

Instruction of MEET Video Explorer project setup

MEET Video Explorer is composed of two fundamental parts:

- 1) Video Explorer Client whereby user interacts with directly with the contents on the server.
- 2) Video Explorer Server, which communicates with multiple clients, and serve the contents (video clips, segment data, etc) on demand.

This document describes how to get everything up and running, so that you can start evaluating this project immediately.

I. Prerequisites:

Server:

- Windows Server 2003 or Windows Server 2008. For evaluation purpose only, you can use client Operating System (Windows Vista or XP SP3).
- .NET Framework 3.5 SP1 must be installed.
- Microsoft SQL Server 2008 (you can use SQL Server 2008 Express Edition for evaluation purpose). SQL Server 2005 will definitely work, but our setup script is based upon SQL Server 2008, so you will have to make the necessary changes.
- Microsoft Internet Information Services (IIS) 6 or above. This is required to host our WCF service. The IIS on client operating system (Windows XP or Vista) can be used for evaluation purpose, too.
- (Recommended) Microsoft Media Services, which is part of Windows Server components.

Client:

- Windows XP or Windows Vista (32bit or 64bit doesn't matter)
- .NET Framework 3.5 SP1 (the actual required framework is 3.0, but we recommend 3.5 SP1).
- The use of Tablet (digitizer) is recommended, as this software is primarily designed for Tablet PC.

II. Setting up the Video Explorer Server

1. Overview

There're two major functionalities that are fundamental to be a Video Explorer Server; one is SQL Server, and the other is Windows Media Service. SQL Server is required to host the content. Windows Media Service is recommended (as opposed to be required), because other streaming protocols (e.g. http or even file sharing protocol such as webDAV) can be used as long as clients can connect with it. If you use other media technology than Windows Media Service (WMS), however, some functionality (e.g. fast forwarding, etc) may not work properly. The playback experience is optimized for Windows Media Service, so we still recommend Windows Media Service as the streaming server.

It's up to you whether or not to serve these two on a single machine or two. For evaluation purpose, a single machine will suffice the needs.

2. Setting up SQL Server 2008

For setup instruction of SQL Server 2008, please visit [How to: Install SQL Server 2008 \(Setup\)](#) for details. Here's the concise version of instruction:

- a) Insert the SQL Server installation media. From the root folder, double-click setup.exe.
- b) If the .NET Framework 3.5 SP1 installation dialog box appears, select the check box to accept the .NET Framework 3.5 SP1 License Agreement. Follow the rest of instructions until you get .NET Framework installed.
- c) Windows Installer 4.5 is also required, and might be installed by the Installation Wizard.
- d) When the prerequisites are installed, the Installation Wizard will run the SQL Server Installation Center. Click **New Installation or Add Features to an Existing Installation**.
- e) Follow the instructions until you get to the Feature Selection Page.
- f) On the feature selection page, you need Database Engine, at least. Others are optional, so you can choose them as you like.
- g) On Database Configuration page, you can configure Security Mode. Please choose **Mixed Mode Authentication** for the Security Mode.
- h) Follow the rest of the instructions until you get finished installation.

NOTE: As mentioned, you can use SQL Server 2008 Express, which is free version of SQL Server, for evaluation purpose. Here's the brief instruction for the use of SQL Server 2008 Express.

- a) Visit [SQL Server 2008 Express Download](#) page,
- b) Download the bootstrapper from there, and run.
- c) You'll see something like this:



Choose your favorite language and edition. We recommend the SQL Server 2008 Express with Tools (the first visible edition on the page).

