

# TXSeries Installation and Configuration

## What this exercise is about

The objective of this lab is to explore the installation of TXSeries on a Windows platform. Once installed a default CICS region and SFS Server will be created.

## Notice

The TXSeries install image should be available either on CD or via an install image.

## What you should be able to do

At the end of this lab you should be able to understand how to install TXSeries on a Windows platform. You should have become familiar with:

1. The hardware and software requirements for installing CICS.
2. How to install CICS.
3. How to configure a default SFS server and default CICS region.

## Part 1: Check Hardware and Software Requirements

### Overview

In this part, you will learn how to check the hardware and software requirements for a TXSeries installation.

### The Setup

None.

### Instructions

- \_\_\_ 1. Check the hardware requirements.
  - \_\_\_ a. From the start menu select **Control Panel -> System**.
  - \_\_\_ b. Select the **Advanced -> Performance Settings -> Advanced**.
  - \_\_\_ c. The available swap space is indicated in the **Virtual Memory** box:
    - About **600MB** of disk space for installation and configuration
    - Swap space of **150MB** per region
  - \_\_\_ d. The total disk space required to install and configure a CICS region varies depending on a number of factors such as the size of the SFS log volumes and the number of CICS regions configured.
    - As a starting point approximately **1GB** of disk space should be available.
- \_\_\_ 2. Check the software requirements.
  - \_\_\_ a. A definitive list of software requirements can be found at <http://www.ibm.com/software/htp/cics/txseries/requirements.html>

In general the requirements will vary by operating system and vendor supplier for things such as compilers and communications products.
  - \_\_\_ b. For the purposes of this lab the only requirements we have are :-
    - 1) Windows 2003 Server with ServicePak 1 or Windows XP with ServicePak 2.
    - 2) IP definition must be static or a loopback adapter must be installed and running.
    - 3) The TEMP environment variable must be set.
    - 4) The PATH environment variable must contain fewer than 1024 characters after the setup program appends the value of the CICSBIN and ENCBIN environment variables.
    - 5) The host name of your machine must be the same as the primary prefix of the domain name system (DNS) host name. For example, if your computer's DNS host name is *trader1.abc.com*, the host name of the machine must be *trader1*.
  - \_\_\_ c. If you have these requirements, then your lab machine is ready for installation.

## Part 2: Installation

### Overview

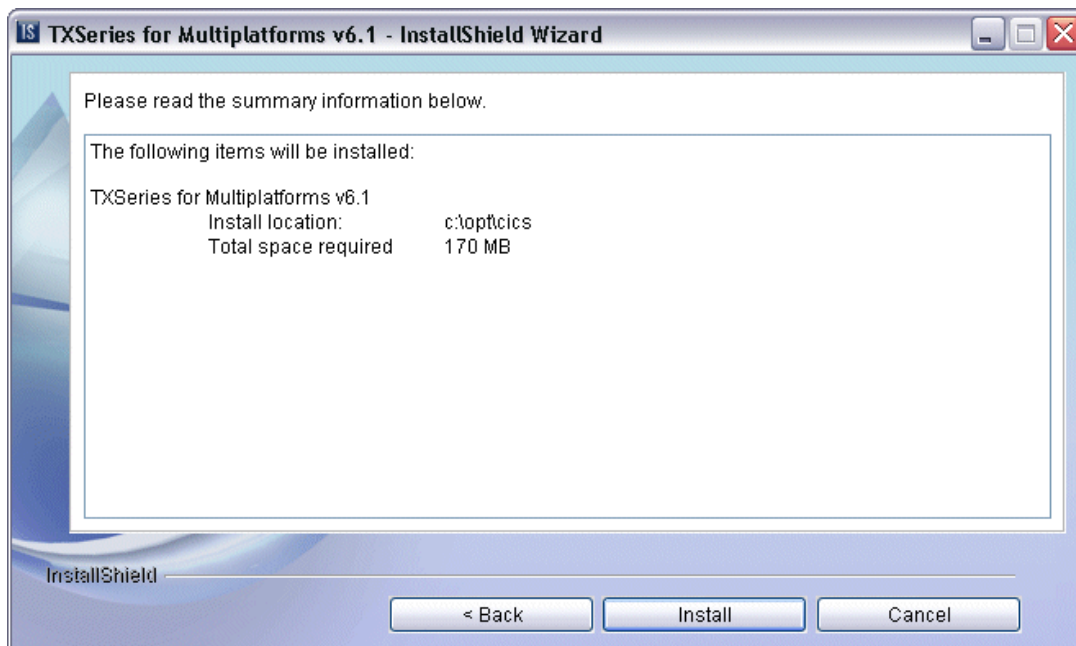
In this part you will install TXSeries CICS for Windows.

