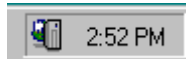## Starting InterBase on Windows 95

The InterBase Server must be started prior to enabling database connections.
After installation and each time you start it, the enabled server appears as an icon in the task tray, located on the right side of your task bar (or bottom, if your task bar is positioned vertically).
To start a server that has been shut down, select the InterBase Server icon from the program group where it has been installed. The enabled server icon appears on the task tray.

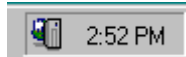InterBase Server icon   Tray icon

Selecting Server Startup Options in Windows 95

To change startup options for the InterBase Server, right-click the tray icon for the running server and choose Startup. The options are:

▪   Start the server each time you start Windows. The enabled server automatically appears as an icon on the task tray in each new session.
▪   Start the server "manually" from the program group where it has been installed.

InterBase Server icon   Tray icon

Shutting Down InterBase on Windows 95

To shut down the InterBase Server, right-click the InterBase Server icon in the task tray and choose Shutdown.
If any connections are open, a warning message appears.
If you have open connections, it is recommended that you close them before shutting down the server. You also must close all client applications you are running.

Starting InterBase on Windows NT (Non-Service)

The InterBase Server must be started prior to enabling database connections.
After installation, the enabled server appears as an icon on the desktop.
To start an InterBase Server that has been shut down, select the InterBase Server icon from the program group where is has been installed. The enabled server appears as an icon on the desktop.

InterBase Server
icon

Selecting Server Startup Options in Windows NT

You can configure InterBase Server services and change startup options by using the InterBase Configuration utility, right click on the server icon and choose startup...

- Choose how InterBase starts. The options are:
- Start InterBase automatically as a service. This is the recommended option. If you choose it, InterBase starts automatically when you start Windows NT.
- Start InterBase manually as a Service. InterBase must be started using the Services Control Panel or from the InterBase Configuration utility.
- Start InterBase automatically as an icon. The enabled server appears as an icon on the desktop each time you log on to Windows NT.
- Start InterBase manually as an icon. The server must be started by clicking on it from the program group where it has been installed. The enabled server then appears as an icon on the desktop.

- Choose the server startup priority. As installed, the InterBase Server runs at normal priority in the background. If other processes are running at high priority, however, you may wish to switch InterBase to high priority as well.

- Determine the location of the InterBase Server or change the directory for the InterBase license file, message file, and security database.

- Remove InterBase Information from the Registry and Services database.

- Start and Stop NT service. Used to start up and stop the InterBase Server.

If the status of the InterBase Server Service is started, then stop it before changing the status. Once the service has been stopped, you can change how InterBase starts and then restart the NT Service Control.
If you want to change the service priority, you must first stop the InterBase Server Service using the NT Service Control, then choose a different service priority and the InterBase Server Service. Thereafter, InterBase Server database connections are started with higher priority.
If InterBase is not getting the CPU share that it needs, and for some reason you do not want to boost the priority of the InterBase process, you can change the default priority of foreground and background processes.
To do that, use the System utility in your Control Panel program group. When the System dialog appears, choose Tasking..., then select the Foreground and Background Applications Equally Responsive option. This ensures that the InterBase process (which runs in the background) receives the same priority as foreground processes. Note that all other background processes have their priority boosted as well.
For more information on foreground and background tasking, see your Microsoft Windows NT documentation.

Shutting Down the Server on Windows NT

To shut down the InterBase Server, left-click on the server icon and select Shutdown Server from the menu. If any connections are open, a warning message appears.

To shut down the InterBase Server running as an NT Service, use the Stop NT Service Control in the Registry Configuration Utility or the NT Service Control.

To use the NT Service Control, highlight the InterBase Server Service and click Stop. If you have the correct user authority, a warning message appears. Click Yes to stop or No to cancel the operation.

If you have open connections, it is recommended that you close them before shutting down the server. You also must close all client application you are running.

Viewing Server Information and Properties

To view current server information and properties, click the InterBase Server icon in Windows NT and choose Properties from the popup menu, or double-click the tray icon in Windows 95. You can also view the Windows 95 property sheets by right-clicking the icon and choosing Properties.

The three property sheets are:

- General
- IB Settings properties
- OS Settings properties

Click an item above for more information on a sheet.

General Properties

This sheet displays current InterBase Server version and current configuration information. It also shows the current number of server attachments and connected databases. To update these indicators, click the Refresh button.

See also

IB Settings properties
OS Settings properties

IB Settings Properties

The two settings on this property sheet represent InterBase client memory allocation. Since changing the settings can degrade overall performance, only Database Administrators (DBAs) are allowed to change them.

To enable adjustments, click Modify and then enter your DBA password into the password box.

- **Database Cache** is the number of memory pages reserved for each attached database. If the figure is set high enough to accommodate the page requirements for all attached databases, overall performance is maximized because all database activity can be handled in physical RAM rather than having it swapped to disk. If too many pages are reserved, however, and you have many databases running simultaneously, your request may exceed the amount of physical RAM available to the system. If that happens, some of your operations would be swapped to disk as the operating system tries to manage the excessive demands of your databases and the needs of other running applications (including itself).

   Default page allocation is 256 for each running database. Minimum is 50 pages. There is no maximum, but the total allocation must not exceed system resources (see discussion above). Changes take effect in all calls made after the DBA presses either OK or Apply.