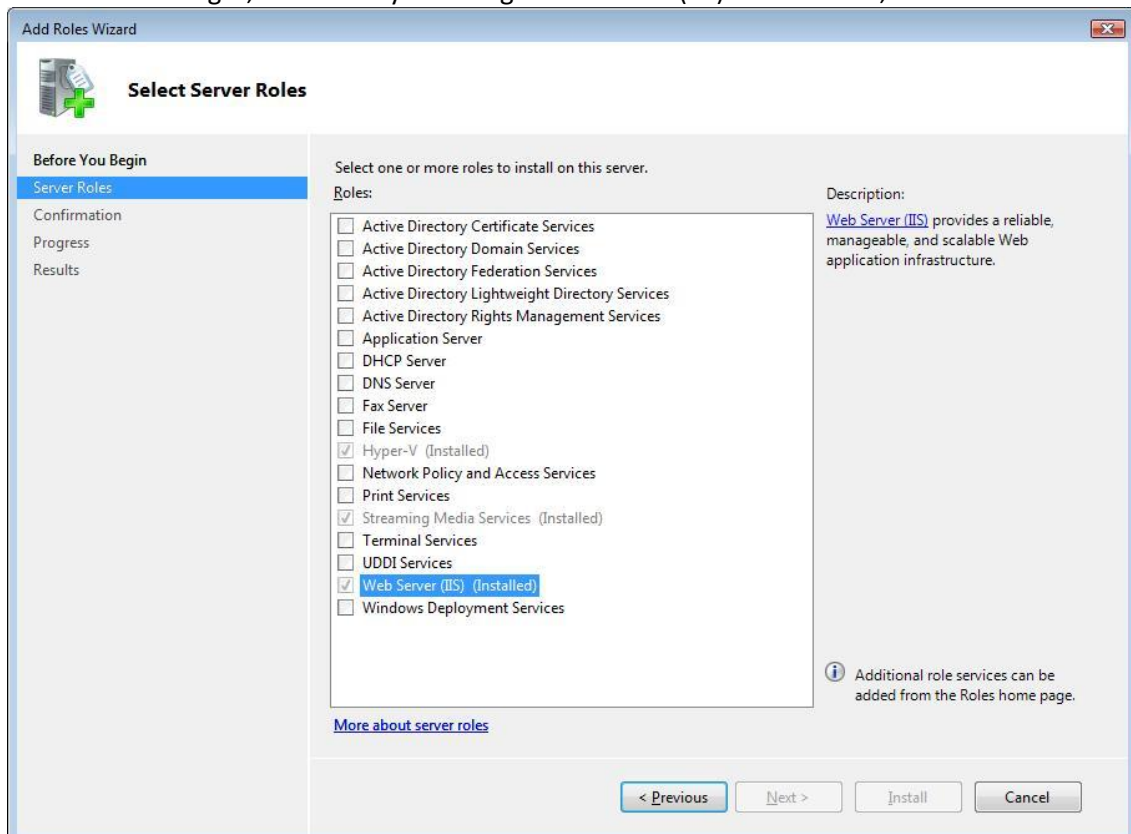
- d) Follow the instruction until you get into “**Database Engine Configuration**”. Like the non-express version, you can choose mixed mode security, and configure the administrator (sa) account. Please note that “sa” password will be used in the next section.
- e) Follow the instructions until you get the database engine (and tools if you chose that edition) installed.

