

# **VisionFM 12 WebServer**

**Configuration Manual**

## VisionFM 12 WEBSERVER CONFIGURATION MANUAL

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# VisionFM 12 WebServer Configuration Manual

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## Overview

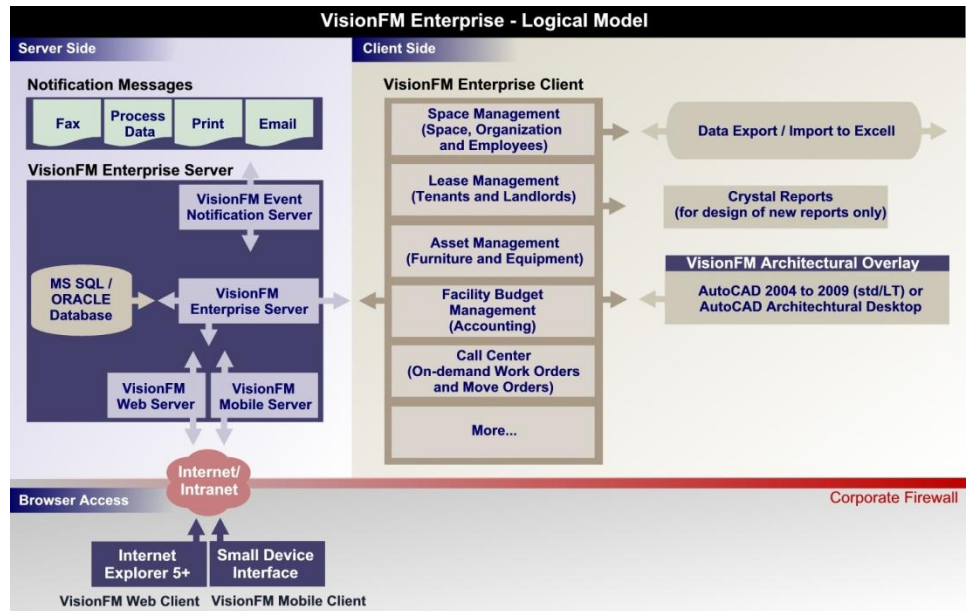
This guide is part of a set of guides created specifically for IT personnel to install the various parts of the VisionFM management system, including:

- VisionFM Enterprise Server
- VisionFM Enterprise Client
- VisionFM Web Server
- VisionFM Event Notification Server (ENS)

The WebServer is an add-on product to the VisionFM Enterprise Server. To install this product, you should already have a VisionFM Enterprise Server and Client operating on the VisionFM Server computer.

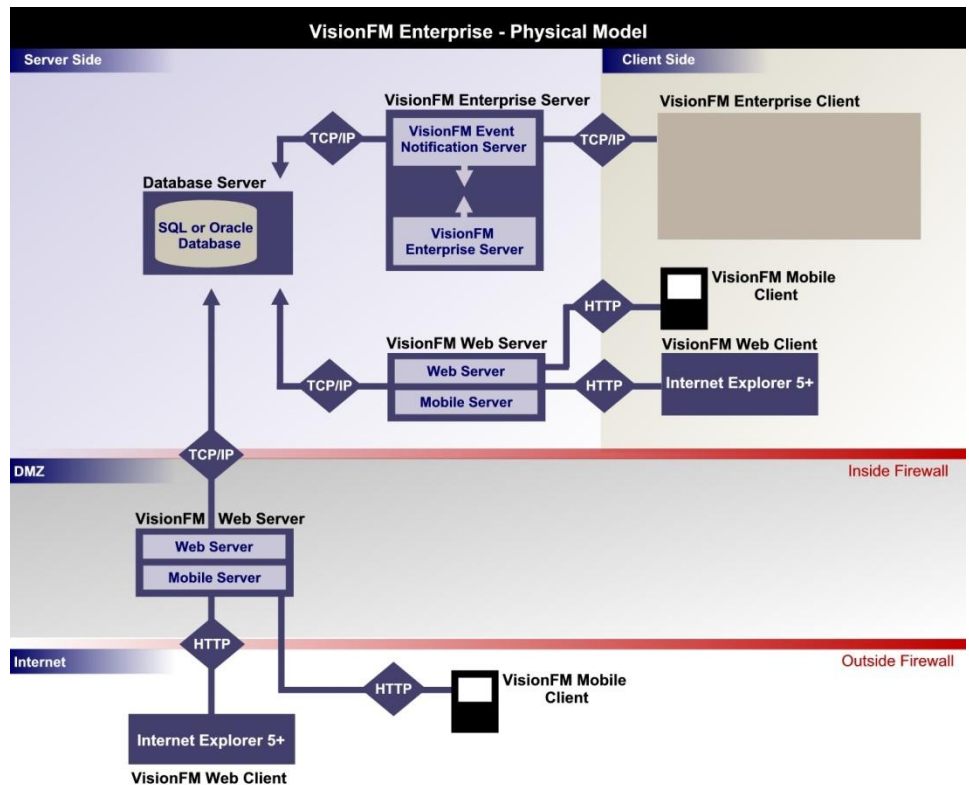
## Concepts

VisionFM is comprised of two primary applications, the VisionFM Client and the VisionFM Server. The client contains the majority of features including modules, queries and the interface to drafting software, while the Server does most of the data processing and communication to other VisionFM applications. Communication between the client and server uses the TCP/IP protocol for both local and wide area networking.



Three optional applications, the VisionFM Web Server, the VisionFM Event Notification System, and the VisionFM Mobile server work with the VisionFM Enterprise Server Application. Their functions are described below.

In addition to the applications mentioned, users may also work with AutoCAD drawings and attach images. These files can be located anywhere on the network but the path must be a single location for all users, since the drawing path is stored in the database.



## Order of installation:

### Setup the VisionFM Server

1. Install the Databases. You will need to have the SQL or Oracle databases installed prior to installing VisionFM Server. Selecting your existing database is part of the VisionFM Server installation.
2. Install the VisionFM Server on the server computer.
3. Install the VisionFM Client on the Server for testing.

### Setup the VisionFM Event Notification System (if required)

4. Install the VisionFM Event Notification Service on the VisionFM Server computer.

### Setup VisionFM Client Computers

5. Install AutoCAD, if required. For each client who uses AutoCAD, you will need to have AutoCAD installed first on their computer before installing VisionFM client. A new menu is added to AutoCAD when it is designated during VisionFM client install.
6. Install VisionFM Client(s)

### Setup the VisionFM Web Server (Could be either the same computer as the VisionFM Server or another server)

7. Install IIS: Internet Information Service, an optional component of Windows 2000, 2003, 2008, is required.
8. Install the VisionFM Web Server
9. Install Optional Components
  - a. VisionFM Active Directory Employee Mirroring System
  - b. VisionFM Automated Profile Creation System

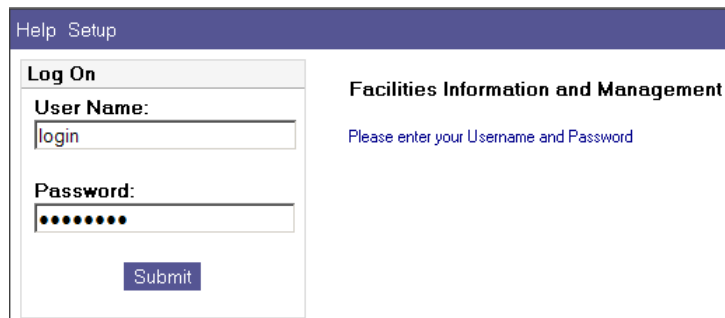
## WebServer Install

### Introduction

Welcome to VisionFM’s UniversalWeb, the HTML extension to VisionFM Enterprise 12.

The site has been designed for overall simplicity, with a concentration on production, rather than special effects, making the user experience less complicated and more productive. Like the name says, the site is universal. Without customization, it can be added to any VisionFM Enterprise 12 installation and provide full access to reports, forms, queries, and drawings through your Internet Explorer browser. Dynamically, it works with the user profiles set up in VisionFM to provide custom information for each user. And since it is a standard site, it’s upgradeable, as we are able to provide updates, with the latest improvements and new features when necessary.

### Logging into the Web Server

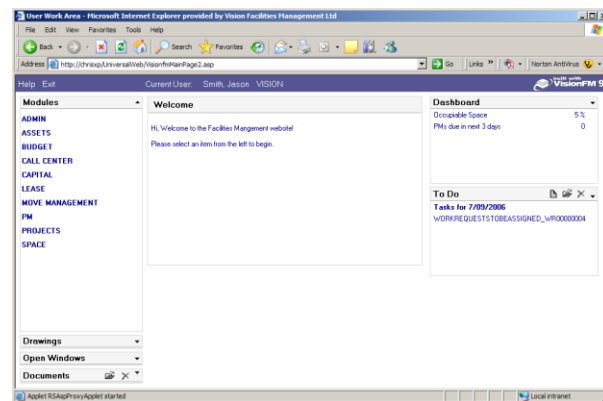


The login page allows the user to enter his/her username and password to enter the site. If the VisionFM activeX controls are not already installed, the user may install them by clicking on the **Setup** hyperlink in the top left corner of the screen. Automatic updating of the client controls takes place when the server is

updated

### User Interface

Once logged in, the user workspace screen will appear. The menus are dynamic and are adjusted by the user’s profile, set up by the administrator in VisionFM.



## Installation Information

The VisionFM Web Server installation accomplishes the following tasks:

- Updates the registry with path and version information.
- Installs a web site called 'universalweb' onto the web server.

Provided as a separate product, the VisionFM Web Server can either be installed on the VisionFM Server (one-server solution) or on a separate web server (two server solution). The site includes activeX controls which will be installed on any client machine when they attempt to log on, allowing for the viewing of drawings, using VisionFM forms, etc. The site communicates with VisionFM Server, which manages all of the users log on credentials and profile information.

Since the application needs to be installed on the VisionFM Server, in a one server configuration, the hardware and software requirements are exactly the same as the VisionFM server. The table below indicates another 100 MB of hardware space are needed. In a two-server configuration, another web server with similar configuration will be needed. This could be a new web server, or an existing web server already being used to host other sites.

VisionFM Enterprise Web Server		
	Minimum	Recommended
Computer	Single Core Latest Model Pentium or AMD	Dual Core Latest Model Pentium or AMD
Operating System	Win 2000/3/8 Server	Win 2000/3/8 Server
RAM	N/A	N/A
Hard Drive Space	100 MB	100 MB
Display	N/A	N/A

## Computer Requirements

The Web Server needs to be installed on a server that can connect locally to the VisionFM Server, and can host web sites:

1. In the case of a two-server configuration, ensure the web server can communicate with the VisionFM Server on the local network.
2. Internet Information Services 5 (IIS5) or greater must be installed on the web server.

## Before installing...

You will need:

- The VisionFM Web Server Installation CD (The install serial number can be found on the CD case)
- SQL or Oracle Server installed on the local network for VisionFM Server (typically installed on the VisionFM Server)

- VisionFM Server installed on a server on the local network (Windows 2003, 2008) A functioning corporate Mailserver or an external smtp service.
- A Web Server (Windows 2003, 2008) installed on the local network, able to communicate with the VisionFM Server (only for two-server configuration)
- IIS5 or greater installed on the VisionFM server(one-server configuration) or the web server (two-server configuration)
- Administrator access rights on both servers.
- The ability to install and/or update the IIS server component of Windows Server if not already installed.
- IIS must be configured to use Active Server Pages (asp).
- A telephone. During installation a validation code will be generated. This number will need be given to a VisionFM attendant, who will return a final install code.
- Another separate computer to use as a browser client for testing the install.

## Installation Procedure

**IMPORTANT:** The VisionFM WebServer is an add-on to VisionFM Enterprise 12, and therefore VisionFM Enterprise Server 12 must be installed prior to this installation. For best results, since all of the information used in the WebServer will be drawn from the VisionFM Enterprise 12 database, an existing database of information forms, reports, queries, drawings, and users should already be in place. If you are setting up all VisionFM applications at once, please test VisionFM Enterprise clients for system integrity thoroughly before proceeding.

