

OrgPublisher 9 EChart Server Setup

Table of Contents

OrgPublisher ECharts	2
Log Files	3
Special EChart Security Considerations	3
Multiple ECharts on a Web Server	5
Internet / Intranet Web Server	5
EChart Server Requirements	5
Web Browser Requirements	5
OrgPublisher PluginX Browser Specifications	6
Charts on Windows® Server 2003	7
Web Server Extension	7
EChart Server Setup	8
Choosing DCOM Settings	14
Windows® 2003 Additional Settings	16
Set the MIME Type	16
Enable ISAPI DLLs	17

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

OrgPublisher ECharts

The purpose of this document is to provide detailed information on OrgPublisher's ECharts and the information you need to deploy this feature.

EChart publishing is designed to publish charts with a large number of records and/or custom fields, or when you would like to publish secure charts based on authentication methods (Microsoft® Active Directory or custom methods using custom fields). ECharts are published in two ways: EChart Rich Client uses the OrgPublisher PluginX discussed in this document. EChart Thin Client requires no end user browser component add-on.

A Microsoft® IIS (ISAPI enabled) Windows® XP, Windows® 2003 Web server, Windows® 2008 Web server or Apache™ HTTP Server 2.0+ running Windows® operating system is required to display an EChart. A virtual directory with execute permissions for scripts and executables must exist on the Web server. The URL to the virtual directory is entered as part of an EChart publishing definition.

Several files are created when ECharts are published. These files can either be published to the virtual directory folder, or published locally and then copied to the virtual directory folder. OrgPublisher includes an FTP client that can be configured in the publishing definition.

All files have the same name with different extensions:

- **.ocp** — Similar to a current OCP file except that it contains no records. Instead, it contains information needed to contact the EChart server.
- **.dll** — The ISAPI DLL file. This is the Web server control file that controls loading and unloading of chart data into memory.

Note: *The DLL file must be replaced if you upgrade OrgPublisher.*

- **.htm** — The standard htm file created when publishing. This is the file used to access the org chart. PluginX is required to view a Rich Client EChart.
- **.js** — This is a Java Script file that is called by the HTM file. It checks the codebase value and provides the code necessary to call the PluginX and load the chart file.
- **cfg.xml** — This file is used only by EChart Real-time charts and Thin Client charts.
- **.odbx** — This file indicates multiple data sources were used to create the chart.

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

- **.ocs** — The EChart data file. This file contains the actual chart data.

Note: *All file security authentication access for this file must be removed to prevent users from downloading it. Use IIS manager, changing the file properties on the **File Security** tab.*

- **.bat** — A batch file that can be used for automated publishing of the EChart. The publishing process will only create this file if it does not already exist. It performs the following steps:
 - Unloads data from the EChart server's memory. This is important because if the server has data loaded, it might not have enough memory to publish.
 - Publishes the EChart.
 - Loads the new EChart data into the server's memory.

The BAT file must be executed to refresh the chart. The Publishing Wizard cannot unload and load the data.

The batch file is created using the current computer where OrgPublisher is installed. If you publish to a different computer than the one OrgPublisher is installed on, the batch file will require modification because paths change.

Log Files

ECharts log activity when published and accessed using EChart security. The log file is the same name as the file that is published. When the Web service is restarted, the next access to the EChart causes a new log file to be created. The previous log file is renamed to preserve past information. This occurs up to 9 times. After that, each log file is cycled through the 9 backup files, and the 10th file is then lost.

Special EChart Security Considerations

Normally ECharts are published to a physical chart folder with Scripts and Executable Permissions and users access it with a link to the virtual directory where the files were published. Figure 1 shows the normal access flow.

- The HTM is accessed.
 - The HTML code checks to see that the OCX is loaded. If it is not loaded, it attempts to automatically download and install it (see PluginX section)
 - The HTML code then calls the OCP file

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

- The OCP file points to the DLL location. This location is the published virtual directory *specified when creating the publishing definition*.
- The DLL file assumes the OCS file is in the same folder as the DLL. It accesses the OCS file, filters the actual chart data based on security definitions for the published chart, and serves the resulting data as an org chart to the browser.

