosed in double quotes. For example: `/l “0000-0000-0000-0000”`
- `/W` This will prevent the install program from rebooting, even if required. If a reboot is required, the install program will set a registry value named `/HKLM/iMarkup Solutions/Wrapper/RebootFlag`. It will be set to a non-null value (string value) if a reboot was required.
- `/GROUP` This can specify a Windows Program group name where the iMarkup Server program group icons should be created. The name must be enclosed in double quotes. For example: `/group “GroupName/SubGroup”`
- `/URL_IMK` This contains the “Interface URL” where the iMarkup Server is installed (e.g. `http://hostname/imarkupwpg/`). This will automatically set the value in the database. This can be changed using the Administrative MMC Interface after the installation completes.
- `/URL_EXT` This contains the “External Authentication URL” of the application that is performing the authentication for the iMarkup Server (e.g. `http://hostname/your_url/login.html`). This will automatically set the value

in the database. This can be changed using the Administrative MMC Interface after the installation completes.

Input parameters can be passed on the command line or using a registry key. If the input parameters get too long for the command line, use the following registry to pass them to the iMarkup Server install program:

HKEY_LOCAL_MACHINE\SOFTWARE\iMarkup Solutions\Wrapper\InstallParms

This registry entry must be created and filled in with the parameter list before calling the iMarkup Server install program. The “InstallParms” registry entry is a STRING value.

Reinstall / Upgrades

The iMarkup Server can be reinstalled or upgraded with no loss of data. If the iMarkup database server is SQL Server or MSDE on the local host then the upgrade is performed completely by the install program. If the iMarkup database is on a remote host, or if you are using Oracle or DB2, then database upgrade scripts that are provided will need to be executed on the database host if any database changes were introduced. If you are changing any information regarding the database configuration, the full server installation program must be run instead of the upgrade program. Refer back to the iMarkup Solutions web site at <http://imarkup.com/download/server/serverdownload.asp> to see if any new versions of the software are available.

Uninstalling

You may uninstall iMarkup Server by using the uninstall menu item in the iMarkup Server program group:

1. Click on the Start button on the Windows taskbar.
2. Select the Programs option.
3. Choose the Uninstall option in the iMarkup Server program group.

The un-install program will NOT remove the iMarkup database or the “imarkupwg” virtual directory. If the MSDE database (SQL Server) was installed it will not be uninstalled.

Installation Verification

The iMarkup Server provides diagnostic routines to ensure the system is installed correctly. Run the following URL on the iMarkup Server host:

<http://localhost/imarkupwg/imarkupcontrol.asp>

Select the **ODBC Diagnostics** link to verify the database connectivity. Select the **Test the SMTP server** link to verify that the SMTP server is configured correctly. It should send a test email to the address you specify. Any errors encountered will be displayed with a description.

Database Configuration

The iMarkup Server installation will automatically create/update the database tables if you are using SQL Server (or MSDE) on the local host. If you are using SQL Server on a remote host, or you are using Oracle or DB2 then you must run the database create/upgrade scripts manually. For information about running these scripts for your database refer to the iMarkup Server online help at <http://imarkup.com/help/workgroup/>. Select **Database** in the help table of contents and choose the database you are using.

Configuration Settings

It is recommended that you configure the Interface URL in the iMarkup Server administrative interface. This specifies the actual host name that can be used to connect to the iMarkup Server. This is configured in the iMarkup Server Administrative MMC Interface (available in the iMarkup Server Windows Program Group). For more information refer to the online help at http://imarkup.com/help/workgroup/interface_url.htm.

For information on other configuration settings (e.g. using a different virtual directory name, etc.) refer to the iMarkup Server online help at <http://imarkup.com/help/workgroup/>.

User Authentication Options

Users must access the iMarkup Server with a User ID and password. A User ID must exist in the iMarkup database before a login can occur. The iMarkup Server supports 4 types of authentication methods for users. For information on configuring the authentication types refer to the online help pages at:

http://imarkup.com/help/workgroup/authentication_settings.htm

Built-in

This authentication method uses the iMarkup server to authenticate users. This is the default authentication method. These users must be added to the iMarkup database using the Administrative MMC interface.

Windows Domain Security

This authentication mechanism uses Microsoft Windows to authenticate users. These users will be automatically added to the iMarkup database after being successfully authenticated by Windows.