To begin insert the CD you received VisonFM Web Server, and run the Setup.exe. The Installation wizard will open taking you throught the steps of installing the software. You will:

1. Read and Accept the Licensing terms of the installation.
2. You will be presented with a 'confirmation' number and a telephone number. Call the telephone number to give the confirmation number to a VisionFM representative. You will receive an installation code. Enter the code to proceed.
3. Choose an installation folder for VisionFM Enterprise Server.
4. Select the location of your web site's home directory. (c:\inetpub\wwwroot)
5. Select the website folder name. (c:\inetpub\wwwroot\universalweb)
6. Choose an installation folder for the websites dashboard gadget. (The folder should later be shared for other users to install from it)
7. Choose the SQL or Oracle database used for VisionFM Server.
8. Choose the database server name. The wizard will continue to completion.

## Configurations

There are two possible configurations for VisionFM WebServer: A One-Server configuration where the functional web site and service are installed on the same server as the VisionFM Server, or a Two-Server

configuration where VisionFM WebServer is installed on a second web server which is separate from the VisionFM Server. The following documentation will discuss both.

### For a One-Server configuration

1. Verify existing installations: Ensure that VisionFM Enterprise Server 12, VisionFM Enterprise Client 12, and Internet Information Services (IIS: a component of Microsoft Windows 2003 or 2008 Server) are installed and fully operational.

All components are not automatically installed. The administrator will need to include the following during the Windows installation process.

- Active server pages
- Server side includes
- World wide web service

The web site will have to be set to run in isolation mode. In Internet Information Services right click on the heading “Web Sites” to display the Web Sites Properties dialog box. Click on the Services tab and select the checkbox “Run WWW service in IIS 5.0 (isolation mode)”.

2. Test the VisionFM Enterprise Client: Before installing the **VisionFM WebServer** (which contains the UniversalWeb web site), open the VisionFM Enterprise Client to verify communication integrity and registry settings. Only continue if the VisionFM Enterprise Client is functional.
3. Install the VisionFM WebServer: Locate and run the setup.exe file in the InternetServer folder of your CD. The installation wizard will walk you through the directory setup. This will place the UniversalWeb in your ‘<drive>:\inetpub\wwwroot\’ folder.
4. Setup the UniversalWeb site as an ASP application:
 

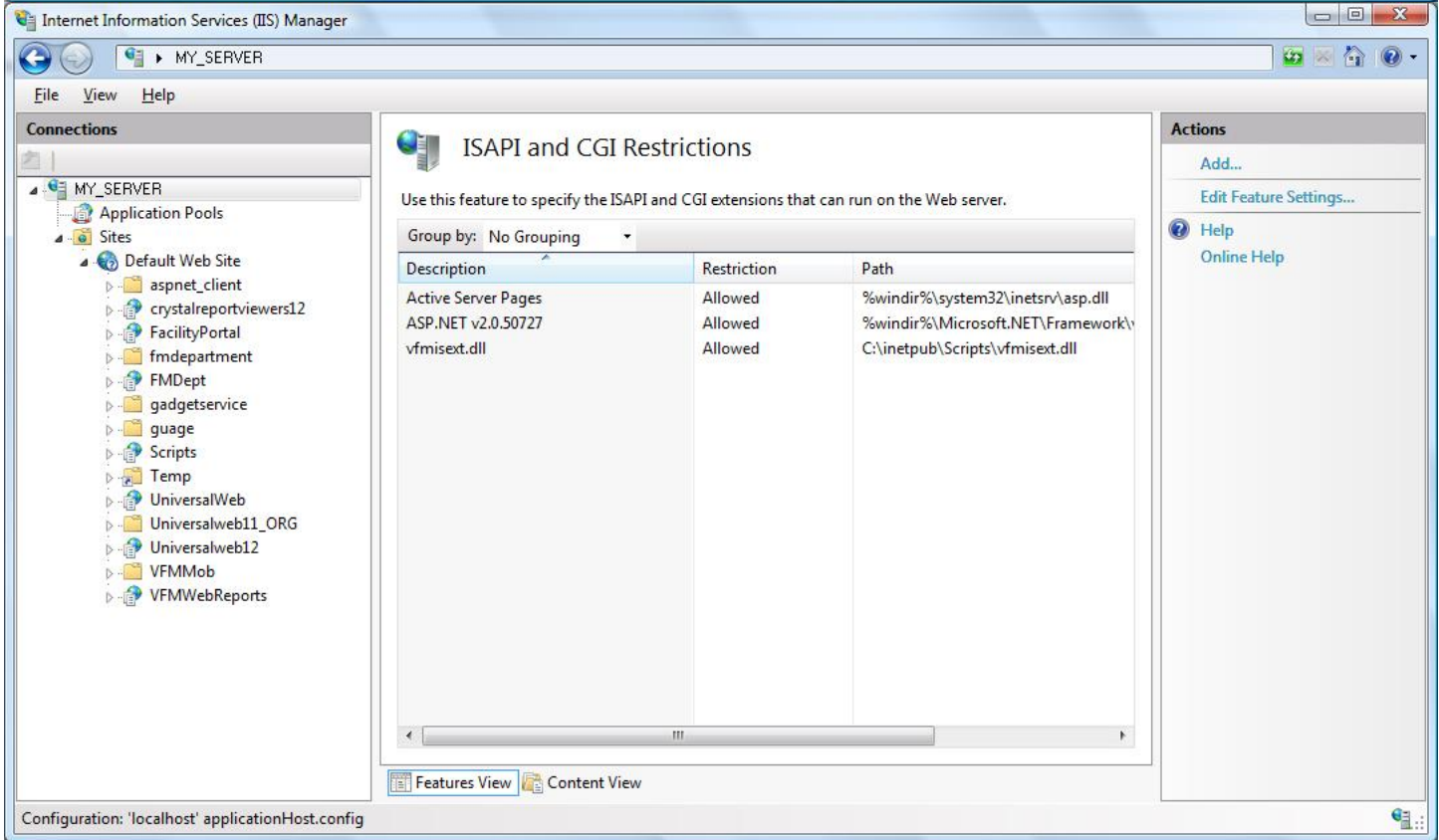
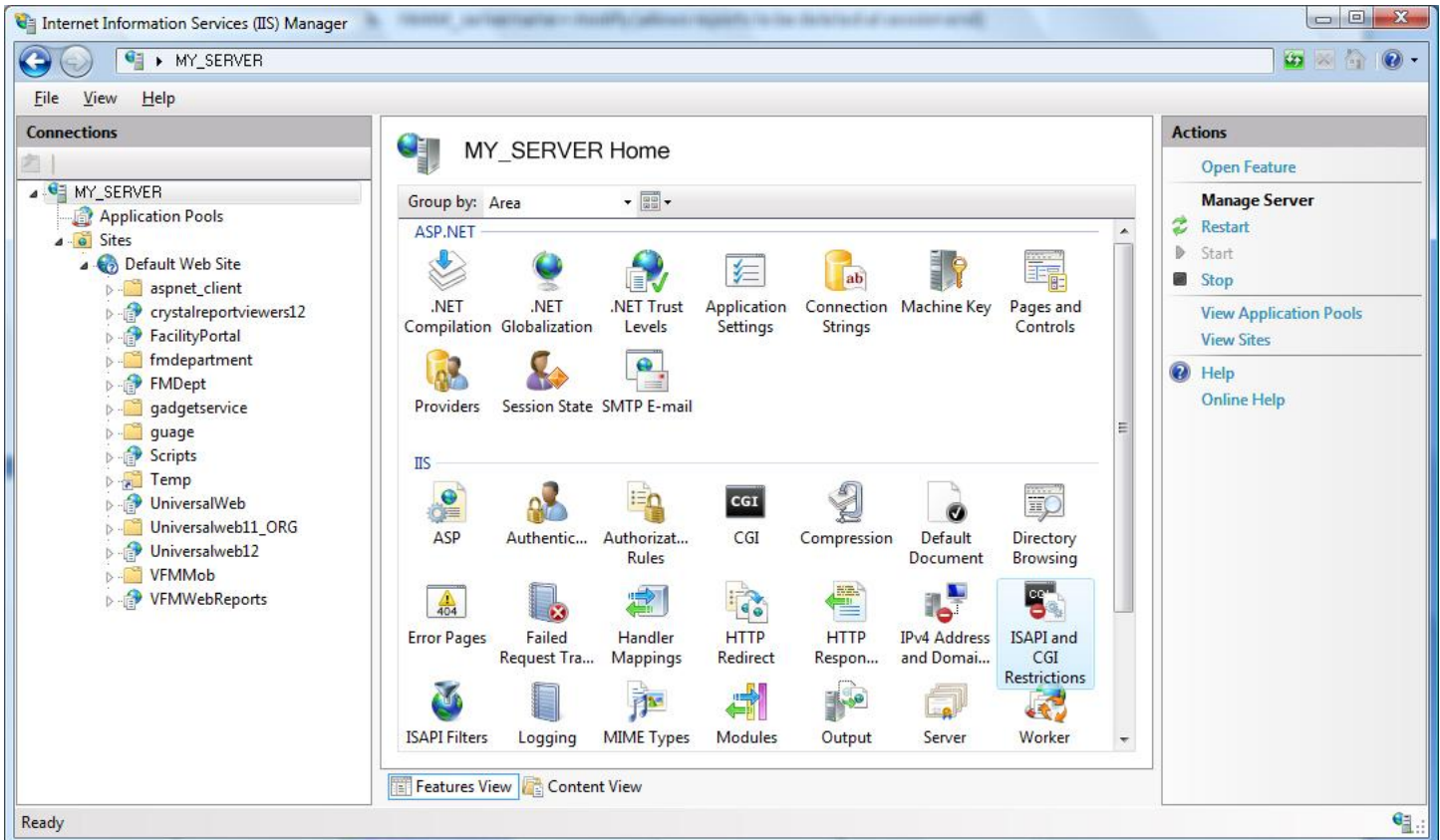
Click the ‘Start’ button, select ‘Programs’, select ‘Administrative Tools’, and select ‘Internet Services Manager’.

The IIS Console will appear. In the tree-list, expand the ‘computer-name’ and ‘Default Web Site. Right-click on the ‘UniversalWeb’ folder and select ‘Convert to Application’. The ‘Add Application’ dialog box should appear.

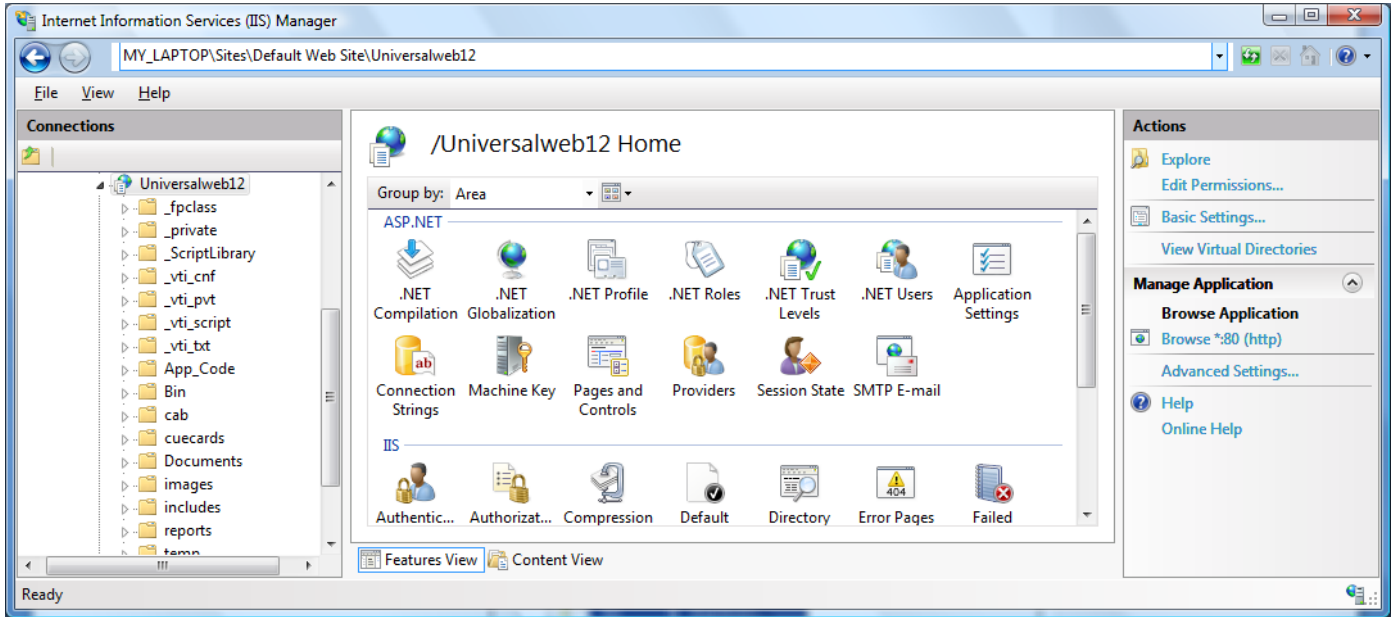
  - a. Click the ‘OK’ button on the lower right of the dialog box to create an ASP application.
5. Configure NT Security Settings: The following three directories require security modifications. These settings use the IIS anonymous user (IUSR\_servername) to allow everyone access to the

site. If you would like to limit access to certain users, please replace the IUSR\_servername account below with the user or group of your choice.