Normal Echart File Flow

Physical Chart Folder/URL with Scripts and Executable Permissions

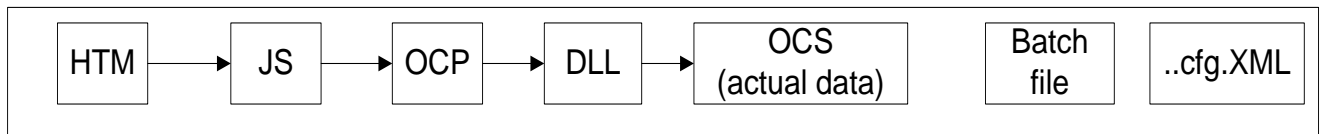


Figure 1

Note: *This scenario creates a security issue, due to the fact that you have a folder that has execute permissions. If a non-authorized DLL was placed in this folder, functions from this DLL could be executed from the virtual directory.*

Starting with OrgPublisher 7, the DLL is engineered to first look for the OCS file in the same folder where it resides, and if it does not find it, it then looks for an INI file that contains the path of the OCS file. This data flow is shown in Figure 2 below.

New Echart File Flow

Physical Chart Folder with no execute permissions

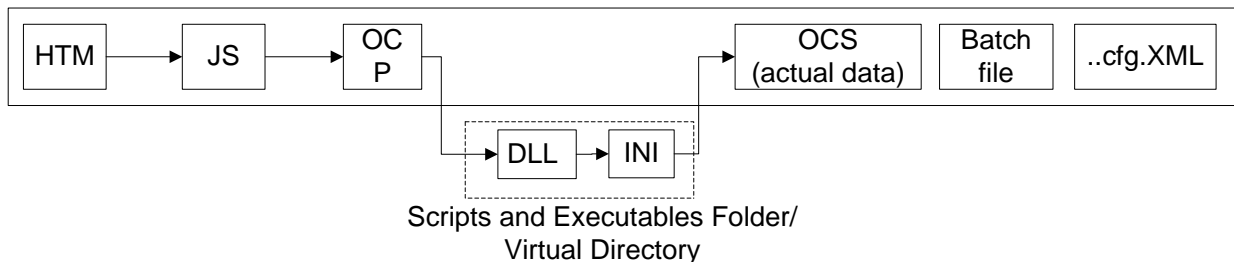


Figure 2

This new capability allows you to publish chart files to a physical directory that is different from the virtual directory, allowing you to “isolate” the Scripts and Executables folder.

The INI file would have a section that is the same name as the published EChart. Below is an example.

```

[OrgPublisherEChart]
OCS_PATH="C:\Path\To\Ocs\File.ocs"
  
```

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

Multiple ECharts on a Web Server

When multiple ECharts exist in the same virtual directory, they all share a single process (**dllhost.exe**). There is a limit of four (4) memory allocations a single instance of dllhost.exe can perform.

The implementation solution for this scenario involves running each EChart in a separate instance of **dllhost.exe**. When run this way, each EChart has its own process in which to live. It's also much safer. In the event of an error, only the affected EChart will stop responding.

To implement this, create a virtual directory on the Web server for each EChart. The virtual directories should have execute permission and 'Application Protection' set to 'High (isolated)'. The charts are then accessed through their respective virtual directories. HTTP redirects can be used so that the end user is unaware that multiple virtual directories are used.

Internet / Intranet Web Server

The OrgPublisher application utilizes a Windows® platform computer, which can be either a network computer or a Web server. For large charts utilizing EChart publishing (discussed later in this document), a Web server utilizing Microsoft® Internet Information Server (IIS) is required.

EChart Server Requirements

- Pentium® PC compatible or greater
- A Microsoft® IIS (ISAPI enabled) Windows® 2003, Windows® 2008, Windows® XP, Web server or Apache™ HTTP Server 2.0+ running Windows® operating system
- A virtual directory with execute permissions for scripts and executables on the Web server
- 60 MB available hard disk space
- 1 GB of RAM minimum, depending on chart size

Web Browser Requirements

Determine the publishing option that best fits the need of the organization. Different browser and server requirements apply depending on the selected publishing option.

Publishing option choices include:

- Graphic, HTML, (publishing formats that require no additional browser components).