LDAP

This authentication mechanism uses your LDAP server (e.g. Active Directory) to authenticate users. These users will be automatically added to the iMarkup database after being successfully authenticated.

External

External users are those that are authenticated by a third party system. This includes products such as CA CleverPath Portal, CA Siteminder, Cafesoft Cams, and other external authentication systems using the iMarkup Server APIs. External users are automatically kept synchronized with the third party authentication system on every login.

iMarkup Plug-in Installation

This chapter covers the installation and deployment of the iMarkup client plug-in. This will document the various methods for distributing the client plug-in, including installation customization options.

iMarkup Client Plug-in

Do I need the Plug-in?

The iMarkup Plug-in is an *optional* browser add-on that provides the **eForm Builder** and the annotation capabilities for reviewing documents and web content. The plug-in is an optional extension of the iMarkup Server. The plug-in is free and runs within your Internet Explorer (IE) browser and the MS Office application. The iMarkup Server allows users to automatically install the plug-in. The iMarkup plug-in provides the functions documented in the following sections.

Graphical Annotations for Document and Web Site Review

The iMarkup plug-in provides graphical annotations to users during the review and approval process for documents, eForms and web pages.

“Integrated” Support for Microsoft Office

The iMarkup plug-in provides integrated support for MS Office document types allowing a single click upload and check-out process. The plug-in is required to automatically render office documents in HTML for the review and approval process.

eForm Builder

The iMarkup plug-in contains the eForm Builder. This is integrated into MS Word allowing authorized users the ability to create and modify eForm definitions on the server. The Plug-in is only required for users actually building eForms. It is not required for users that are

submitting eForms because the eForms are published as HTML (allowing any browser to be used by the end-users).

How the iMarkup Plug-In Works

The iMarkup Plug-in is a free browser add-on that provides extended capabilities to the iMarkup Server users (e.g. annotations, MS Office integration). The iMarkup plug-in will automatically activate itself inside the user's browser at various times (e.g. during the review and approval workflow in the iMarkup Server). When the iMarkup plug-in activates in the browser it will display the appropriate interfaces as defined according to the user's iMarkup Server profile.

iMarkup Client vs. the iMarkup Plug-in

The full iMarkup Client (which is purchased separately) also supports the iMarkup Server. The full iMarkup Client provides annotation capabilities to any web page from inside the user's browser. If a user has the full iMarkup Client installed they do not need to install the free plug-in. Once connected to an iMarkup Server the iMarkup Client interface and functions available will change according to the user's iMarkup Server profile. If the appropriate function is enabled in the user's profile, the user can switch from "server mode" to "local mode", and back, without having to log off the server.

iMarkup Plug-in Installation Overview

The iMarkup Plug-in is an optional, free browser plug-in that provides the annotation functions. It is not required to use the iMarkup Server. A hotlink will be displayed from several of the iMarkup Server web pages allowing the user to install the plug-in, if it is not already installed. This includes the iMarkup login page, and when a user is participating in a review process. The plug-in can also be installed prior to accessing the iMarkup Server.

Installation Options

The iMarkup Plug-in can be distributed as a downloadable installation program or it can be installed over the Web. The installation program can be located on the iMarkup download servers or yours. The "Installation over the Web" can also be provided by the iMarkup web site or by yours. The iMarkup Server installation contains the necessary HTML, GIF's and JavaScript code to implement the iMarkup web install.

The user can control the installation of the iMarkup client plug-in or it can be automatically installed by certain web pages on your web site. If you want to let the user choose, you can provide a hotlink or button to the iMarkup plug-in installation program from any of your web pages. Or, you can automate the installation of the iMarkup Plug-in using the sample HTML code provided. The sample HTML and JavaScript provided shows how to detect if the iMarkup client is installed. If the iMarkup client plug-in is not installed, a message can be displayed telling the user of the annotation capabilities and can direct them to a plug-in installation page.

If a user without the iMarkup plug-in navigates to the iMarkup Server login page, or to a function within the server that can utilize the plug-in, they will be given the option to install the plug-in at that time. This is located in the `\iMarkup Workgroup\html\WebInstall\` directory created during the iMarkup Server installation.