### The Setup

The TXSeries install image should be available either on CD or via an install image.

### Instructions

- \_\_\_ 1. Ensure that you are logged into your Windows machine with Administrator privileges.
- \_\_\_ 2. Start the installation process.
  - \_\_\_ a. From the install image or CD run **TXSeriesV61-windows.exe**.
  - \_\_\_ b. Select **Next**.
  - \_\_\_ c. Accept the License agreement. Select **Next**.
  - \_\_\_ d. Accept the default installation directory of **c:\optcics** and select **Next**.
  - \_\_\_ e. Accept the default installation directory for the CICS Universal Client and select **Next**.
  - \_\_\_ f. On the confirmation screen, select **Next**, see Figure 1 "Confirmation Screen".



**Figure 1 "Confirmation Screen"**

- \_\_\_ g. Wait for the installation to finish.
  - \_\_\_ h. Optionally view both the readme and the install logfile by selecting the boxes and selecting **Next**. Select **Next** after viewing either the readme or the logfile.
  - \_\_\_ i. On the final screen, select **Finish**.
  - \_\_\_ j. Restart the machine after installation.
- \_\_\_ 3. Verify the TXSeries directory structure

- \_\_\_ a. Verify the CICS installation directory, **C:\opt\cics** structure contains a number of subdirectories.
- \_\_\_ b. Verify the c:\var structre contains a number of subdirectories.
- \_\_\_ 4. Verify correct users and groups exist.
  - \_\_\_ a. During installation, the following Windows user lds and groups are created:
    - 1) **cics**: default CICS user ID.
    - 2) **cicsgroup**: a local group that is created on the machine. All CICS users must be a member of this group. The user who has performed CICS installation is automatically added to the cicsgroup.
  - \_\_\_ b. To see the status, select **Control panel -> Administrative Tools -> Computer Management**. Expand **System Tools -> Local Users and Groups**. See Figure 2 "Local Users and Groups (Users)" and Figure 3 "Local Users and Groups (Groups)".
  - \_\_\_ c. Make sure the **cicsgroup** group contains your userid and the **cics** user as members.
  - \_\_\_ d. Restart the machine after making any user or group changes.

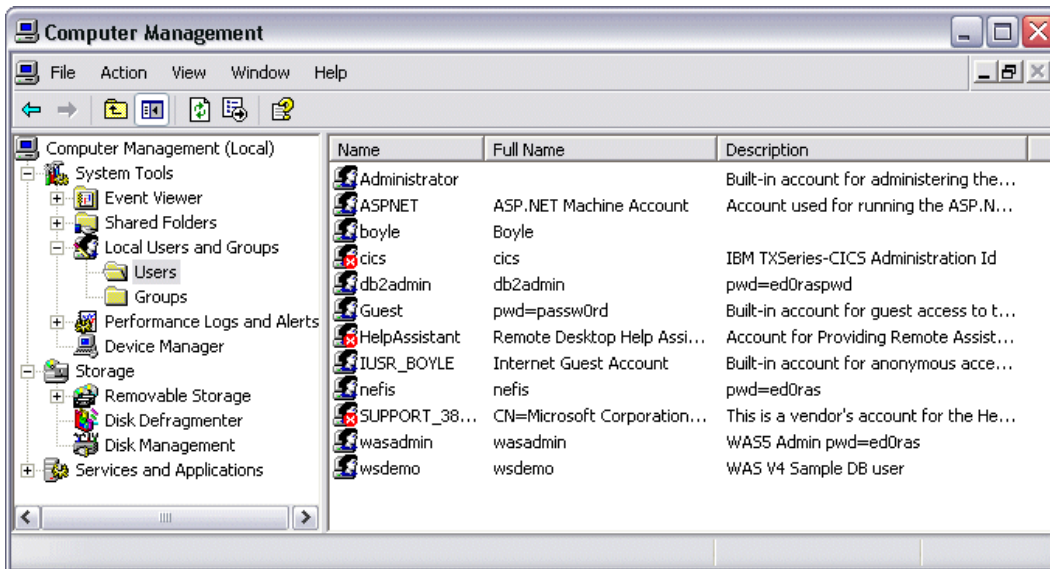


Figure 2 "Local Users and Groups (Users)"

