

Licensing PhazeComp

There are two types of PhazeComp licenses available: a standalone (single-computer, single-user) license and a network (site or corporate) license. PhazeComp licenses are administered by a third-party license manager: the Sheriff Software Development Kit from Licensing Technologies Limited (www.sheriff-software.com). The first time PhazeComp is launched on a given computer, it will automatically install a 30-day, standalone trial license (provided the user has the necessary read/write privileges; see the information on “Standalone Licenses” below for more details). To install any other type of license, you will need the SlsAdmin.exe program included in the “SLS License Utilities” directory of the PhazeComp distribution package. SlsAdmin is a freely distributed (but copyrighted) component of the Sheriff licensing software. Note that SlsAdmin uses the spellings “License” and “Licence” interchangeably. The instructions below will try to honor the different SlsAdmin spellings.

Standalone Licenses

With a standalone license, PhazeComp can only be run on the computer on which the license is installed. The license can be moved at will from one machine to another, however.

To install a standalone license, take the following steps:

- Make sure you have installation privileges on the chosen computer (specifically, you need read/write access to the Windows Registry and to the directory in which PhazeComp is to be installed).
- Place the directory containing PhazeComp and SlsAPI.dll (another component of the Sheriff licensing software) wherever desired. Just make sure that anyone who will run PhazeComp on this machine has read/write privileges within this directory.
- Launch PhazeComp. Cancel the prompts for the input and output files. If you currently have a valid PhazeComp license (or if the trial license installed itself successfully), the program’s header will display the license’s expiration date. Otherwise, you will be warned that you have no currently valid license. At PhazeComp’s prompt for the next input line, type EOF and hit return. You will be told to hit return once more to exit the program, which will also close the console window.
- Launch SlsAdmin. Click on the Registry button or select Registry from the Licence menu. A dialog box to Register Products should open.
- Select PhazeComp from the Product Name drop-down menu. The resulting Licence Path should indicate the directory in which you just ran PhazeComp. Make sure that it does. You can change this path, however, if you’d like the license files to be placed elsewhere, as long as the new path still permits read/write access.
- Click on the License button. If you currently have a valid license, a Confirm Buy dialog box will open, asking if you want to proceed with overwriting the existing license. Go ahead and click on the Yes button (the existing license will not actually be overwritten until a new, valid Licence Key is later saved). A License Product dialog box should now open. If an error message is presented instead, it probably means that the license files have become invalidated somehow. If so, refer to the “Invalidated License Files” section below to diagnose and correct the problem. Then, return to this step to open the License Product dialog box. Copy the Reference Code. If the vendor has requested it, copy the License Status Code as well. You may safely cancel the dialog box and quit SlsAdmin if you’d like.

- Send the Reference Code (and the License Status Code, if requested) to the vendor along with a request for the desired license (duration and any or all of the following advanced features: PVT experiments, regression, black-oil table generation, compositional gradients, miscibility calculations). Don't forget to send your payment as well.
- The vendor will send back a Licence Key. Return to SlsAdmin's License Product dialog box. Enter the Licence Key in the appropriate space and hit the Save button (if you're curious, you can click on the Show Properties button first). PhazeComp should now be licensed. You can safely quit SlsAdmin.
- PhazeComp can now be run from anywhere on the computer. It is not restricted to the installation directory. In fact, you can even remove PhazeComp from that directory. If you want to move the license files, however (in case of a hardware change, for example), then follow the "Moving a License" instructions below.

Network Licenses

With a network site license, PhazeComp can be run on any computer on the network. Any number of users can run the program (on their own workstations) simultaneously. The license itself is stored on a single computer (the server). The license can be moved at will from one server to another, however.

The installation of a network license proceeds exactly like that of a standalone license. The computer on which the license is installed will be the server. All other computers on the network will be client workstations.

One difference between a network license and a standalone license is that, with a network license, the server also needs to run (continuously) a small, unobtrusive program called SlsClock.exe (another component of the Sheriff licensing software). The SlsClock program allows the license manager to function properly across the network, even if the system clocks on the network's workstations might not be synchronized consistently with the server's system clock. Refer to the separate "SlsClock Info.pdf" file for specific instructions on installing and running SlsClock on the server.

The Licence Path on the server (as displayed by SlsAdmin) should be noted during the server's license installation. After the license is installed on the server, the following steps must be taken on each client workstation:

- Make sure you have installation privileges on the chosen client workstation (specifically, you need read/write access to the Windows Registry and to the directory in which PhazeComp is to be installed).
- Place the directory containing PhazeComp and SlsAPI.dll wherever desired.
- Launch PhazeComp. Cancel the prompts for the input and output files. If you currently have a valid PhazeComp license (or if the trial license installed itself successfully), the program's header will display the license's expiration date. Otherwise, you will be warned that you have no currently valid license. At PhazeComp's prompt for the next input line, type EOF and hit return. You will be told to hit return once more to exit the program, which will also close the console window.
- Launch SlsAdmin. Click on the Registry button or select Registry from the Licence menu. A dialog box to Register Products should open.
- Select PhazeComp from the Product Name drop-down menu. The resulting Licence Path should indicate the directory in which you just ran PhazeComp. Change this to the License Path that was established on the server (you can use the button at the right of the text box to browse across the network to the correct location).

- Click on the Register button. You should be informed that the program registration was successful.
- PhazeComp can now be run from anywhere on this workstation.

Moving a License

You can move a license from one directory to another on the same hard disk, to a different hard disk on the same computer, or to an entirely different computer, although the three procedures are a little different. It doesn't matter if the license is a standalone license or a network license, but if a network license is moved, then the new License Path must be re-Registered on each client workstation that needs to access the license (review the instructions above for "Network Licenses").

