

Running TOP Spool Manager as a Service

Introduction

It is possible to run Spool Manager as a service in Windows NT, Windows 2000 and Windows XP. In service mode, Spool Manager will behave as it does in autostream mode (see TOP Help).

There are some weaknesses with this implementation of Spool Manager as an NT service – for instance: the executable includes all the GUI code normally used by Spool Manager, so is rather large for a service.

This functionality only works with Windows NT, Windows 2000 and Windows XP. It will not work with Windows 95 or Windows 98 because they do not support services in the same way.

Warning

This functionality will not work with Outlook 2002 and later versions. Microsoft strongly recommend that you do not attempt to interact with Outlook from a service. For Outlook users, we recommend using SMTP rather than the MAPI interfaces when running Spool Manager as a service.

We have tested streaming from a service using Windows 2000 and Outlook 2003. It did not work and our Microsoft Office and Symantec anti-virus software environments became unstable.

Installation

Install TOP as normal, using the installation program from Gresham. Use the installed product to configure appropriate auto-streams. Streams to be used must have the “Allow Logon Bypass” option checked and must therefore be established by a SUPER group user.

Set the email type that you wish to use in the Spooler Manager SessionOptions dialog. Test that these email options work by emailing a job from within Spooler Manager.

Test the configuration operation of the streams you want in normal stream mode, starting the program SPOOLM-4.EXE explicitly rather than from the system explorer.

Test in autostream mode to make sure the stream(s) still function correctly. Once you run streaming as a service, no messages will be logged to the screen and you will have to check the Windows event viewer to solve any problems.

You may wish to save a copy of the file SPOOLM-4.INI for the service to use, to avoid the configuration being affected by users of TOP on the same machine.

Make sure that the Services applet is **not** running if you are replacing a previous service definition with the same name – the service name may persist when the applet is still running. Stop the service using the services applet. If you can't find this on the control panel, use the Run... command on the start menu and type “services.msc”. Stop the service.

Run Spool Manager with run-time option `-NTSERVICE-ADD`. This can be done either from an MSDOS prompt or by creating a shortcut to the program SPOOLM-4.EXE and then modifying the properties of the shortcut to the SPOOLM-4.EXE program. If you are modifying a shortcut, the shortcut target would be something like

```
"C:\Program Files\Gresham\TOP 4\SPOOLm-4.exe" -NTSERVICE-ADD
```

Spool Manager will start up and will display a dialog box titled “Spooler Manager Install Service”. The details specified in the dialog are used to install and configure the program as a Service.

- In the box “SPOOL User”, enter the NonStop user to be used for autostreaming.
- In the box “NT User”, it is possible to enter a Windows user name or to just use the “LocalSystem” logon, which is the internal account used by most services. If a real user account is chosen, then the password must also be entered. You can also enter this information after the service has been added.
- If you want the service to use a distinct configuration (see above) then use a copy of the file SPOOLM-4.INI, called (say) MYCONFIG.INI and add the flags `-INI MYCONFIG.INI` to the Start-up options.

Test the service whilst you are still logged on.

Stop and start the machine and test the service works before your workstation email client is running (this may not be possible with some email configurations).

Stop and start the machine and test that the service works when nobody is logged onto the machine (this may not be possible with some email configurations).

Output

Access to the user interface is restricted within NT services. Messages that would normally be displayed to the user are written to the Application Event Log. In some error situations where Spool Manager would require input from a user, the service will write a message to the Application Event Log and will stop. The Microsoft help on Configuration of NT Service will illustrate how to make the service persistent.

Configuration of NT Service

Further configuration of the NT Service can be performed using the Services Manager tool, in either the Control Panel folder (Windows NT 4) or Administrative Tools folder (Windows 2000), or Administrative Tools\Services start option (XP). Options that are relevant:

- Account configuration – if the service runs as the default account (LocalSystem), access to some resources (such as network printers) may not be available. It is possible to configure an account using the Services Manager tool if it wasn't done during installation of the service.
- Recovery strategy – to make the service persistent; configure the Recovery options to always restart the service. If the Spooler Manager detects a connection failure when running as a service, it will end, allowing the service to be restarted – this provides some resilience in the face of an unreliable network.

If you want to alter the Himalaya user ID associated with the service, the preferred method is to uninstall the service and then install it again, specifying the new user ID.

Configuration of Spool Streaming Service for Multiple Nodes

To configure Spool streaming for multiple nodes, multiple services are required. The name of the service can be varied in the dialog shown by Spool Manager running the “-ntservice-add” option. A different spooler (optionally on a different node) can be specified, or a different INI file can be specified, using the standard options described in the Help.

Uninstalling the Service

Run Spool Manager with run-time option `-NTSERVICE-REMOVE`. This can be done either from an MSDOS prompt or by modifying the properties of the shortcut to the SPOOL.EXE program.

Possible Problems

This facility is supplied as an extra to the Spool Manager product. There are many dependencies involved in successfully sending a message from a Service. The following known problems have been encountered:

- The service fails to start and the following message is displayed:
“Could not start the XXXXXX service on Local Computer. Error 1069: The service did not start due to a logon failure”
Use the Services manager applet to set the (Windows) user and/or password.
- Run-time error ‘429’ encountered when sending any email. This is usually caused by failure to install CDO (Collaborative Data Objects) when installing Office 2000 – in previous versions of Outlook, the appropriate components were installed by default.
- Service fails to logon to send mail (check trace output or Event log). Check that a user and password have been entered for the service, this will normally be required for Outlook users.
- Service appears to run correctly, and interacts with MAPI successfully, but Spool Manager and/or Outlook hang on the message send. This problem is solved by starting Outlook before starting Spool Manager as a service. This problem should not occur when Exchange is being used as Outlook's server – it is caused by problems in the Internet Mail providers (see <http://mlarchive.ima.com/mapi-l/2000/1074.html>).

- In some environments, there is a problem with setting the password via the Spool Manager service configuration dialog. Users should use the NT services manager applet to set the password if their service fails to start and Windows 2000 displays message “Could not start the XXXXXX service on Local Computer. Error 1069: The service did not start due to a logon failure”.