3. Setting up IIS and relevant components

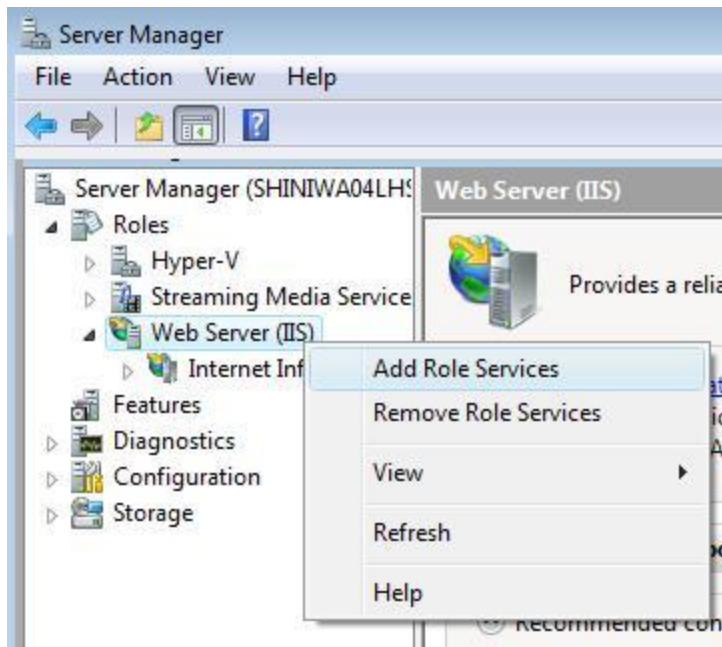
You have to install Internet Information Services (IIS) and some optional components to host the MVE service. The actual installation experience slightly differs in accordance with operating system, but the required components are consistent regardless of the underlying operating system. I’ll show you two cases here: Windows Server 2008 and Windows Vista; as noted, you can use IIS on Windows Vista for evaluation purpose. On other operating systems, such as Windows Server 2003 or Windows XP, please re-read the instruction appropriately.

The case of Windows Server 2008

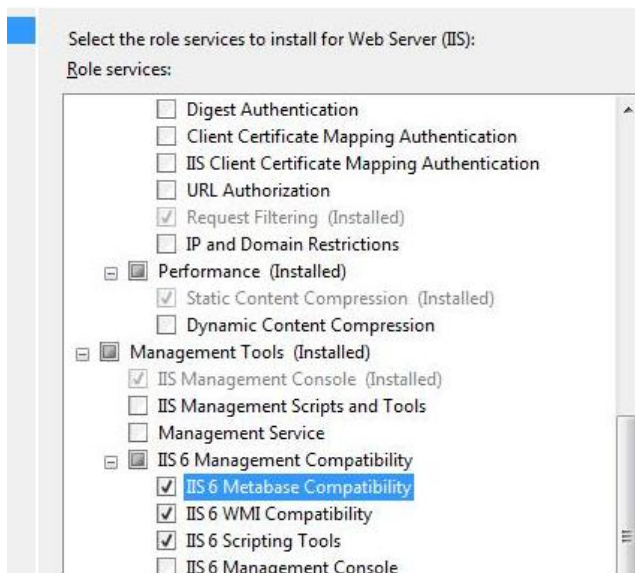
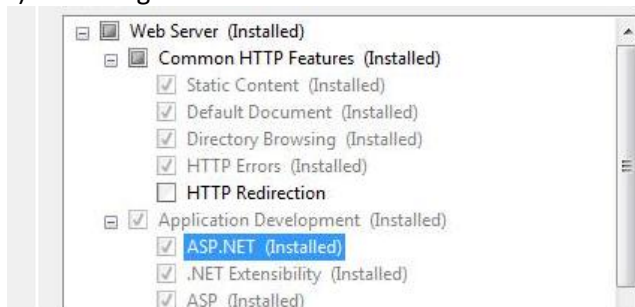
- a) Run Server Manager, install IIS by selecting “Web Server (IIS)” Server Role, as follows:



- b) Stay in Server Manager, right click on “Web Server (IIS)” where you’re supposed to be installed in previous step, and choose “Add Role Services”, as seen below:

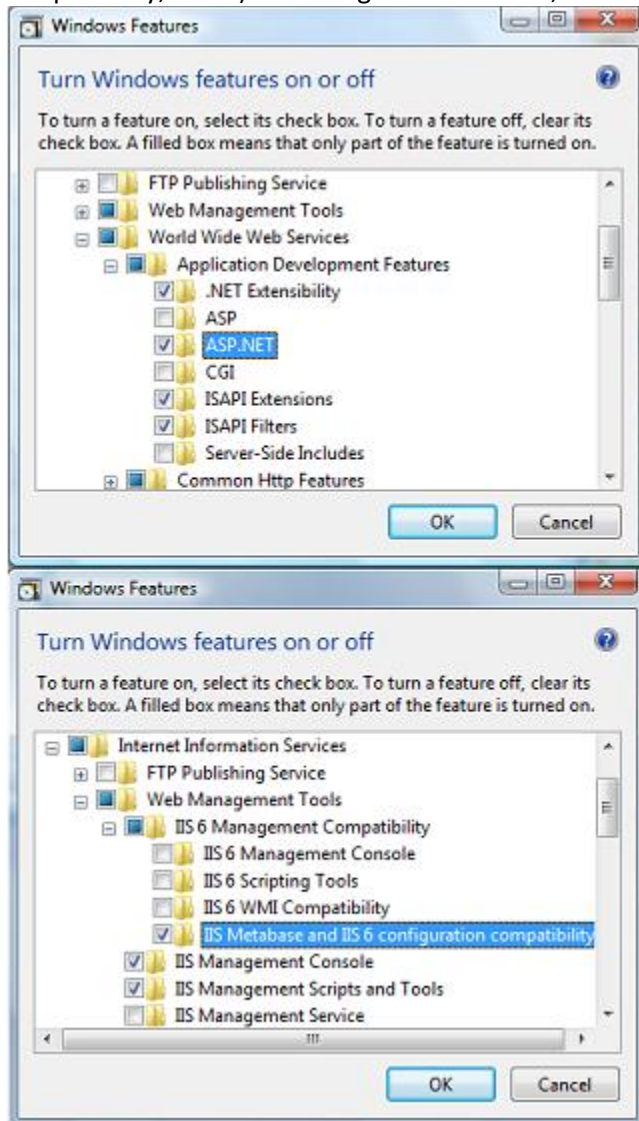


- c) Make sure you select at least three role services: 1) ASP.NET 2) IIS6 Metabase Compatibility, and 3) IIS Management Console



The case of Windows Vista

- Launch Control Panel, Turn Windows Features on and off.
- Make sure you choose at least three features: 1) ASP.NET 2) IIS Metabase and IIS6 configuration compatibility, and 3) IIS Management Console, as seen below:



These two features will involve all required dependent components as well.

4. Setting up the Video Explorer Server database and Service.

You have to create a database, create some tables, and insert the sample data, so that they can be consumed by client. Instructions are as follows:

- Download server package (zip) from <http://mve.codeplex.com/Release/ProjectReleases.aspx>.
- Extract the zip into the folder you like (e.g. d:\MVE\Server).
- Navigate to "Setup" subfolder (e.g. d:\MVE\Server\Setup).
- Run ServerSetup.exe from there.
- You'll see the following GUI tool:

Server Setup tool

SQLServer configuration

Server name\Instance Name: THISPC\SQLEXPRESS

SQL Server login name: sa

SQL server login password: [Masked Password]

WCF public service

Service Url: http:// THISPC:80 /MVEContentSvc/

Setup Cancel

The "THISPC" above can be replaced with the current machine name. If the hosting SQL Server is Express edition, make sure you append the instance name, e.g. THISPC\SQLEXPRESS, as you see above. Put valid SQL server login name and password where you just set up, and then press "Setup".

- f) The tool creates sample database, followed by launching WebService setup. You'll see the WebService as follows:

Video Explorer Content Service

Select Installation Address

The installer will install Video Explorer Content Service to the following web location.
To install to this web location, click "Next". To install to a different web location, enter it below.

Site: Default Web Site [Disk Cost...]

Virtual directory: MVEContentSvc

Application Pool: DefaultAppPool

Cancel < Back Next >

Basically you can accept default settings, and just follow the instruction until the end of WebService setup.

At this point you're supposed to get SQL server configuration and sample data up and running. The content service should be running at the <http://{machinename}/MVEContentSvc/MVEContent.svc>. For evaluation purpose with running sample content only, you're supposed to get all configurations done, but if you want to run your own video clips, you have to setup Windows Media Service (see the next section). You can skip the next section (Setting up Windows Media Service) if all you need is to run the client for evaluation purpose.