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

- PDF, requires free Adobe® Acrobat® Reader® 9
- PluginX, which provides interactive org charts. This option requires installation of the OrgPublisher PluginX component.
- EChart Rich Client, which also requires the OrgPublisher PluginX component.
- EChart Thin Client, which requires no plug-in to view the published chart

OrgPublisher PluginX Browser Specifications

(EChart Rich or PluginX options)

- Pentium® PC compatible or greater
- Microsoft Windows® XP, or Windows® Vista™ operating system
- 512 MB of RAM
- 60 MB available hard disk space
- Microsoft® Internet Explorer 6 and later for all versions of Windows® mentioned above

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

Charts on Windows® Server 2003

When publishing to Windows® Server 2003, some additional settings are required.

You may also have to refer to the *Set the MIME Type* section later in this document.

Web Server Extension

1. Open the *Control Panel* window.
2. Open the *Administrative Tools* window.
3. Open the *Internet Information Services* window.
4. Expand **Internet Information Services**.
5. Expand the **(local computer)** option.
6. Expand **Web Service Extensions**.
7. In the right pane of the window, select **Add a new Web service extension**. The *New Web Service Extension* dialog opens.
8. Type a name that represents the name of the file you publish as an EChart in the **Extension name** field.
9. Click **Add** next to the **Required files** pane, and **Browse** to the published chart folder. Select the EChart file name that ends with the **.dll** extension.
10. Select the **Set extension status to Allowed** check box.
11. Click **OK** to close the *New Web Service Extension* dialog.
12. Close the *Internet Information Services*, *Administrative Tools*, and *Control Panel* windows.

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

EChart Server Setup

To set up the EChart server, do the following:

1. In Windows® Explorer, create the folder **c:\inetpub\wwwroot\Echarts**.
2. Right-click **My Computer** and select **Manage**. Expand **Services and Applications**, **Internet Information Services**, and **Default Web Site**.

The *Computer Management* window opens.

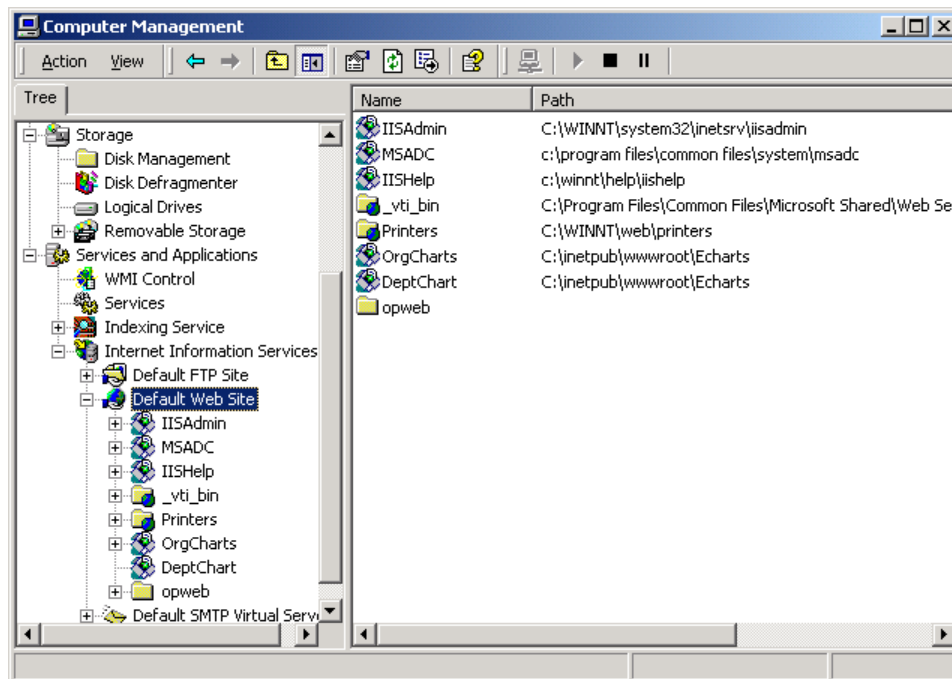


Figure 3

3. Right-click **Default Web Site** and point to **New**, then to **Virtual Directory**.

The *Virtual Directory Creation Wizard* opens.

