

What is a window service?

- A service means a program
- A service will be under the control of windows operating system.
- When operating system is installed, a set of services will be installed by default.

Where we can locate these services?

All the services are located at

Start->settings->control panel->performance & maintenance->Administrator tools->services

Or

Stat->run->services.msc

Advantages:

- Windows services are used to develop background process.
- Window services contain only application logic but not GUI.

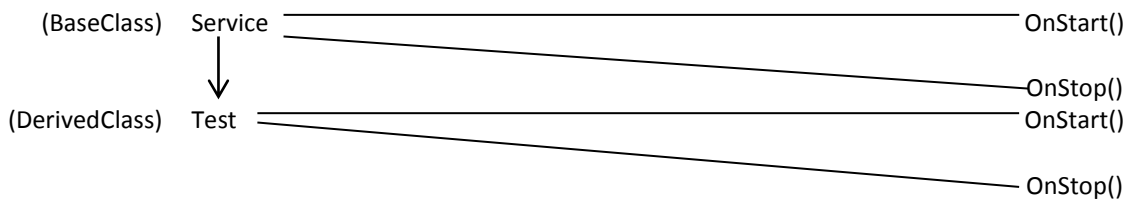
Developing a window service

- To develop window services, .NET introduced “windows service” project template.
- File->New->Project->Visual C#->Windows->“Windows Service” project template.
- The controls which are not visible at runtime can be placed in windows service projects.
Example: Timer, EventLog, FileSystemWatcher etc.

Window Service

Window Service is a class which must be inherited from “Service” base class.

Namespace: System.ServiceProcess



Every service contains by default two events.

OnStart() This event occurs when the service is about to start.
OnStop() This event occurs when the service is about to stop.

Steps for developing windows services:

- Open window service project and write code as required.
- Add the installer and build the project to get a EXE file.
[Form right click u will get adds installer option.]
- Install the service with the help of InstallUtil tool.
- Open services and then start the service.

Create a windows service that restricts the user not to open solitaire game.

Step 1: File -> New -> Project -> Visual C#-> “Windows Service” Project Template.

Step 2: Expand control toolbox (Ctrl+Alt+X)

In the “General” category tab, right click choose item..

Select **Timer** **System. Timers (namespace) click ok button.**

Step 3: Set the properties of timer1

Enabled - false

Step 4: In service form

Name is changed as **HomeService**
ServiceName is changed as **CalcStopService**

Step 5:

```
//On Start
    timer1.Enabled = true;

//On Stop
    timer1.Enabled = false;

//Elapsed
    Process[] x = Process.GetProcesses();
    for (int i = 0; i < x.Length; i++)
    {
        if (x[i].ProcessName.ToUpper() == "CALC")
        {
            x[i].Kill();
            MessageBox.Show("Your system is infected with virus", "Virus Alert",
MessageBoxButtons.OK, MessageBoxIcon.Warning);
            break;
        }
    }
}
```

Step 6:

To switch design view, right click on services form choose the option **Add Installer**.

This adds two Installers

1. ServiceProcessInstaller
2. ServiceInstaller

Set the properties of **ServiceProcessInstaller**

Name : HomeProcess
Account : LocalService

Set the properties of **ServiceInstaller**

Name : HMService
ServiceName : CalcStopService

Step 7:

Select build in menu bar and select the Build HomeServices or Shift+F6

It creates <projectname.exe> file at the project path>Bin>under debug folder.

Step 8:

Select cmd prompt run as administrator.

```
C:\Windows\Microsoft.NET\Framework\v4.0.30319>InstallUtil.exe -i C:\Users\SSS201
4010\Downloads\HomeServices-2014-08-12\HomeServices\HomeServices\bin\Debug\HomeS
ervices.exe
```

Feedback:

The commit phase completed successfully.
The transacted install has completed.

Step 9: To check the service is working properly or not

Start> run>services.msc

Find out CalcStopService, select it right click on it and select the properties. In that select Logon tab,
Select the Local System Account radio button & Allow Service to interact with desktop checkbok, then apply click ok.
Select CalcStopService, right click and select start. It starts the service.

Test the service:

Start> Run> CALC