

EPICS Alarm Handler System in Phoebus

I am developing an EPICS alarm system based on CS-Studio Phoebus. Phoebus will be used for new EPICS system development and will replace the existing Eclipse-based CS-Studio systems as detailed in my note [DSG Note 2021-37](#) and talk [DSG Talk 2021-17](#).

When I first starting development, I discovered that the alarm server was not part of the pre-built Phoebus product I used for screen development and the operation of EPICS control systems. I also found that other alarm service support programs such as the logger were not available with the pre-built Phoebus product. None of the Phoebus documentation stated that a build was necessary for the alarm system.

Since the build was required for the development and operation of the alarm system, I began to build a Phoebus product including the system core and all of the applications. I downloaded the Phoebus source code from GitHub. As a requirement for the build, Phoebus documentation stated that the project management tool called Apache Maven 2.X was needed along with the Java Development Kit (JDK) version 11 or later.

I installed Apache Maven 2.2.0 and configured the environment variables for the program. I also configured the environment variables for the Java Development Kit and tested the Java installation. Upon starting the build, fatal errors occurred and the build halted. I investigated the errors and found that Apache Maven 2.2.0 was out of date.

I updated Apache Maven 3.8.4 and tested the installation. I checked and edited the .XML build configuration files and started the building process. The build successfully completed in ~8 minutes. I then checked the 674 page build output log file for errors and insight into the build process.

I checked to see if the alarm system files were now present in the newly-built Phoebus system. The alarm server, alarm logger, and the alarm configuration logger were all found in the successful system build. I started the Phoebus main user interface to verify it was working. Figure 1 shows the operational Phoebus user interface.

I plan to get the alarm system server configured and working as the next step in the development of the Phoebus alarm system.

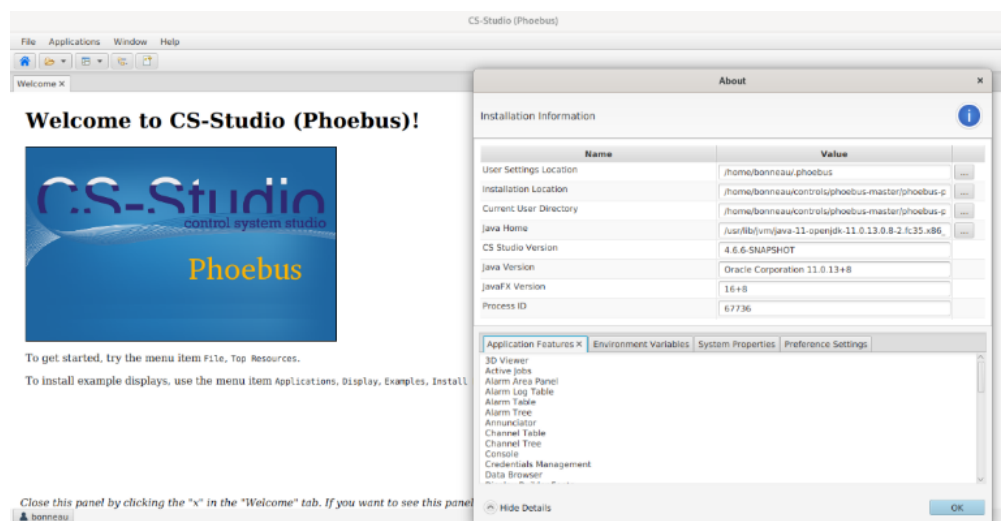


FIG.1. Phoebus User Interface