

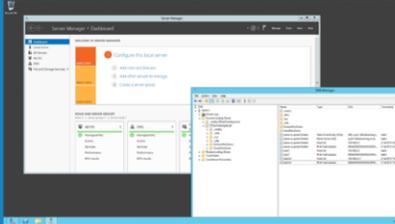
# Full Minimal and Server Core Interface

For the free video please see  
<http://itfreetraining.com/server#interfaces>

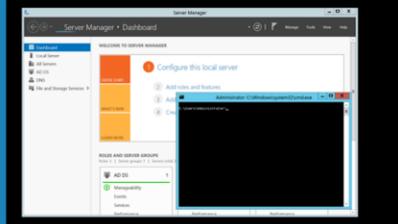
Windows Server 2012 has a choice of 3 different interfaces. These are full, minimal and server core. Minimal is new to Windows Server 2012. This video will look at how to change between the interfaces and what the advantages are of each interface.

# Which interface is best?

- Change at any time
- Add/Remove the required feature and restart



Full GUI  
All features



Minimal Interface  
Less GUI/No taskbar



Server Core  
Very limited GUI

## Which interface is best?

The full GUI interface supports all the features of Windows Server 2012. It however uses the most resources on the computer to operate. The advantage is that it should be able to run any software that was designed to run on Windows Server 2012. The minimal interface has the most graphical intensive interface parts of the interface removed. This means it uses less resources, however some graphical based applications can still run. For example, you can still run Server Manager. The server core interface uses the least amount of resources on the computer but supports the least amount of graphical functions. For this reason only very basic graphical applications can be run like notepad.

# Server 2012 Interfaces

	Server Core	Minimal Interface	Full GUI
Command prompt	Available	Available	Available
Windows PowerShell/Microsoft .NET	Available	Available	Available
Server Manager	Not available	Available	Available
Microsoft Management Console	Not available	Available	Available
Control Panel	Not available	Some applets	Available
Windows Explorer	Not available	Not available	Available
Internet Explorer	Not available	Not available	Available
Built-in help system	Not available	Not available	Available

## Server 2012 Interfaces

Depending on what graphical requirements the software has will determine which interface that software can run on. Items like the command prompt, PowerShell and .Net can run on any interface because by their nature this software does not require graphical interface features. Server Manager and Microsoft Management Console require some graphical interfaces and thus require at least the Minimal interface. Using the minimal interface you can access to some of the items in the control panel but not all. Windows explorer, Internet explorer and built-in help only work in the full GUI interface.

# Server Core

Roles not available in Server Core
Active Directory Federation Services
Application Server
Fax Server
Network Policy and Access Services
Remote Desktop Services/Gateway/Session Host/Web access
Volume Activation Services
Windows Deployment Services

- Also includes support for SQL Server 2012

## Server Core

With Windows Server 2012, more roles are supported in server core than were previously available in Windows Server 2008. The roles that are not supported are Active Directory Federation Services, Application Server, Fax Server, Network Policy and Access Services, Remote Desktop Services, Remote Desktop Gateway, Remote Desktop Session Host, Remote Desktop Web Access, Volume Activation Services and Windows deployment services. Server core in Windows Server 2012 also support SQL Server 2012.

# Demonstration

- PowerShell commands
  - Add minimal interface support
    - `Add-WindowsFeatures Server-Gui-Mgmt-Infra`
  - Add full GUI support
    - `Add-WindowsFeatures Server-Gui-Shell,Server-Gui-Mgmt-Infra`
- To remove the feature use the PowerShell command
  - `Remove-WindowsFeature`

## Demonstration

If you are running the full GUI interface, to change the interface to the minimal or server core is just a matter of removing a feature using server manager.

To remove a feature, run server manager and from the manage pull down menu and then select the option Remove Roles and Features.

From the remove roles and features wizard, select the server or servers that you want to work with and then move forward in the wizard until you reach the features screen.

From the features screen, the interface options are found under User Interfaces and Infrastructure. There are 3 sub features listed below.

Graphical Management Tools and Infrastructure: This feature provides enough of the graphical interface to run server manager and other administrative tools. If you remove this feature you will reduce the server to the server core interface.

Desktop Experience: This feature is not required by any of the interfaces. If you want additional features in the operating system like the ability to run software like Windows media player you will need to add this feature. Adding this feature adds software to the server that makes it more like a desktop. In most cases you will not need this feature on a server since servers generally do not need a lot of features that desktop use.

Server Graphical Shell: This provides graphical support for the task bar and some advanced graphical functions. If you remove this feature the server will be reduced to the minimal interface.

Once you have removed Graphical Management for server core or Server Graphical Shell, the server will need to be rebooted in order for the changes to take effect. When the features are removed, the binaries for this features are removed as well. This prevents these unused binaries from being used by an attacker, making the server more secure.

### **Changing to the full GUI from server core**

Since server core is not able to run server manager, the command needs to be run using PowerShell. To start up PowerShell, run PowerShell from the command prompt and then run the following command for minimal or for full GUI.

```
Add-WindowsFeatures Server-Gui-Mgmt-Infra
```

```
Add-WindowsFeatures Server-Gui-Shell,Server-Gui-Mgmt-Infra
```

See <http://YouTube.com/ITFreeTraining> or <http://itfreetraining.com> for our always free training videos. This is only one video from the many free courses available on YouTube.

### References

“Installing and Configuring Windows Server 2012 Exam Ref 70-410” pg 8 -9

[http://en.wikipedia.org/wiki/Windows\\_Server\\_2012](http://en.wikipedia.org/wiki/Windows_Server_2012)