*Using Nero to Burn BluRay Discs*                                    August 12, 2016
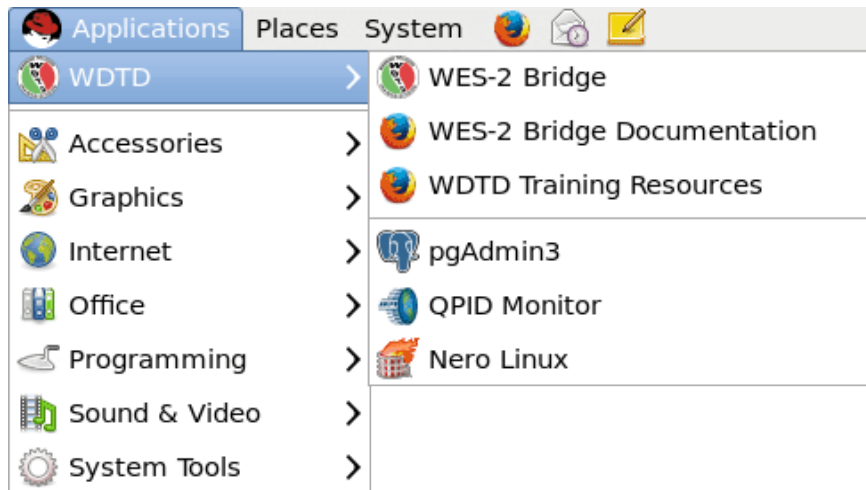
WDTD procured licenses for a Linux version of the Nero Blu-Ray burning software for each WES-2 Bridge workstation.  It operates similar to other commercial CD/DVD/BD burning programs.  Look over these six steps for detailed instructions.
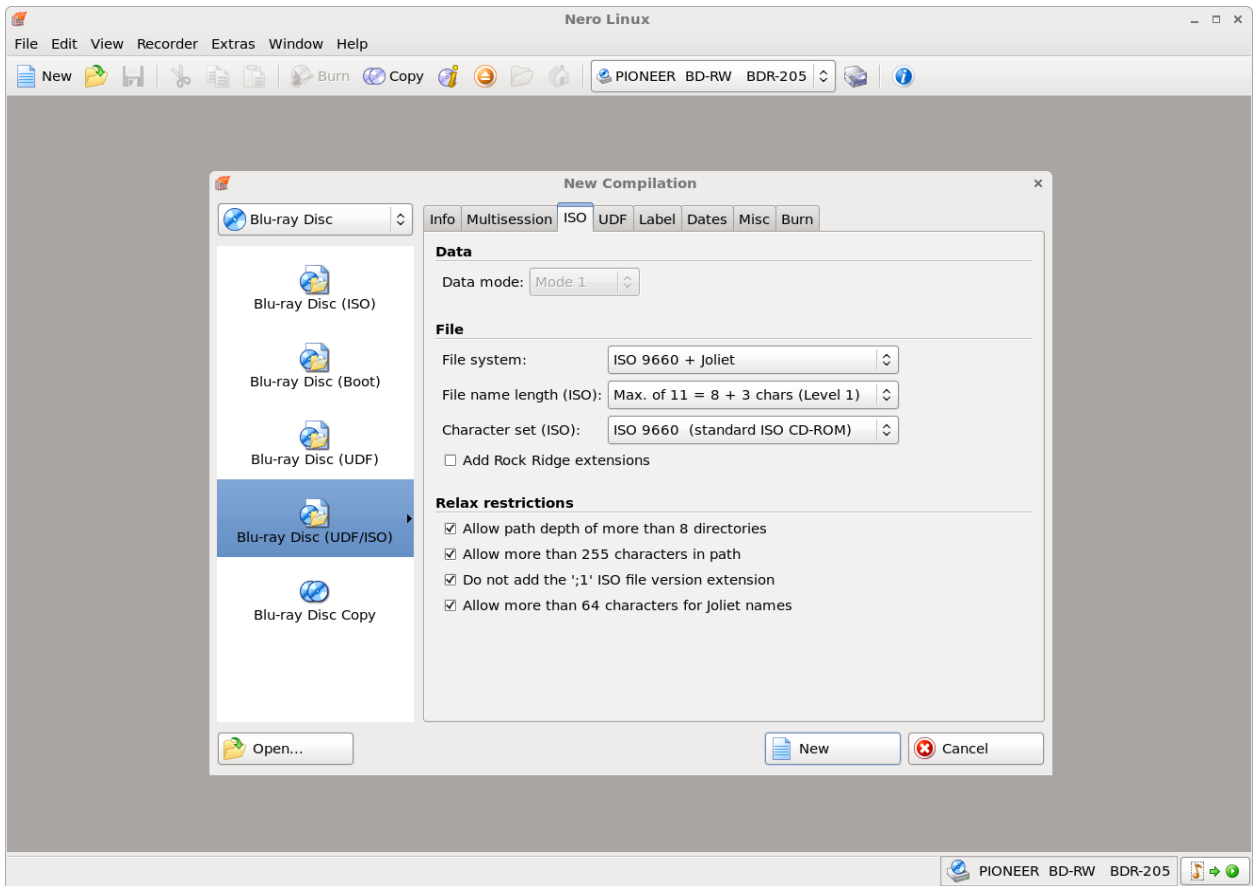
Be aware that Nero no longer supports this version of the software, but it was the only available Blu-Ray burning solution that operated reliably under RedHat 6.  Later versions of Red Hat support Blu-Ray natively in the operating system so freeware tools can be applied when AWIPS needs to be upgraded to later operating systems.