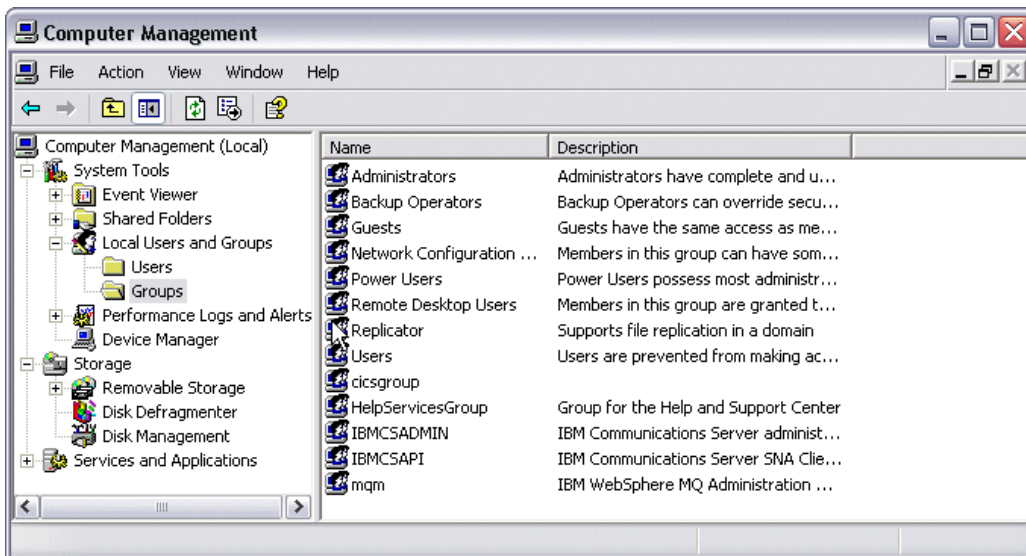


Figure 3 "Local Users and Groups (Groups)"

### Part 3: Create a default SFS Server and CICS Region

Overview

In this part you will create a default SFS server and a default CICS region.

The Setup

The TXSeries CICS transaction monitor should be installed.

Instructions

\_\_\_ 1. Define system environment variables.

\_\_\_ a. Select **My Computer -> Right Click -> Properties -> Advanced -> Environment Variables -> system variables.**

\_\_\_ b. Use the windows command **hostname** to determine the hostname of your machine, then define the following variable:

Variable	Value
<b>CICS_HOSTS</b>	<b>hostname of your machine</b>

\_\_\_ c. Check the following variables have been created by the installation:

Variable	Value
<b>PATH</b>	<b>c:\opt\cics\bin</b>
<b>LIB</b>	<b>c:\opt\cics\lib</b>
<b>CICSNLS</b>	<b>c:\opt\cics\MSG\en_US\@N</b>
<b>NLSPATH</b>	<b>c:\opt\cics\MSG\en_US\@N</b>
<b>CICSPATH</b>	<b>c:\opt\cics</b>

\_\_\_ d. Close the window.

\_\_\_ 2. Creating a default SFS server and default CICS region.

\_\_\_ a. Start a windows command prompt.

1) From the **Start** menu select **Run**.

2) Enter the word **cmd** into the Open field and select **OK**.

\_\_\_ b. Change to the cics directory using the following command.

```
cd c:\opt\cics\bin
```

\_\_\_ c. Enter the following command to create the CICS region and SFS server.

```
cicscp -v create region <regionName>
```

where **<regionName>** is the name of the CICS region and the name meets the following rules:-

- The name can be in upper or lowercase.
- The name must be 8 characters or less and does not contain underscore (\_), spaces or the word "stanza".

- The name must be unique amongst all the class students.

