ArtistScope DRM is a total control solution for the Digital Rights Management of documents and images where an author can assign different permissions per users or group for page views, print limits and much more. When rights are assigned to an individual the document becomes for their eyes only and any copies that they make will useless to other persons.

- Restrict which users or groups can view a document
- Set a password for the document's encryption key
- Set expiration on a document validated by time server
- Limit the number of views per user or group
- Limit the number of prints per user or group
- Limit access by IP number or network

ArtistScope DRM will convert various file types including Word, Html, PowerPoint, Excel and images to protected PDF format or images for display on web pages.

Document Security

ArtistScope DRM is the most secure solution imaginable. Tokens cannot be forged and certificates cannot be copied or redistributed. When a PDF is tagged for DRM each time the end user opens the document your database is checked for their rights to access the document. The CopySafe runtime provides total protection from by ALL screen capture and video capture.

You have “total control” over documents even if they were downloaded months ago. Authors can change document security settings from a web page logged in from anywhere in the world that are immediately effective.

Viewing Protected Documents

The CopySafe PDF Reader is a free download to the public. If a document is tagged for DRM then only the intended person can open it, otherwise the document will be copy protected only.

Administration and Distribution

You can assign administrators and other special users permitted to submit publications, update document permissions or suspend document availability at any time. Documents can be emailed to your group of users or provided as a download. End users can log in to retrieve assigned documents or modify their contact details. They can also be allowed to upload and contribute documents in reply when allowed in your settings.

Multi-language Support

The ArtistScope DRM control panel can be translated into more than 25 different languages automatically. When the multi-language support option is enabled, all windows and messages (including member email notices) are translated to the user's language.

Installation

Requirements

To host ArtistScope DRM on your web site you need a server running Windows:

- Windows Server 2000
- Windows XP Pro with Personal Web Server (PWS)
- Windows Server 2003
- Windows Vista with IIS installed
- Microsoft .NET 2.0 Framework

To install and run as an “out of the box” solution, your web site needs to have ASP and database support enabled. To utilise the Universal Document Converter for file types other than PDF, you need to have UDC set as the default printer for the server.

You also need to have the following programs installed on the server:

- Adobe Reader 8 (for PDF font support)
- Java 1.6 or later (to run the image encryption software)
- Microsoft Office (for Word, Excel and PowerPoint conversions)
- NET 2.0 Framework is needed for the Windows Service.
- MDAC is assumed to be installed - used for DAO and ADO
- VB6 runtimes are assumed to be installed.

ArtistScope DRM installers

- 01 ArtistScope DRM installer
- 02 Universal Document Converter installer
- 03 Web site component installer

Overall installation order

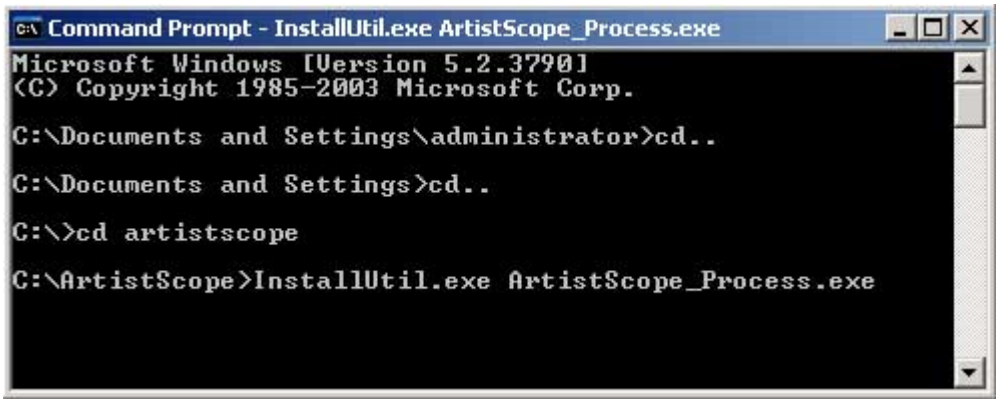
1. ArtistScope DRM server install
2. Configure ArtistScope.ini
3. Set write permissions on PendingConversions folder
4. Universal Document Converter install
5. Set UDC printer defaults
6. Activate CopySafe PDF Converter
7. Web site component installer
8. Configure the database path and web setting defaults
9. Set write permissions on upload folders and database

