

NUU

QuickStart Guide

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1.0. Introduction

NUU is Concurrent Real-Time's Network Update Utility.

It supports installation and updating of software products from Concurrent Real-Time software repositories over a network.

NUU utilizes Yum and the RPM subsystems to install and update software. Its operation is not specific to Concurrent Real-Time repositories and can be used with any compatible Yum repository.

You can access Concurrent Real-Time's repositories with any yum-compatible client, including the yum or dnf commands on many Linux systems.

This document describes the QuickStart process of configuring NUU for use with Concurrent Real-Time products. It does not provide a complete description of NUU's capabilities.

2.0. Installing NUU Software Components

The first step is to install the various RPMs which comprise NUU and its required components.

2.1. Download the appropriate NUU QuickStart tar file

Download the starter kit in compressed tar format from
<https://redhawk.concurrent-rt.com/network/yum.html>

The table there lists a wide variety of operating system distributions. Select the kit based on your distribution, its version, and your architecture; 32-bit (i386) or 64-bit (x86_64).

For example:

```
wget https://redhawk.concurrent-rt.com/nuu-kits/nuu.rhel8.4.x86_64.tar.gz
```

2.2. Install NUU Software Modules

The required NUU software modules are in RPM format in the compressed tar file.

- Extract the RPMs and installation script from the tar file

```
mkdir /tmp/new-dir  
cd /tmp/new-dir  
tar zxvf ${path-to}/downloaded-tar-file
```

- Install the RPMs by running the following command as the root user:

```
(cd ./bootstrap; ./install-uu)
```

- Remove the bootstrap kit:

```
rm -rf ./bootstrap
```

3.0. Configuring NUU for Concurrent Real-Time Products

NUU operates by querying network repositories as defined in `/etc/yum.conf` and files in the `/etc/yum.repos.d` directory. In the installation step above, Concurrent Real-Time's repository definitions were installed in `/etc/yum.repos.d`.

You will initially run NUU and enable various Concurrent Real-Time repositories that correspond to specific Concurrent Real-Time products. Repository configuration files provide the following information:

- the network location of individual product repositories used for software installation and update
- authentication information (if required)
- the repository *enabled/disabled* state.

After enabling the Concurrent Real-Time repositories, you may install Concurrent Real-Time products or bring your existing products up to date.

3.1. Enabling Concurrent Real-Time Product Repositories

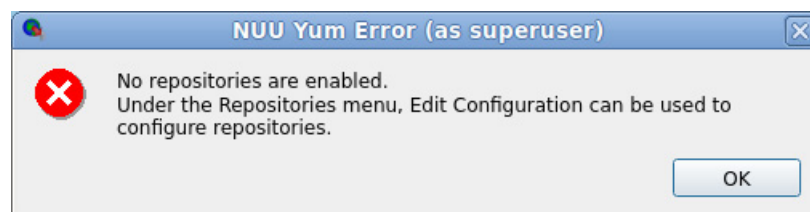
- Invoke NUU

```
/usr/bin/nuu
```

If you are not the root user, NUU will prompt you for the root password. Root access is required for installation activities.

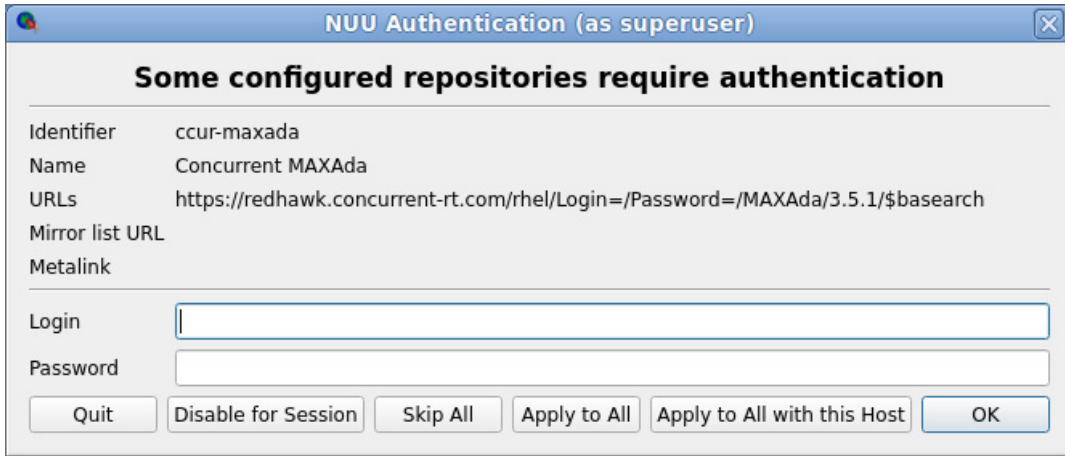
In the bootstrap installation step above, the Concurrent Real-Time repository definition files were installed with their state set to *default*, which usually means disabled, but can mean enabled depending on your system's yum configuration.

