

Required Runtime Libraries for 2021.10 Linux_x64 versions of GEM, IMEX, STARS.

There are three Red Hat RPM packages for Linux_x64 which must be installed in order to provide the required runtime libraries for the CMG simulators. The packages for RHEL 6.2 are:

```
glibc-2.12-1.47.el6.x86_64  
libgcc-4.4.6-3.el6.x86_64  
libstdc++-4.4.6-3.el6.x86_64
```

With the 2021.10 release, CMG supports RHEL 8.2. The 2021.10 release was built on a machine with RHEL 6 update 2.

Checking for the Runtime Libraries

To determine whether the required RPM packages are installed, run the following commands:

```
rpm -qa glibc  
rpm -qa libgcc  
rpm -qa libstdc++
```

Output from each of these commands may list zero, one or two installed packages. For libstdc++, more than two may be listed, but ignore the ones that are not named *exactly* libstdc++-x.x.x-xx (e.g. ignore libstdc++-devel-x.x.x-xx).

Note that 32-bit packages end in .i686 while 64-bit packages end in .x86_64.

Installing the Runtime Libraries

The required RPM packages can be installed in one of two ways:

1. Automatically using the Red Hat Linux Update Agent **yum**. The Update Agent automatically resolves any dependencies, so that any packages which are prerequisite to another package will be installed first. Consult your Red Hat Linux documentation for more information on using yum.
2. Manually by downloading the RPMs from the Red Hat Linux website, then installing the RPMs. Note that in this case any dependencies will have to be resolved manually.

Please contact your system administrator for assistance in choosing one of these installation methods.