5. Setting up the Windows Media Service

On Windows Server 2008, you have to download it first. Visit

<http://www.microsoft.com/downloads/details.aspx?FamilyID=9ccf6312-723b-4577-be58-7caab2e1c5b7> for details.

After the download, you can add Streaming Media Service Role from Server Manager. This is applicable for both on Windows Server 2008 and on Windows Server 2003.

More details about Windows Media Service, please visit

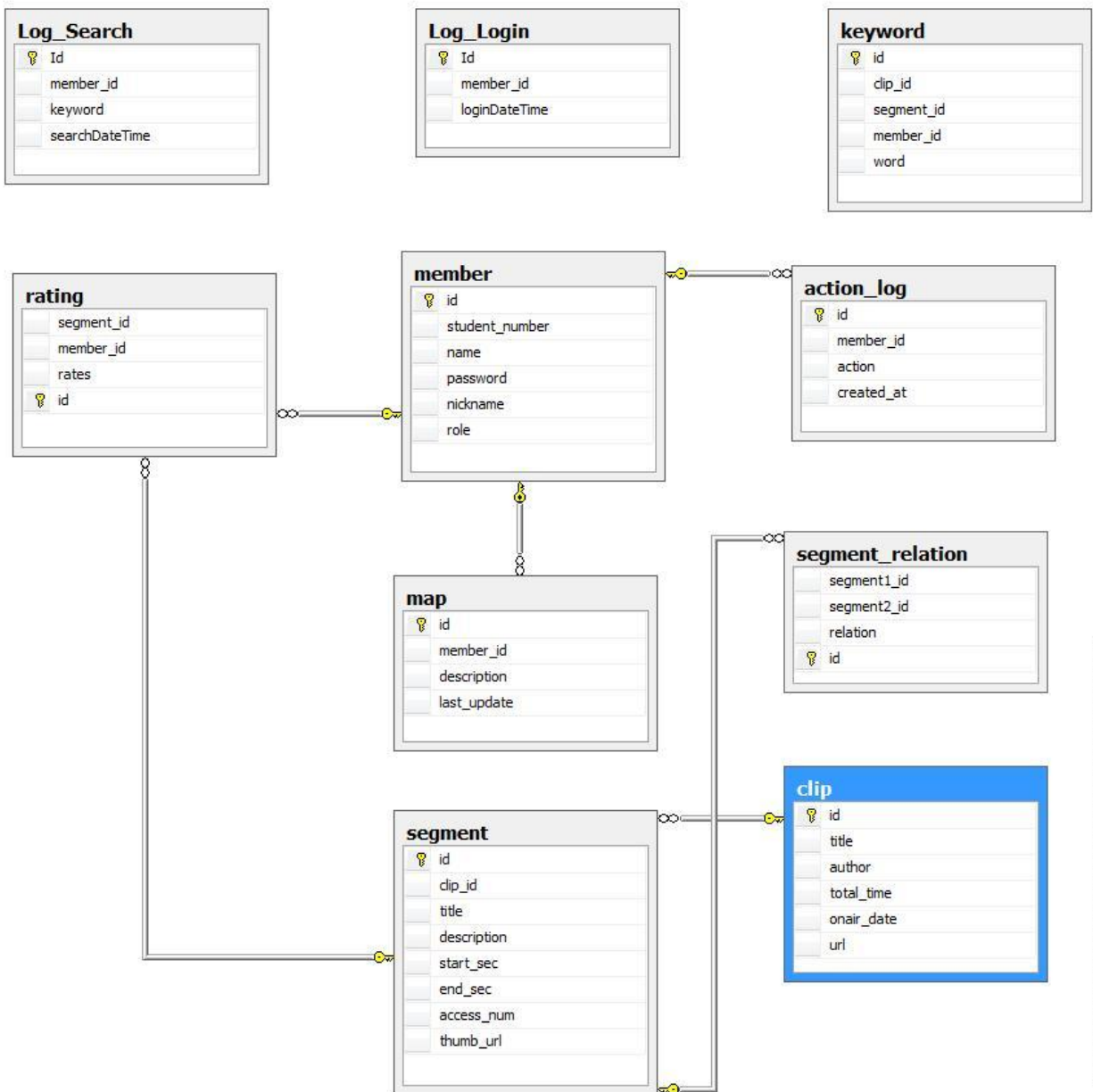
<http://www.microsoft.com/windows/windowsmedia/howto/articles/introhosting.aspx>.

