NGR Quick Start Guide

v.368X

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Introduction

This quick start guide is designed to help participants quickly learn how to use the NGRL to acquire data, load it to the laboratory information management system (LIMS), and retrieve it again. It is not intended to replace the user guide.
The NGRL instrument detects gamma events resulting from the decay of radioactive nuclides in the material under study.
See NGRL Users Guide and Technical Note 26: Physical Properties handbook for additional detail.

Getting Started

Open the NGR application by double-clicking the IMS icon on the desktop (Figure 1). IMS will begin by initializing the NGR instrument and associated M-Drive motor. Please ask the PP Tech for assistance in changing the instrument's measurement parameters, the standard set-up is 300s per position for 2 positions. Once initialized, the logger is ready to measure a section.

Figure 1. IMS Desktop Icon

Measure a Sample

1. **PREPARE CORE SECTION**
   - Wipe excess moisture/mud off core liner
   - Tape over any holes on core liner using tape
2. Load a section for analysis.
   - Seat the section in the titanium boat (Figure 2). The blue end cap ("top") should be near the NGRL door opening.
   - The barcode label is visible, ready to be scanned; it does not matter whether the archive- or working-half label is scanned.

Figure 2: Core section sitting in the loading tray.
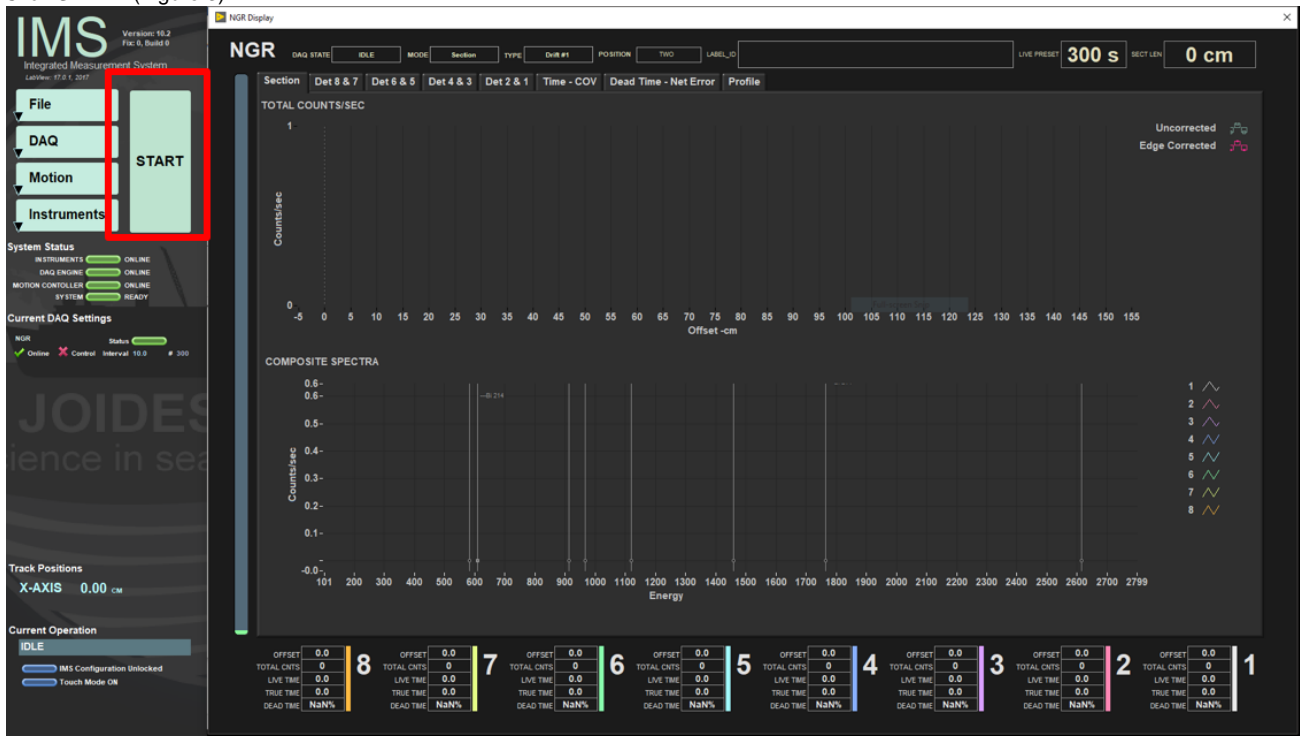
3. Click **START** (Figure 3).

Figure 3: NGR Program Main Window. The 'Start' button is outlined in red.

4. A sample information dialog displays (Figure 4). Pressing **Cancel** closes this panel and returns to the main display.

