

# Chapter 3: Making Entries in the Logbook

In this chapter we discuss the various types of data that can be entered into **CRL**, and describe how to enter each type into **CRL** input containers.



Besides manual entry, logbook entries can be scheduled and automated. We discuss this topic in Chapter 6: *Automated Logbook Entry and Archiving*. Logbook entries can also be created via the process logger, discussed in Chapter 9: *Programmer's Guide to the Process Logger*.

## 3.1 Selecting Category/Topic and Opening a Container

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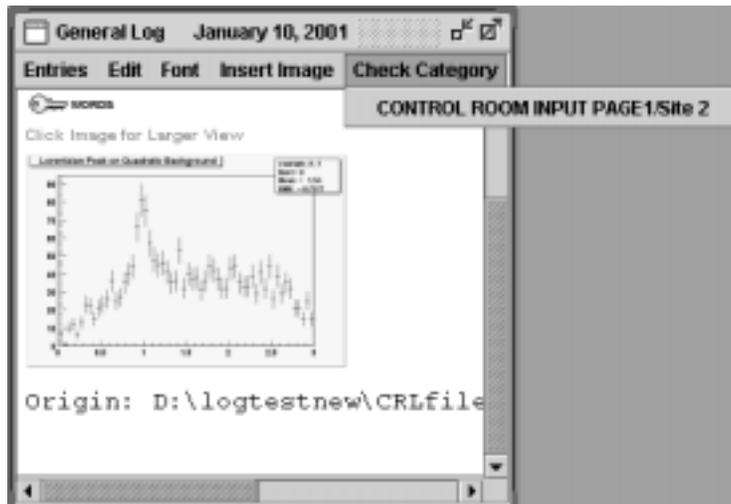
Your configuration may have several data input pages, and many menu options and toolbar buttons. You need to understand how your experiment categorizes data, and become familiar with the desktop.

Before you make a logbook entry, you have to have some place to put it. Therefore, the first step is to select an appropriate category and topic for the entry, and open the corresponding input container. To do so:

- 1) Select the page tab at the top of the screen to display the appropriate input page on the desktop. (One or more input container windows may appear automatically on the desktop page.)
- 2) From the horizontal row of menu headings along the top of the selected page, choose the one that corresponds to the general category of logbook data you plan to enter. Note that there may be menu headings for autoscheduled logbook entry, reports and checkpoints as well as for manual entry.
- 3) From its pull-down menu (or cascading pull-down menus), choose the category and topic appropriate for your entry. An input container pops up. The container is labelled with the chosen topic. Container windows can be moved around the desktop, resized, iconized, and/or closed.

## The “Check Category” Option on the Container

To verify the menu path to the container, click **CHECK CATEGORY**. This displays the path starting with the initial menu option chosen on the active page, and ending one level up from the topic shown on the container.



## 3.2 Selecting Entry Type and Creating Entry

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In the container, you first need to insert your entry:

- 1) Go to the logbook entry toolbar at the right of the **CRL** desktop. Find the toolbutton corresponding to the data type you want; scroll down if necessary to locate it.
- 2) Place your cursor in the toolbutton, and either:
  - a) double-click on the toolbutton<sup>1</sup>, or
  - b) drag-and-drop the selected toolbutton into the container, or...

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1. When working over a network, a double-click is sometimes interpreted as two single clicks.

### Double-Click Shortcut



There is a shortcut that may be implemented for some or all input containers in your configuration. Any particular input container can be configured to have a default entry type, such that double-clicking *in the container* creates an entry of that type. For example, a container labelled “Operator Comments”, might be configured such that a double-click in the container creates a text entry.



Be aware that when working over a network, a double-click may get interpreted as two single clicks, and thus may not work.