- a. c:\inetpub\wwwroot\universalweb
    - i. IUSR\_servername = modify (allows reports to be written)
    - ii. Network Service = modify (allows reports to be deleted at session end)
  - b. c:\visionserver
    - i. IUSR\_servername – modify (allows mdb files to be modified)
    - ii. Network Service = read (allows reports to read mdb files)
  - c. c:\winnt\temp
    - i. IUSR\_servername = read and execute, and write (allows temporary report data to be written and read)
    - ii. Network Service = modify (allows temporary report data to be written and deleted at session end.)
6. Check or Configure NT Share Permissions: The VisionServer directory (i.e. c:\VisionServer) should already be shared. Check the Share permissions. By default Windows sets share connections to allow 'everyone' with 'Full' permissions (recommended). At the very least the IUSR\_servername account, or any specific user if you are not using anonymous users, should have 'Read' and 'Change' attributes.
7. You will have to add VFMISEXT as a web extension. In the Internet Information Services control panel select the name of your server, which is the root of the tree on the left. Then click the ISAPI and CGI Restrictions Icon. Add the file c:\inetpub\scripts\vmisext.dll with the title vmisext.dll, as shown below.



8. A directory needs to be created to store temporary report files. Create a virtual directory called “TEMP” in the UniversalWeb directory. In Internet Information Services right click on “Default Web Site” and select “New” --- “Virtual Directory” from the pop-up window.



Create the virtual directory called: Temp

Enter the path as: c:\inetpub\wwwroot\UniversalWeb\temp

9. Add a User Profile for testing: If you haven’t done so already, in the VisionFM Enterprise Client, add a user profile for the Administrator (your current login), or another user of your choice. To do this:
  - a. Log on to the VisionFM Enterprise Client using a profile with administrator privileges. Click the ‘File’ menu. Select ‘User Profile...’. Choose the **Login Name** of the Administrator, or any other user you want to test. Select the ‘preferences’ button. The VFM User Preferences dialog box appears. Select the ‘Web Setup’ tab. Under the ‘Web Module field’ select an existing module, or create a new one. These modules are the same modules displayed in the web site. Create as many new modules as you like; they are only used for the web site. Use the rest of the form to add forms, queries, and reports to the selected module. Add at least one form, query and a report to this profile, making sure that they function in VisionFM Enterprise Client first. Select apply when finished. The information will be available for that user the next time he/she logs on.
  - b. **WARNING** – Be careful when adding reports. Some reports are not designed for web site use and may cause problems if added. For a list of reports that are fully supported on the UniversalWeb use the Reports Assistant Cue Card in the VisionFM Enterprise

Client. To do this, log on to the VisionFM Enterprise Client and double click the 'Reports Header' on the tab bar at left. (See 'Add a Report' in this document).

10. Start the Application: open your browser and type in the address of the site. (i.e. <http://mymachine/universalweb/default.asp>)
11. Install the VisionFM UniversalWeb Client: On the first page of the site select 'Browser Setup'. Follow the instructions until your browser is configured. This will have to be done once for each new client that connects to the site.
12. Test the UniversalWeb site: open your browser and type in the address of the site. (i.e. <http://mywebserver/universalweb/default.asp>). Enter your username and password at the logon screen. When you enter the user workspace you should see your profile information on the left hand side. Open and test a drawing, form, query, and report.
13. Setup other users: Add other users and test again.

## For a Two-Server configuration

### *On the VisionFM Enterprise Server:*

1. Check System Integrity: If they are not already installed, install the **VisionFM Enterprise Server** and the **VisionFM Enterprise Client**. Make sure that you can log-in and run VisionFM from this machine. For assistance, see VisionFM Enterprise Server documentation. Do not proceed until VisionFM is running on this machine.
2. Add necessary users to this machine: The web server will attempt to connect with this machine using certain user accounts. You need to set them up here.
  - a. **If you plan on using anonymous users**, you must add an anonymous user account here that will match the anonymous user account on the Web Server:
    - i. Note the name of the Web Server computer.
    - ii. Create a new user called 'IUSR\_<WebServerNAME>'. (i.e. if the web server name is NetServe1, you would create a new user called 'IUSR\_NetServe1') Create a password for this user and remember it, as you will need it again when you set up the Web Server. You do not need to add this user to any groups.
  - b. **If you do not plan on using anonymous users** You will have to make sure the windows users you want to use the website will have access to this machine, either:

- i. **Add the users individually to this machine as local users.** Create new local users identical to the ones currently being used, including usernames and passwords.
  - ii. **... or give network users access.** Simply add the network users from the network list when suggested in the next two steps.
3. Set the Share permissions: You should already have a share on the VisionServer directory on your drive (i.e. C:\VisionServer). This path will be used by WebServer clients to get to the database files. Check the Share permissions. By default Windows sets share connections to allow 'everyone' with 'Full' permissions (recommended). If you do not want 'Everyone' set to 'Full', at the very least, add the user you just created, or anyone else you want to provide access, to this folder's list with 'change' and 'read' permissions.
4. Configure NT Security Settings: The following directory requires security modifications.
  - a. d:\visionserver
    - i. Add the user you created or specified in step 2 to the list with 'modify' attributes.

### *On the Web Server*

1. Make sure Internet Services are functioning on this machine: To do so, right-click the 'My Computer' icon on the desktop and select 'manage'. This will bring up the 'Computer Management' dialog box. Expand 'Services & Applications'. Look for 'Internet Information Services'. If 'Internet Information Services' is not present, install it by opening the 'control panel', double-clicking 'Add-remove programs', Select 'Add-Remove Windows Components'. Select 'Internet Information Services' From the List. Continue installing until finished.
2. Install the VisionFM Enterprise Client.
3. Verify system integrity: Run the VisionFM Enterprise Client to verify communication integrity and registry settings. If the VisionFM Client does not work, do not proceed. Use the VisionFM Administrator Manual to troubleshoot the problem until the client is working properly.
4. Install the VisionFM WebServer: Locate and run the setup.exe file in the InternetServer folder of your CD. The installation wizard will walk you through the directory setup. This will place the UniversalWeb in your '<drive>:\inetpub\wwwroot\' folder.
5. Setup the UniversalWeb site as an ASP application:
 

Click the 'Start' button, select 'Programs', select 'Administrative Tools', and select 'Internet Services Manager'.

The IIS Console will appear. In the tree-list, expand the 'computer-name' and 'Default Web Site. Right-click on the 'UniversalWeb' folder and select 'Convert to Application'. The 'Add Application' dialog box should appear.

- b. Click the 'OK' button on the lower right of the dialog box to create an ASP application.
6. User Setup:
- a. **If you plan on using anonymous users:**
    - i. Reset the IUSR\_ComputerName users password to the same password you noted during step 2 on the VisionFM Enterprise Server.
    - ii. Reset the IUSR account for the web site. To do this, still in the 'Computer Management' console, navigate to 'Services and Applications... Internet Information Services'. Right-click 'Default Web Site' and select properties. Click the Directory Security tab, and then the edit button. Under 'anonymous Access' click the edit button again. Click the Browse button. Select the same IUSR... account from the list. Manually set the password to the same password you used in step 2 of setting up on the VisionFM Enterprise Server and continue. Dialog boxes will appear asking if you want these settings to apply to other folders. If 'UniversalWeb' is in the list of sub-webs select it. You may be asked more than once; Select the site each time. If 'UniversalWeb' is not in the list continue. When finished, stop and restart the site.
    - iii. Configure NT Security Settings: The following directories require security modifications. These settings use the IIS anonymous user (IUSR\_servername) to allow everyone access to the site.
      - 1. c:\inetpub\wwwroot\universalweb
        - a. IUSR\_servername = modify (allows reports to be written)
        - b. Network Service = modify (allows reports to be deleted at session end)
      - 2. c:\winnt\temp
        - a. IUSR\_servername = read and execute, and write (allows temporary report data to be written and read)
        - b. Network Service = modify (allows temporary report data to be written and deleted at session end.)
  - b. **If you do not plan on using anonymous users:**
    - i. Uncheck the IUSR account for the web site. In the 'Computer Management' console, navigate to 'Services and Applications... Internet Information Services'. Right-click 'wwwroot' and select properties. Click the Directory Security tab, and

then the edit button. Uncheck 'Anonymous Access' making sure that 'Integrated Windows Authentication' is still checked.

- i. Configure NT Security Settings: The following directories require security modifications.
  1. c:\inetpub\wwwroot\universalweb
    - a. YOUR USERS OR GROUP = modify (allows reports to be written)
    - b. Network Service = modify (allows reports to be deleted at session end)
  2. c:\winnt\temp
    - a. YOUR USERS OR GROUP = read and execute, and write (allows temporary report data to be written and read)
    - b. Network Service = modify (allows temporary report data to be written and deleted at session end.)
7. You will have to add VFMISEXT as a web extension. In the Internet Information Services control panel select the name of your server, which is the root of the tree on the left. Then click the ISAPI and CGI Restrictions Icon. Add the file c:\inetpub\scripts\vmisext.dll with the title vmisext.dll, as shown below.

Internet Information Services (IIS) Manager

MY\_SERVER

File View Help

**Connections**

- MY\_SERVER
  - Application Pools
  - Sites
    - Default Web Site
      - aspnet\_client
      - crystalreportviewers12
      - FacilityPortal
      - fmdepartment
      - FMDept
      - gadgets-service
      - guage
      - Scripts
      - Temp
      - UniversalWeb
      - Universalweb11\_ORG
      - Universalweb12
      - VFMMob
      - VFMWebReports

**MY\_SERVER Home**

Group by: Area

**ASP.NET**

- .NET Compilation
- .NET Globalization
- .NET Trust Levels
- Application Settings
- Connection Strings
- Machine Key
- Pages and Controls
- Providers
- Session State
- SMTP E-mail

**IIS**

- ASP
- Authentic...
- Authorizat... Rules
- CGI
- Compression
- Default Document
- Directory Browsing
- Error Pages
- Failed Request Tra...
- Handler Mappings
- HTTP Redirect
- HTTP Respon...
- IPv4 Address and Domai...
- ISAPI and CGI Restrictions
- ISAPI Filters
- Logging
- MIME Types
- Modules
- Output
- Server
- Worker

Features View Content View

Ready

**Actions**

- Open Feature
- Manage Server
  - Restart
  - Start
  - Stop
- View Application Pools
- View Sites
- Help
  - Online Help

Internet Information Services (IIS) Manager

MY\_SERVER

File View Help

**Connections**

- MY\_SERVER
  - Application Pools
  - Sites
    - Default Web Site
      - aspnet\_client
      - crystalreportviewers12
      - FacilityPortal
      - fmdepartment
      - FMDept
      - gadgets-service
      - guage
      - Scripts
      - Temp
      - UniversalWeb
      - Universalweb11\_ORG
      - Universalweb12
      - VFMMob
      - VFMWebReports

**ISAPI and CGI Restrictions**

Use this feature to specify the ISAPI and CGI extensions that can run on the Web server.