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.



Figure 4

4. Click **Next**.

The *Virtual Directory Alias* screen opens.

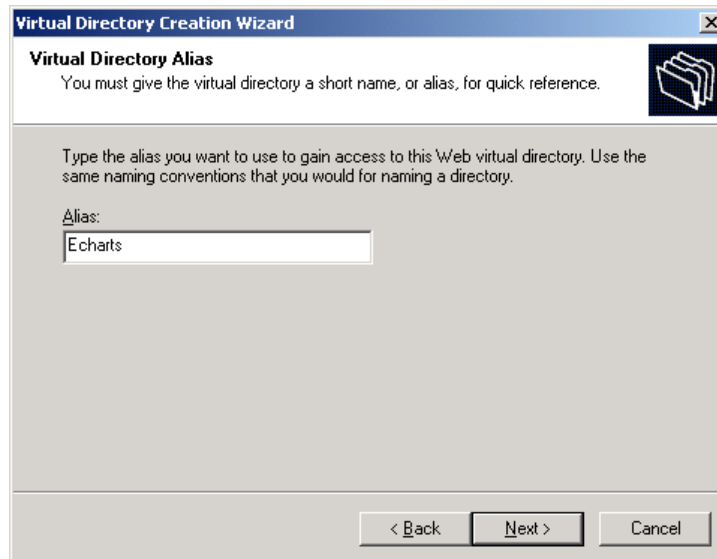


Figure 5

5. Use **Echarts** as the **Alias**. Click **Next**.

The *Web Site Content Directory* screen opens.

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

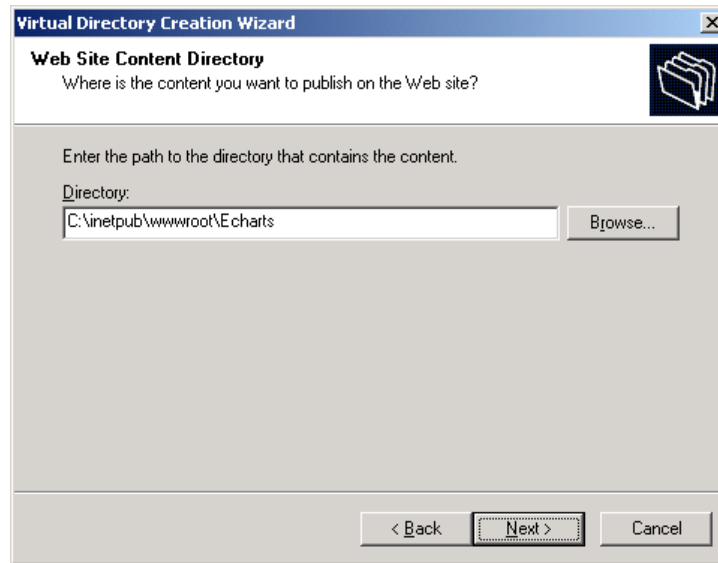


Figure 6

6. Browse to **C:\inetpub\wwwroot\Echarts** and click **Next**. The *Access Permissions* screen opens.

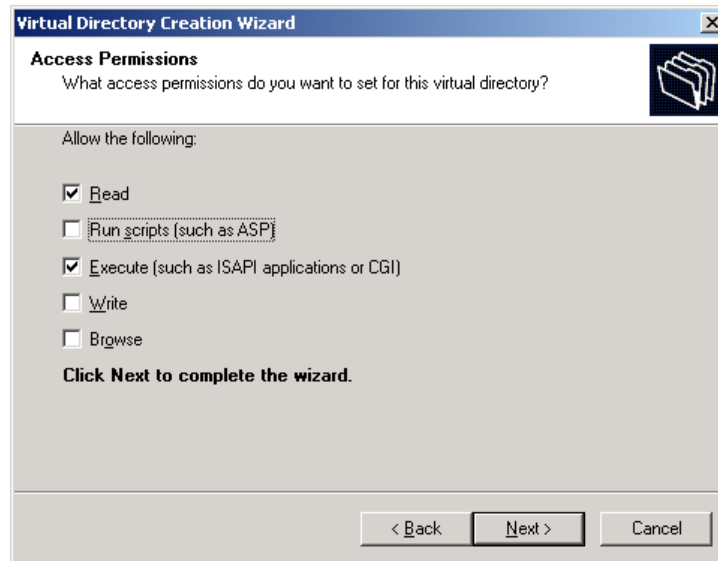


Figure 7

7. Select the **Read** and **Execute** check boxes, and clear the other check boxes. Click **Next**.

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

The *You have successfully completed the Virtual Directory Creation Wizard* dialog opens.