Plug-in Requirements

- Microsoft Windows 95/98/Me or NT/2000/XP/2003
- Microsoft Internet Explorer 4 or higher
- 486 processor or faster, 16 MB memory, 15 MB hard drive space

Plug-in Installation

Follow these instructions to install the iMarkup Plug-in. On completion of the installation procedure, iMarkup will have added several items to the Windows program group. If the default install location is not changed the iMarkup Plug-in will be installed in the `C:\Program Files\iMarkup\` directory.

Download Install Program

1. Download the iMarkup Plug-in install program from the iMarkup Solutions Web site at <http://www.imarkup.com/download/plugin/> and save it to your hard drive;
2. Choose Run.... from the Windows Start menu in the taskbar;
3. In the open box type the file name where the downloaded install program exists (e.g. `C:\imarkupplugininstall.exe`);
4. Click OK;
5. Follow the instructions on the screen.

Web Installation

1. Run the "Install Over The Web" on the iMarkup Solutions Web site at <http://www.imarkup.com/download/plugin/>;
2. Choose *Yes* when prompted with a security notice indicating the program has been signed by iMarkup Solutions;
3. Follow the instructions on the screen.

Installing the eForm Builder

The iMarkup Plug-in provides an integrated MS Word plug-in used to build eForms. To use the optional eForm Builder, the iMarkup plug-in must be installed.

You can choose to install the iMarkup Plug-in without the MS Office integration.

The eForm Builder runs as an add-in to Microsoft Word. **Only** the creator of the eForms needs the eForm Builder installed, the *end-users* only need a browser to fill out, review and approve eForms.

After the plug-in install is complete, the first time MS Word is opened the user will be prompted with a security message asking about the iMarkup add-in. Click on the checkbox that says to “*Always trust macros from this source*” and then click on the **Enable Macros** button.



Install Program Command Line Options

The iMarkup client (imarkupinstall.exe) and the plug-in (imarkupplugininstall.exe) install programs accept command line options that control the installation process. These options can be used for installing the client with a software distribution package (ESD) or for embedding within your existing application. The following command line options are supported (they are case insensitive):

- /S This will cause the install to be silent. No user interface is displayed. This must be the first parameter if it is used. This will automatically reboot if a reboot is required.
- /P This is the install path for the client plug-in. The path must be enclosed in double quotes. For example: /p “c:\imarkup\”
- /F This indicates that no program group items should be created for iMarkup in the Windows Start Folders.

- /N This provides an optional name to be used by the client. The name must be enclosed in double quotes. This name will be displayed in the button on the IE toolbar and on the Explorer Bar. For example: /n "my company"
- /O This prevents Microsoft Office macros used for the document management functions in iMarkup Server from being installed on the client or plug-in.

For example, to run a silent installation with an alternate install path use this syntax:

```
imarkupinstall.exe /s /p "D:\imarkup\"
```

Uninstalling the iMarkup Plug-in

You may uninstall iMarkup by using the un-install in the iMarkup Plug-in program group:

1. Click on the Start button on the Windows taskbar.
2. Select the Programs option.
3. Choose the Uninstall option in the iMarkup Plug-in program group.

iMarkup Server PDF Option Installation

The iMarkup Server PDF Option uses components of another product named the activePDF. To use the PDF capabilities inside the iMarkup Server, you must first install activePDF. ActivePDF must be installed on the same machine as the iMarkup Server.

Prior to installing the activePDF components, you **must install** Microsoft Office on the server (versions 2000, 2003 or 2007; please note Office XP is not supported).

After the installation of Microsoft Office, the installation of the activePDF is accomplished by installing four components of activePDF which can be downloaded using the following links;

