

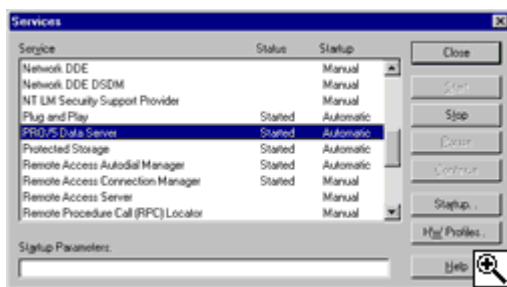
Data Server At Your Service

By **Brian Hipple**

Have you ever wanted the PRO/5 Data Server® to execute whether or not a user was physically touching the computer on which it was running? Perhaps you would feel more secure if you could configure the Data Server to run with the privileges associated with a particular user. And maybe you would like this Data Server to accept connections on more than one port without having to be running multiple instances. Well, what you need is the PRO/5 Data Server 2.04 and later releases that make all of this possible by running as Windows NT services.

How To Stop And Start The PRO/5 Data Server

With this new way of running the PRO/5 Data Server comes new ways of configuring and starting it as well. Because the Data Server is now a service, it is now controlled through the Services applet in the Windows NT Control Panel. If you open the Control Panel and double-click on Services, you'll launch this applet:



The Services Control Panel applet.

This applet provides a common location for controlling the services installed under NT. In this window, the Service column identifies the service's name, the Status column indicates whether the service is started, paused (not supported by the PRO/5 NT Data Server) or stopped (blank), and the Startup column specifies how the service is to be started.

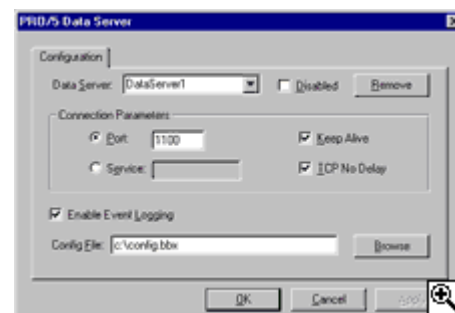
Two major benefits of having the PRO/5 Data Server as a NT service, as opposed to a regular Win32 application, is that the operating system can automatically start and stop the service, and that the service can be started as a specified user with that user's privileges. These settings are configured on the Service dialog, which comes up when you click the Startup button in the Services window. This dialog starts with a Startup Type box, which allows the user to specify if the service is to be started automatically or manually, or be disabled. If Automatic is selected, the operating system automatically starts up the service on system startup and stops the service on system shutdown. If Manual is selected, a user will have to start and stop the service manually. If Disabled is selected, the service cannot be started at all. In addition to the Startup Type, you can specify under which user account the service should execute. Most services run under the System Account (also known as the Local System Account), which gives the service access to almost anything on the computer. If the service is running under the System Account, you can optionally check the Allow Service to Interact with Desktop, though this option is ignored by the PRO/5 Data Server for Windows NT. Instead of running under the System Account, you can select the This Account option and enter a user name and password. Whenever the service starts, it will have the same privileges as the specified user.

Configuration

The PRO/5 Data Server used to be configured through command line parameters. This now

takes place through a new PRO/5 Data Server applet in the Windows Control Panel. This applet provides a graphical configuration interface.

The Data Server field allows you to give a unique name to the PRO/5 Data Server that will be accepting connections on the specified port or service. You can set up the Data Server to listen on multiple ports simply by specifying a different name for each. Each Data Server name will have its own unique set of configuration parameters as follows:



The PRO/5 Data Server applet in the Control Panel.

- Check Disabled and this port or service will not accept connections.
- Under Connection Parameters, select a unique port or named service (as specified in the machine's host configuration file) for which the PRO/5 Data Server for Windows NT will accept connections.
- Check Keep Alive and the server will keep connections open even if they have long periods of inactivity.
- Select TCP No Delay and packets sent over the network will not be delayed because of their size.
- Select Enabling Event Logging and the logging of informational messages to the Event Log is activated.
- Specify the `config.bbx` file to be used for the specified port or service.

Event Logging

Service applications generally do not have user interfaces. They might be running on a server that's in a closet somewhere and it's unlikely that a user will be sitting in front of the machine to interact with any message boxes. But if the PRO/5 Data Server doesn't have a user interface, how do you display error and informational messages? The answer is the Event Log. The Event Log is a common central repository for error and informational messages generated by various Windows applications. The Event Log is accessed by selecting Event Viewer from the Windows NT Administrative Tools section of the program menu. Any administrative messages that the Data Server wants to communicate back to the user will be sent to the Event Log for later retrieval and analysis.

By providing the ability for the operating system to start and stop the PRO/5 Data Server and by improving security and configurable options, the PRO/5 Data Server running as a NT service makes server administration simpler and more consistent. We think you'll find this new approach helpful with the increasingly complicated job of managing Windows-based data servers.