8. Click **Finish**.

The *Virtual Directory Creation Wizard* closes.

9. In the *Computer Management* window, right-click the **Echarts** folder and select **Properties**.

The *Echarts Properties* dialog opens to the **Virtual Directory** tab (Figure 8).

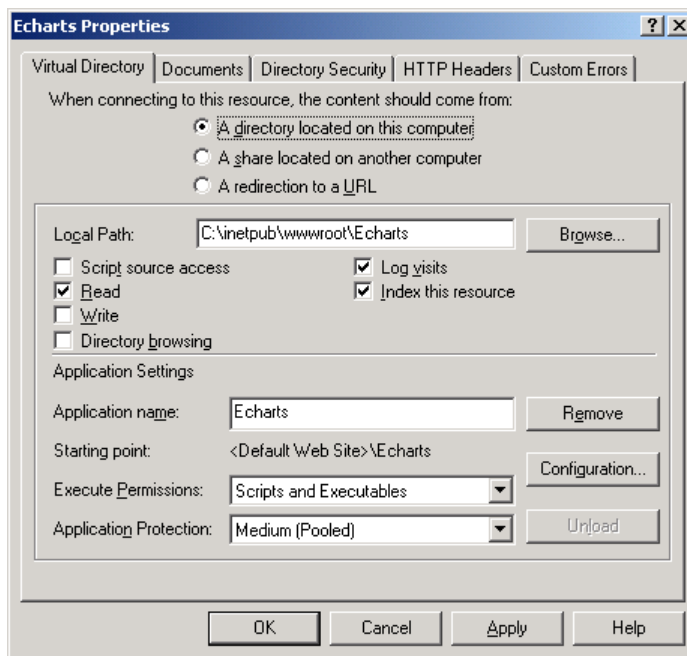


Figure 8

10. Select the **Read** check box.
11. Select **Scripts and Executables** from the **Execute Permissions** drop-down list.
12. Click the **Directory Security** tab.

The *Directory Security* tab opens.

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

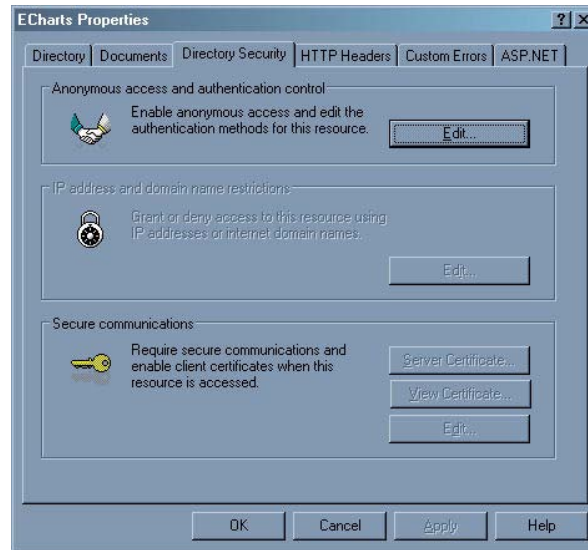


Figure 9

13. In the **Anonymous access and authentication control** section, click **Edit**.

The *Authentication Methods* dialog opens.