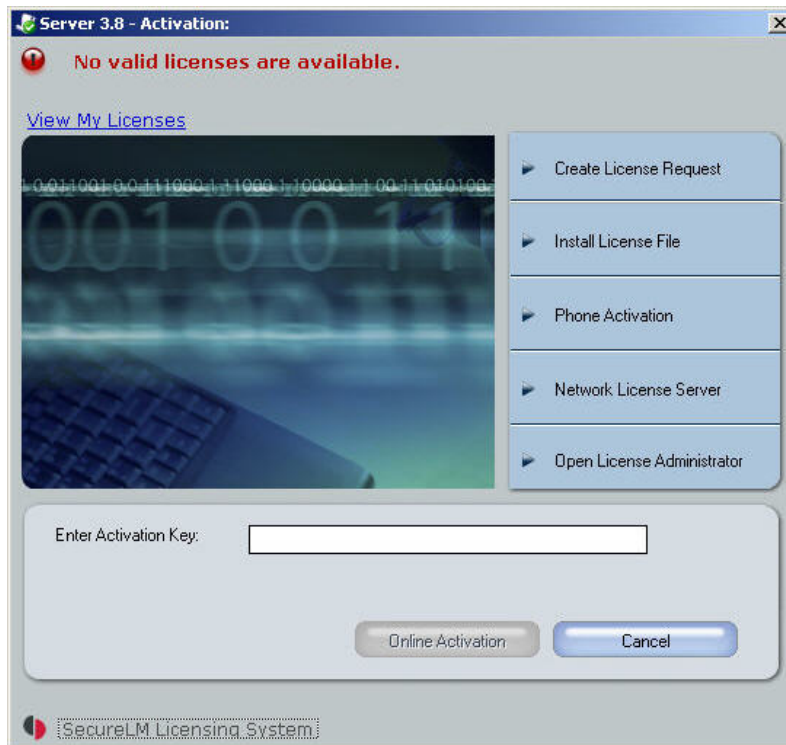
- activePDF Server 3.8.5
<http://www.imarkup.com/download/activepdf/apserver.exe>
- activePDF DocConverter 3.8.4
<http://www.imarkup.com/download/activepdf/apdcconv.exe>
- activePDF WebGrabber 3.8.2
<http://www.imarkup.com/download/activepdf/apwebgrb.exe>
- activePDF Toolkit 4.1 Professional
<http://www.imarkup.com/download/activepdf/aptk4p.exe>

Run all 4 setup files in order as seen above (from a local account with Administrator privileges). Follow the onscreen prompts to install the software files. Please read the following pages before installing software files.

ActivePDF Server 3.8.5



1. **Log in as the Local Administrator**
2. Double-click the activePDF Server setup file and follow the prompts to install the software files.
3. After the software has been installed enter your *Activation Key* provided by iMarkup. After entering your *Activation Key*, click Online Activation to activate your license. A message box will display indicating successful activation.



4. Accept all defaults for the configuration editor.

ActivePDF DocConverter

The DocConverter application requires a user account and password to perform the document conversions. It is strongly recommended to let the installer create a new account based for you.



1. Log in as the Local Administrator

2. Double-click the activePDF DocConverter setup file and follow the prompts to install the software files.
3. After the software has been installed enter your *Activation Key* provided by iMarkup.
4. After entering your *Activation Key*, click Online Activation to activate your license. A message box will display indicating successful activation.
5. Restart your computer.

If you need to change the account DocConverter uses, you must uninstall, reboot, and then re-install DocConverter.

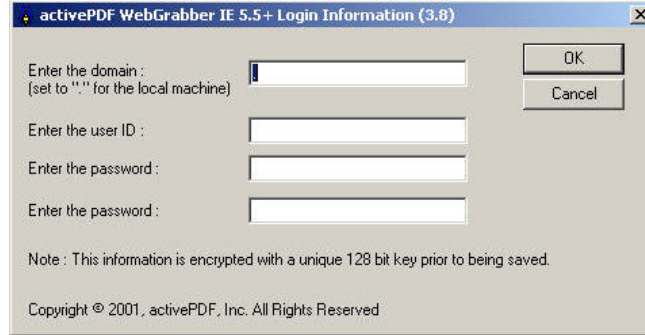
ActivePDF WebGrabber

The activePDF WebGrabber Service must run under the Local System Account. If Internet Explorer 5.5 or higher is detected, you will be prompted to configure the WGIE Login User upon completing the installation. The account must have Administration privileges on the local machine.



1. **Log in as the Local Administrator**
2. Double-click the activePDF WebGrabber setup file and follow the prompts to install the software files.
3. You may be prompted to enter a valid user account and password. Use an **existing** account and password. Note that this user account **must** have administrative permissions. It is recommended to create a special user account (with administrative permissions) that is only used for WebGrabber. Do not share this account with

active users (do not let others login to the server with this account).