\_\_\_ d. This command will create a default CICS region and default SFS server. Check the output messages carefully, they should look similar to the following :-

```
C:\opt\cics\bin>cicscp -v create region IAIN
ERZ096118I/0247: Creating a region
ERZ046045I/0222: Creating region 'IAIN' from archive of default region
'd:\opt\cics\DEFAULT'
ERZ010114I/0728: Creating subsystem 'cics.IAIN' for region 'IAIN'
ERZ046339I/0421: Successfully imported region 'IAIN'
ERZ096111I/0224: Processing a start sfs_server command
ERZ096141I/0224: Starting SFS server '././cics/sfs/BOYLE'
ERZ096103I/0199: Creating an SFS server
ERZ105006I/0011: Directory 'd:\opt\var\cics_servers\SSD\cics\sfs\BOYLE'
created
ERZ084009W/8429: No runtime recovery image for server '././cics/sfs/BOYLE',
cold start assumed
ERZ010130I/0734: Creating subsystem 'cicssfs.SBOYLE'
ERZ038038I/0044: Server '././cics/sfs/BOYLE' added as a subsystem
ERZ096107I/0214: The SFS server '././cics/sfs/BOYLE' was created successfully
ERZ038214I/0168: Authorization for server '././cics/sfs/BOYLE' has been set to
'none'
ERZ038216I/0175: Subsystem 'cicssfs.SBOYLE' has been initialized.
ERZ038272I/0157: Waiting for server '././cics/sfs/BOYLE' to initialise.
ERZ038219I/0179: Server '././cics/sfs/BOYLE' is responding to RPCs.
ERZ036204I/0251: Created logical volume 'log_SBOYLE' for server
 '././cics/sfs/BOYLE'
ERZ036206I/0253: Initialized logical volume 'log_SBOYLE' initialized for
logging by server '././cics/sfs/BOYLE'
ERZ036208I/0255: Created log file 'log_SBOYLE/logfile' for server
 '././cics/sfs/BOYLE'
ERZ036231I/0260: Log file 'logfile' on server '././cics/sfs/BOYLE' has been
enabled.
ERZ036233I/0262: Logical volumes on server '././cics/sfs/BOYLE' have been
recovered.
ERZ038228I/0189: Server '././cics/sfs/BOYLE' has been enabled.
ERZ038223I/0192: SFS Logical volume 'sfs_SBOYLE' has been created for server
 '././cics/sfs/BOYLE'.
ERZ038224I/0194: Logical volume 'sfs_SBOYLE' on server '././cics/sfs/BOYLE'
has been enabled.
ERZ038226I/0196: Logical volume 'sfs_SBOYLE' has been added to server
 '././cics/sfs/BOYLE'.
ERZ038182I/0182: Server '././cics/sfs/BOYLE' started successfully.
ERZ096113I/0231: SFS server '././cics/sfs/BOYLE' successfully started
ERZ038176I/0339: Adding TSQ file 'IAINCicsrectsqfile' to server
 '././cics/sfs/BOYLE', volume 'sfs_SBOYLE'.
ERZ038176I/0344: Adding TSQ file 'IAINCicsnrectsqfil' to server
 '././cics/sfs/BOYLE', volume 'sfs_SBOYLE'.
ERZ038177I/0349: Adding TDQ file 'IAINCicstdqlgfile' to server
 '././cics/sfs/BOYLE', volume 'sfs_SBOYLE'.
ERZ038177I/0354: Adding TDQ file 'IAINCicstdqphfile' to server
 '././cics/sfs/BOYLE', volume 'sfs_SBOYLE'.
ERZ038177I/0359: Adding TDQ file 'IAINCicstdqnofile' to server
 '././cics/sfs/BOYLE', volume 'sfs_SBOYLE'.
ERZ038178I/0364: Adding Local Queueing file 'IAINCicsnlqfile' to server
 '././cics/sfs/BOYLE', volume 'sfs_SBOYLE'.
ERZ038178I/0369: Adding Local Queueing file 'IAINCicsplqfile' to server
 '././cics/sfs/BOYLE', volume 'sfs_SBOYLE'.
ERZ010013I/0024: CICS has removed the lock file for region 'IAIN'
ERZ096121I/0256: The region 'IAIN' was created successfully
ERZ096002I/0003: cicscp command completed successfully
```

- \_\_\_ 3. Creating the SFS server and CICS region will have created the following on the Windows machine:
  - \_\_\_ a. A new SFS server with a name of `./cics/sfs/<name>` where `<name>` is the hostname of the machine. The SFS server will also have a ShortName, this will be `S<name>`, where `<name>` is the hostname truncated to 7 characters.
  - \_\_\_ b. A new user with the same name as the SFS ShortName. This user will be a member of the `cicsgroup`.
  - \_\_\_ c. Two new files in `c:\var` called `sfs_<ShortName>` and `log_<ShortName>`, both 64Mb in size, where `<ShortName>` is the SFS ShortName. These files are the SFS data volume, where data is stored and the log volume used to manage the transaction updates against the data volume.
  - \_\_\_ d. The SFS will now be running and the internal files required by a running CICS system have been added to the SFS server.
  - \_\_\_ e. The SFS server and CICS region will be defined in the `c:\var\cics_regions` and `c:\var\cics_servers\SSD` directories.

- \_\_\_ 4. Record your SFS server and CICS region names here:

<b>CICS Region Name</b>	
<b>SFS Server name (in the form <code>./cics/sfs/&lt;name&gt;</code>)</b>	

- \_\_\_ 5. Run 'cicscheckup' to see if the SFS server and CICS region is configured correctly, this is a once only verification process.
  - \_\_\_ a. Start a windows command prompt and enter the following commands.
 

The value of `<regionName>` is the name of the CICS region and `<sfs_server>` is the long name of the SFS server usually something like `"./cics/sfs/BOYLE"`. To find the long name view the log messages issued when the region was created.

```

cicscheckup -A

cicscheckup -r <regionName>

cicscheckup -s <sfs_server>
                    
```
  - \_\_\_ b. Check the messages returned by the commands for any errors.
- \_\_\_ 6. This completes the end of this step and you now have a default CICS region, which is currently stopped and a default SFS server, which is running.