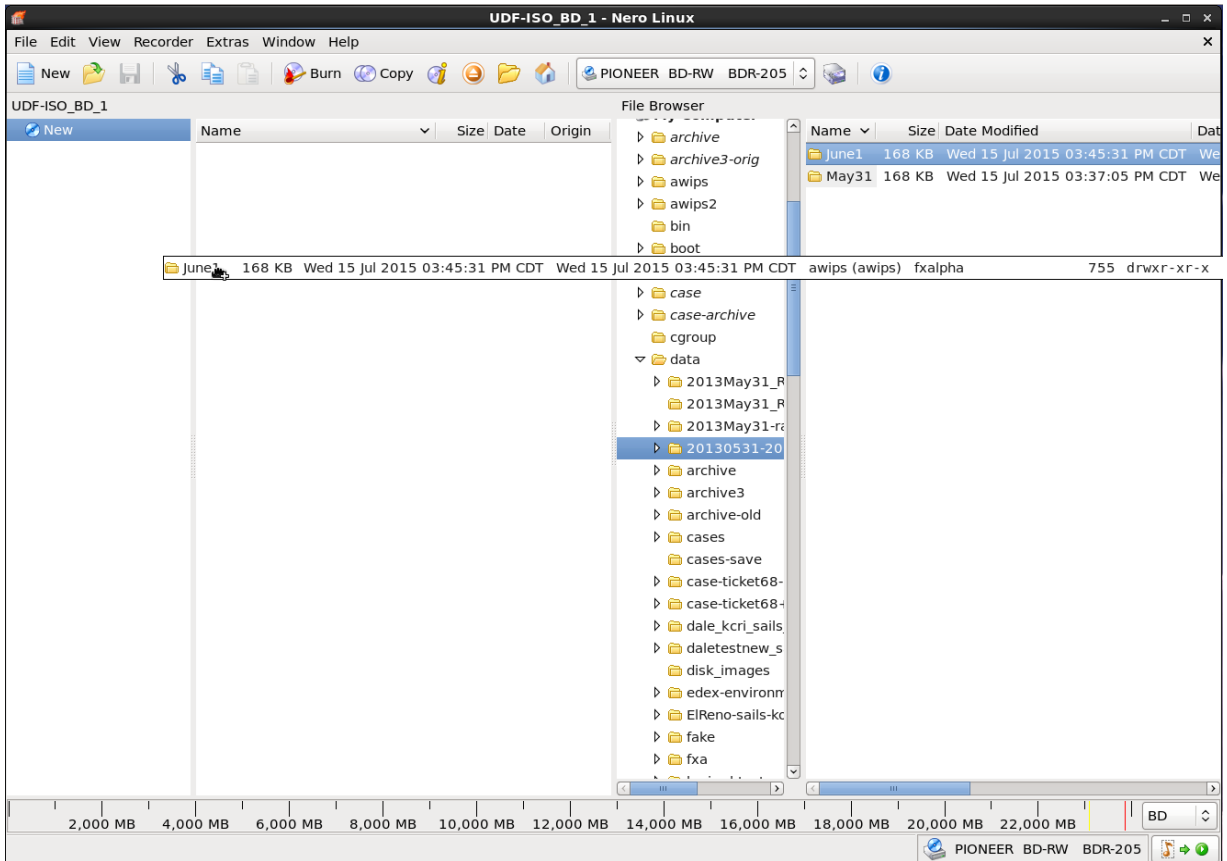## Step 1.  Start Nero and put blank BD disk into drive.

