

Source File Organization for Programs

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Standards Document



SERTUS
CORPORATION

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Purpose and Scope

This document describes how programmers organize the VC++ source code that they develop at Sertus. The purpose of this organizational structure is to provide a common working environment for all programmers and a common source code structure for each project and subproject.

The standards and conventions in this document apply to the source code for all Visual C++ programs (for example, Sertus client programs, workflow, and GIS).



Note: Source code at Sertus Corporation is organized in Microsoft SourceSafe®. All source code must be kept in SourceSafe for safekeeping, even if other programmers are not using your source.

Directory Structure

The following standards apply to the directory structure:

- ◆ The main directory in SourceSafe is **\$/**.
- ◆ There should be a **\dev** directory on your machine.
- ◆ The subdirectory hierarchy on your machine should mirror the hierarchy in SourceSafe. This enables you to do a recursive 'get' in the **\$/** directory, so that you can get all the latest source at once.
- ◆ The name of each subproject should be the same as the name of the subdirectory in which it lives. This enables you to use the VC++ built-in SourceSafe support.
- ◆ There is a 'grand-daddy' workspace in the 'client' subdirectory, called **\$/client/client.dsw**. This workspace can be used to recompile everything; but you can also use other workspaces for each project.

Version Management

Each subproject should have a 'version.txt' file that describes how to increment the version number for the subproject. This file should contain the following:

- ◆ A history of versions, including the version number and date.
- ◆ A description of what is new in each version.

For an example of this kind of file, see the document **\$/client/proposal/version.txt**.

General Standards & Conventions

Follow the standards and conventions listed below:

- ◆ All source code must be kept in SourceSafe for safekeeping, even if other programmers are not using your source.
- ◆ Binary files generated by our source should *not* be checked into SourceSafe. They should be generated on each developer's machine, instead. Such files include the following:
 - .obj
 - .exe
 - .dll
 - .lib
 - .pch
- ◆ Auxiliary files that are generated by VC++ and are not part of the source should *not* be in SourceSafe. Such files include the following:
 - .ncb
 - .opt
 - .clw

Examples of files that *should* be in SourceSafe are:

- .dsp
- .dsw
- .rc
- ◆ Check your code in at regular intervals
- ◆ Source checked into SourceSafe must compile successfully.
- ◆ The common login information is kept in **HKCU/Software/Sertus/Login Info**. See any of the client programs for examples of this.
- ◆ The **\$/client/clientutil/include** folder contains shared resources in **utilres.rc** and **utilres.h**. The IDs for these files should be in the range **8000** -> **9999** (decimal).
- ◆ Certain settings are stored in the registry. Most of these are local user settings. For our client programs these settings should be placed under **HKCU/Software/Sertus/<client-program-name>**.
- ◆ Release executables should be copied to the common **bin** directory as a post-build step, so that the **bin** directory contains all the executables that are included in the final release.

Example:

d:\dev\bin

See the XML subproject **sertusxml** for an example of this.

- ◆ The SourceSafe folder for each subproject should be kept clean. This means that:
 - Obsolete files should be deleted.
 - Test programs should be placed in subfolders; do not place the source for multiple programs in one folder.
- ◆ By convention, tabs are 4 spaces wide. If your editor is not set up that way, the source might look weird.
- ◆ The maximum line length is 80.