4. After the software has been installed enter your *Activation Key* provided by iMarkup.
5. After entering your *Activation Key*, click Online Activation to activate your license. A message box will display indicating successful activation.
6. Restart your computer

ActivePDF Toolkit



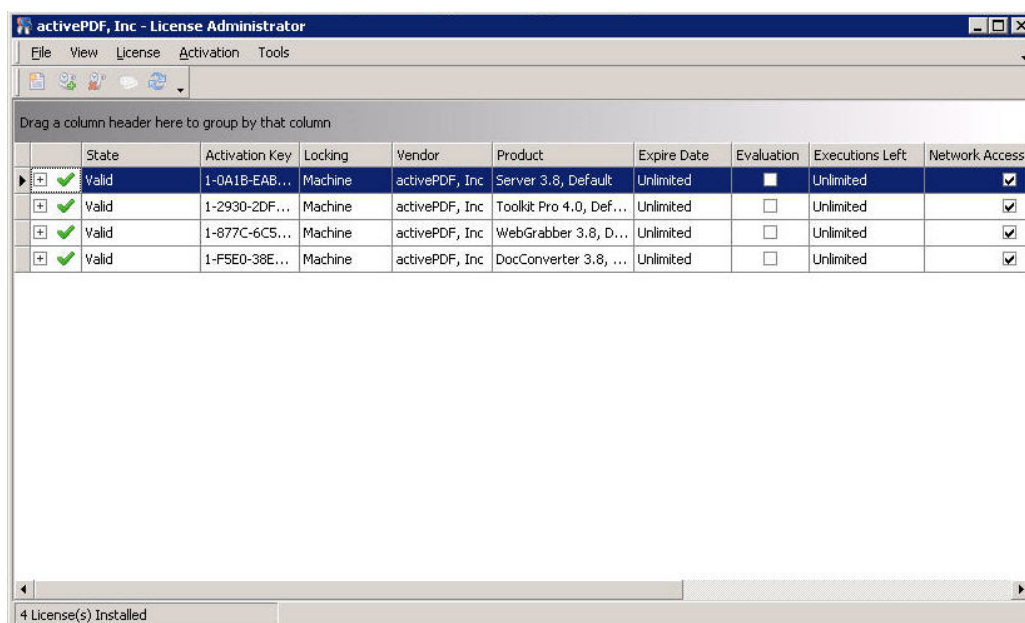
1. **Log in as the Local Administrator**
2. Double-click the activePDF Toolkit setup file and follow the prompts to install the software files.
3. Restart your computer.

After you have rebooted, you **must** login locally with the user and password that was created or configured as you installed DocConverter. Ensure that you can launch the MS

Office applications in the user account. After verifying these applications, you may logoff and login again to the server with your normal user credentials.

ActivePDF License Administrator

To manage your license keys Click **Start**, point to **All Programs, activePDF**, and then click **activePDF License Administrator**. Here you can view, add, edit and delete your license keys for any activePDF software.



The screenshot shows the 'activePDF, Inc - License Administrator' window. It features a menu bar with 'File', 'View', 'License', 'Activation', and 'Tools'. Below the menu bar is a toolbar with icons for file operations. A message 'Drag a column header here to group by that column' is displayed above a table. The table has the following columns: State, Activation Key, Locking, Vendor, Product, Expire Date, Evaluation, Executions Left, and Network Access. There are four rows of license data, all with a 'Valid' state and 'Unlimited' executions left. The status bar at the bottom indicates '4 License(s) Installed'.

