

Without a Trace: The Silent Installation

By Nick Decker

Today, developers use self-contained installation packages to deploy their applications to their customers. Such a package provides a fast and easy way to perform typical installation functions such as copying the necessary application files to the disk, writing out initial configuration parameters, and creating file associations and shortcuts.

In addition to providing a favorable experience for the user, the installation routines guarantee that all of the necessary details and actions take place so that the customer has a complete, functional, and reliable application installation. The installation program, or installer, automatically handles all of the important aspects, leaving nothing to chance or relying on the customer to perform supplementary configuration. Because of this, installers are a boon to system administrators who can quickly deploy an application across dozens of computers in a time efficient and repeatable manner. To facilitate rapid deployment, many installers, including BBJ® revision 4.0, support a silent mode of operation.

What is a silent installation? Simply stated, a silent installation is an automatic process that installs the software application from start to finish without any user interaction - no dialog boxes, no user prompts requesting more information, no text confirmations. At first glance, this seems like a rather simple

task. However, most installation routines rely on the user to provide varied information such as the target directory, standard or customized configuration options, and verification to overwrite files.

To address the need for this type of information, most silent installations offer some mechanism for a user to predetermine the requisite information and make it available during setup – usually in the form of a response or property file. This allows the installer to run in a completely silent mode and glean all of the necessary information from the file rather than from the user. The property file not only eliminates the need for user interaction, but it also allows system administrators to construct a customized configuration for an application's installation. After creating the property file, the administrator is able to deploy the application onto hundreds of computers in a scripted, non-interactive manner. This completely eliminates the need for the administrator to visit each machine and guarantees a complete setup without affecting the users.

Silent installations provide other benefits as well, such as the ability to embed other components into the application's

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installation package. A great deal of software today relies on the presence of other components to run. For example, some applications require the existence of an ODBC Driver, an ActiveX control, or maybe even other software controls or third party shared libraries. Silent installations deploy these underlying requisite components during the installation of the application software. A BBJ-powered Business BASIC application provides a good example of software that can benefit from a silent installation. In addition to copying and preparing the application, the installation routine also installs and configures BBJ unbeknownst to the user. Cases like this are custom-made for silent installations, because application developers typically wrap the underlying BASIS components and potentially other installers into their application's installation routine, freeing the user from performing multiple installations.

The real power behind BBJ's silent installation is the BBJ installer `.properties` file, which provides the ability to pre-configure how the installer performs. This is a simple ASCII file named the same as the BBJ installation package with a `.properties` extension, and consists of a number of key-value pairs that determine how the BBJ installer acts. Because the `.properties` file is independent from the installer, the user can easily direct the BBJ installer to run interactively or silently without requiring a different installation package.

Below is an example of a BBJ `.properties` file, intended for use on a Windows XP system:

```
INSTALLER_UI=silent
SILENT_USERNAME=BBjUser
SILENT_PASSWORD=BBjPWD
SILENT_LIC_SERVER=quality.basis.com
SILENT_INSTALL_DIR=c:/program files/basis
```

This `.properties` file instructs the BBJ installer to:

- run in silent mode
- configure the BBJ Services NT Service to run under the "BBjUser" account with a password of "BBjPWD"
- configure BBJ to get its licenses from the BASIS License Manager running on the machine named quality.basis.com
- install BBJ to the `c:/program files/basis` directory. Remember to designate directories with forward slashes instead of back slashes.

To test the `.properties` file, name it `2166400.properties`, copy it to the same directory as the `2166400.exe` BBJ installation package, and then launch the installer. After a brief loading message, the BBJ installer continues in silent mode, copying and configuring BBJ 4.0 as instructed. The process is now complete, silently and without any interaction.

BBJ's installation capabilities continue to evolve and improve, providing application developers the power and flexibility they need to effectively deploy their software. The silent installation streamlines the installation process, assuring reliable and seamless integration between BASIS products and Business BASIC applications. 