## 3.3 Logbook Data Entry by Type

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Logbook data can be entered from a wide variety of sources:

- plain text from keyboard or file (no formatting available)
- text from keyboard or file (formatting available)
- forms
- online images
- output files from applications (e.g., **ROOT**, MS Word, PDF, PostScript, images, etc.)
- freehand equations, drawings and notes made on Ipen® tablet
- output from a command issued to OS, or from a script or other executable



A few general notes:

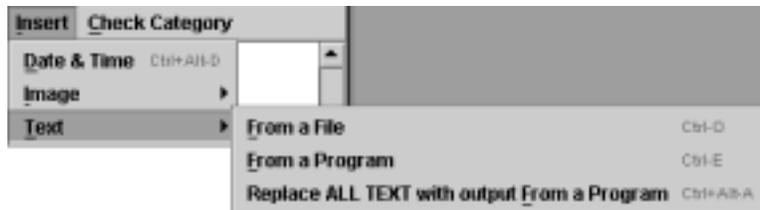
- If you are generating images, histograms or other files to import into **CRL** entries, you should create/store them under the default directories. Ask your **CRL** administrator the locations of the default directories.
- Set your container window width to something reasonable for the data type. Lines wrap, so there is no need to insert carriage returns after each text line.
- You can add text to all logbook entry types except forms.
- You can add images to all logbook entry types except plain text and forms.
- All images appear as thumbnails in **CRL** containers, on the web, and in emailed entries.

### 3.3.1 Text

There are two types of text entry: (Formattable) Text and Plain Text. Both types allow input from the keyboard and from a copy/paste operation. Tabs are set up so that a tab gives you one space. You can use either type for a plain text entry, but there are some differences:

Text	the default text font can be changed, images can be inserted into entries (see image below for more)
Plain Text	the monospace text font cannot be reformatted, and entries can contain plain text only (no images); use Plain Text for information that requires particular spacing, e.g., tables, line art, program output (text)

Create the entry and underneath the header, you'll see the highlighted text: Insert Text Here. Click in the text area; this initial text will disappear. Begin typing, use the **INSERT** menu to insert text from a file, or paste in text copied from an external application. The **INSERT** menu provides three options:



Note that if text includes HTML mark-up, it will appear as HTML source code in the entry as viewed from within **CRL**. When viewed from a browser, it will appear as HTML output.

### 3.3.2 Forms

To make a form entry, use the toolbutton corresponding to the form you want to use, as configured. Fill in the fields; you may tab from one field to the next (and use Ctrl-Tab to return to previous field). Some text fields allow text displayed in a monospaced font only, others may be formattable. Formattable fields allow font changes and insertion of images (in fact all the same things you can do in formattable text entries are allowed in these fields, see section 3.3.1 *Text*).

Forms may contain familiar form elements: check boxes, radio buttons, pull-down menus, and so on. They can also contain script/command output, tables and repeatable blocks. Items in pull-down menus may be configured by your **CRL** administrator to be editable. Data may be reloadable from previously-saved forms. A form may be configured such that it gets emailed to one or more addresses automatically upon archive; this is invisible to the user.

A form illustrating several of the allowed form elements is shown here:

The screenshot shows a web-based form titled "General DAQ Log" dated "November 13, 2002". The form includes a menu bar with "Entries", "Edit", "Font", "Insert", and "Check Category". Below the menu, there is a text area containing metadata: "Date Created: Wednesday, November 13, 2002 1:59:40 PM CST", "Category: Far\_Detector\_Operation/DAQ\_Entry", "Topic: General\_DAQ\_Log", "Operator currently signed-in: Anne Heavley", and "Selected Keywords: :DAQ\_ENTRY:". A "Services" icon is also present. The main section is titled "Start of Run" and contains several form elements: a "Date" field set to "Nov 13, 2002", a "Time" field set to "1:59:41 PM", and a "Shift" dropdown menu set to "Day". There is a "Select Box" with "John Q. Smith" selected and "Radio Buttons" for "ON" (selected) and "OFF". Below these are "Checkboxes" for "Fast ID" (checked), "Fancy Graphics" (checked), and "High Bandwidth" (unchecked). A "Text field, 1 row 10 columns:" is empty. A "List Box (Impressionists):" is open, showing a scrollable list with "Van Gogh", "Renoir", "Gauguin", and "Monet" selected. A "Command output for 'arp -a':" section contains a scrollable text area with the following output:

```
Interface: 192.168.221.1 on Interface 0x2
InternetAddress  Physical Address  Type
192.168.221.254  00-50-56-c0-48-23  dynamic

Interface: 192.168.142.1 on Interface 0x3
InternetAddress  Physical Address  Type
192.168.142.254  00-50-56-c0-18-be  dynamic
```

The status bar at the bottom indicates "Status: (0) Entries are currently selected".