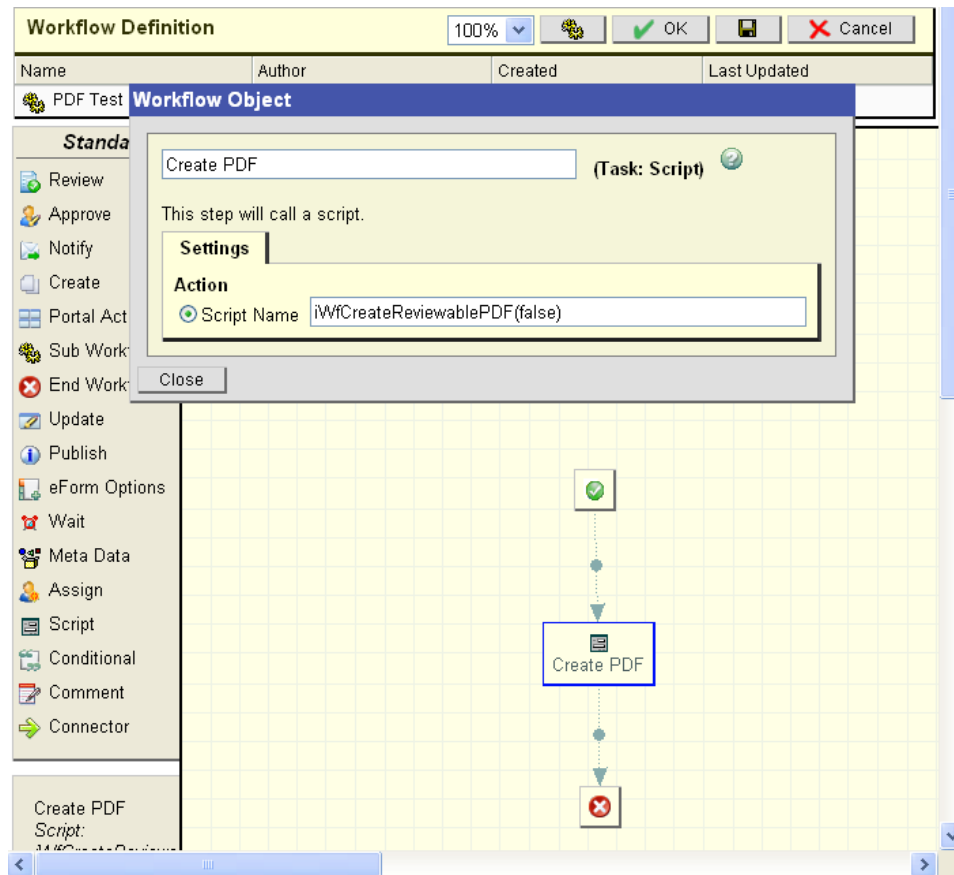
	State	Activation Key	Locking	Vendor	Product	Expire Date	Evaluation	Executions Left	Network Access
▶	Valid	1-0A1B-EAB...	Machine	activePDF, Inc	Server 3.8, Default	Unlimited	<input checked="" type="checkbox"/>	Unlimited	<input checked="" type="checkbox"/>
+	Valid	1-2930-2DF...	Machine	activePDF, Inc	Toolkit Pro 4.0, Def...	Unlimited	<input type="checkbox"/>	Unlimited	<input checked="" type="checkbox"/>
+	Valid	1-877C-6C5...	Machine	activePDF, Inc	WebGrabber 3.8, D...	Unlimited	<input type="checkbox"/>	Unlimited	<input checked="" type="checkbox"/>
+	Valid	1-F5E0-38E...	Machine	activePDF, Inc	DocConverter 3.8, ...	Unlimited	<input type="checkbox"/>	Unlimited	<input checked="" type="checkbox"/>

Verifying the Installation

You have now completed the installation of the activePDF. To verify the base conversion capabilities, you can use several activePDF test utilities. First, click **Start->Programs->activePDF->Server->Test Utility**. Verify that this creates a valid PDF document. To test the MS Office conversions, click **Start->Programs->activePDF->DocConverter->DocConverter Maintenance**. Select **Interactive Conversion**. Select the correct document processor in the **Select Processor** dropdown, a valid MS Office document for the **File to convert**, and a valid output location in the **Output filename**. Clicking the **Convert** button will render the MS Office document into PDF.

The iMarkup Server provides several test pages to ensure the installation and operation of the PDF component. On the server, navigate to <http://localhost/emarkupwg/pdf-test> and run the tests on that page.

After the tests have completed successfully, you can now use the PDF conversion capabilities as part of an iMarkup Server workflow definition. The PDF conversion facilities in the iMarkup Server are usually tied to a workflow process (e.g. after an eForm is approved, before publishing, after a document is changed, etc) or Custom Task. For example, create a simple 1-step workflow as shown in this screen-shot.