ArtistScope DRM installation

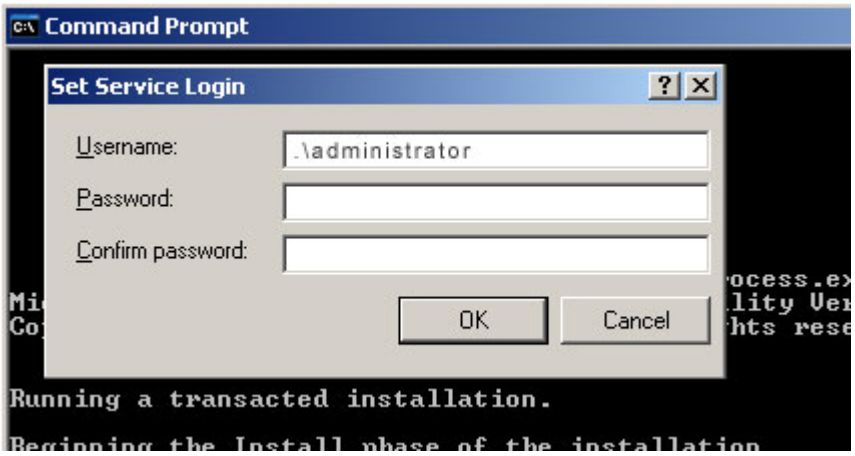
ArtistScopeDRMserver.exe will install server side software components to a folder named ArtistScope on the system drive of the server. Run the installer and then perform the following:

CopySafe CMD Service

CopySafe CMD Service provides the interface between the online management pages and the PDF and image conversion software. The service needs to be registered manually from a command prompt by running C:\ArtistScope\InstallUtil.exe “C:\ArtistScope\ArtistScope_Process.exe”

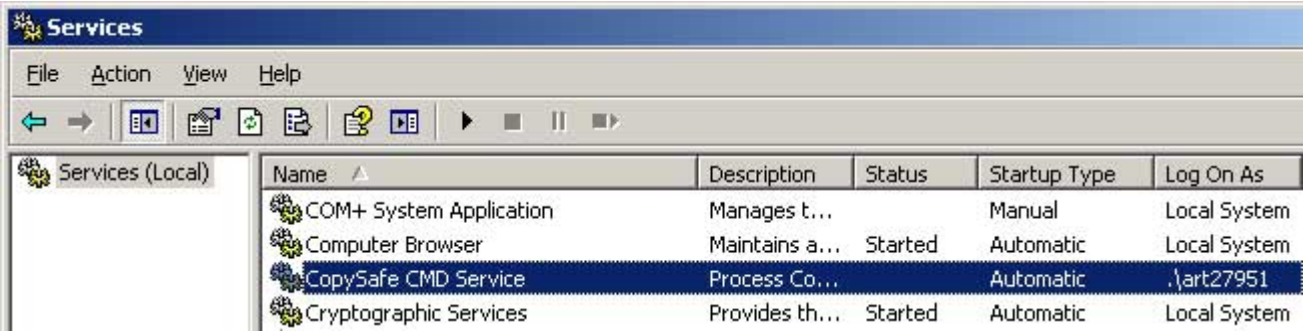


The next window will request the authority to run the service as an administrator. A domain also needs to be nominated. Typing in “.\” before the user name will nominate the local domain.

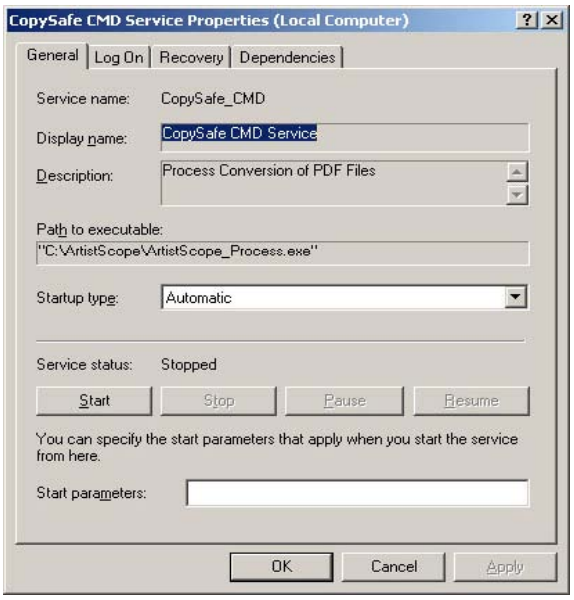


If you have input the correct details then the following screen will announce success. If you don’t get a response like below, start again by running the InstallUtil command line.

