

# Multiple Apps, One Server – One App, Many Sites

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## Updates and Source Code

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## Introduction

As soon as you get your second customer, questions of customization arise. Breaking your application into separate parallel applications introduces maintenance and support challenges as well as server load issues. How do you server disparate customer identities within a single code base? How do you avoid maintaining several essentially identical applications and web sites?

## Goals

We have several goals in this effort

### Use a single VFP/WWWC Code Base

- Support
- Maintenance (one set of maintenance procedures does it all)
- Upgrades (one upgrade does the trick)

### Provide a separate 'look and feel' for each client/customer

- Unique Appearance
- Custom Extensability

### Compartmentalize web statistics and analysis

- Provide separate stats for each client/customer
- Use standard web stat analysis tools

### Provide a Unique URL for each client/customer

### Self-Levelling Server Loading

- One set of COM instances handles ALL customers
- Easy Capacity Management (just add servers!)

## IIS's True Nature – directing traffic

IIS can direct incoming IP traffic to particular web sites based upon any of several criteria:

### IP Address

- IIS can take traffic to a particular IP address on your server and direct it to a particular web site
- Requires binding a separate public IP address to your NIC for each site
- Supports SSL at multiple sites

## Host Headers

- IIS can direct incoming IP traffic to a particular URL and direct it to a specific web site
- Easy and cheap

## Port Address

- IIS can take traffic to a particular PORT address on your server and direct it to a particular web site
- Requires deviation from world web standards to implement

## Any combination of the above

-

## WebConnect Setup Options

There are at least two ways to configure WebConnect to use a single app for multiple sites

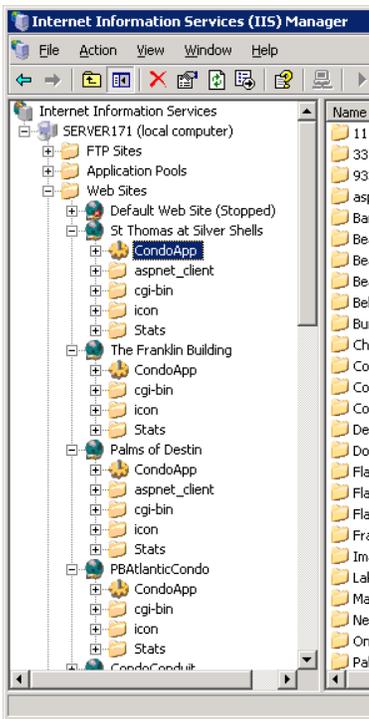
## Handle application calls at a system root level

- Use "Advanced Site Selection" on first screen of WWC server setup tool (also un-check the "make scriptmap available to Virtual only" option on the Scriptmap screen):



## Use a common “Virtual Directory” for several unique web sites

- Virtuals can be common to more than one web site!
- Allows multiple sites to use the same application!



## Replicating a single working site

Once you have set up the first client site, you can easily configure the second one in IIS. The new site will retain ALL settings of the original – including WWWC settings, virtual directories and log file settings:

### IN IIS6:

To save configuration information to an XML Metabase file:

- Right-Click site to copy, select **All Tasks**
- Select **Save configuration to a file** and enter file name and location

To create a new site with an identical configuration:

- Right-Click “Web Sites” folder, select **New**
- Select **Web Site (from file)**, browse to the file you already created and click **Read File**
- Select site name to be copied, click **OK**, and select **Create a New Site**, Click **OK**
- Finally, edit:
  - Site Name
  - Host Headers or IP Address
  - Log file location
  - Home Directory

