6.2.2 Install Packages with YUM

Click one of the buttons to take you to that part of the video.

| Install Packages With YUM 0:00-0:07 |

In this demonstration we're going to practice installing RPM packages with the YUM Utility.

| Install RPM Packages With YUM 0:08-0:59 |

You can do this with the RPM utility; however, RPM has one glaring weakness, and that is the fact that it does not resolve dependencies for you.

If you need to install a package, and you try to do it with RPM, and that package is dependent upon many other packages to first be installed before it can be installed and run, then you're going to have to do a lot of detective work, and install a lot of packages manually. Sometimes the dependency chain can get really long, and really frustrating.

A better way to do it to use the YUM utility from the command prompt. YUM does all of this automatically for you. First of all, if you want to install a particular package, it will go out and download that package from an online repository.

Then it will check for dependencies for that package and automatically resolve them for you, downloading and installing whatever software is prerequisite for the package you want to install, and then install the package itself that you need.

| View Available Packages 1:00-1:32 |

Let's go ahead and practice using YUM. Before we can do this, however, we do need to elevate privileges, because you have to have root level privileges to install software on the system. Let's switch to our root user account.

One of the things you can do with the YUM utility is view a list of all available packages that you could install. To do this, you type 'yum list'. This will take a little while to process, because there are a lot of packages available.

I'll hit Enter. As you can see, many, many, many packages are currently available from the online repositories for this distribution that we could install here if we wanted to.

| View Single Package Information 1:33-2:08 |

You can also use YUM to view information about just one, single package. For example, let's run 'yum list' again, but this time let's constrain our query to just one single package that we want to install.

Let's say we want to install the gcc package. gcc provides a C compiler that can be used to compile source code into an executable that you can run on your system.

Very useful utility. Let's go ahead and get information about it. We can see that it is available. Here's the name of the gcc package, and its architecture. Here is the version number of that package.

| Install Packages from the Online Repository 2:09-3:41 |

Now that we know that the package is available, we can go ahead and install it with YUM. We type 'yum install' and then the name of the package, 'gcc'. When we do this, it will go out to the repository, download the latest version of that package, and install it on our system.

You can see that it is processing all the dependencies necessary for this package to be installed. It tells us up here that the dependencies have been resolved. You can see down here a summary of what has to happen.

We're going to install one package, but there are six other packages that have to be installed first, before the gcc package can be installed. There are also four dependent packages that are already installed on this system, but still need to be upgraded before the latest version of gcc can be installed.

The total size of all the packages that will need to be downloaded is 47 MB, and it's asking us, "Is this okay?" Of course it is, we're just grateful that YUM is doing this work for us and that I don't have to go out and do it manually. Hit Enter. It downloads the various packages.

At this point, it's updating the packages that needed to be updated in order for gcc to be installed. Now it's installing all of the packages that gcc is dependent upon that have not yet been installed on the system. All right, the installation process is complete.

The gcc package was installed on the system. This is a list of dependent packages that were not on the system that had to be installed in order to get this package installed. Here is a list of dependent packages that were already installed on the system but needed to be updated before this package could be installed.

Summary 3:42-3:56

That is it for this demonstration. In this demo we talked about installing RPM packages with the YUM utility. We first used YUM to view a list of available packages. We used YUM to view information about a single package. We ended this demonstration by using YUM to install a package from an online repository.