Group by: No Grouping

Description	Restriction	Path
Active Server Pages	Allowed	%windir%\system32\inetrv\asp.dll
ASP.NET v2.0.50727	Allowed	%windir%\Microsoft.NET\Framework\
vmisext.dll	Allowed	C:\inetpub\Scripts\vmisext.dll

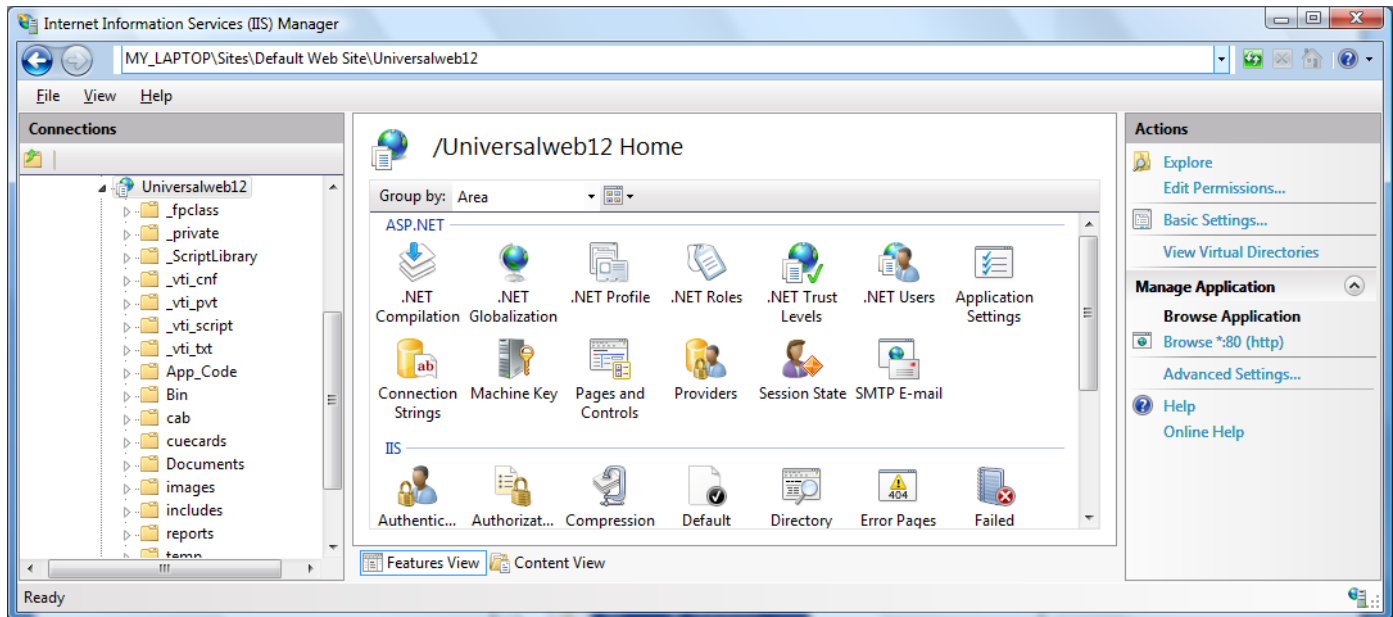
Features View Content View

Configuration: 'localhost' applicationHost.config

**Actions**

- Add...
- Edit Feature Settings...
- Help
  - Online Help

8. A directory needs to be created to store temporary report files. Create a virtual directory called “TEMP” in the UniversalWeb directory. In Internet Information Services right click on “Default Web Site” and select “New” --- “Virtual Directory” from the pop-up window.



Create the virtual directory called Temp and enter the Local Path as;  
 c:\inetpub\wwwroot\UniversalWeb\temp

9. Duplicate the Reports Folder: If you plan on running reports on the web you must duplicate the reports folder that is currently on the VisionFM Enterprise Machine onto the Web Server Machine. Since the reports will run on the Web Server computer, the reports, which were built to look for pictures and logos in the VisionServer directory, will now look for them within the web site. This means that all reports must be copied to the site.  
 Use 'Windows Explorer' to navigate to the '<drive>\VisionServer\Reports' directory of the VisionFM Enterprise Server. Copy all folders and files in this folder. Navigate back to the <drive>\inetpub\wwwroot\UniversalWeb\Reports' folder on the Web Server machine. Paste the folders and files you copied here.
10. Add a User Profile for testing: If you haven't done so already, in the VisionFM Enterprise Client, add a user profile for the Administrator (your current login), or another user of your choice. To do this:
  - c. Log on to the VisionFM Enterprise Client using a profile with administrator privileges. Click the 'File' menu. Select 'User Profile...'. Choose the **Login Name** of the Administrator, or any other user you want to test. Select the 'preferences' button. The VFM User Preferences dialog box appears. Select the 'Web Setup' tab. Under the 'Web

Module field' select an existing module, or create a new one. These modules are the same modules displayed in the web site. Create as many new modules as you like, they are only used for the web site. Use the rest of the form to add forms, queries, and reports to the selected module. Add at least one form, query and a report to this profile, making sure that they function in VisionFM Enterprise Client first. Select apply when finished. The information will be available for that user the next time he/she logs on.

- d. **WARNING** – Be careful when adding reports. Some reports are not designed for web site use and may cause problems if added. For a list of reports that are fully supported on the UniversalWeb use the Reports Assistant Cue Card in the VisionFM Enterprise Client. To do this, log on to the VisionFM Enterprise Client and double click the 'Reports Header' on the tab bar. (See 'Add a Report' in this document).
- 
11. Start the Application: open your browser and type in the address of the site. (i.e. <http://mymachine/universalweb/default.asp>)
  12. Install the VisionFM UniversalWeb Client: On the first page of the site select 'Browser Setup'. Follow the instructions until your browser is configured. This will have to be done once for each new client that connects to the site.
  13. Test the UniversalWeb site: Enter your username and password at the logon screen. When you enter the user workspace you should see your profile information on the left hand side. Open and test a drawing, form, query, and report.
  14. Test other Users: Add other users and test again.

## Server Components

### The Blueprint: Included files and processes

When you install the Universal Web Site, which is included in the VisionFM Internet Server installation, you will see that the site, at <driveletter>:\inetpub\wwwroot\UniversalWeb is made up of several different .asa, .asp, .dll and other files. Below is a listing of how these files are used to create an interactive site in your browser.

#### *Included Files: In order of execution.*

1. **Global.asa**

When any active server page application begins, the first active page is the global.asa, which opens an ASP session, and sets global variables. It is a configuration file containing start session and end session scripts for ASP sessions. ASP Session Timeouts can be set here. ASP session timeout is set to 10 minutes.

2. **Default.asp**

Default.asp is the opening page to the site and the first one seen in the browser. It contains:

- a. A password and username submission form which provides a logon statement for the file vfmisext.dll. It also checks for blank entries.
- b. A browser sniffing statement that determines whether the browser is IE or Netscape.

3. **vfmisext.dll**

Vfmisext.dll sits in the "c:\inetpub\scripts" directory. It connects to the VisionFM ISAPI Server and submits a logon statement which compares the UN and PW submitted to the user lists in VisionFM. Once the username and password are accepted, the server commands the browser to open VisionfmMainPage.asp.

4. **VisionfmMainPage.asp**

The first page shown by the VisionFM Server once username and password verification returns an "accepted" result. This page's name is hard coded in other scripts and system code, and can therefore not be changed. This page checks for a user profile in VisionFM. If the profile exists it continues on to VisionfmMainPage2.asp, otherwise it returns the user to Default.asp. The page contains a VisionFM form called WebAccess, which returns user profile information.

5. **VisionfmMainPage2.asp**

A frame page that sets up the three frames that constitute the users workspace.

6. **Treeuser.asp**

The page that creates the list of modules on the left hand side of the user's workspace. The

main function of this page is to process the return string of user profile information into an interactive list of drawings, forms, queries and reports.

7. **Banner.asp**

The bar at the top of the User workspace. This page contains:

- a. A script that will display user information, such as the users name, company, and company logo

8. **Viewerpage.asp**

The largest area of the user workspace, this area is used to display drawings when selected. It contains the VisionFM viewer control, which displays the drawings, as well as displaying queries.

9. **Formwindow.asp**

Contains a VisionFM Form Control, and some script to display a form when requested. This is the page that opens in a new window when a form is selected.

10. **Rptserver.asp**

The page works with Crystal Reports, allowing reporting over the internet. This file must be located in the websites root directory, or reports will not function properly.

### When you select a drawing...

The drawings presented in the list on the left hand side include all drawings in the database. These drawings will be displayed whether the actual files are in the right place or not. When the drawing is clicked a script runs, which saves the drawing name to a variable and directs the hidden VisionFM Drawing Viewer (hidden in the viewer page) to display the drawing. The application will always look for the drawings in the c:\inetpub\ftproot\drawings\ folder. All drawings, in .vdw format, must be copied to this folder before they will be displayed.

### When you select a form...

Any form presented in the list on the left hand side was included as part of the user's profile. When the form is clicked a script runs, which saves the form name to a variable and opens a new window that includes the Formwindow.asp page, which in turn contains a form control. When this page opens another script runs that replaces the form name in the form control with the one that was just saved to the variable. This triggers the form control to refresh with the new form. Another script runs that sizes the window to the same size as the VisionFM form. The live connection to the database means that field information in the form is current and submissions occur instantly.

### When you select a Query...

Any query presented in the list on the left hand side was included as part of the user's profile. When the query is clicked a script runs, which tells the Viewer control on Treeuser.asp to present the query. The query opens in its own floating interface.