NOTE: InterBase Software Corp. recommends that you not set a high default cache size server-wide. Instead, use the database property (gfix.exe -buffers *n database.gdb*) to set cache size per database.

- **Client map size** is the size of the communication buffer for each InterBase client (local clients only). The DBA may wish to increase this setting when dealing with retrieval of large data sets such as graphic Blobs.

   Default size is 4KB. Range is 1KB to 8KB. Changes to this setting are effective the next time the server is started.

After enabling modification of the settings, the Modify button becomes a Reset button, which allows the DBA to restore both settings to their most recently saved values.

See also
General
OS Settings properties

OS Settings Properties

The settings on this property sheet represent advanced memory configuration settings. As such, they should be changed only by the system Database Administrator (DBA).

- **Process Working Set** is the range of memory pages in physical RAM that is dedicated to the server. The Maximum setting (default 0) must be lower than the amount of physical RAM on the server. The Minimum setting (also default 0) must be equal to or lower than the maximum. (Note: When both settings are 0, the system determines the values.)

    The PWS range works in conjunction with the Database Cache setting (IB Settings tab in the same dialog) to reserve physical RAM for InterBase operations. If the range is too large or the maximum is set too high (the maximum can't be more than the amount of physical RAM on the server), server performance can suffer. This happens because, in an effort to serve the needs of any other running applications (including itself), the operating system must impose on the requested range and may swap some server activity to disk.

    In addition to taking the Database Cache setting into account, the DBA should also check Windows NT's Performance Monitor utility to determine whether or not the range needs adjustment. The Performance Monitor should be reviewed with the following settings:

- Object: Process;
- Instance: InterBase Server;
- Counters: Page File Bytes, Page Faults/Sec, %Processor Time.

    If the Performance Monitor charts indicate a high rate of Page Faults (disk swaps) or if the server's processor allocation is low (less than 50 per cent), then the DBA may want to increase the PWS range in order to get these rates up and boost server performance. Changes to these settings are effective the next time the server is started.

  NOTE: Process Working Set settings apply only to servers running under Windows NT.

- **Process Priority Class** (applies to all servers running on 32-bit operating systems) sets the priority level of the server process with respect to other processes running on the same machine.

    A DBA may see performance gains by switching priority to High when:

- the server is running on a dedicated machine where no other applications compete for resources;
- many InterBase clients are running (and actively retrieving and modifying data) on the server machine.

    Changes to this setting are effective as soon as the DBA presses OK or Apply.

After enabling modification of any OS setting, the Modify button becomes a Reset button, which allows the DBA to restore all settings to their most recently saved values.

See also
General
IB Settings properties

This is the location of the InterBase Server you are currently running.

This is the version number of the InterBase Server you are currently running.

This is the number of attachments to the server.

This is the number of databases currently in use by the server.

This button refreshes the number of attachments and the number of databases.

Database cache is the number of pages in memory the server uses for data caching.
Changes will take effect for all future database connections.

Client map size is the size of each client's communication buffer used for local connections to the server. Changes will not take effect until the server is restarted.

Press this button if you want to change the values on this page.

Press this button if you want to restore all settings on this page to their most recently saved values.

The process working set is the amount of physical memory (RAM) currently dedicated to the server. Changes take immediate effect (Windows NT only).

The process priority of the server at startup. Changes take immediate effect.

Shows the InterBase Server icon.

This displays the network protocols for the InterBase Server you are using.

Displays the name of the file.

Defines the location of the InterBase root directory.   It contains files are required by InterBase; ib_license.dat (license file), interbase.msg (message file), interbase.log (error log file), and isc4.gdb (security database).

Specifies how the server will be started. On Windows NT, the server can run as a Windows Service (recommended) or as an application.   On Windows 95, the server runs as an application only.

Specifies how the server starts.
Windows Startup: the server starts when Windows is started (if running as a service), or when a user logs into the machine (when running as an application.).
Manual Startup: the server is started using the Services Manager, this tool, or by clicking on the server icon in the program folder.

Displays the version of the InterBase server software currently running.

Displays the current status of the server.

Closes this dialog box and saves any changes that were made.

Closes this dialog box without saving any changes.

Displays a dialog box to browse for the InterBase license file, ib_license.dat.

Removes all InterBase information from the Windows registry.

Determines how the InterBase service will start with respect to the other services installed on the machine.   This does not affect how the InterBase server performs.

Start, Stop, or Pause the InterBase service.

Specifies whether or not InterBase is able to run as a service.

Displays the currently installed license certificates.
Certificate ID is a unique identifying number for your InterBase license.
Certificate Key is the encoded key you need to activate your unique InterBase license.

Add a new license certificate.

Remove the currently selected license certificate.

Descriptive comments for the currently selected license certificate.

Windows Startup: Start the InterBase Server Guardian when Windows starts. For example, as a service on Windows NT.

Manual Startup: Start the InterBase Server Guardian by clicking its icon or via the Services Control Panel (Windows NT).

Manual Startup: Do not run the InterBase Server Guardian.

Start Once: Do not restart the InterBase Server if it terminates abnormally.
Start Always: Restart the InterBase Server if it terminates abnormally.

Location of the InterBase Server executable (ibserver.exe) and Guardian executable (ibguard.exe).

Start the InterBase Server Guardian process after accepting changes made in this dialog.

Version information of InterBase Server and Guardian.

Log of InterBase Server starts and shutdowns since the last time Guardian started.