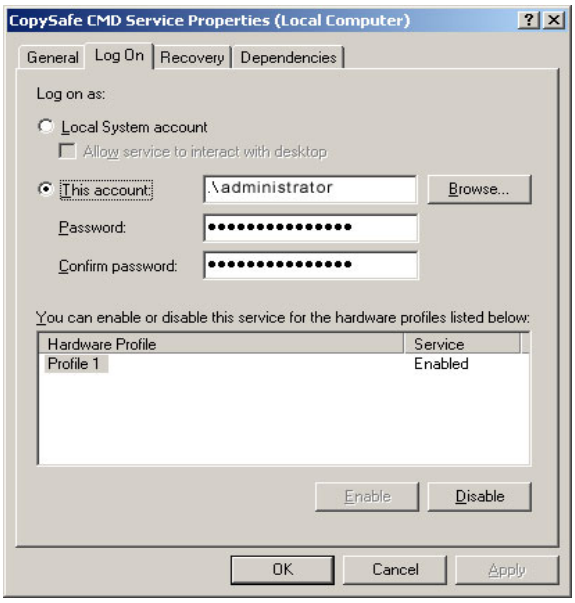
Now you need to start the service and check some settings. From Administrative Tools > Services > CopySafe CMD Service you should see the service listed as below:



Open **Properties** for CopySafe CMD Service and modify the following settings:

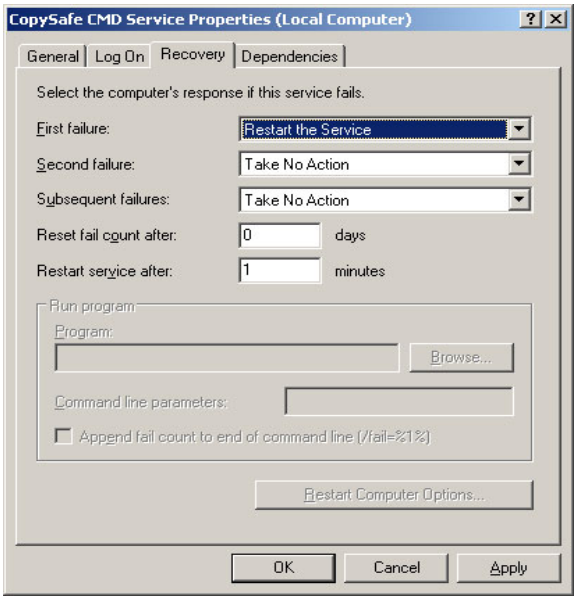


Note that the service has been installed but has not been started. But before you do that you need to modify some settings…



In the **Log On** tab check the account details.

If changes were made, click Apply.



In the **Recovery** tab change the First failure option to Restart the Service.

Click the Apply button and then OK.

Now you can start the service. Return to the **General** tab and click the **Start** button.

You can now exit the Services window.

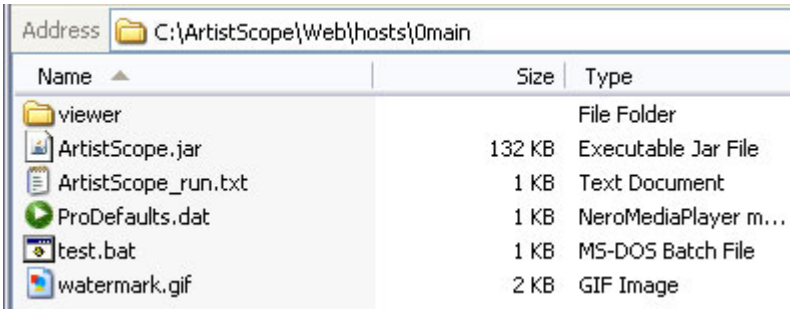
Conversion logging

The CMD Service monitors file conversions and records their progress. Permissions need to be set for read/write by everyone:

- C:\Artistscope\ PendingConversions (all files and folders within)
- C:\Artistscope\ EncryptedPages.mdb

Configure Image Encryption

The software that performs the image encryption is located at C:\ArtistScope\Web\hosts\0main



ArtistScope.jar is a Java executable provided by CopySafe Web for encrypting images and needs to be registered for your web site. Your download may have included a pre-registered version. If the registered jar file was sent later or provided as an upgrade you may need to replace it.