### When you select a Report...

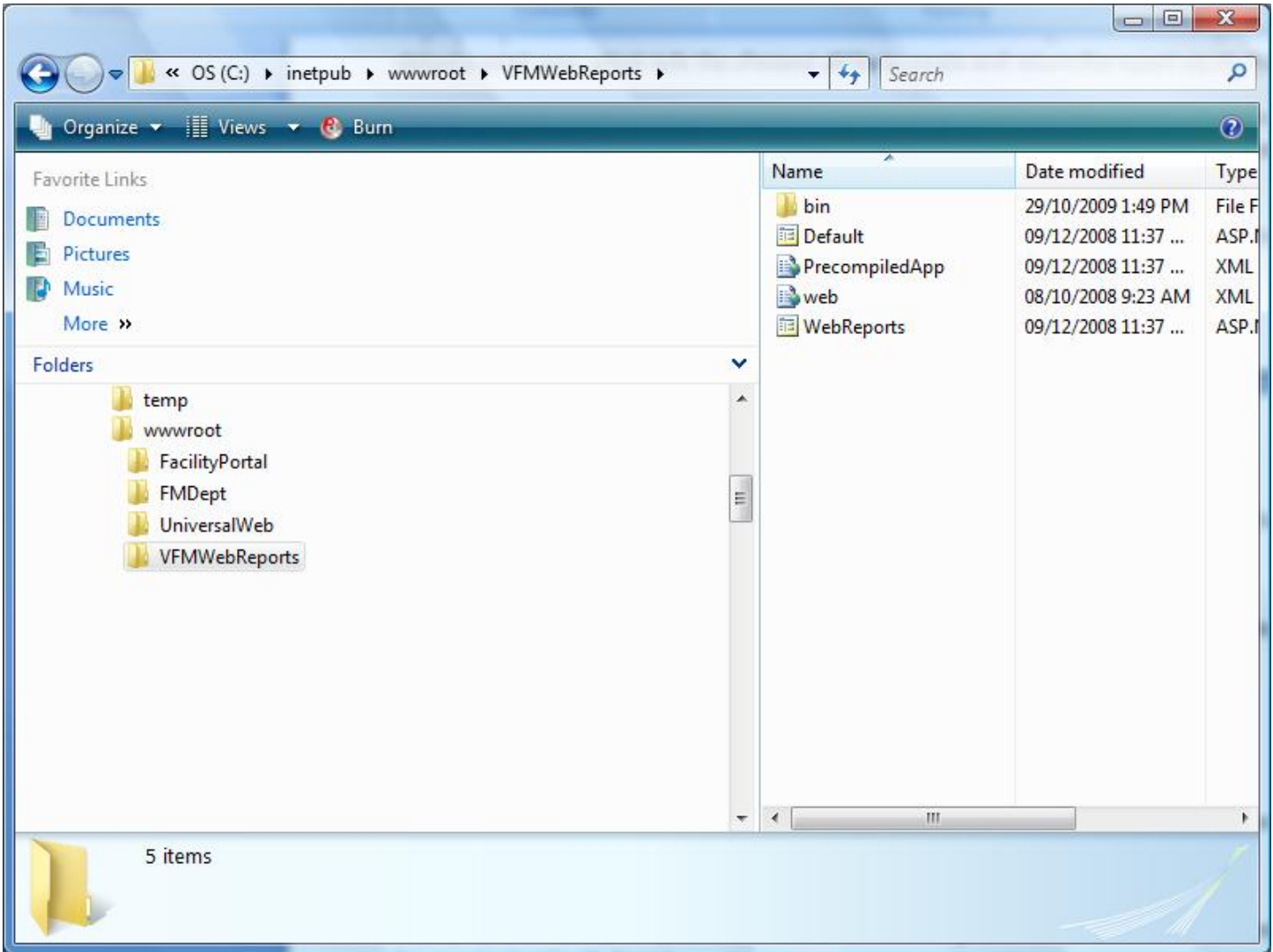
Any report presented in the list on the left hand side was included as part of the user's profile. When the report is clicked a script runs, which tells the vfmisext.dll file to create and return the report via IIS. This is done in three parts:

1. An .mdb file is created in the 'c:\VisionServer' directory. This "MS ACCESS" database contains all of the table information required by the report. The .mdb file is named for the IIS session number currently being used. (I.e. 123456789.MDB)
2. An .asp file is created in the root directory of the web site. This page is also named for the IIS session number currently being used. (i.e. 123456789.ASP)
3. The .asp page is formatted with the information from the .mdb file, and is returned to the users browser.

Note: After the report has been viewed and closed, the .asp and .mdb files remain. These files are deleted when the session ends.

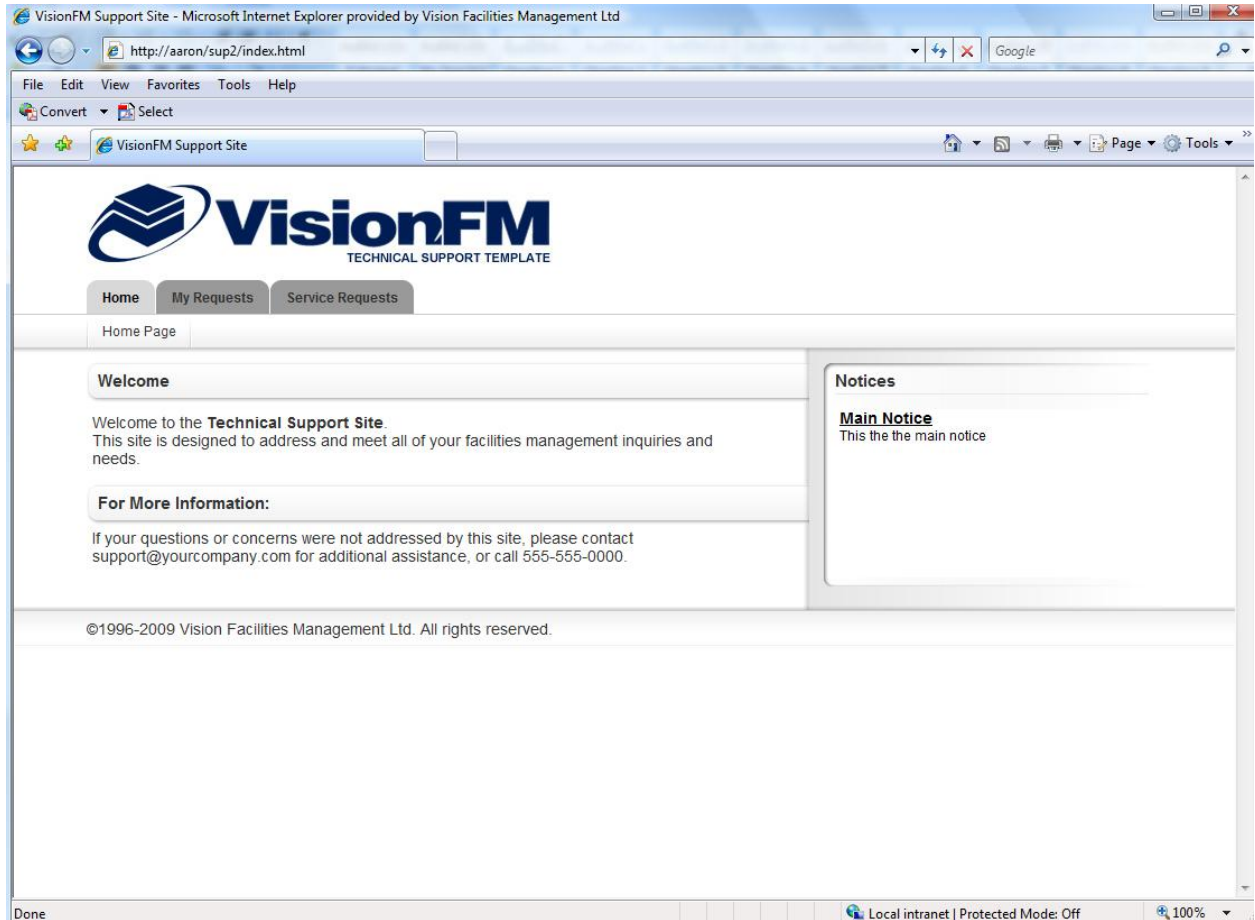
### New Sites

Two new sites that have been added to the VisionFM WebServer installation are FacilityPortal and VFMWebReports:



### FacilityPortal

FacilityPortal is a presentation site designed to give users a place to view information from VisionFM and provide feedback in a scalable html interface. It is actually composed of two sites that work together. A .NET site backend called VFMDept and an html front end called FacilityPortal



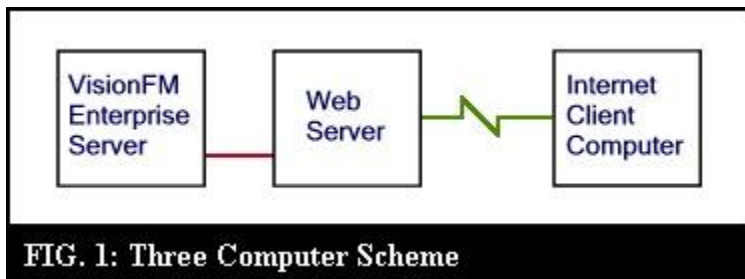
### *VFMWeb Reports*

VFMWebReports is a site designed to display Crystal Reports. The site is used as a utility in the background and requires no configuration

## Technical Specifications

### Networking

The VisionFM WebServer is a distributed application requiring separate applications running and communicating with each other on different computers over long distances via the Internet or local area networks. This can be accomplished with a one or two machine configuration. In both cases, the integration of the WebServer is seamless, separate, and non-disruptive to regular VisionFM users.



#### *A two-server configuration*

A two-server configuration (**Figure 1**) involves two servers at head office; one acting as the VisionFM server, and the other acting as the Web server. In this case, the client machine (using a browser) connects to the web server, and the web server connects to the VisionFM Enterprise Server. This situation would be desirable if the administrator insisted on using separate computers for the web and VisionFM servers. If an existing web server, for example, was to remain the only machine accessible from the Internet and the VisionFM server was required to be installed in a different part of the LAN. The drawback of this scheme is that extra security configuration is necessary to maintain data communication between the two servers, especially if they are located in two separate domains. (i.e. the remote, anonymous client must be given rights to access the VisionFM server via the Web Server, across domains.)

**Note:**

The Vision Server and the Web Server must both be located on the same LAN, and preferably in the same domain, as they require a regular tcp\_ip connection. Rule of thumb: make sure you can see the other machine in your windows explorer before proceeding.

**A One-Server configuration**

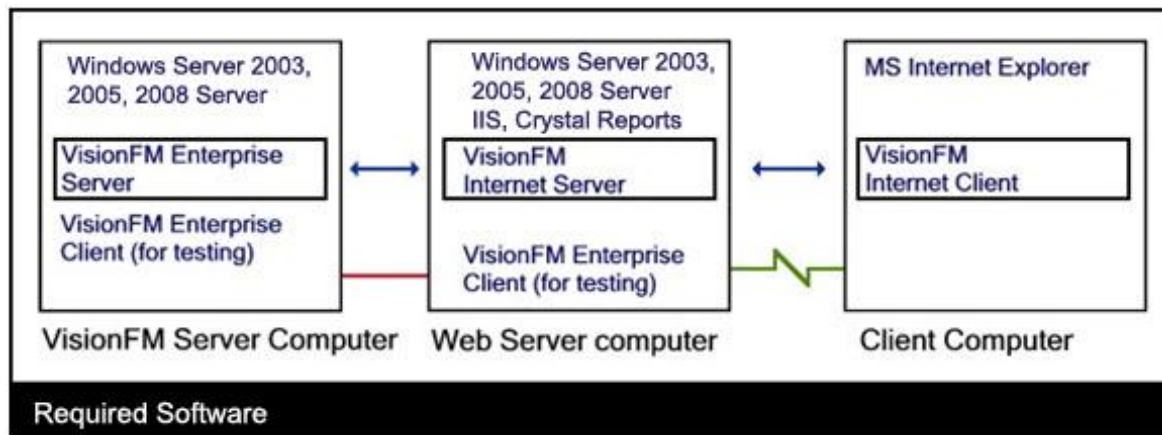
A one-server configuration involves one server computer at head office acting as both the VisionFM Enterprise server and the Web Server. The client computer (using a browser) communicates with this machine solely.

This is a typical intranet situation, and, due to the less complicated security configuration, it is the preferred scheme in most situations.

**Software Requirements**

Figure 2 shows the software requirements for the two servers and client. In a one-server scheme, all of the server software would be required on one machine.

Note: WinNT 4.0 and Service Pack 6.0 can be substituted for Windows 2000 on the VisionFM Enterprise server, but Windows 2000 is recommended. Windows 2000 Server is required for the web server.



**Computer 1: The VisionFM Server Computer**

The VisionFM Server installation (provided on CD by VisionFM) is installed first on Computer 1. In most cases this installation will be completed and tested well in advance of the installation of the Universal Web installation. Typically a separate installation of the VisionFM Enterprise Client (also provided on CD

by VisionFM) will be installed on this machine as well. With both server and client installed on a single machine, the application can be tested without networking and security issues. These are the only necessary software applications for this machine. Of course other software packages will be wanted on this machine, like AutoCAD and Crystal Reports, but they are not necessary for the Internet Application to function.

***Checklist:***

- Win2003, Win2005, Win2008 Server
- VisionFM Enterprise 12.

***Computer 2: The Web Server***

IIS must be installed as an option of Windows 2003, 2005, 2008 Server. The **VisionFM WebServer** installation (provided on the VisionFM CD, or on a separate CD) must be installed to provide the necessary VisionFM controls, as well as the Universal Web itself. Also, in a two-server scheme, it is beneficial for testing purposes to install the VisionFM Enterprise Client application to test the communications between the Web server and the VisionFM server.