## Program Execution within Forms

A form may be configured to run a script, an OS command or some other type of program. The form displays the (text-only) output in a field just as it displays other form data (see above image). The output is editable.

## Repeatable Blocks within Form

A form may be configured such that a portion of it is repeatable. If so, that portion is demarcated by a different background shade and displays two buttons below and to the left of the repeatable portion: **REPEAT** and **DELETE**. Each time you repeat it, these buttons appear. **REPEAT** causes the block to be repeated; **DELETE** causes the block to be deleted.



## Tables within Forms

A form may contain a table, the cells of which you can edit. The cells remain scrollable after archive. Two buttons are displayed: **ADD NEW ROW** and **DELETE A SELECTED ROW**. These buttons are associated with the table portion of the entry, and appear above it (see bottom portion of above image).

## Reloading Data into Form

Depending on how or if your system is configured to allow reloading of the previously saved form data, the form may come up with some or all data filled in (which you can edit), and/or a dialog box may appear on which you can choose whether to load the saved data into your new form entry:

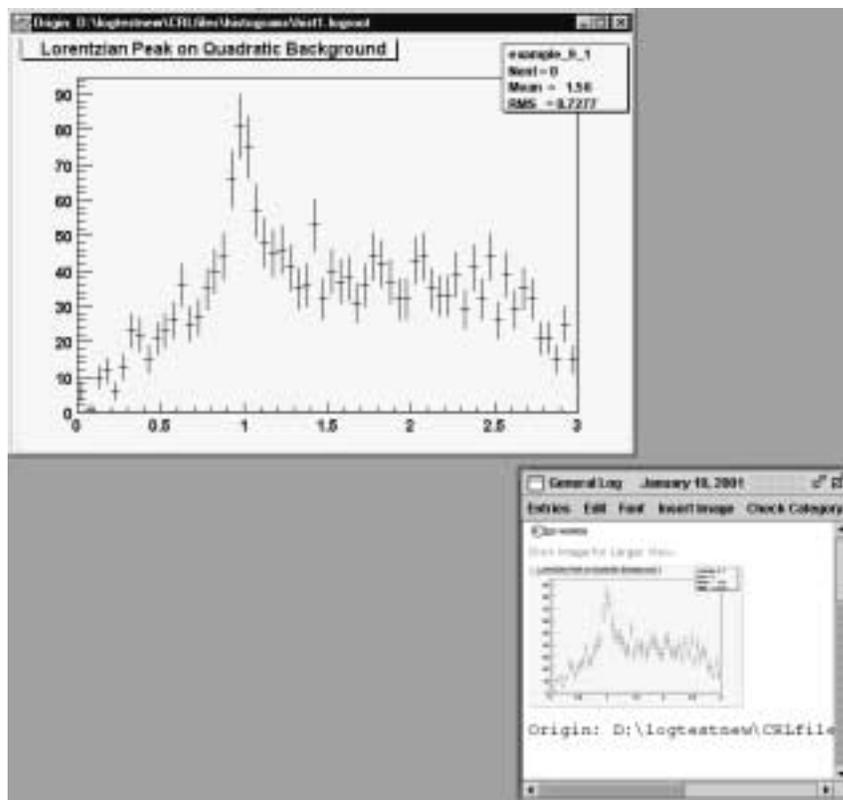


If you click **YES**, the text areas restore with their original sizes. You can edit the values after loading them.

### 3.3.3 Online Images

Images can come from a variety of sources, depending on your configuration. Gif and jpg images that are too big for the default container window size (or larger than a particular size configured for your installation) will appear as

thumbnails. A thumbnail is displayed with the words *Click Image for Larger View* inserted above it, `Origin: path/to/file` below it, and a cursor to allow text entry. Click the thumbnail image to see the larger image.