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

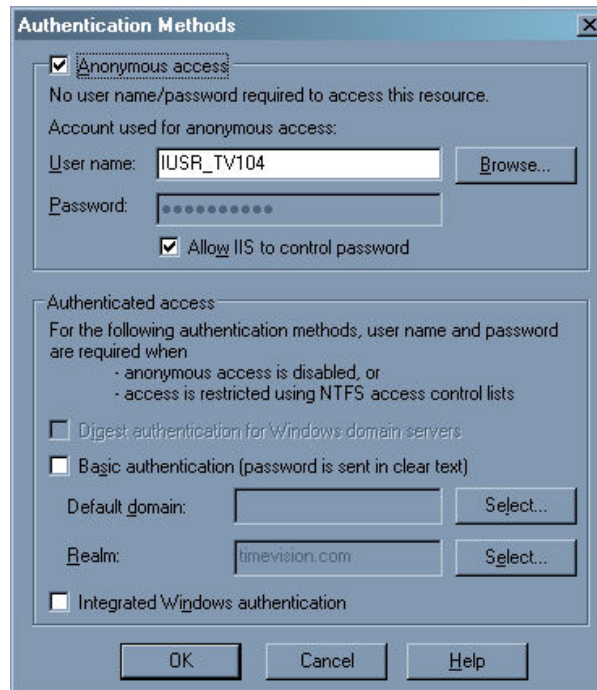


Figure 10

14. Select the **Anonymous access** check box.
 Make sure the **Username** is **IUSR_<computername>**, where
 <computername> is the name of the EChart server hosting the Web
 server.
15. Select the **Allow IIS to control password** check box and click **OK**.
 The *Anonymous User Account* dialog closes.
16. Click **OK** on the *ECharts Properties* dialog, and close the *Computer
 Management* window.

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

Choosing DCOM Settings

Note: *The following instructions apply to both Microsoft Windows® 2003 and Microsoft Windows® 2008.*

1. Start OrgPublisher from the server where it is installed.
 This loads the application into **DCOM**.
2. Close OrgPublisher
3. Click the **Start** button on the taskbar, and select **Run**.
 Type **DCOMCNFG** in the **Open** field and click **OK**.

Note: *If you receive a CLSID Warning message, click **Yes**.*

The Microsoft Windows® 2003 and 2008 COM Properties dialog opens

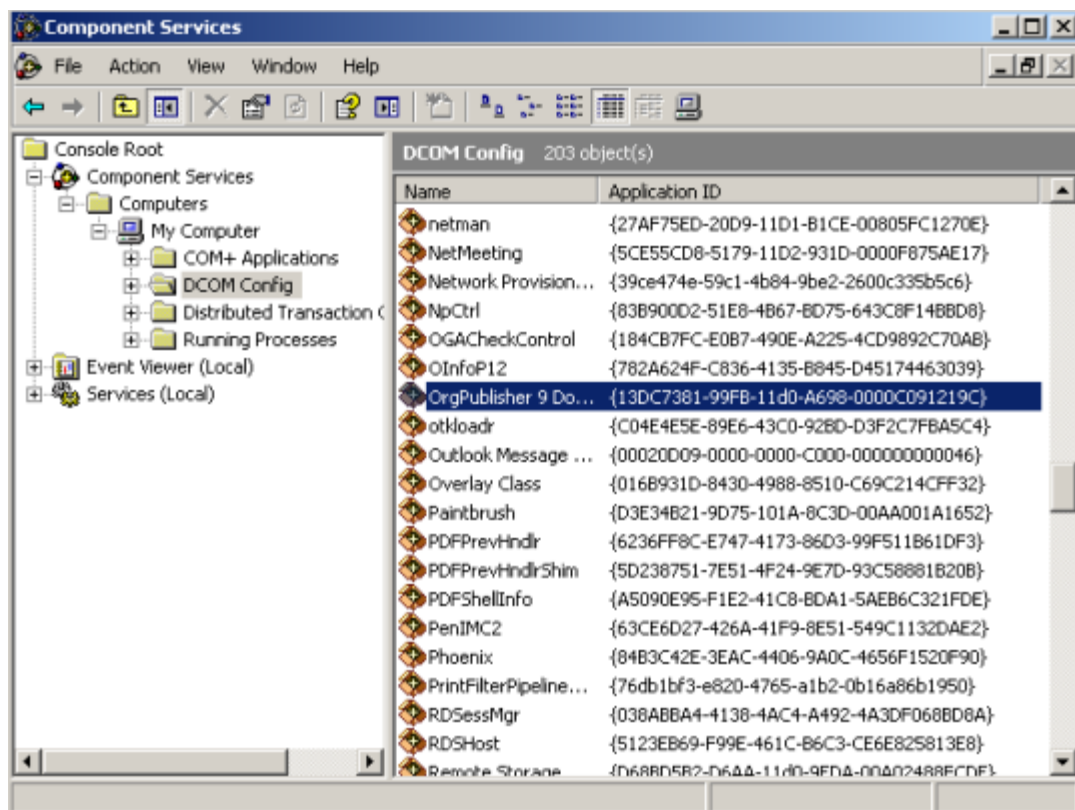


Figure 11

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

4. **Search for** OrgPublisher 9 Document; **right-click and select** Properties.