If this is the first time YUM and/or NUU has been installed on your system, you may see a dialog similar to the following:



If the dialog appears, press the OK button.

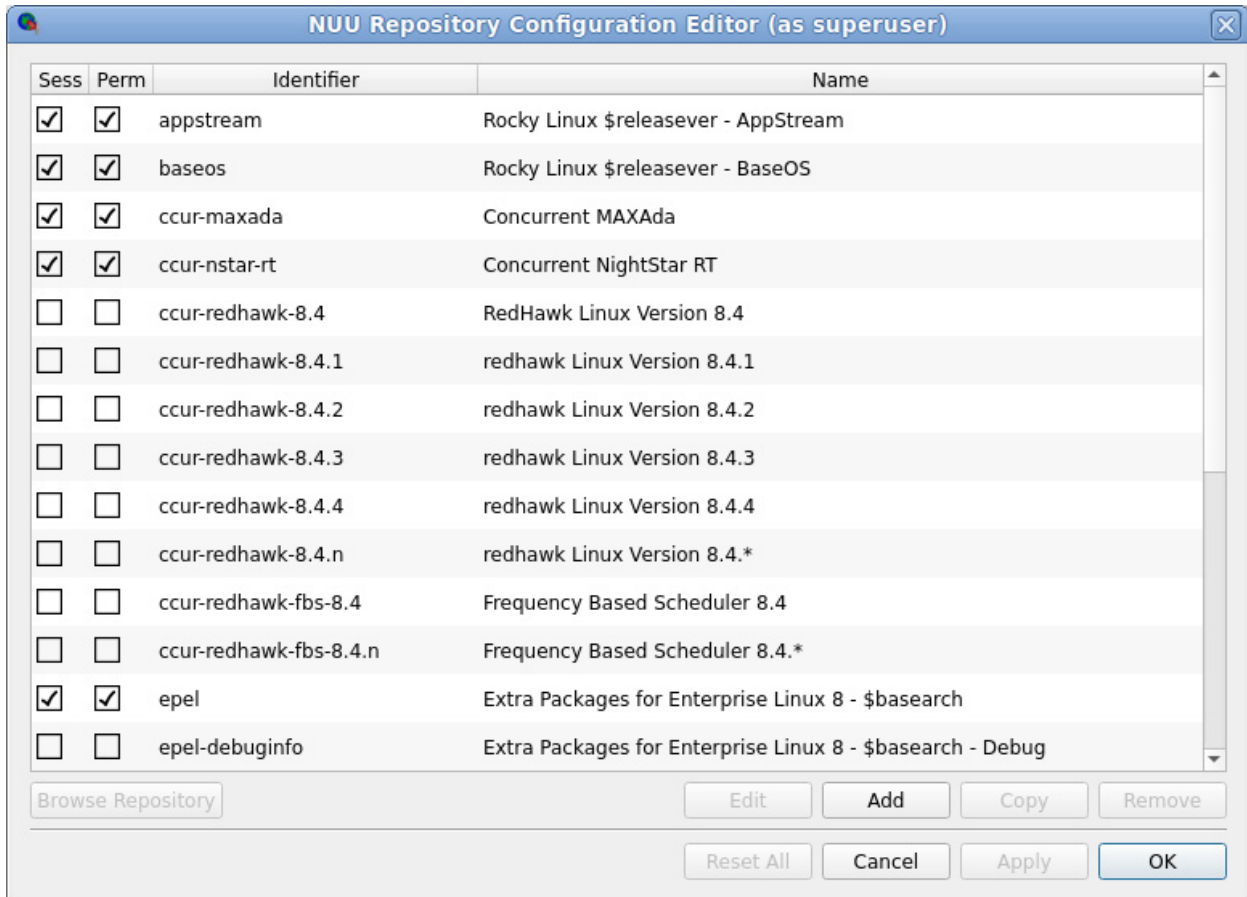
Alternatively, if your system's yum configuration enables repositories by default, you may be immediately asked for authentication information via a dialog similar to the following:



If this dialog appears, click the **Skip All** button. A diagnostic dialog may appear, ignore it and click **OK**.