The ProDefaults.dat file needs to be updated for use on your server. Editing can be done using Notepad, however we strongly recommend that you first allow the program to set some defaults:

1. Run the Windows GIU by double clicking on ArtistScope.jar
2. Add an image
3. Highlight the image and click the Configure button
4. Run through the wizard for Targeted Link
5. Set Watermark for Mac and Linux only
6. Set watermark image (watermark.gif in the same folder as ArtistScope.jar)
7. Click Finish
8. With the image still highlighted click on the Protect button
9. Select the output folder and click Open
10. The converter will save all new files to that location
11. Close the converter GUI and select YES to "Save new settings"

The ProDefaults.dat now contains your default settings. The settings that are used will be provided by your template settings and the settings that you nominate when you convert an image from online, but the defaults file still needs to be set otherwise encryptions could produce errors.

Configure protected PDF

CopySafe PDF Converter provides PDF conversion and encryption for DRM properties and copy protection. CopySafe PDF needs to be registered using the licence key provided.

For this process the server needs to be connected to the Internet. Run the program at C:\ ArtistScope\Pdf\CopysafePDF_DRM.exe and then click the **Activate** button. Copy'n'paste your licence keycode, name and email address, then click the "Activate now" button.

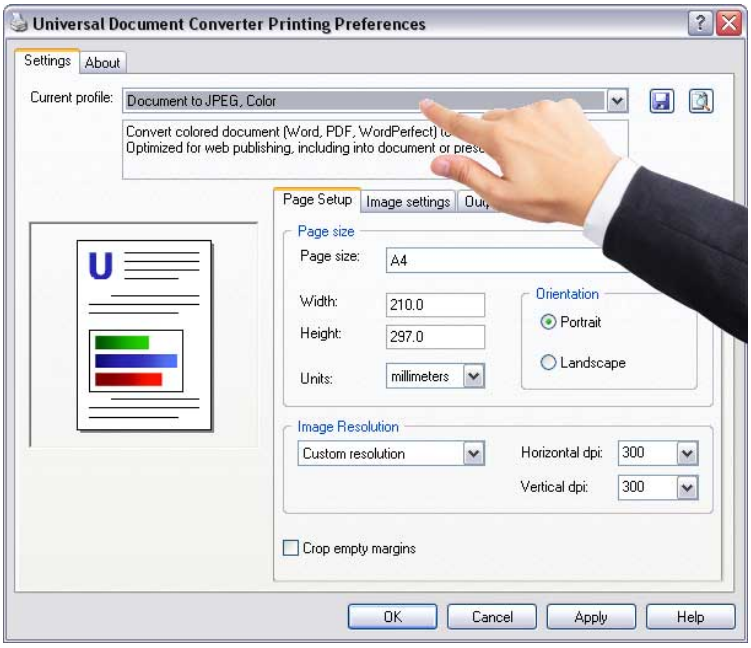
When you get a message about successful activation the PDF converter is ready for use. Exit the CopySafe PDF program.

Universal Document Converter (UDC) installation

The Universal Document Converter (UDC) enables users to upload Word (.doc), PowerPoint (.ppt) and Excel (.xls) files and convert them to PDF format for conversion to protected PDF or page format. Note that to use UDC you also need to have Microsoft Office installed on the server to handle Word, PowerPoint and Excel conversions. To convert Visio files you need to install Visio on the server. Likewise for AutoCAD files.