6. Associate the video clips and data segments

We recommend that the video clip be separated into shorter clip; we call it segment. Ideally, the segment should be no longer than 10 minutes, but it's up to you.

To associate a segment with the streaming media, you have to insert some data into the following tables: Clip, keyword, segment, segment_relation.

The database diagram will appear like this:



To insert the actual data, you'll have to be familiar with SQL Server Management Studio (ssms.exe), and use the insert T-SQL statement to actually insert the data. Please refer to sample data that used in the download package as the reference; you'll get some sense from it.

III. Setting up Video Explorer Client

Client setup is rather simple. Here's the step-by-step instruction.

- Make sure you have .NET Framework 3.5 SP1 installed. If not, please visit <http://www.microsoft.com/downloads/details.aspx?familyid=ab99342f-5d1a-413d-8319-81da479ab0d7&displaylang=en>. Follow the instruction on the page to get it installed.

- b) Visit <http://codeplex.com/mve/>, go to “Release” tab, and download the client bits from there. You’ll be prompted to accept the license. After you accepted the terms of license, you have to save the zip package on your local drive.
- c) Extract the zip package into wherever you like (e.g. d:\MVE\Client).
- d) You have to configure the client to connect with MVE content Service. In order to do it, open MVEExplorer.exe.config file with text editor (e.g. notepad, or whatever you like). Replace {placeholder} with the actual server name where you run the Web Service. By configuring like this, the client will connect with the sample server you set up in previous section.
- e) Run MVEExplorer.exe from the folder you extracted. We recommend adding shortcut on per-user start menu, so that the client program can be launched from start menu.
- f) You’ll see logon prompt. You can use logon user=“user”, password=“1234” as the preset account for evaluation purpose only.
- g) All configurations are done. You’ll see MVE client shell. There’re some sample keywords contained in the sample database. You can try searching on the following keywords:

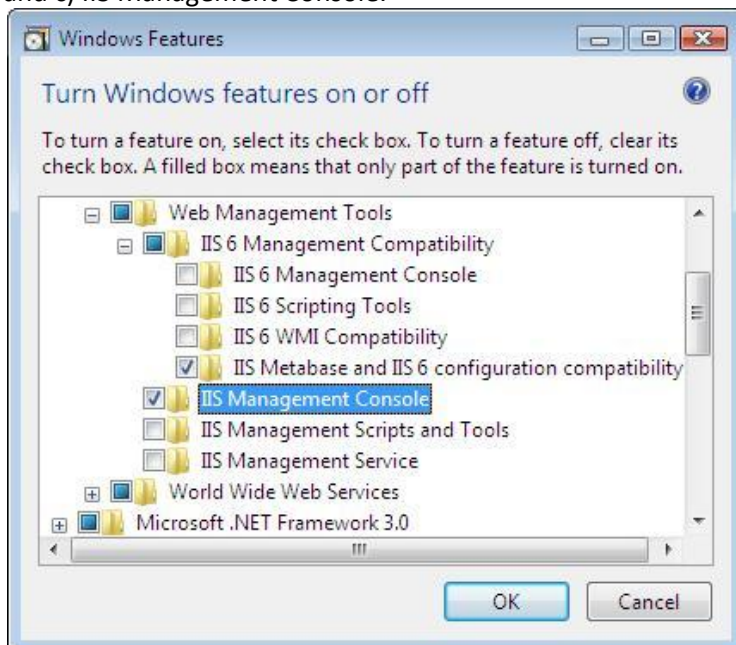
MVE, Map, video, window, classroom, sample, tablet, presentation.