- Select the **Edit Configuration...** option from the **Repositories** menu

NUU will now display the complete list of repository configurations for your system.



You should now enable each repository that corresponds to a Concurrent Real-Time product that you have purchased. Additionally, enable the ccur-nuu repository so that you can subsequently update NUU itself.

NOTE:

If your system enables repositories by default, some of the entries will already be checked.

- Click on both checkboxes under the **Sess** and **Perm** columns for each product that you have purchased.

If you enable a repository for a product to which you are not entitled, no harm will occur, but the subsequent authentication step will fail. If this occurs, return to the Repository Configuration Editor to disable the inappropriate repositories.

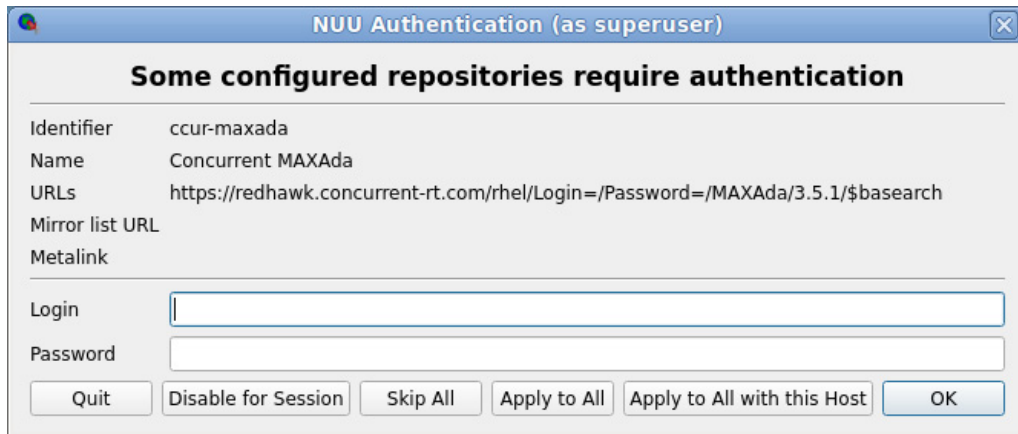
- Press the OK button to close the Repository Configuration Editor

NUU automatically recalculates the list of updatable and installable products by contacting the newly enabled repositories.

To install or update commercial products from Concurrent Real-Time, authentication is required. NUU will prompt you for authentication information as described in the next section.

3.2. Providing Authentication Information

When NUU detects that authentication is required and has not yet been added to the NUU configuration, it presents a window similar to the following:



For all Concurrent Real-Time products, supply the **Login** and **Password** associated with your redhawk.concurrent-rt.com account.

Contact Concurrent Real-Time Software Support for assistance if you do not have these values readily available.

Pressing the **Apply to All with this Host** button assigns the authentication values you entered to all Concurrent Real-Time repository configurations on your system that don't already have such information defined. If you require different authentication values for individual Concurrent Real-Time products, press the **OK** button instead. In the latter case, NUU will assign the current values only to the repository shown and then continue to prompt you for authentication information for remaining repositories.