***Checklist:***

- Windows 2003, 2005, 2008 Server
- IIS 6 or greater
- VisionFM Enterprise WebServer (includes web site)
- VisionFM Enterprise Client

***Computer 3: Client Machine***

The Internet Client may be Windows NT, 2000, XP or 2003. The latest MS Internet Explorer is required as the browser for its capabilities with ActiveX controls. Netscape Navigator does not yet support the activeX controls, and cannot be used. (Future support for Navigator is under development). In any case, the client machine requires a small installation file called the VisionFM Internet Client, which installs and registers the VisionFM ActiveX controls for use with the browser. The installation file is available for download from the site, so any client can load it on their first visit.

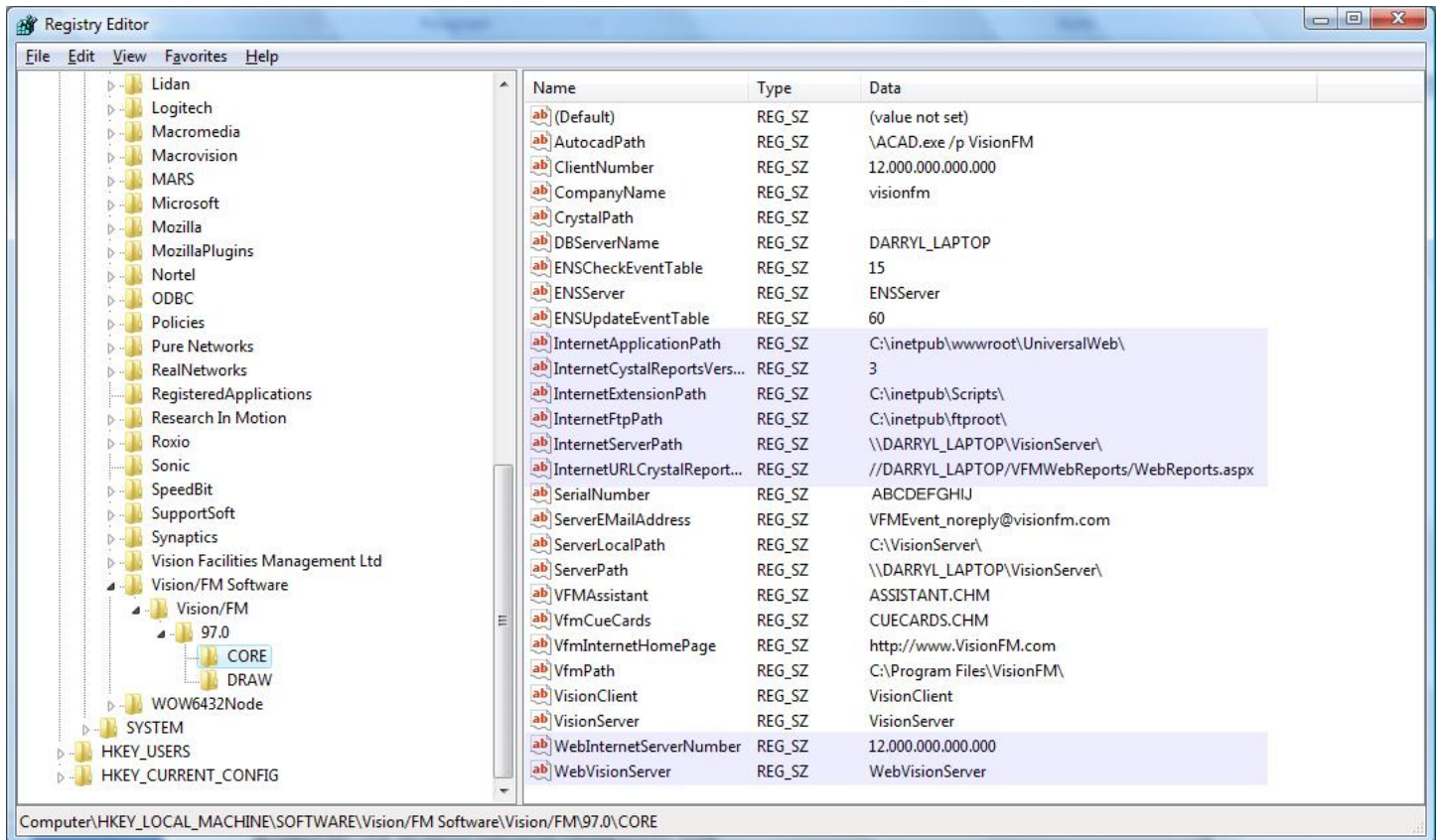
***Checklist:***

- Windows 2000 – 2008 Server, XP, Vista,
- The latest MS Internet Explorer (5+)
- The VisionFM Enterprise Internet Client installation.

Once the three VisionFM installations are functional we have three (or two) connected machines that all have separate installations of VisionFM software. This software works with IIS to create a live connection to the database.

## The Registry

Unlike most software you install, the distributed nature of VisionFM sometimes requires that you check the paths and addresses of the different machines you are working with. Currently, this is easiest to do through the registry.



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**WARNING:**

Mismanagement of registry settings can cause permanent data loss and permanent loss of functionality to your operating system and programs without recourse. A knowledgeable system administrator should always perform any alteration, addition, or deletion from the registry. Vision Facilities Management Ltd. takes no responsibility for the results of such actions. It is strongly recommended that, if you decide to change a registry setting, you only change the VisionFM Enterprise keys, and that this only be done by a professional system administrator. If you are not a professional system administrator, do not proceed. Instead forward this information to the appropriate personnel.

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To get to your registry settings, click your Start button and select 'Run...'. Type 'REGEDIT' and click 'ok'. The registry editor should appear. Navigate to "HKEY\_LOCAL\_MACHINE/SOFTWARE/VISIONFM SOFTWARE/VISIONFM/97.0/CORE"

***Description of registry keys For VisionFM Web Server***

The following is an example of registry settings for a machine that is set up as a single server configuration (for information for a two-server configuration please see 'Connectivity Checklist'.

Registry Key	Description
InternetApplicationPath	The local path of the Universal Web site.
InternetCrystalReportsVersion	Crystal Reports Version distributed with VisionFM WebServer
Internet Extension Path	The local path of the scripts directory of your IIS installation on the web server computer.
InternetFtpPath	The local path of the ftproot folder on the web server computer
InternetServerPath	UNC path to the 'visionserver' directory on the VisionFM Server
InternetURLCrystalReportPath	URL to new Web Reports site (installed)
WebInternetServerNumber	Do not Alter
WebVisionServer	Do not Alter

### Registry Differences depending on configuration.

Some registry keys must contain different path information depending on whether you are using a one or two server configuration:

1. On a one server configuration, the ServerPath and InternetServerPath both contain the same information: the UNC location of the VisionServer directory (i.e. \\ComputerName\VisionServer\).
2. On a two server configuration, the registry on the Web Server is different. In this case the ServerPath is the UNC path to the same directory on the VisionFM Enterprise Server. (i.e. \\otherComputerName\VisionServer\). Whereas the InternetServerPath becomes the path to the Web Site (i.e. c:\inetpub\wwwroot\UniversalWeb\).

## Security Settings

### Levels of Security:

There are two basic security levels involved with the VisionFM Universal Web Site:

- A. The web site itself can be made private by configuring IIS to allow only certain windows users to access it. In essence, you are blocking some users from ever reaching the first page. To do this, disable anonymous user access to the site in IIS (see IIS documentation). Then use windows security to create a group of VisionFM Users. Allow these users 'modify' access to the local folder (c:\inetpub\wwwroot\universalweb). Secure the folder against all other users but the appropriate administrators.
- B. VisionFM maintains it's own list of usernames and passwords. Without a pair of these, a user will not be able to get past the logon screen. As well, even if a user has a username and password, the VisionFM Administrator needs to create a profile of available drawings, queries, forms, and, reports. Technically, a user could log is successfully and see nothing.

### Network Considerations

1. Any client, whether in an intranet or Internet configuration, must have http access to the Web Server.  
Simple Test: Open the site in the browser on the Web Server computer to verify that IIS is publishing the site properly. Open the web site in a client browser. If you are unable to see the site (i.e. the first page – Default.asp) you need to adjust your network settings.
2. If they are not the same machine, The Web Server Computer must be able to see the VisionFM Enterprise Server with a tcp\_ip connection. This means that 'File and Print Sharing For Microsoft Networks' must be enabled on both machines local area connections. Simple Test: (A) If 'ping' is not blocked on your network, you should be able to ping either machine. (B) Browse your network in Windows Explorer to view the other machines folders.

## Windows NT Security, Minimum Recommended Settings

The following folders and security contexts indicate standard minimum recommended settings.

### *ONE SERVER CONFIGURATION*

c:\inetpub\wwwroot\universalweb

IUSR\_servername = modify - allows reports to be written

Network Service = modify - allows reports to be deleted at session end

d:\visionserver

IUSR\_servername - modify- allows mdb files to be modified

Network Service = read - allows reports to read mdb files

c:\windows\temp

IUSR\_servername = read and execute, and write - allows temporary report data to be written and read

Network Service = modify - allows temporary report data to be written and deleted at session end.

### *TWO SERVER CONFIGURATION*

c:\inetpub\wwwroot\universalweb

IUSR\_servername = modify - allows reports to be written and modified

Network Service = modify - allows reports to be deleted at session end

c:\visionserver

IUSR\_servername - read and execute

c:\windows\temp

IUSR\_servername = read and execute, and write - allows temporary report data to be written and read

Network Service = modify - allows temporary report data to be written and deleted at session end.

### FTP Drawings Folder Security

When the VisionFM Web Server is installed, all drawings are kept in the 'drawings' folder of the FTP site. Each FTP site has one anonymous user. This user is set by default to allow access to all FTP folders.

Ideally, you do not want to provide anonymous access to the Drawings folder of the FTP site. This would allow any browser that typed in the address to see all of the drawings being used, which is a minor security breach.

We have, therefore, provided a method to specify a user context to access the drawings folder. Using this process, you create a new user and allow it to access the Drawings folder. Then you update the site to use this user to access the drawings. In this way, all other ftp folders can use anonymous access, but this folder will remain secure.

Method:

1. Create a new local user for FTP use only. (i.e. UN: VfmFtpUser PW: openup)
2. CAUTION: It is important not to use this user to secure any other folder, since its password will be recorded in the Global.ASA file of the web site. If this file is ever compromised, the password will be easily read.
3. Using Windows Explorer:
  - a. Add your new user to the 'C:\inetpub\ftproot' folder.
  - b. Add your new user to the 'C:\inetpub\ftproot\drawings' folder.
  - c. Remove the 'guest' and/or 'iusr\_computername' user from the 'C:\inetpub\ftproot\drawings' folder.
4. Using Notepad or Frontpage (or another text/html editor) add the username and password to the Global.asa file in your web site, on lines 12 and 13 as follows.
 

```
Session( "FtpUserName" ) = "VfmFtpUser"
Session( "FtpPassword" ) = "openup"
```
5. Make sure 'Allow only anonymous accounts' is not checked in IIS:
  - ❑ Click on the 'Start' button, select 'Programs', 'Administrative Tools', 'Internet Service Manager'. The IIS management console should open. Double-click the computername. Right-click 'Default FTP Site' and select 'Properties'. The FTP Site Dialog box should open. Select the 'Security Accounts' Tab. make sure 'Allow only anonymous accounts' is not checked.

## Trouble-shooting

The following lists common issues, background information and their resolutions.

### User Issues:

#### ***USER ISSUE 1 - There is no user profile registered for that user in VisionFM***

DESCRIPTION: If you receive a message that says, "There is no user profile registered for that user in VisionFM" it means that VisionFM does not recognize your username and password.

BACKGROUND: You either entered an incorrect username and password, your username and password were changed, or your profile has been removed.

RESOLUTION: Please try re-entering the username and password. If the problem persists:

- a) Check the username and password with the VisionFM Database Designer. Make sure the username and password exist as typed and in the correct case.
- b) Try to log in to the VisionFM Enterprise Client with the username and password provided.
- c) Check the profile in the VisionFM Enterprise Client.