- h) Please refer to user manual for the detailed usage on the client. You can download the client manual from <http://www.codeplex.com/mve> (under Release tab) as well.

IV. Troubleshooting

If you suffered login failure even if you followed the instruction previously mentioned, please try the following steps:

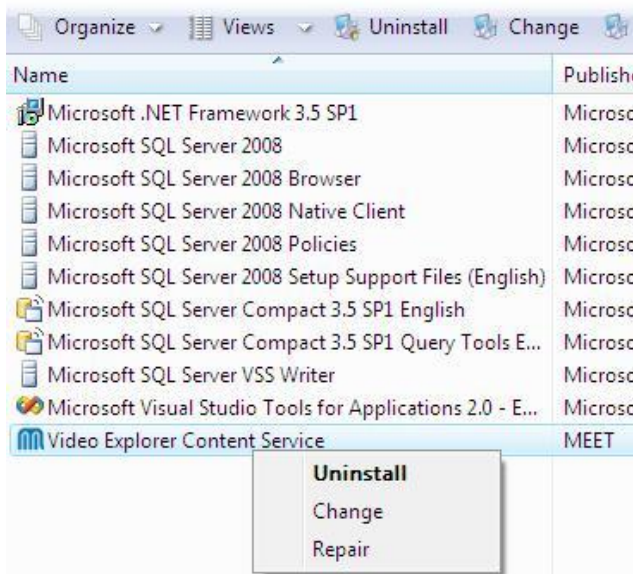
- 1) Make sure you installed the three IIS components: a) ASP.NET, b) IIS6 Metabase Compatibility, and c) IIS Management Console.



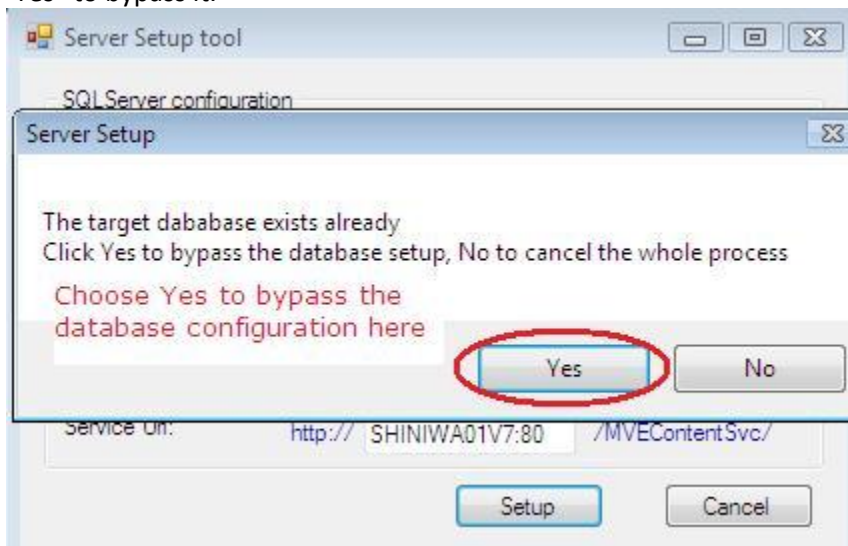
- 2) Go to Control Panel | Program and Features. Uninstall “Video Explorer Content Service” if you installed it already, like this:

Uninstall or change a program

To uninstall a program, select it from the list and then click "Un



- 3) Re-run Server Setup tool (ServerSetup.exe) under "setup" folder.
- 4) Assuming you run it before and created/configured database already. When you pressed "Setup" button in Server Setup tool, you'll be prompted if you want to bypass the database setup. Click "Yes" to bypass it.



- 5) Follow the setup instruction, so that you'll get Video Explorer Content Service installed again.
- 6) Server configuration should be done now. Make sure you specify the service url in MVEplorer.exe.config; in particular, replace "{placeholder}" with the server name (or "localhost" if you run the client on the same machine as server).
- 7) Run MVEplorer, try logon User="user", password="1234".