Start by double-clicking the Nero Linux desktop icon or by using the Nero menu under the WDTD menu:
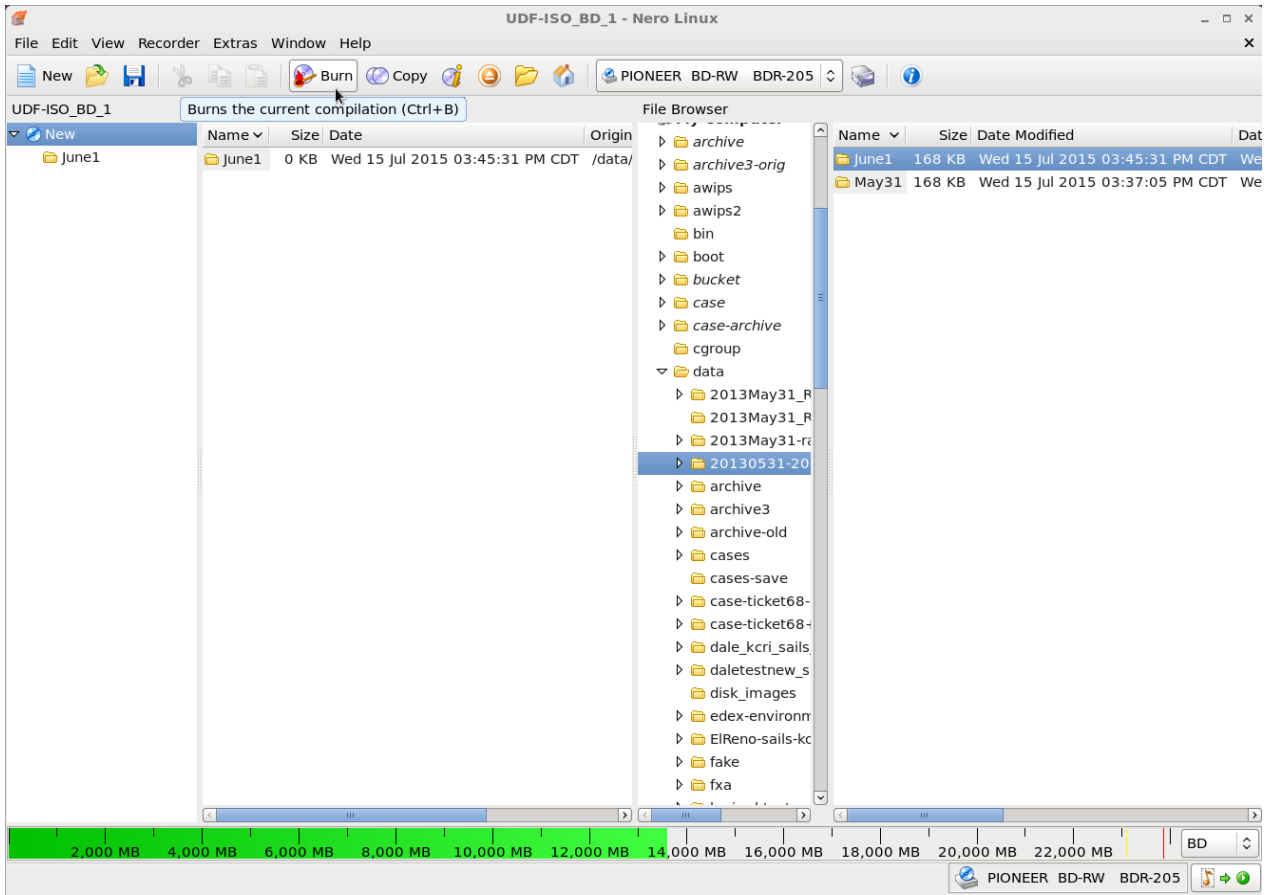
**Step 2:  Choose BluRay disc (UDF/ISO).  You may need to choose to relax the four restrictions for paths and filenames.**
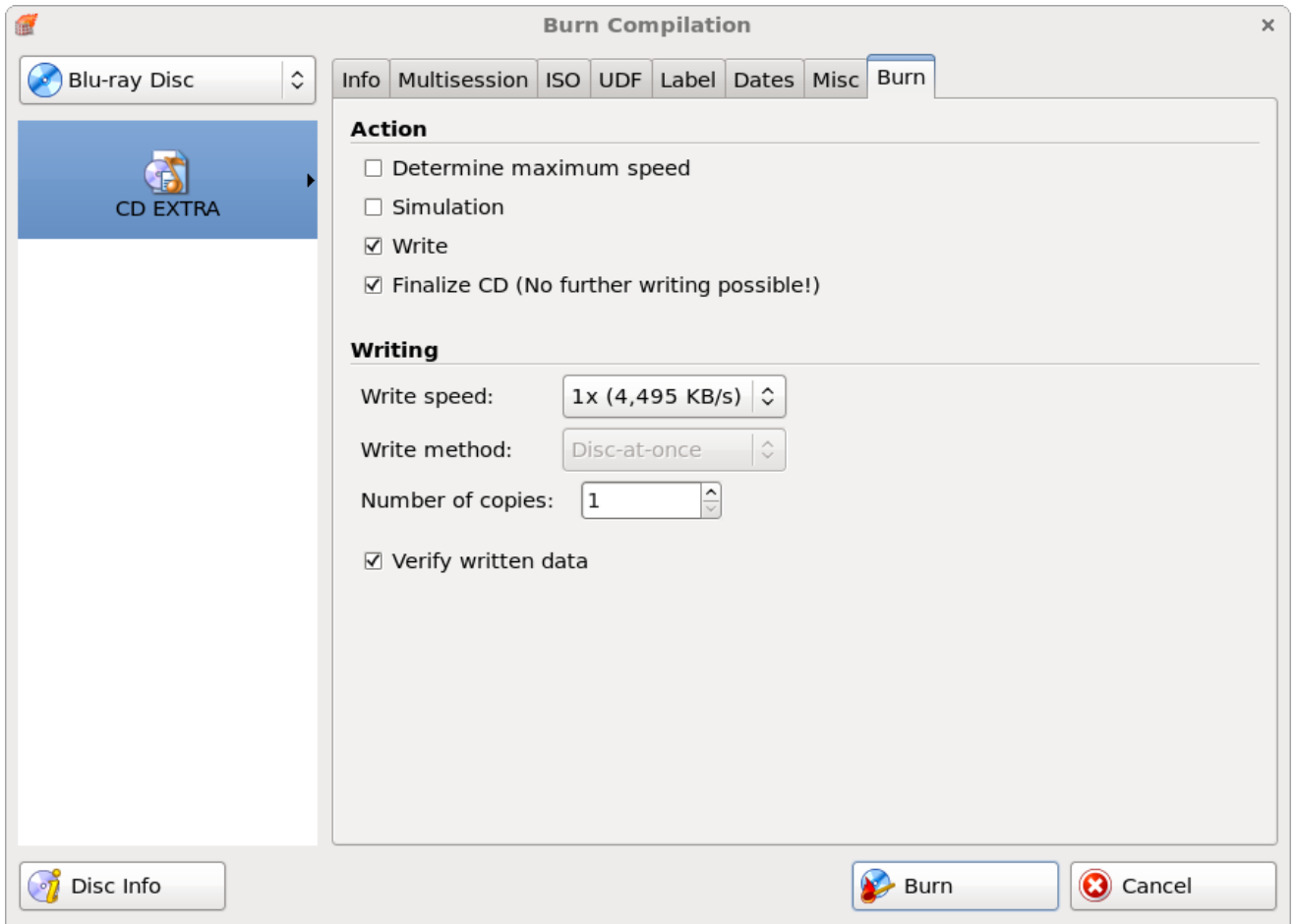
**Step 3:  Choose the data to be burned by dragging and dropping it to the compilation.**