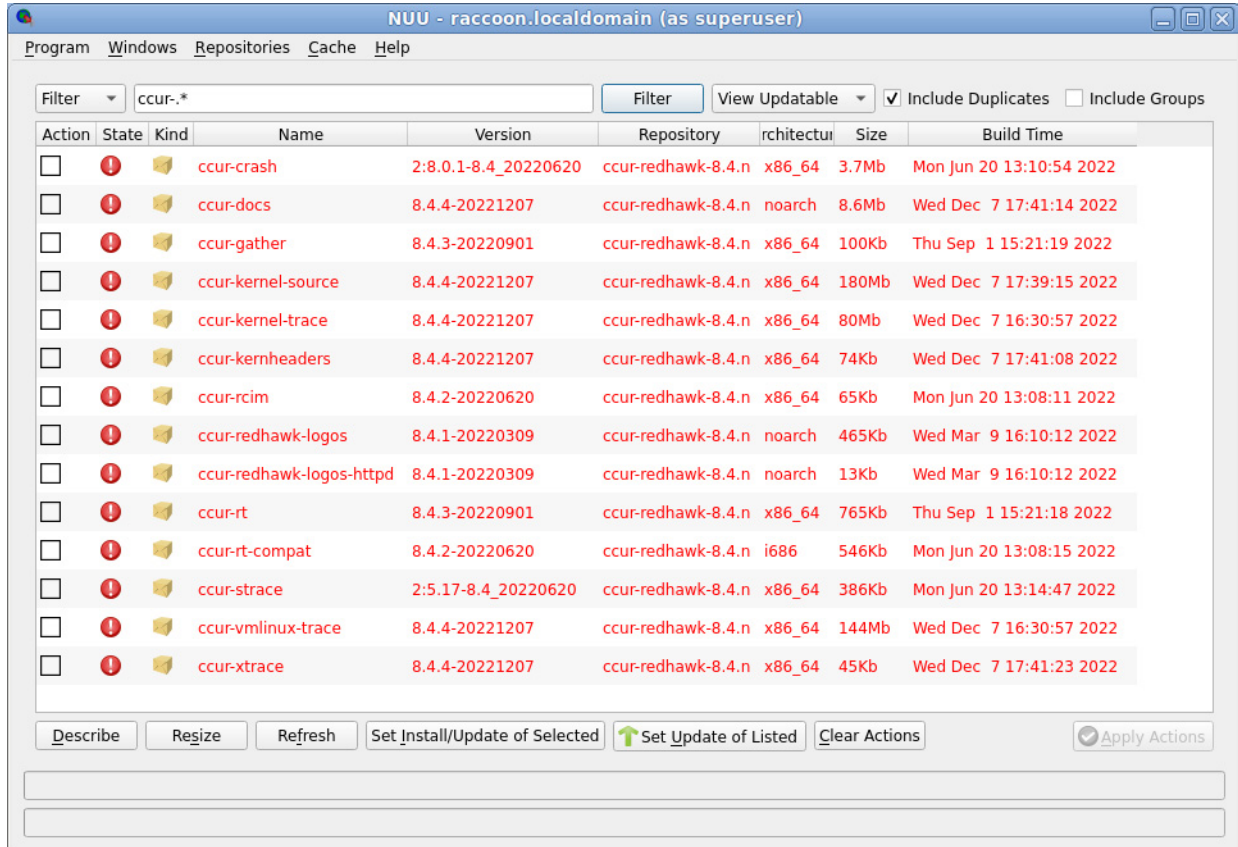
Once you apply your authentication information, it is stored in the repository configuration files -- you will not have to enter the information again in subsequent NUU sessions. The information can be changed by using the **Edit Configuration** option from the **Repositories** menu.

Once authentication is successful, NUU will calculate the list of software modules that are out-of-date and those that can be installed.

4.0. Installing and Updating Products

Once NUU has been configured as described in the preceding sections, it can be used to install new products or to update existing products.

Depending on the installation state of your Concurrent Real-Time products, the main window may now show software modules which are out-of-date.



If you have not yet installed Concurrent Real-Time products or they are already completely up to date, the list will be empty.

Press the **Resize** button to automatically adjust the column widths of the display.

4.1. Updating Installed Products

To update software modules which are out of date, click the **Action** box to the left of each module you wish to bring up to date and press the **Apply Actions** button.

The **Select Update of All Out-of-Date** button is provided as a convenience. It sets the **Action** state to **Update** for all out-of-date modules, including out-of-date packages that are not currently visible in the scrollable window. If you prefer to only update the ones that are visible, use the **Select Update of Listed** button. Thus to update all installed products and begin the update action, simply click the **Select Update of All Out-of-Date** and **Apply Actions** buttons.

IMPORTANT:

Even if your system is completely up to date, please proceed to the next section on “Installing New Products” on page 8. It is highly recommended that you install the Suite meta-packages for your existing products as described in that section on page 9.