Possible image sources include:

- Toolbar buttons with preconfigured images
- Toolbar buttons configured to allow entry of output image files from external applications (see section 3.3.4 *Output Files from External Applications*)
- The **INSERT > IMAGE > FROM A URL/FILE** menu options on the container (available for all entry types except plain text)



To use the **INSERT** menu (the third bullet point above), place your cursor in the body of the entry in which you want to insert an image. This menu option allows you to choose your image source, either a URL or a file:

- If you select **URL**, a window pops up and asks you to **TYPE THE URL OF THE IMAGE YOU WOULD LIKE TO INSERT:**. Type in the entire URL (it must start with `http://`), then choose **OK** to insert it, or **CANCEL** to cancel out of the operation. From a web page you can only enter gif or jpg files, not web pages themselves.
- If you select **FILE**, a window pops up and asks for the **IMAGE FILE NAME:**. Type it in (using full path if not in default directory) or click the **BROWSE** button to browse for it in the standard way. When you've entered the filename, choose **OK** to insert it, or **CANCEL** to cancel out of the operation.

### 3.3.4 Output Files from External Applications

**CRL** supports logbook entry of output files from virtually any software application, e.g., **ROOT** plots, **MS Word** and **Excel** files, images, PDF and PostScript files, etc. (This refers to output files that are created independently of **CRL**, and is distinct from output files that result from script/program execution in **CRL**.) If implemented, you'll see toolbar buttons for items such as **ROOT DATA**, **HISTOGRAMS**, **ATTACH FILE**, or whatever your **CRL** administrator has configured. For entries of this kind, the selected file gets attached to the entry; it does not get inserted. The file content does not appear in the entry.

When you create an entry, a dialog box pops up and asks for the **FILE NAME:**. Type in the name (with path, as necessary) or click the **BROWSE** button to browse for it. There may or may not be file type filters set on the browse window (the sample below shows one filter, `.logroot`).



Once the file name is entered, choose **OK** to attach the file, or **CANCEL** to cancel out of the operation.

If a thumbnail image displays in the entry, click it to open the entire document in a separate application and window, as described in section 3.3.3 *Online Images*. This works whether entry is archived or not. (After archiving the entry, buttons appear in the entry allowing you to download or view the file. See section 8.6 *Downloading/Viewing Attached Files*.)

### When does CRL Display a Thumbnail?

You may find that in some cases you get a thumbnail image and in others you don't. When you attach a file to an entry, **CRL** searches the source directory of the file for a `.gif` or `.jpg` image file of the same filename, e.g., `hist1.gif` to go with `hist1.logroot`. If the accompanying image file exists, **CRL** copies it and uses it to provide a thumbnail view of the file in your container window.

PostScript, Encapsulated PostScript and/or PDF files (`.ps`, `.eps`, `.pdf`) don't necessarily need a pre-existing, corresponding image file in the source directory in order for **CRL** to display a thumbnail. If a PostScript or PDF converter is installed on your machine and **CRL** is configured to use it, then **CRL** uses the converter to create a `jpg` image file of the first page of the file, and displays it in the entry as a thumbnail.

### 3.3.5 Freehand Equations, Drawings and Notes

**CRL** supports use of a Cross Ipen® tablet connected via a serial port in order to allow freehand data entry. Typically, **CRL** is configured to display a toolbar button labelled **Pen**, or **DRAW**, or something similar. This toolbar item pops up

a drawing frame, and requests entry of the **COM PORT:** to which the tablet is attached. After selecting the port name, click **OPEN PORT**, then begin to draw or write on your tablet. When you've finished, click **SAVE DRAWING** to save your work as a gif file and enter it in the container. Or click **CANCEL** to cancel out of the operation.