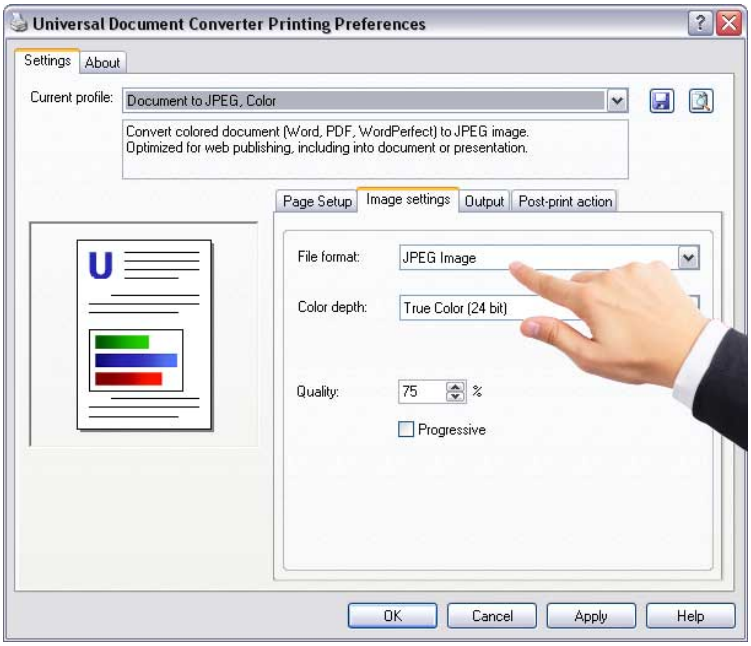
1. Run ArtistScopeDRM_UDC_installer.exe
2. When installation is finished go to **Control Panel** > **Printers**
3. Right click on Universal Document Converter and select “Set as default printer”
4. Right click on Universal Document Converter and select **Printing Preferences**

It is extremely important to ensure that UDC has these default settings before using it from your DRM management. If you changed the settings and the output hasn’t changed, first try closing the Word document then re-opening and trying a print to UDC. Other wise a computer restart may be needed to use the latest settings.

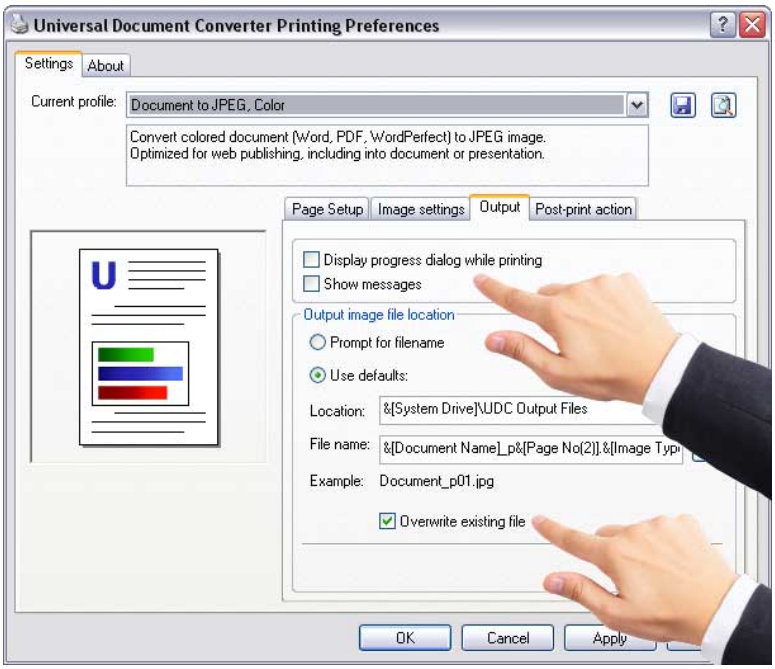


Set Current profile to:

“Document to JPEG, Color”