4.2. Installing New Products

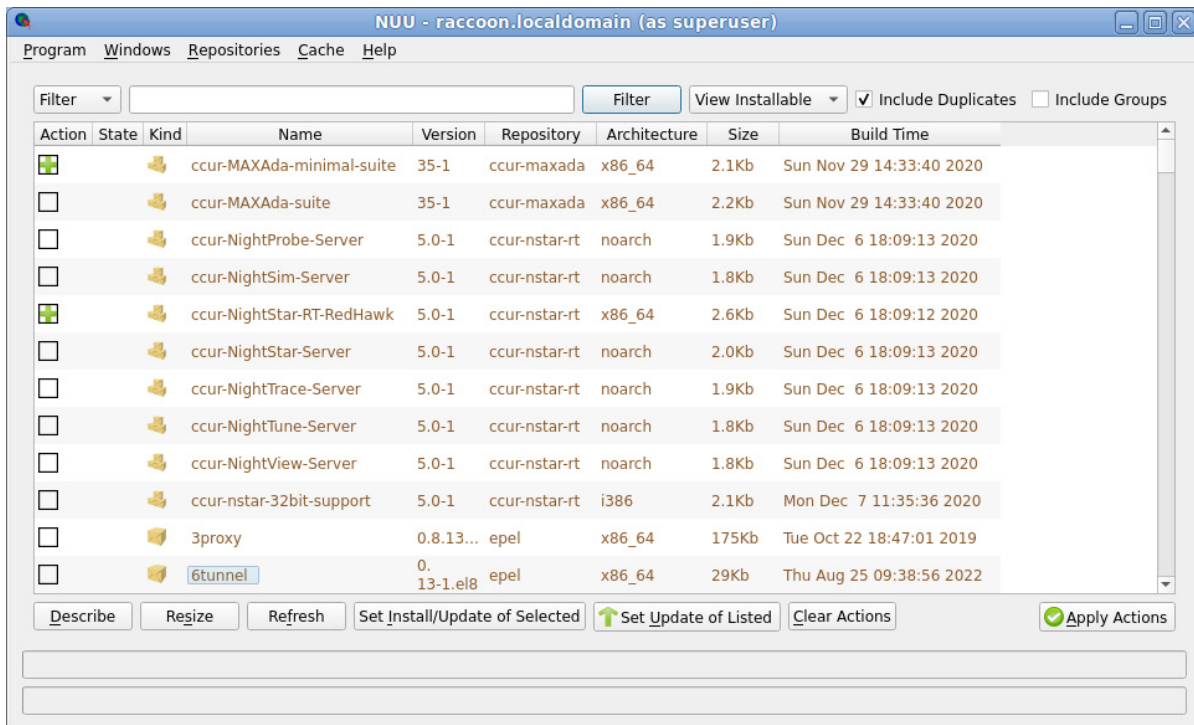
- If NUU is not already active, invoke it:

```
/usr/bin/nuu
```

If you are not the root user, NUU will prompt you for the root password. Root access is required for installation activities.

- Select the **View Installable** option from the **View** option list to the right of the **Filter** button

NUU will now display a list of software modules which correspond to individual Concurrent Real-Time software repositories.



In the window above, a list of installable software modules is shown.

The list is initially sorted by Kind, with Suite modules shown at the top.

A Suite module is simply a meta-package which allows you to install an entire product by selecting a single RPM.

For example, selecting ccur-MAXAda-suite and ccur-NightStar-RedHawk will install all RPMs associated with those products.

IMPORTANT:

Even if you already have a product installed that is up to date, it is recommended that you install the corresponding Suite meta-package so that upgrading to newer releases will be made simple.

For example, if a new software module is added to the next release of NightStar RT, it will automatically show up in NUU's Updatable list due to the presence of NightStar RT's Suite meta-package. Otherwise, you would not see the new modules unless you explicitly looked at the list of Installable modules.

To install the selected software modules, press **Apply Actions** to initiate the installation process.

NUU will first calculate all the required transactions and present an Apply window for your verification before actual installation begins.

5.0. Using NUU in Secure Environments

NUU may not be as useful in environments where security restrictions prevent access to the Internet.

However, you can immediately create customized Update CD images on-line in an unsecured area and then cut CDs locally and transport them to your secured area.

The site <https://redhawk.concurrent-rt.com/home> provides this capability. It requires your redhawk.concurrent-rt.com login and password, calculates all products to which you are entitled, and then allows you to select from that list. An ISO9660 CD image is created in real time which you can then download. The resultant CDs actually employ NUU in off-line mode and use it to install or update software directly from the CD itself -- without requiring network access.

Alternatively, if you have an unsecured system that could serve as a configuration mirror of your secured system, you could still use NUU in network mode.

The unsecured system can be used to download the RPMs which are held in `/var/cache/yum`. These RPMs can then be manually transferred to a system inside the secure area where a new Yum repository can be created. Subsequently, NUU can be used inside the secure area to install and update systems on a secured LAN.

The Update CD solution described above is much simpler and more convenient.

For aid in using NUU in secure environments, contact Concurrent Real-Time Software Support.

6.0. Direct Software Support

If you need assistance or information about your system, please contact the Concurrent Real-Time Software Support Center, which is available Monday through Friday from 8 a.m. to 5 p.m., Eastern Standard Time in winter (UTC-5) and Eastern Daylight Time in summer (UTC-4).

Online

Submit a detailed request for assistance at any time via the Concurrent Real-Time website at <https://concurrent-rt.com/support/>

Email

Send an email to support@concurrent-rt.com

Phone

Call the Concurrent Real-Time Software Support Center at our toll free number 1-800-245-6453 (for clients located in USA or Canada only).