## Manipulating The Site Metabase File in VFP/WWW

The file generated from IIS is a simple XML text file. The areas of interest are highlighted below:

```

<?xml version="1.0" ?>
- <configuration xmlns="urn:microsoft-catalog:XML_Metabase_V64_0">
- <MBProperty>
  <IIS_Global Location="."
    SessionKey="49635362500000003400000010000000b020000016800000168000094ed6ebdc239d6b
  <IISWebServer Location="/LM/W3SVC/1059597707" AuthFlags="0" LogExtFileFlags="LogExtFileDate |
    LogExtFileTime | LogExtFileClientIp | LogExtFileUserName | LogExtFileMethod |
    LogExtFileUriStem | LogExtFileHttpStatus | LogExtFileBytesSent | LogExtFileUserAgent |
    LogExtFileReferer | LogExtFileProtocolVersion"
    LogFileDirectory="C:\Webs\Logs\CondoApp\StThomas" LogFileLocaltimeRollover="FALSE"
    LogFilePeriod="1" LogFileTruncateSize="20971520" LogPluginClsid="{FF160663-DE82-11CF-BC0A-
    00AA006111E0}" ServerAutoStart="TRUE"
    ServerBindings="66.135.33.171:80:www.stThomasatsilvershells.org
    66.135.33.171:80:stThomasatsilvershells.org" ServerComment="St Thomas at Silver Shells" />
  <IsFilters Location="/LM/W3SVC/1059597707/filters"
    AdminACL="49634462f0000000a4000000400000006300028dbcf804bfd207ed1340a21b547819c621fc
  <IISWebVirtualDir Location="/LM/W3SVC/1059597707/root" AccessFlags="AccessRead |
    AccessScript" AppFriendlyName="Default Application" AppIsolated="2"
    AppRoot="/LM/W3SVC/1059597707/ROOT" AuthFlags="AuthAnonymous | AuthNTLM"
    DirBrowseFlags="DirBrowseShowDate | DirBrowseShowTime | DirBrowseShowSize |
    DirBrowseShowExtension | DirBrowseShowLongDate | EnableDefaultDoc"
    Path="C:\Webs\HTML\CondoConduit_Sites\StThomas" ScriptMaps=".asa,C:\WINNT\system32
    \inetsrv\asp.dll,5,GET,HEAD,POST,TRACE .asax,C:\WINNT\Microsoft.NET\Framework\v1.1.4322
    \aspnet_isapi.dll,5,GET,HEAD,POST,DEBUG .ascx,C:\WINNT\Microsoft.NET\Framework\v1.1.4322

```

## Use WWWC Template Expansion to automate most metabase changes

- Automates MOST OF the creation of a new client site
- Requires ONE manual step (IIS Import from File)

### Listing 1 – Modified Metabase File ready for WWWC manipulation (truncated for size) Source Code Listing (Partial)

```

<?xml version="1.0"?>
<configuration xmlns="urn:microsoft-catalog:XML_Metabase_V64_0">
<MBProperty>
<IISWebServer Location="/LM/W3SVC/1704811663"
  AuthFlags="0"
  ...
  LogFileDirectory="C:\Webs\Logs\CondoApp\<%=oProps.WebDirectory%>"
  LogFileLocaltimeRollover="FALSE"
  LogFilePeriod="1"
  LogFileTruncateSize="20971520"
  LogPluginClsid="{FF160663-DE82-11CF-BC0A-00AA006111E0}"
  ServerAutoStart="TRUE"
  ServerBindings="66.135.33.171:80:<%=lcDomain%>
    66.135.33.171:80:www.<%=lcDomain%>"
  ServerComment="<%=oProps.PropName%>"
  >
</IISWebServer>
<IISWebVirtualDir Location="/LM/W3SVC/1704811663/root"
  AccessFlags="AccessRead | AccessScript"
  Path="C:\Webs\HTML\CondoConduit_Sites\<%=oProps.WebDirectory%>"

```

## Keeping track of user's Entry Point in WWWC

- Cookies on entry page can identify client company
  - <script language="JavaScript"> document.cookie="ClientCode=KW0XH240"; </script>
- Concatenate site name from url:

## Listing 2 – Determining root site name in WWWC

Source Code Listing (Complete)

```
lcWhichRoot = UPPER(Request.GetCurrentURL())  
lnSlashes = OCCURS("/",lcWhichRoot)  
lcWhichRoot=STREXTRACT(lcWhichRoot,"/","/",lnSlashes-1)
```

### Once identified, you can use the company info to:

- Check for customized template pages before opening application defaults
- Save temp files, reports, and data sessions
- Check for added pages
- Customize menus for each client
- Etc...

### Conclusion

Techniques like this help move a cool custom application to a vertical market application which adds customizability and extensiveness without multiplying support and maintenance hassles, and allows the developer to offer world class statistical analysis tools to match her world class VFP/WWW C application.

### Resources

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