## Step 4: Click the Burn button

**Step 5:  Acknowledge the burn settings.**  The slowest speed is best for a
long-term archive.  You can set the disc label (the name the disc is mounted
as) under the Label tab.

## Step 6: The disc burns

*Long-Term Storage*



**Long-Term Storage**

Some offices: store cases on portable hard drives

Optical media: WES-2 Bridge transitions from DVD to BluRay (BD)

4GB (Single Layer)                24GB (Single Layer)

BD drives: backward compatible with DVD and CD

Long-term archive: Use slowest burning speed (1X or 2X).
Temporary transfer:2X to 4X (20 to 30 minutes or less for 24 GB)
Blank BD Discs: $.50 to $1 each

WES-2 Bridge: includes Nero software.
AWIPS Baseline: TBD

**Notes:**

Two primary methods exist to store cases long-term.  The first is simply to use portable hard drives, which are relatively cheap (< $100 for a 2 TB USB external hard drive or for a high-capacity, 240 GB flash drive).   At least one NWS region has procured 5 TB USB  drives for each of their WFOs for this purpose.

The second method for long term storage is optical media, which may be desired for permanent offline storage.

Because of the larger case sizes, the WES-2 Bridge workstation includes a Blu-Ray drive instead of a regular DVD drive. Since BD are relatively new, perhaps a few details are in order.   A regular Blu-Ray disc can hold up to about 24 GB of data.  How fast it takes to burn that much data depends on the write speed you choose.  Slower speeds are desirable if you wish to keep the data for an indefinite period.  If you are only using the BD for temporary storage or to send to someone else, then a faster speed may be OK.  Tests at WDTD indicated burning a full BD disc took between 20 and 30 minutes (and doubling the time if the data were verified).

Because BD discs are being used more commercially to distribute movies and for home use, the price per disc has fallen to the point where they are inexpensive.

WDTD has procured NERO software for the WES-2 Bridge machines to burn data.  We experienced difficulty in getting reliable burns using open-source freeware.  We have been in discussions with the AWIPS program about the next update to the LX workstations including Blu-Ray capability, but a final decision has not yet been made.