Figure 4: Sample Information Window. Scan section label, information is parsed out into the Sample ID and LIMS ID fields. The 'User Length' field (red square) requires input in order to run a measurement.

5. Ensure the cursor is in the Text ID field and scan either of the core section's barcode labels, A-half or W-half work equally well. Check to be sure all sample information has populated the windows properly. If the experiment is run with incorrect sample information the section will need to be rescanned.
6. Enter sample length observed into the 'User Length' field. Round the sample length to the nearest whole cm. Be careful to observe the actual length of the material in the core liner, not just the end cap and to be consistent in how length is determined from measurement to measurement. The "Measure" button will become available once the user has clicked out of the user length field.
7. Click **MEASURE**.
   This starts the automated measurement: the boat moves to the home position, and then moves to measurement position two and begins measurement. Approximately halfway into the measurement, the boat is pulled out 10 cm to measurement position one (this will not occur if the user has chosen only to measure one position on a high-recovery cruise). The bar on the left side of the screen tracks the progress of each measurement (Fig 5. Outlined in red)
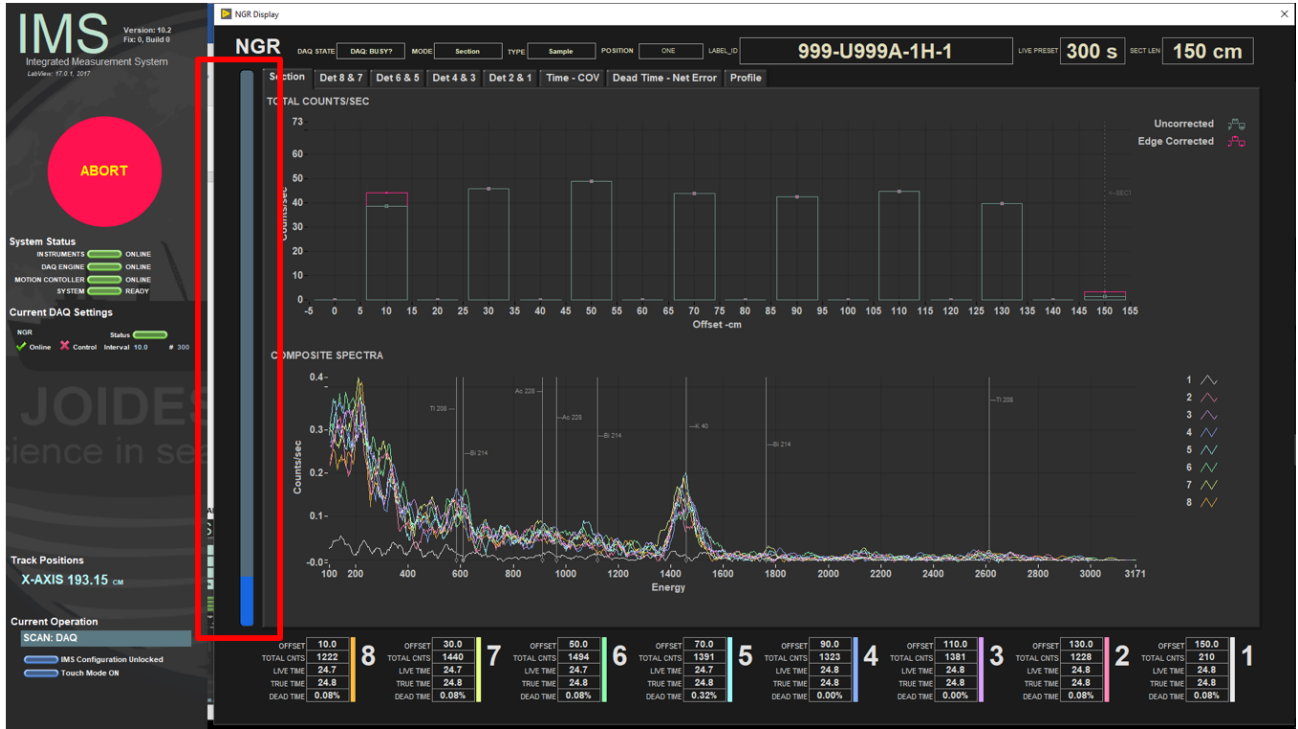
Figure 5: Run Window. Spectra and Total Counts can be seen. There are also tabs for the individual detectors at the top of the screen that can be selected.