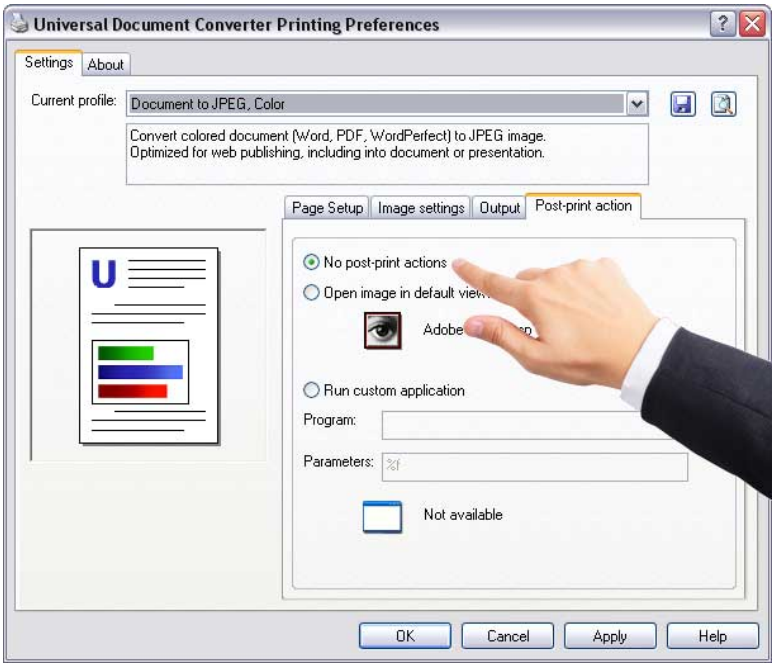


Select the Image settings tab and check that File format is set to JPEG



Select the Output tab:

Tick Overwrite existing file and untick Display Progress and Show Messages



Select the Post-print action tab and click for “No post-print actions”

Now you must test the install…

- Open Word and select Print using Universal Document Converter
- There should now be a new JPG at C:\UDC Output Files

Now print the same file to UDC and check that it was overwritten instead of renamed.

If all is well the UDC is ready for use. ArtistScope DRM governs the settings for each type of conversion but these default settings reduces problems caused by failed conversions.

Failed conversions? Until you fully configure ArtistScope DRM and its folder paths on your server, you will get errors because the converters won’t be able to find the files to process.

Web site installation

File installation

1. Copy the ”drm” folder to the root level of your web site
2. Edit drm/artisdrm_config.asp to add your keycode and default language
3. Set read/write permissions for “everyone” on:
   - drm/dbase
   - classin folder
   - classout folder
   - docin folder
   - docout folder

Access Database installation

The Access database can be found in /drm/dbase but we recommend moving it below the site root level once you have your DRM management up and running.

1. Set read/write permissions on the database for “everyone”.
2. Edit /drm/include/dbconnection.asp for database location and type

SQL Database installation

1. Create a database named “ArtisDRM” or similar
2. From Microsoft Office upsize the Access database that is provided

Languages

ArtistScope DRM will automatically translate the management pages on the fly, depending on the user’s language settings and their selection from the language select dropdown.

Afrikaans	Danish	Hebrew	Malay	Swedish
Arabic	Dutch	Hungarian	Norwegian	Thai
Chinese Simplified	English	Indonesian	Polish	Turkish
Chinese Traditional	French	Italian	Portuguese	
Croatian	German	Japanese	Russian	
Czech	Greek	Korean	Spanish	

If no language is detected or a selection is not made, then the pages will be displayed using the “default” language.

ArtistScope DRM translation module includes more than 850 words and phrases in more than 25 different languages. These translation functions can also be used on other web pages within your web site. For further information on using the translation module, see the translation guide in PDF format (included in your download).

FCKeditor

The FCKeditor provides full html editing from a web page for editing copy protected images and the page s that they use for display. The FCK editor has its own settings files and has already been pre-configured for use within DRM management.

Page creation

After uploading an image it is loaded into FCKeditor for page editing where you can add text and other images or embed Flash and movies.

- Category/folder name governs how and where the page appears in the user's side menu.
- Groups that are allowed to view the page
- View and print limits per user
- Expiration date
- Active or not active (prevents access to page to all users)
- Protection – normal images can be protected by checking the selection box

Folder name

If no folder name is set the page will appear as a single line entry in the side menu. If one is set then the page will appear under the folder that is assigned.

Group selection

The access rights to protected pages are assigned by Group. For example if publishing online lessons you can create a Group for each course or level of the course, and add Users to the different Groups are they progress to the next stage.

View and print limits

These limits apply per user. User hits are logged per page and when their allowance is used they will no longer be able to load that page. To reset a user's hits you can edit the hits page and delete their hit records.

Expiration

The date for a page to expire can set to the day. After that day the page will no longer be available to ordinary users.

Active

This option turns the page on/off. If it's active it will appear in their indexes and be available for view. If it's inactive it will only be accessible to Admin and/or the Author of the page.