The OPAuto Document Properties dialog opens.

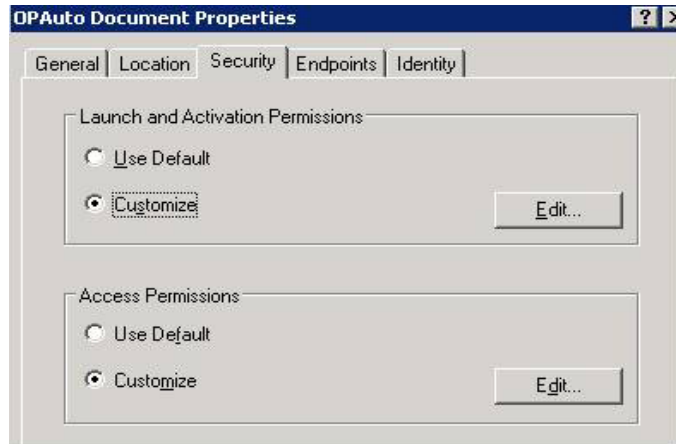


Figure 12

5. Select the **Security** tab to set the **Launch and Activation Permissions** and the **Access Permissions**.
6. In the **Launch and Activation Permissions** section, select **Customize**, and then click the associated **Edit** button

Note: *Make sure the users and groups are from the **WebServer**.*

7. Add the following **Users & Groups** - Check **Local Launch Permissions**:
 - Administrators Group
 - Interactive Group
 - IUSR Account
 - IWAM Account
 - Network Group
 - Network Service Group
 - OPWeb_LG Group
 - System Group

Note: *Windows® 2003 and 2008 Server – the **OPWEB_LG** Group must have all four items checked: **Local Launch, Remote Launch, Local Activation** and **Remote Activation**.*

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

8. Set the same permissions as above for the **Access Permissions** section for both Windows® 2003 & 2008.
9. If you had the OPAuto Document entry, Follow steps 5 – 8.