8. When the measurement is complete, the titanium boat will return to original load position.
9. If the measurement needs to be aborted press the **ABORT** (Fig. 6) button seen on the main display.
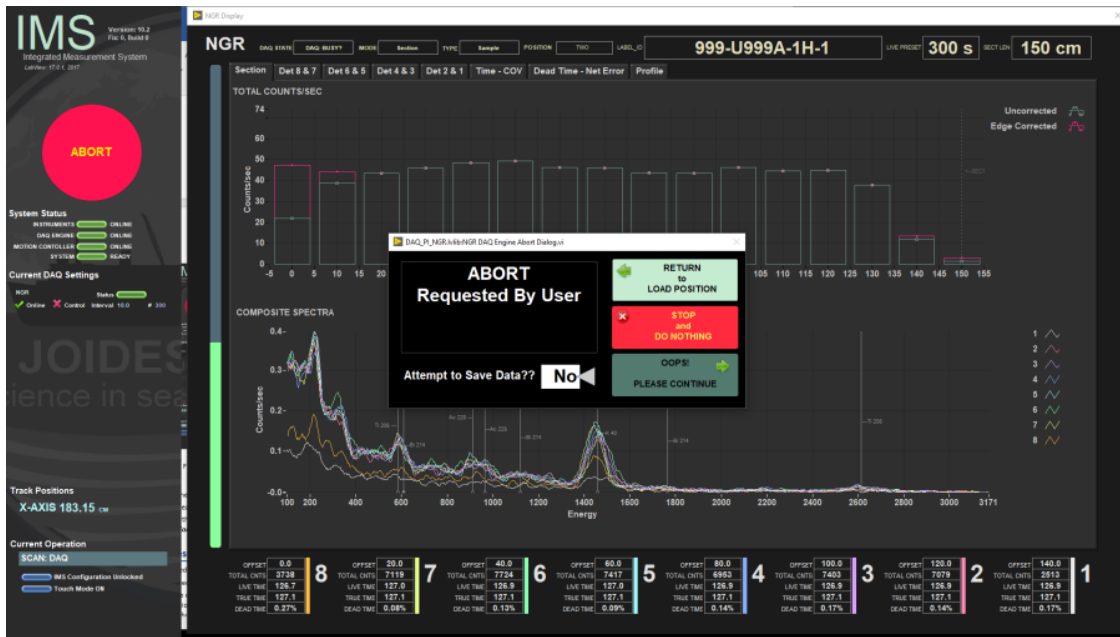

Figure 6: ABORT. User can choose between three options as seen.

10. Update the instrument log sheet. *It is very important to fill out the log sheet consistently in order for the technician to be able to assist the user in sorting out any problems after the fact.*

Load the Results

All data are stored locally in C:\data\ngr\

To upload acquired data to LIMS.

1. Click the desktop icon to launch MegaUploadaTron (MUT) and log in using LIMS credentials. The application window displays with a list of the data files ready to be uploaded (Figure 5). If program is already running, locate icon on taskbar.
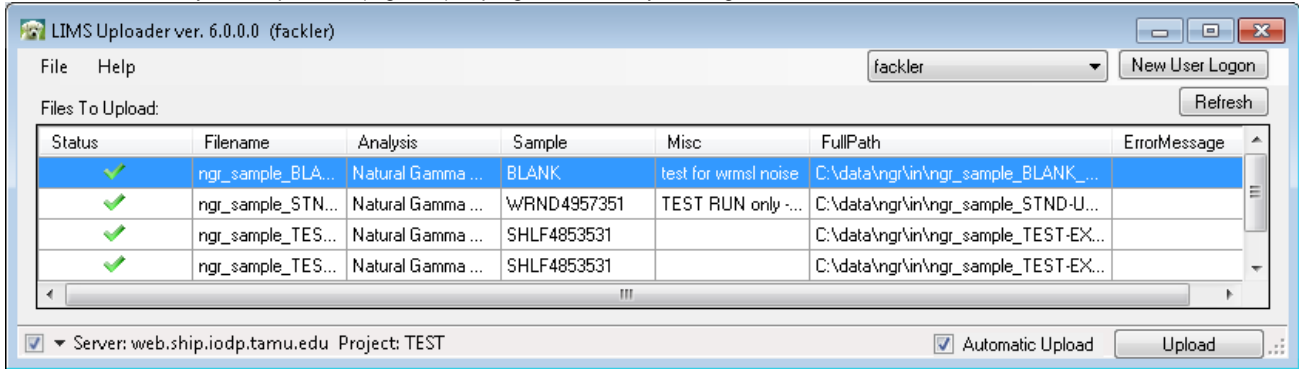

  Figure 7: LIMS Data Uploader
  Click the check-box next to **Automatic Upload**.
2. Click **Upload**.

  If errors occur, consult with technical staff for clarification and resolution.

Data Review

To obtain a tabular view of the data, browse to LIMS Reports (LORE) at http://web.ship.iodp.tamu.edu/LORE/. To obtain a graphical view of the data, browse to the LIMS Viewer (LIVE) at http://web.ship.iodp.tamu.edu/LIVE/. Both tools have user guides to explain their use if needed.

Versioning

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