Page content

As well as adding protected images, you can also add other images and media from the page editor. DRM management lends itself to protecting any page within its realm. If an image is uploaded and converted (encrypted) for copy protection then its display page will be copy protected automatically. However you can upload an image and leave it as a normal image, and then by checking the Protect box, it will be protected by inclusion of the copy protection code as it loads in the user's browser.

Troubleshooting

Server settings

Make sure the IIS web server is not restricting the size of ASP uploads. IIS 6 (Windows Server 2003) has a limit of 200 KB for ASP requests in general and file uploads in particular. To remove this limitation in IIS 6 you need to edit the Metabase file, which can be found at c:\Windows\System32\Inetsrv\MetaBase.xml.

Follow these steps: go to IIS and right click the server, select properties, and check the box "Allow changes to MetaBase configuration while IIS is running"; if after this step the metabase file is still locked, try turning off IIS or even restarting the machine in safe mode; open the file in an editor; the variable AspMaxRequestEntityAllowed limits the number of bytes in the page request (by default 200KB); change the value to 1073741824 (unlimited) or to a limit of your choice; check whether the same variable shows up in other places in the file.

Enc and Exe files not being created

If your file configuration is incorrect, when you convert a file and it’s not found, the CopySafe CMD Service may crash. To ensure that the CMD service is running at all times go to Control panel > Administrative Tools > Services > CopySafe CMD Service, right click for Properties and click the tab for Recovery… set to restart after an error.

Mail server (SMTP)

Until your DRM solution is fully configured for your web server some services may be affected. For example if you have not set the correct file permissions on all IN and OUT folders, sending an email with an attachment may cause SMTP to fail and shut down. Until the DRM solution is fully up and running, you can set the SMTP service to restart in case of failure from Services.

Grant the correct permissions to the Network Service account

To grant the correct permissions to the Network Service account, follow these steps:

1. Click Start, click Run, type dcomcnfg in the Open box, and then click OK.
2. In Component Services, double-click Component Services, and then double-click Computers.
3. Right-click My Computer, and then click Properties.
4. Click the COM Security tab.
5. In the Launch and Activation Permissions area, click Edit Default.
6. Click Add, type Network Service, and then click OK.
7. While Network Service is selected, click to select the Allow check boxes for the following items:
   - Local Launch
   - Remote Launch
   - Local Activation
   - Remote Activation
8. Click OK two times.

Event Viewer sometimes records error:

Event Type: Error
Event Source: DCOM
Event Category: None
Event ID: 10016
Date: 27-5-2007
Time: 5:56:24
User: NT AUTHORITY\LOCAL SERVICE
Computer: CP1098857-A
Description:
The machine-default permission settings do not grant Local Activation
permission for the COM Server application with CLSID
{555F3418-D99E-4E51-800A-6E89CFD8B1D7}
to the user NT AUTHORITY\LOCAL SERVICE SID (S-1-5-19). This security
permission can be modified using the Component Services administrative tool.

Fix:

Microsoft has confirmed that this is a problem in the Microsoft product. To resolve this problem, use one of the following methods, depending on the cause of the problem.

Grant the user permissions to start the COM component

1. Click Start, click Run, type regedit in the Open box, and then click OK
2. Locate and then click the following registry subkey:
3. HKEY_CLASSES_ROOT\CLSID\CLSID value
4. Note In this subkey, "CLSID value" is a placeholder for the CLSID information that appears in the message.
5. In the right pane, double-click AppID.
6. The Edit String dialog box appears. Leave this dialog box open and continue to the next step.
7. Click Start, click Run, type dcomcnfg in the Open box, and then click OK.
8. If a Windows Security Alert message prompts you to keep blocking the Microsoft Management Console program, click to unblock the program.
9. In Component Services, double-click Component Services, double-click Computers, double-click My Computer, and then click DCOM Config.
10. In the details pane, locate the program by using the friendly name.

If the AppGUID identifier is listed instead of the friendly name, locate the program by using this identifier.

1. Right-click the program, and then click Properties.
2. Click the Security tab.
3. In the Launch and Activation Permissions area, click Customize, and then click Edit.
4. Click Add, type the user's account name, and then click OK.
5. While the user is selected, click to select the Allow check boxes for the following items:
   - Local Launch
   - Remote Launch
   - Local Activation
   - Remote Activation
6. Click OK two times.
7. Quit Registry Editor.

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