Windows® 2003 Additional Settings

Set the MIME Type

1. Start Internet Information Services (IIS).

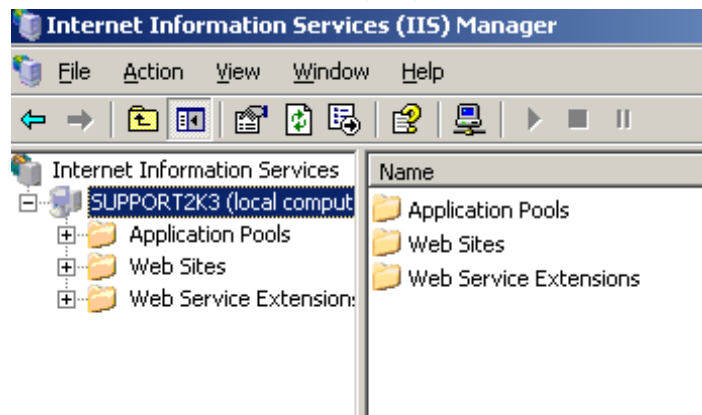


Figure 13

2. Select the Computer, right-click and then select **Properties**.

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

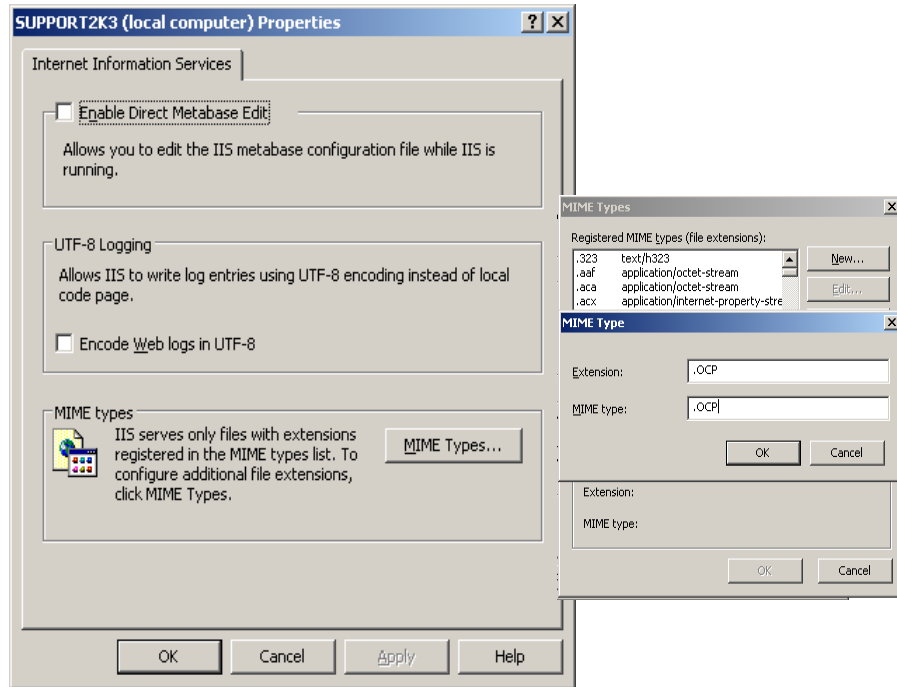


Figure 14

3. Click **MIME Types**
4. Click **New**, and then **Enter**.
5. Use **.OCP** for both **Extension** and **MIME Type**.
6. Click **OK**.

Enable ISAPI DLLs

1. Start Internet Information Services.
2. Expand **Local Computer** and select **Web Services Extensions**.
3. Right-click **All Unknown ISAPI Extensions** and select **Allow**.
4. Click **Yes** on the warning message.

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.

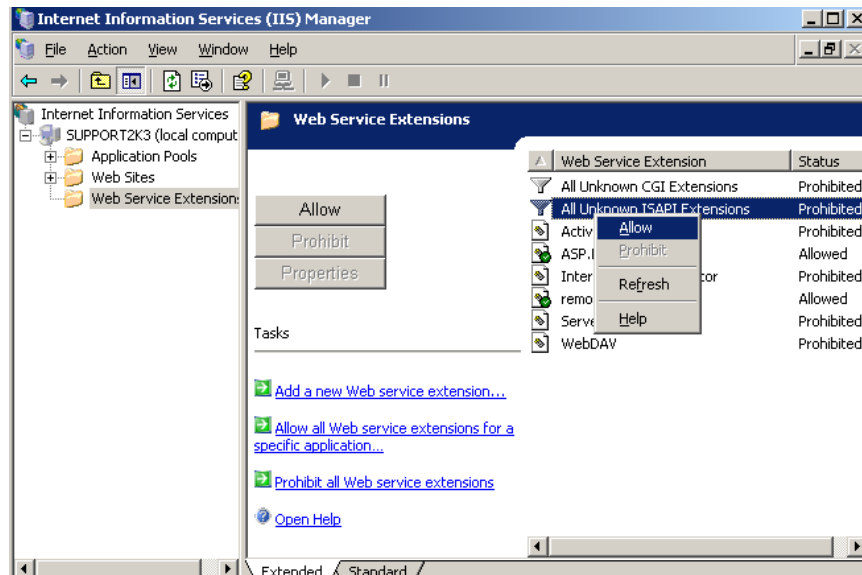


Figure 15

If you do not wish to enable **All Unknown ISAPI Extensions** then you must select **Add a new Web service extension**, and add an extension for each published chart DLL file (a file with the name of the published chart file that has an extension of **.dll**) that you plan to use on the Web server.

The information contained in this document is confidential and proprietary to Aquire Solutions, Inc. This information may not be distributed or used for any purpose other than the evaluation of Aquire solutions, nor may it be disclosed to any party without the prior written consent from Aquire. Copyright © 2001 - 2009 Aquire. All Rights Reserved.