#### ***USER ISSUE 2 - ASP files do not display in my browser, but htm or html files will.***

DESCRIPTION: You find that you can not view pages with the extension .asp, but can view pages with the extension .htm.

BACKGROUND AND RESOLUTION: Generally, ASP pages will fail for three different reasons:

- Crystal Reports: If you install Crystal Reports, registry settings may be overwritten improperly, causing asp pages to be inaccessible. This is a known Crystal Reports issue, and a patch has been provided on the installation CD. Run the patch and try again.
- FrontPage Server Extensions: The frontpage server extensions are susceptible to improper configuration. Uninstall the extensions and reinstall them, then recalculate the site (using Internet Services MMC). Be careful to use the user groups that you want during the installation, and ensure you have the site backed up. Remember, these settings will affect all subwebs in the site, so make sure you have the authority and experience to perform the task.
- Pooling context. Program files are installed in both the scripts directory and the UniversalWeb directory. These files must be able to communicate to each other in the same process. This means that the UniversalWeb application must be set to 'pooled', and the default web must be set to 'pooled', or alternatively, both must be set to 'low'.

### ***USER ISSUE 3 - No tree list on the left hand side***

DESCRIPTION: The tree-list that is supposed to appear on the left hand side of the work area does not appear, or does not contain any modules.

BACKGROUND: The tree-list that is supposed to appear on the left hand side is a list of all of the queries, forms, reports, and drawings you have permission to use. As part of your user profile, this list is assigned in the VisionFM Enterprise Client.

Since you have already logged in using a valid username and password, you are using a valid profile, but not one with any rights to queries, forms, reports, and drawings.

RESOLUTION: Add necessary forms, queries and reports to your profile. See “Add or Remove Forms and Queries to and from a profile” in the “How to” section of this document.

### ***USER ISSUE 4 - My form, query, or report isn't in my list***

DESCRIPTION: The tree-list on the left hand side displays modules and actions, but not the form, query, or report I need.

BACKGROUND: The tree-list that appears on the left hand side is a list of all of the queries, forms, reports, and drawings you have permission to use. As part of your user profile, this list is assigned in the VisionFM Enterprise Client.

RESOLUTION: Retrieve a list of the queries, forms, reports, and drawings that the user needs and add them to your user's profile. See “Add or Remove Forms and Queries to and from a profile” in the “How to” section of this document.

### ***USER ISSUE 5 - My logo doesn't appear in the top banner***

DESCRIPTION: The logo that appears at the top of the screen is incorrect, or not being displayed

BACKGROUND: The logo that appears at the top of the screen can be set to display a single logo for all users, or change for each user, typically depicting the company he/she works for. The logos are designed to be customized.

RESOLUTION: To add or change the logo that appears for a certain user, see “Specify a logo to appear in the banner frame of a users work area” in the “How To” section of this document.

### ***USER ISSUE 6 - I click on a drawing but the drawing doesn't come up***

DESCRIPTION: A message appears indicating the particular drawing you require can not be found.

**BACKGROUND:** In order for you to see specific drawings with a browser, you will need to place them in a specific folder on the web server.

**RESOLUTION:** See “Add or Remove Drawings” in the “How To” section of this document.

### ***USER ISSUE 7 - My form, query, report, or drawing causes a Windows or VisionFM error that is not listed***

DESCRIPTION: An error that is not listed here is displayed.

BACKGROUND: Depending on which Windows or VisionFM error you receive you will need to take different steps.

RESOLUTION: Collect a documented description of the error from the user, including error descriptions and event numbers, if available. Try to reproduce the error. It is tremendously helpful to be able to determine which exact mouse clicks and keyboard entries cause a problem. If you cannot determine the cause and resolution of this issue from the information, please submit a case to VisionFM at support@visionfm.com .

### ***USER ISSUE 8 - Create Object Error in Global.ASA***

DESCRIPTION: Attempting to open the first page of the site (default.asp) returns 'Create Object Error in Global.ASA'

BACKGROUND: This is a registry permission issue currently being investigated. In some cases, during the installation process a registry setting is set without allowing access permission to any user. The result is a file that is registered but unavailable.

RESOLUTION: To resolve this, you must edit the registry.

---

#### **WARNING:**

Mismanagement of registry settings can cause permanent data loss and permanent loss of functionality to your operating system and programs without recourse. Only a knowledgeable system administrator should alter, add, or delete information from the registry. Vision Facilities Management Ltd. takes no responsibility for the results of such actions. It is strongly recommended that, if you decide to change a registry setting, you only change it in the VisionFM Enterprise keys.

---

Click the start Button. Select 'Run'. Type 'Regedt32'. The registry editor should appear. Navigate to 'HKEY\_CLASSES\_ROOT\TYPELIB\A270AA31-880D-11D1-A435-0000E81AE591'. This is the registry setting of the type-library in question. Click on the key (A270AA31...) and then select the 'Security' menu from the group of menu's at the top of the registry editor. Select 'Permissions'. This should bring up the security settings for this library. Make sure the user 'everyone' has 'read' access here.

## Site Management Issues

### *ASP files with numbered names are filling up my web site folder*

For example, 123456789.asp

DESCRIPTION: Numerically named files, (for example, 123456789.asp) are building up in the web site folder.

BACKGROUND: These files are the result of a report. There is an identically numbered .mdb file created in the VisionServer directory on the VisionFM Enterprise Server. These files are created by design as a necessary method to display reports to users. As part of that design, a file called vfmisso.dll has been included in the <driveletter>:\winnt\system32 directory of your server. This file is supposed to delete the numbered files when the users IIS session ends. Typically, that is 10 minutes after the last page has been served by the server, regardless of whether the users browser is open. On some machines, however, during installation this file does not register properly and does not function. This is a known issue.

RESOLUTION: To resolve this issue you must manually register the file on both the VisionFM Enterprise Server, and the Web Server:

Assuming your system drive is 'C', Click the Start button... select 'Run'... and type: 'regsvr32 C:\WINNT\system32\vfmissso.dll' without the quotes. Click 'OK'. You should see a confirmation message. Try the site again.

## Logon Issues

### *LOGON ISSUE 1 - Logon page does not submit*

DESCRIPTION: A user enters a username and password and clicks on the submit button. Nothing appears to happen. The page does not submit or progress. No error message appears.

BACKGROUND: SQL server is off or not online

RESOLUTION: Turn SQL server on. Test with VisionFM ENTERPRISE client.

### *LOGON ISSUE 2 - HTTP://ServerName/scripts/vfmisext.dll?*

DESCRIPTION: When I submit I get a blank page and the address says "HTTP://ServerName/scripts/vfmisext.dll?" This indicates the vfmisext.dll file cannot function properly, probably due to security.

**BACKGROUND:** Security settings can keep this file from functioning. To test this, type: "HTTP://ServerName/scripts/vfmisext.dll" and press return. You should see a default message that reads: "This default message was produced ...". If you do not see this message, the file is not functioning.

**RESOLUTION:** Click the 'Start' button. Select 'Programs', 'Administrative Tools', and 'Internet Services Manager'. The IIS Console will appear. In the tree-list, expand the 'computer-name' and 'Default Web Site'. Right click on the 'Scripts' directory and select 'properties'. The 'Scripts Properties' dialog box appears. At the bottom of the box the 'Execute Permissions:' list-box must read "Scripts and Executables". If it does not, change it here. Retry the web site. If it still does not work, check Windows NT security on the applicable folders.

### ***LOGON ISSUE 3 - Cannot open vfm.ddv file!***

**DESCRIPTION:** When I submit I get the message "Cannot open vfm.ddv file!" This is a security error.

**BACKGROUND:** The web site is trying to open and write to the file vfm.ddv, which is located on the VisionFM Enterprise Server, usually at 'c:\VisionServer', but is being stopped. You will need to find out which user context is being used by your website and which path is being taken. Then you can check the access rights to the folders in question, by the user.

**RESOLUTION:**

1. Check the security context being used by the site. The security context being used is either the anonymous user for the web server (IUSR\_COMPUTERNAME) if anonymous access is being used, or the username of the person logged in, if only windows authentication is used. To check this, open 'Internet Services Manager', right click on 'wwwroot', select properties. The 'wwwroot properties' dialog box should appear. Click on the 'Directory Security' tab. Click on the 'Edit' button. The 'Authentication Methods' dialog box should open. If 'Anonymous access' is checked, click the 'edit' button beside the check box to get the anonymous user being used. If it is not checked, but 'Integrated Windows Authentication' is, this means that each individual user's access will be used to run the site. Make note of the user being used currently.
2. The paths that the web application uses to get to the vfm.ddv file are kept in the registry. Make sure they are correct.

Checking the registry settings for the necessary paths.

---

#### **WARNING:**

Mismanagement of registry settings can cause permanent data loss and permanent loss of functionality to your operating system and programs without recourse. Altering, adding, or

deleting from the registry should always be done by a knowledgeable system administrator. Vision Facilities Management Ltd. takes no responsibility for the results of such actions. It is strongly recommended that, if you decide to change a registry setting, you only change it in the VisionFM Enterprise keys.

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Click the start Button. Select 'Run'. Type 'Regedit'. The registry editor should appear. Navigate to 'HKEY\_LOCAL\_MACHINE\SOFTWARE\VISIONFM SOFTWARE\VISIONFM\97.0\CORE'.

- a. The path 'DBServerName' should be the server name of the VisionFM Enterprise Server. (i.e. MyComputer)
  - b. The path 'ServerLocalPath' should be the path to the VisionServer directory from within the VisionFM Enterprise Server. (i.e. c:\VisionServer\) (Notice the back-slash on the end. This is necessary).
  - c. The path 'ServerPath' should be the path to the VisionServer directory from the network. (i.e. \\MyComputer\c\VisionServer\) (Notice the back-slash on the end. This is necessary).
3. Check Share permissions on the Paths.
- a. If your web server is on a different machine than the VisionFM Enterprise Server: The 'ServerPath' (discovered in step 2) is the path the web server will take to get to the database files. You will need to check:
    - i. Sharing Settings: Determine which drive or folder is being shared in the 'ServerPath' from step 2. Check the share permissions. By default Windows sets share permissions to 'Everyone' with 'Full Control'. This is recommended. At the very least, the user context that your web application is using, discovered in Step 1, should have 'Change' and 'Read' permissions to the shared drive or directory discovered in step 2. To check this, on the VisionFM Enterprise Server Computer, open 'Windows Explorer' and navigate to the shared folder or directory in question. Right-click it and select 'sharing...'. In the resultant dialog box, click on the 'permissions' button. The 'permissions' dialog box will open.
      1. If the share permissions are set to 'Everyone' with 'Full Control',
      2. If the user context that you discovered in Step 1 is here, make sure it has at least change and read permissions.

3. If the user context that you discovered in Step 1 is not here, (or represented by another group), select it from the list and add it, giving it read and change access. If the user context is not available at all, you will need to add it as a local user to your machine, add it to this list, and give it a minimum of read and change permissions.
- ii. Security Settings: Check the security settings on the VisionServer directory. On the VisionFM Enterprise Server Computer, open the 'Windows Explorer' and navigate to the 'VisionServer' directory. Right-click it and select 'Properties'. Click the Security Tab.
  1. If the user context that you discovered in Step 1 is here, make sure it has at least 'Read & Execute' permissions.
  2. If the user context that you discovered in Step 1 is not here, (or represented by another group), select it from the list and add it, giving it 'Read & Execute' permissions. If the user context is not available at all, you will need to add it as a local user to your machine, add it to this list, and give it 'Read & Execute' permissions.
- b. If your web server is on the same machine as the VisionFM Enterprise Server: The 'ServerLocalPath' (discovered in step 2) is the path the web server will take to get to the database files. You will need to check:
  - i. Security Settings: Check the security settings on the VisionServer directory. On the VisionFM Enterprise Server Computer, open the 'Windows Explorer' and navigate to the 'VisionServer' directory. Right-click it and select 'Properties'. Click the Security Tab.
    1. If the user context that you discovered in Step 1 is here, make sure it has 'Modify' permissions.
    2. Make sure the Network Service account is present and set to at least 'read'.
    3. If the user context that you discovered in Step 1 is not here, (or represented by another group), select it from the list and add it, giving it 'Modify' permissions. If the user context is not available at all, you will need to add it as a local user to your machine, add it to this list, and give it 'Modify' permissions. Try the site again.
4. If all security, sharing, and user credentials seem accurate, yet it is still not connecting to the vfm.ddv, the anonymous user may not be set up properly.  
 Reset the anonymous user for the Web site, not the sub-web. Repeat step 1 until you get to the 'Anonymous User Account' dialog box. Click the Browse button. Select the same IUSR... account from the list. Manually set the password. When asked, select 'UniversalWeb' from the list of sub-webs you want these settings to apply to. You may be asked more than once. Select the site each time. When finished, stop and restart the site, then try to use it with a browser again.

