

## Your Mission: Use the F-Response Consultant Connector COM Control to automate FCC operations

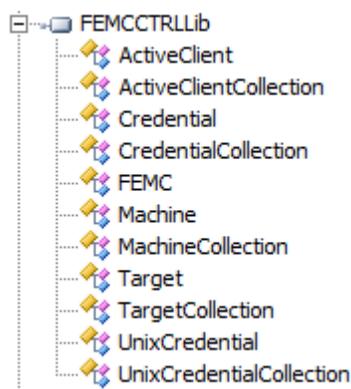
*Note: This guide assumes you have downloaded and installed F-Response Consultant Edition, the F-Response dongle is plugged in and the License Manager Monitor is running.*

### Overview

Starting in F-Response Consultant 3.09.08 we included a fully scriptable COM Control (FCCCTRL) that would allow any customer to automate the operations of the FCC. In an effort to enhance the understanding of this COM control and how best to program it in a variety of languages we've included this Mission Guide with examples in VBScript, C#, Perl, and Python.

### Understanding the FCCCTRL Object Model

The FCCCTRL control presents a very simple and straightforward object model that can be accessed from a variety of COM aware tools, including the free Microsoft Visual Studio Express edition<sup>1</sup>.



Let's take a moment to provide a quick overview of the individual objects and collections in the FEMCCTRL.

#### ActiveClient & ActiveClientCollection

ActiveClient & ActiveClientCollection objects represent Machine objects that are currently connected to our License Manager.

#### FCC

FEMC object represents the core FEMC Console, it provides properties and methods that replicate functions performed by the FEMC Console.

#### Target & TargetCollection

Target & TargetCollection objects represent Machine or ActiveClient Disk/Logical Volume/Physical Memory Targets.

### Using the FCCCTRL Object in Visual Basic Script

Microsoft's Visual Basic Script<sup>2</sup> is a very simple COM aware scripting language and is a logical first environment to detail using the FCCCTRL in. We have included two Visual Basic Scripts (.vbs) files in the standard F-Response Enterprise installation package. You will find those scripts in the installation folder ( C:\Program Files\F-Response\Samples\ ). Let's take a minute to cover those scripts in more detail below:

#### Active Clients Example Script (FCCCTRL-SampleActiveClients.vbs)

```
Dim femc, activeclient, targets, unixcreds, activeclients
On Error Resume Next

'Create the FCC Object
set fcc = CreateObject("FEMCCTRL.FEMC")
```

<sup>1</sup> Microsoft Visual Studio Express Editions are freely available from Microsoft at <http://www.microsoft.com/exPress/>

<sup>2</sup> More information about Visual Basic Script as well as the complete language reference is available here <http://msdn.microsoft.com/en-us/library/t0aew7h6%28VS.85%29.aspx>

```
'Set the location of the configuration file for the FEMC (MANDATORY)
fcc.FCCConfigureFileLocation = "C:\Program Files\F-Response\"

'Load the FCC Configuration (No Longer Required)
fcc.LoadConfig

'Now let's create a collection of ActiveClients and begin performing work
Set activeclients = fcc.ActiveClients

For each activeclient in activeclients
    set targets = activeclient.Targets
    For each target in targets
        target.Login()
        'Do work
        target.Logout()
    Next
Next
```

Essentially the ActiveClients script is useful after you have deployed F-Response and have one or more “Active Clients” connected to your licensing dongle. This allows you to automate select operations on each ActiveClient. The most common operations would be “Login”, “Logout”, and “PhysicalDiskMapping”. For additional information on methods and properties available see the Object Viewer in Visual Studio or another COM aware application.

#### Using the FCCCTRL Object in Microsoft .NET (C#)

Microsoft’s Visual C# 2010 Express<sup>3</sup> is the newest free Visual Studio environment for developing .NET applications. .NET is a COM aware technology however, because our COM object uses pointers, .NET requires we must use the “unsafe” keyword and brackets around very specific operations and set the project for Unsafe compilation.

The “unsafe” keyword and brackets must surround using the TargetsCollection, see below:

```
foreach (ActiveClient ac in acc)
{
    unsafe{ //We use object pointers so .NET must mark this as unsafe to effectively
execute it
        tcc = ac.Targets;
        foreach (Target tc in tcc)
        {
            tc.Login();
            //Do Work
            tc.Logout();
        }
    }
}
```

#### Using the FCCCTRL Object in ActiveState Perl (Win32)

In addition to accessing COM controls via Microsoft technologies, there are also bindings available for traditional open source scripting languages such as Perl. The following code illustrates using the FCCCTRL through Activestate Perl<sup>4</sup>.

```
#F-Response Sample Script for F-Response Consultant COM scripting object version 3.9.8
#This sample script covers using the COM object to perform simple connection with the
ActiveClients Object Collection.
```

<sup>3</sup> Visual Studio 2010 C# Express is available here <http://www.microsoft.com/express/Downloads/#2010-Visual-CS>

<sup>4</sup> Activestate Perl is available for the Windows platform at <http://www.activestate.com/activeperl/downloads/>

```
#Please consult the FCCCTRL Object Model for additional information, Object model accessible
using standard scripting tools/apis
#April 2010

#Using the ActiveClients Object in the FCCCTRL, you will want to use this object collection when
you have already deployed F-Response
#to target machines and they are currently connected to your licensing dongle.

use warnings;
use strict;

use Win32::OLE;
use Win32::OLE::Const 'FEMCCTRL';

#Create the FCC Object
my $fcc = CreateObject Win32::OLE 'FCCCTRL.FCC' or die $!;

# No Longer Required
#$fcc->{FCCConfigureFileLocation} = "C:\\Program Files\\F-Response\\";
#$fcc->LoadConfig();

my $activeclients = $fcc->{ActiveClients};

foreach my $ac (in $activeclients){
    my $targets = $ac->{Targets};
    foreach my $target (in $targets){
        $target->Login();
        #Do Work
        $target->Logout();
    }
}
}
```

### Using the FCCCTRL Object in ActivePython

ActiveState also provides a Windows version of the popular open source programming language Python. As ActivePython on the Windows platform is also COM aware it can be used to interface with the FCCCTRL.

### Summary

In summary the F-Response Consultant Connector COM control is a highly flexible and extensible interface providing automation capabilities to any COM aware programming environment. Furthermore, many of the scripts and code that have been presented in this document are also available in the F-Response Enterprise 3.09.08+ installation package in the "Samples" folder for your use.