To move a license to a different location on the same hard disk, you would:

- Locate the directory containing the license files. This directory has the 24-digit name corresponding to PhazeComp's Product ID ("5361-8711-2329-7642-5714"). It is located on the path registered with SlsAdmin.
- Drag this directory to the new desired location. Or, you can cut and paste it. **Do not copy and paste it**, however, and **do not try to replace another directory of the same name**. Either of these latter two operations will cause the license files to be copied, rather than moved, and will **invalidate** them (see "Invalidated License Files" below).
- Launch SlsAdmin and open the Register Programs dialog box. Enter the new location of the license directory in the License Path box (or browse to the new location with the button to the right of this box). The License Path should **not** include the 24-digit name of the license directory; it should just point to the directory that **contains** the license directory. Now click on the Register button. You should receive a message that the program has been registered successfully.

To move a license to an entirely different computer, perform the following steps instead:

- Install PhazeComp as instructed above and go through the licensing procedure until you have obtained a Reference Code on the new computer.
- Instead of sending the new Reference Code to the vendor, run SlsAdmin on the old computer (the one with the currently valid license). Under the Licence menu, select Move, and then hit the Move button in the resulting Move Licence dialog box.
- At the next Move Licence dialog box, enter the Reference Code that was obtained on the new computer. Then hit the Generate button and make a copy of the resulting Licence Key. At this point, the license will no longer exist on the old computer, so don't lose the new Licence Key until it has been reentered on the new computer.
- Return to SlsAdmin's License Product dialog box on the new computer. Enter the new Licence Key and hit the Save button. This should complete the move of the license to the new computer.

Moving a license from one hard disk to another within the same computer is a little more involved. One way is to first move it to a different computer and then to move it back, according to the instructions above. Or, you can follow these steps instead:

- Open SlsAdmin's Register Programs dialog box. Make a note of the existing License Path.
- Change the License Path to a directory on the new hard disk. Hit the License button. If you are asked if you want to overwrite an existing, valid license, you should probably indicate No and figure out why you're trying to replace one valid license with another. Otherwise, a

License Product dialog box should open. Copy the Reference Code and cancel the dialog box.

- Back in the Register Programs dialog box, **restore the original License Path** and hit the Register Button. You should be told that the program has been registered successfully. Close the Register Programs dialog box.
- Under the Licence menu, select Move, and then hit the Move button in the resulting Move Licence dialog box.
- At the next Move Licence dialog box, enter the Reference Code that was obtained for the new location. Then hit the Generate button and make a copy of the resulting Licence Key. At this point, the license will no longer exist on the old hard disk, so don't lose the new Licence Key until it has been reentered for the new location.
- Reopen SlsAdmin's Register Programs dialog box. Once again, change the License Path to the previously selected location on the new hard disk. Hit the License button.
- Enter the new Licence Key in the resulting License Product dialog box and hit the Save button. This should complete the move of the license to the new hard disk.

Invalidated License Files

The Sheriff license manager uses a number of different mechanisms to prevent PhazeComp from being run on an unauthorized computer. If it detects what appears to be an attempt to fool the license manager (by copying a valid license to an unlicensed computer, or by turning back the clock on a previously licensed computer, for example) it will invalidate the license files on the unauthorized computer. Any attempt to show the license properties or install a new license on that computer will only result in SlsAdmin displaying an error message such as "Invalid Machine Code" or "Signature Error in the File." Once invalidated, license files cannot be repaired or restored; they can only be replaced. For that reason, the user must be careful to avoid any actions that might appear unauthorized to the license manager. For example:

- Do not copy the license files from one location or installation to another. The source files will be unaffected, but the destination files will only end up being invalidated.
- Do not try to restore the license files from backup copies. The restored copies will only end up being invalidated.
- Do not try to install PhazeComp on a new computer by copying the installation from another computer. The copied installation will probably include license files and those copied license files will only end up being invalidated, creating an unnecessary complication. It is better to install PhazeComp from a fresh package downloaded directly from the Zick Technologies web site (www.zicktech.com/phazecomp.html), which will also ensure the latest version of the program.
- Do not install (or reinstall) a new operating system, or upgrade the computer's hard drive or motherboard without first moving any valid license files to another computer and moving them back afterwards (see "Moving a License" above). Otherwise, it will appear to the license manager as though the license files have been moved to a new, unauthorized computer, and they will only end up being invalidated. It is safe to install operating system updates, however.
- Do not try to run PhazeComp on a computer whose system clock has been set backward since PhazeComp was licensed (not counting time zone changes, the cancellation of daylight savings time, or modest clock adjustments). The license manager will invalidate the license files on the assumption that an unauthorized attempt is being made to extend the license.

If the license files do end up invalidated somehow, the only recourse is to delete them and then to obtain and install a new license. Until they are deleted, SlsAdmin will not even display the License Product dialog box (displaying only an error message, such as "Invalid Machine

Code” or “Signature Error in the File,” instead). The directory containing the license files has the 24-digit name corresponding to PhazeComp’s Product ID (“5361-8711-2329-7642-5714”). It is located on the path registered with SlsAdmin. The easiest way to delete the license files is to delete this entire directory.

After invalidated license files have been deleted, PhazeComp should be run again. If the computer has never before been licensed for PhazeComp, then a 30-day trial license should be installed automatically (assuming that the user has the necessary read/write privileges). Otherwise, PhazeComp will simply revert to demonstration mode with a warning that no currently valid license can be found. At this point, it will be necessary to obtain and install a new license according to the procedures for “Standalone Licenses” (above).