***LOGON ISSUE 4 - 'Cannot set FieldValue for field Password'.***

DESCRIPTION: When I submit I get a message box that says 'Cannot set FieldValue for field Password'.

BACKGROUND: This rare error indicates that the client's installation files (.dll's) are not in sync with the server installation files. Though there are checks in place to synchronize these files, if the site is not installed correctly or is only partly installed (i.e. during an upgrade), this error may still occur.

RESOLUTION: Reinstall the Client installation from the web site to update the client files.

***LOGON ISSUE 5 - A Windows or VisionFM error that is not listed***

DESCRIPTION: When I submit I get a Windows or VisionFM error that is not listed

BACKGROUND: Depending on which Windows or VisionFM error you receive you will need to take different steps. Collect a documented description of the error from the user, including error descriptions and event numbers, if available. Try to reproduce the error. It is tremendously helpful to be able to determine which exact mouse clicks and keyboard entries cause a problem. If you cannot determine the cause and solution to this issue from this information, please submit a case to VisionFM at [support@visionfm.com](mailto:support@visionfm.com) .

## Connectivity Checklist

Use the following checklist to help resolve connectivity issues.

1. Check Windows Security. Make sure your security settings meet the minimum requirements. See: 'Windows NT Security, Minimum Recommended Settings' under Security Settings, above.
2. Check the registry on the server(s). Make sure all settings are correct.

If any of these are out of sync, changing it here will correct the problem.

### a) On a Single Server Configuration

Click START... RUN... type 'REGEDIT'. The registry will appear.

Navigate to 'HKEY\_LOCAL\_MACHINE\SOFTWARE\VISIONFM SOFTWARE\VISIONFM\97.0\CORE'.

The following list of keys pertain to proper connectivity:

DBServerName must be the name of the Vision Server computer.

Internet Application must be the name of the directory which holds the VisionFM Web Application.

InternetExtensionPath must read "C:\InetPub\Scripts\" (assuming C is your drive, otherwise revise).

InternetFtpPath must read "C:\InetPub\ftproot\" (assuming C is your drive, otherwise revise).

InternetServerPath must be the same as the ServerPath.

ServerLocalPath must be the local path of the VisionFM Enterprise Server on the VisionFM Server machine. (i.e. c:\visionserver\).

ServerPath must be the UNC path of the VisionFM Enterprise Server on the VisionFM Server machine. (i.e. \\MyComputer\C\visionserver\).

VfmPath must be the path of the VisionFM Client on this machine (if installed) (i.e. c:\Program Files\VisionFM\).

### b) On a two-server Configuration

#### i) On the Server Computer

Click START... RUN... type 'REGEDIT'. The registry will appear.

Navigate to

'HKEY\_LOCAL\_MACHINE\SOFTWARE\VISIONFM\SOFTWARE\VISIONFM\97.0\CORE'.

The following list of keys will be available:

ServerLocalPath must be the local path of the VisionFM Enterprise Server on the VisionFM Server machine. (i.e. C:\visionserver\).

ServerPath must be the UNC path of the VisionFM Enterprise Server on the VisionFM Server machine. (i.e. \\MyComputer\C\visionserver\).

VfmPath must be the path of the VisionFM Client on this machine (if installed)(i.e. c:\Program Files\VisionFM\).

ii) On the Web Server

Click START... RUN... type 'REGEDIT'. The registry will appear.

Navigate to

'HKEY\_LOCAL\_MACHINE\SOFTWARE\VISIONFM\SOFTWARE\VISIONFM\97.0\CORE'.

The following list of keys will be available:

DBServerName must be the name of the Vision Server computer.

Internet Application must be the name of the directory which holds the VisionFM Web Application.

InternetExtensionPath must read "C:\InetPub\Scripts\" (assuming C is your drive, otherwise revise).

InternetFtpPath must read "C:\InetPub\ftproot\" (assuming C is your drive, otherwise revise).

InternetServerPath must be the same as the Internet Application path.

ServerPath must be the UNC path of the VisionFM Enterprise Server on the VisionFM Server machine. (i.e. \\MyComputer\C\visionserver\)

VfmPath must be the path of the VisionFM Client on this machine (if installed)(i.e. c:\Program Files\VisionFM\).

3. Check the SQL server.

Click on Start... Programs... Microsoft SQL Server... Enterprise Manager.

- i) Make sure the database is turned on (green).

4. Run the VisionFM Client.

This will verify that the registry settings are correct. If VisionFM does not run, these settings may be wrong.

The VisionFM Client must run properly before you can expect the web site to function properly.

5. Check the user's profile

In the VisionFM Client, click on the file menu and select **User Profile**. Select one of the users that you want to log onto the web site with. Check the profile to make sure that at least one module and one activity (query, form, report) are chosen.

6. Check for ASP functionality.

- a) Open the Default.asp page in a browser. If it displays properly, without errors, ASP is functioning
- b) Check your IIS settings. In Internet Services Manager, make sure that both the default web site and the UniversalWeb subweb have Application Protection set to medium (pooled).

7. Test the connection between the web site and the database.

In the Browsers address bar type `http://<computername>/scripts/vfmisext.dll`

If a message is returned beginning with: "This default message was produced by...", the database was contacted successfully. Otherwise, the files in C:\inetpub are not able to connect to the files in c:\visionserver for one of two reasons. Either the directory cannot be reached due to a networking problem, or security is preventing the iuser\_servername or Network Service user from accessing the c:\visionserver directory, or the files in it.

## Installing Updates

### Introduction

Periodically Vision Facilities Management Limited will make available mid-release updates to enhance existing features.

An installation program will be provided by Vision, to be run on the mobile device server. All data is stored in the database which is not effected by mobile device updates so installing an update will not effect your existing information.

Before running the update ensure that all mobile device users are logged out and have synchronized their latest data collection with the database.

Depending on what is included in the update users may be required to reload the VisionFM Mobile Client on their devices before continuing to work.

### Installing Updates on the Server

Updates made available from Vision will be distributed as a single installation file, which is run only on the server. As each user logs into VisionFM, the Client program automatically checks the server for updated files and installs them.

Before installing, make sure that you have Windows user writes to install software and create directories.

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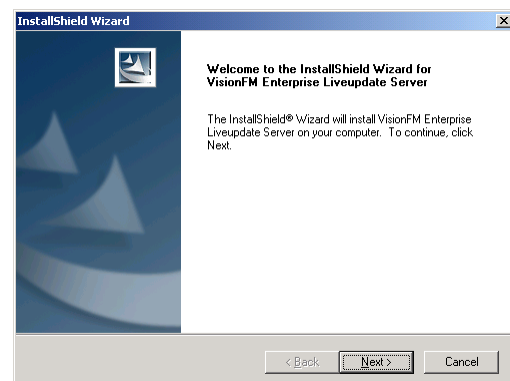
#### Note:

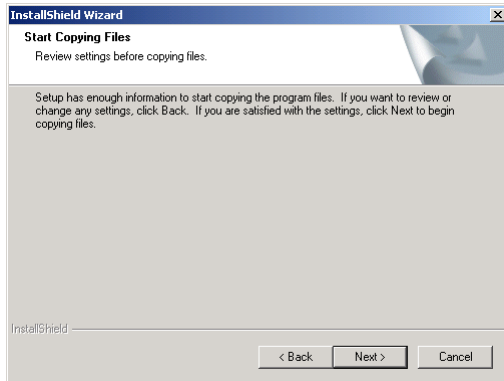
Read any readme.txt files and the notes presented during installation of updates carefully. The installation of patches may require server applications to be shut down or the server rebooted after installation.

---

The installation program will be an executable (.exe) file. Save the file to your hard drive on the server then locate the file with Windows Explorer and double-click on it to start the installation.

The installation dialog box will notify you that the installation program has started. Click the **Next** button to continue.





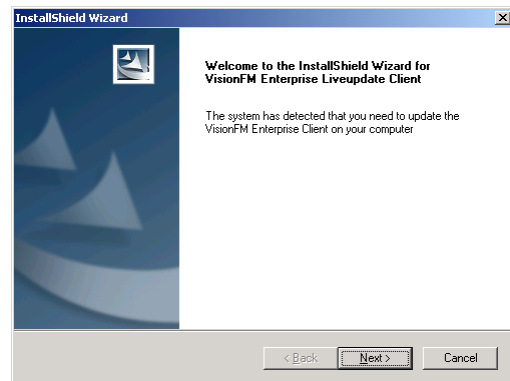
The installation program will search for VisionFM server components. Once located, the dialog box will display a message that it is ready to continue with the installation. Click the **Next** button to complete the installation process.

### Installing updates on the Client

After installing an update on the server client computers will be updated as each user logs into VisionFM. Upon login they will be presented with the following dialog box.

All they have to do is press the **Next** button to install the files.

Web users will also be presented with a similar dialog box for updating Web Client files.



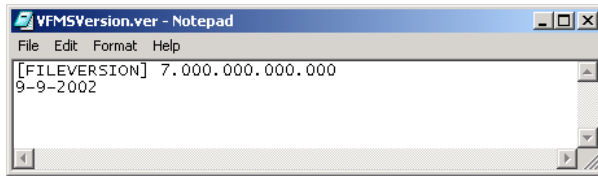
### Distributing Custom Files

When a VisionFM update is installed on the server the files that are to be distributed to the VisionFM Client's will be installed in \\VisionServer\LUCient\VisionFM. Any files located in subdirectories on the Client will be in subdirectories under the LUCient directory as well. For example, if you wanted to distribute new icons to all users the icons need to be installed in the VisionFM\Images directory so on the server they would be in \\VisionServer\LUCient\VisionFM\Images.

To trigger an update to all users a text file needs to be edited. On each users computer is a version number that VisionFM compares to the version number in the \\VisionServer\VFMSVersion.ver file (this file is hidden). If the numbers are different it triggers the installation of all files in the LUCient directory.

The version number starts with the release (11). The next two sets of zeros are reserved for Vision. The third set of zeros can be edited by the Administrator to trigger an update. The last set of zeros is currently not is use. For example, adding a new VFM.SAV file in \\VisionServer\LUCient\VisionFM and

then editing the number in VFMSVersion.ver to read 110.000.000.001.000 would cause that file to be distributed to the C:\Program Files\VisionFM directory on each VisionFM user's computer.



## Licensing

### License Agreement Summary

VisionFM Server can be installed on one computer only.

VisionFM Server includes the MS SQL Express 2005, VisionFM Server, VisionFM Database Designer, and application files installed by the VisionFM Server installation program.

VisionFM Client can be installed on any computer as long as the VisionFM Client is exclusively accessing the single installation of the VisionFM Server application.

Each VisionFM Client installation can use all the VisionFM Modules and the link to AutoCAD. There are no additional licensing costs for VisionFM Clients or Modules.

AutoCAD is not included in VisionFM. If you wish to work with AutoCAD, the install program on the VisionFM CD will ask you for the path during the installation of each client station.

Crystal Reports Viewer is built into VisionFM Client. The Viewer allows reports to be run and the results displayed and printed. For editing reports a copy of Crystal Reports 2008 will be required (not included).

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