This example will render all documents in the workflow package as a PDF document. Now create a sample MS Word document in the iMarkup Server *Content List*. Select the document and choose **Start Workflow** from the *Content List*. Choose the PDF creation workflow you created above. When this workflow runs, it will create a PDF rendition of all documents in the workflow package. After the workflow completes, view the document to see the PDF rendition.

Some typical PDF rendering APIs are:

`iWfCreateReviewablePDF(pOnlyWhenNeeded)` - to create a PDF rendition of all workflow objects

`iWfExportFormAsPDF`(byref pFORMINSTID, byval pPDFName, byval pFolder, pExportFormData, pIncludeRoutingSlip, pIncludeWfObjects, pIncludeWfRefs, pIncludeFormRefs) - to "flatten" an eForm into a PDF

Function `iWfExportWorkflowAsPDF`(byval pPDFName, byval pFolder, pIncludeRoutingSlip, pIncludeWfObjects, pIncludeWfRefs) - to create a single PDF image of the entire workflow and optionally all workflow items.

See the **iMarkup Server Scripting Guide** in the **PDF Conversion Functions** section for a complete list of all the PDF rendering functions.

Performing the PDF conversions on a remote server

You may also do the actual PDF conversion on a remote server (for example, to conserve CPU cycles on the iMarkup Server). This technique requires 2 licenses of the iMarkup Server PDF Component (one on the iMarkup Server and one for the remote server). Microsoft Office is **only** required on the remote PDF conversion server.

Configure the iMarkup Server

Portions of the activePDF Server are still required on the iMarkup Server, even though the actual PDF conversions are done on the remote server. On the server with iMarkup Server installed, install the activePDF Server, the activePDF WebGrabber, and the activePDF Toolkit as described above (note that activePDF DocConverter is **not** required on the iMarkup Server). Reboot if you are prompted to do so. After the optional reboot, bring down the Print Spooler service. Then install `dcclient.exe` (<http://imarkup.com/install/server/dcclient.exe>). You must then extract the two files from the `apdoccnv.zip` file (<http://imarkup.com/install/server/apdoccnv.zip>) into the `\Windows\System32\` folder (and overwrite the previous versions if prompted). Then install the `wgclient.exe` (<http://imarkup.com/install/server/wgclient.exe>) and reboot if you are prompted. If you did not reboot, you **must** restart the Print Spooler services. You **may** stop the activePDF services – they are not needed because the conversion will be done on the remote server.

In the `\Program Files\iMarkup Workgroup\html\custom` folder, edit the `vars.asp` file. Add the following 2 lines to configure the remote PDF conversion:

```
gRemPDF_IP = "10.1.1.1"  
gRemPDF_NetworkFolder = "\\server\sharename\pdffolder"
```

The `gRemPDF_IP` requires the IP address (**not** a hostname) of your remote PDF conversion server. The `gRemPDF_NetworkFolder` is a UNC path to a network folder used for temporary files that is addressable to **both** the iMarkup Server and the remote PDF server. This can be on a NAS, or on a share on the remote server for instance. **Both** servers must have permission to read and write to this folder. You may need to change the anonymous user for the IIS `/imarkupwg/wf_control.asp` page to a user that has write access to the network folder (the default is `IUSR_<hostname>`). This is configured in the IIS Manager interface.

Install and configure the remote PDF server

On the remote (rendition) PDF server, install the activePDF Server, the activePDF DocConverter, and the activePDF WebGrabber as described in the previous section (note that activePDF Toolkit is **not** required on the remote PDF server). Stop the Print Spooler service. You must then extract the two files from the apdoccnv.zip file (<http://imarkup.com/install/server/apdoccnv.zip>) into the \Windows\System32\ folder (and overwrite the previous versions if prompted). Then restart the Print Spooler services.

Notes about Firewalls

The remote PDF conversion requires network connectivity from the iMarkup Server to the remote PDF server. You must ensure that no other application uses these ports, and that the network and any firewalls allow connectivity to and from the following ports: 53540, 53541, 64320.

See <http://www.activepdf.com/support/knowledgebase/viewKb.cfm?fs=1&ID=10060> more information.

Verifying the remote PDF conversion

Use the built-in iMarkup Server PDF test facility from the iMarkup Server (<http://localhost/imarkupwg/pdf-test>) to test once the installation is complete. Follow the instructions in the Verifying the Installation section above.