### 3.3.6 Output from a Program or Command

**CRL** can be configured to run a script, program or command to the operating system in four ways:

- 1) A toolbar button can be designated for a preconfigured command, and labelled accordingly (e.g., **NETSTAT** or **MYSRIPT**). The command/script output gets dropped into the entry.
- 2) A toolbar button can be configured to allow the operator to type in any command string. The button might be labelled **EXECUTE**, or **RUNCMD**, or something similar. It pops up a window requesting you to **ENTER COMMAND LINE:**. Enter the command, and choose **OK** to execute it; its output will get dropped into the container. Or choose **CANCEL** to cancel out of the operation.
- 3) You can use the **INSERT > TEXT > FROM A PROGRAM** menu option on a container. It pops up a window requesting you to **ENTER COMMAND LINE:**. Enter the command, and choose **OK** to execute it; its output will get dropped into the container. Or choose **CANCEL** to cancel out of the operation.
- 4) A form can be configured to run a script, OS command or other program.

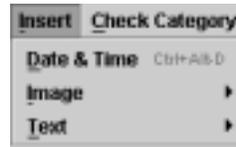
## 3.4 Including Current Date and Time in Entry

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The date and time of creation and saving of an entry are recorded in the entry's header. But you still may want intermediate times recorded in an entry.

Instead of typing the current date and time in, you can enter it via one of two shortcuts. Both methods insert the date and time in the format 1:54:33 PM CST Feb 13, 2002. First position your cursor in the desired entry.

One method is the menu option **INSERT > DATE & TIME:**



The other is the control key sequence: **CTRL-ALT-D**. Note that the behavior of this key sequence is affected by your X window manager. Known behaviors:

- it works fine under KDE and FVWM
- it doesn't work at all under Gnome
- Reflection X gets stuck on the **CTRL** and you just need to toggle **CTRL** after typing **CTRL-ALT-D** in order to restore proper **CRL** behavior.

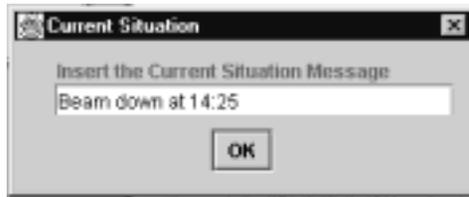
## 3.5 Attaching Global Message to All Entries

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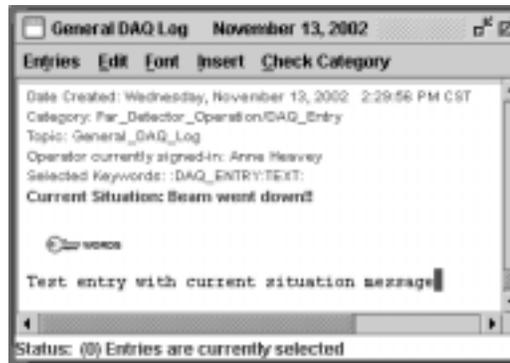
**CRL** provides a mechanism to turn on a global message as experimental conditions warrant (e.g., “Beam down at 14:25”). Once set, the message gets included with all logbook entries for all data types for that **CRL** installation. When the current situation changes, the operator can turn off or change the message. The **CURRENT SITUATION** button on the logbook toolbar (left side of **CRL** window) is used to turn a global message on and off.

### 3.5.1 Turn On a Message

To set a message, click the **CURRENT SITUATION** button. A window pops up requesting you to **INSERT THE CURRENT SITUATION MESSAGE**. Type it in, then click **OK**.



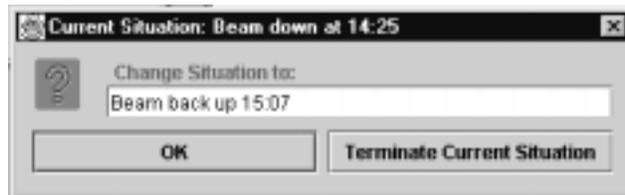
If you choose **OK**, you will see the message appear in red, labelled *Current Situation*, at the bottom of the header in every subsequent logbook entry, manual or automated. (When the entry is archived, the message will stay red.)



### 3.5.2 Change or Turn Off a Message

When the situation described in the message no longer applies, you should either change the message to reflect the new current situation or turn it off:

- To change the message, click the **CURRENT SITUATION** button, and edit the message. Click **OK**.



- To turn off the message, click the **CURRENT SITUATION** button, and choose **TERMINATE CURRENT SITUATION**. Subsequent entries do not include the message.