
JRSO—LIMS Viewer (LIVE) User Guide

Introduction

LIMS Viewer (LIVE) is a Web-based application that allows users to retrieve sample information and analytical data from the Laboratory Information Management System (LIMS) database and display them in a graphical format. This tool is a replacement for the LIMSPeak viewer, as the technology behind the old program could no longer be supported.

Definitions

Panel: A single region (plot) in the data display area. Panel types include: depth panel, recovery panel, data panels, image panels, sample panels, and lithology panels.

- **Depth/Recovery panels:** Always visible on the results screen; they show depth in hole (m), interval cored and recovered, sections, and whole-rounds taken.
- **Data panel:** A plot that shows measured data values as symbols and/or lines and/or as text values. Multiple data sets can be shown on a single panel.
- **Image panel:** A panel that shows images of two types:
 - Depth-referenced images such as section-half or whole-round 360° images
 - Thumbnail images such as close-up photographs, microscope photo images, thin section photomicrographs, or SEM photomicrographs
- **Sample panel:** A panel that shows sample information (sample type, test code, request code, sample name, etc.) as area and/or text labels.
- **Lithology panel:** A panel that shows depth-referenced lithology descriptions (lithology prefix, principal lithology, or lithology suffix) as area and/or text labels.

Template: A collection of panels assembled into a single data query and data display. A template always includes depth and recovery panels and may have any number or type of other panels to the right of the recovery panel.

User Account Privileges

All shipboard participants can use LIVE to view data on the ship during an expedition, as no data on board are flagged as moratorium. After the cruise, users can view post-moratorium data freely; a login is required to view moratorium data.

Users with LIVE editing privileges (technical personnel) can define new panels and templates. LIVE editors must have a strong understanding of the LIMS database components and data structure. More information on panel and template control and maintenance can be found in later sections of this manual.

General User Instructions

LIVE can be found on the ship on the applications page, or at web.ship.iodp.tamu.edu/LIVE. On shore, it can be found at web.iodp.tamu.edu/LIVE.

LIVE is optimized for use in the Firefox browser. For best results, use Firefox on either a Mac or PC.

The LIVE main screen is divided into control bar (top) and data display (bottom) areas (see below).

LIVE Control Bar

The main screen control area is divided into four sections, as shown in **Figure 1**.

Title Bar: The top blue bar (outlined in black) is the title bar and controls data view functions:

- The date/time stamp indicates the update version of the application
- **View Data** button: runs the query
- The timer next to **View Data** counts the time from when the button was last clicked (last database query)
- **Unzoom** button: restores full query view without re-querying database
- Break checkboxes: toggles section and/or whole-round break indicator lines across data plots in the data viewing area
- **Login/Logout** controls
- Links to the IODP applications page and this user guide (links to Panel Builder and Template Builder will also appear if admin users are logged in)

Template Selector: The left-hand gray area (outlined in green) is the template* selector (*required field):

- Available templates are shown in the drop-down list. The template name indicates what data/sample/image panels are included on the data display or may indicate a specific action or quality control template (Box_Cores).
- Templates are available for most common user queries. Contact technical staff if no template contains the data combinations desired.
- The selected template is applied to the database query when the **View Data** button is clicked. After the query is completed, selecting a different template does nothing unless **View Data** is clicked again.

Query Parameters: The center gray area (outlined in blue) contains the query filter controls (Site* and Hole* are required fields):

- A minimum of a site and hole must be selected from the drop-down lists. If an expedition is selected first, only sites from that expedition are available on the drop-down list, and when a site is selected, only valid holes from that site appear on the drop-down list.
- To use the additional filters in this area to narrow the data query, see Query Filters below.
- These fields are applied to the database query when the **View Data** button is clicked. After the query is completed, changing the filters in this area does nothing unless **View Data** is clicked again.

Note: The values in these fields are “sticky,” meaning that they will remain as selected until changed by the user, or the browser is refreshed. This allows a user to switch templates and re-query to view a different data set using the same filter parameters.

Data and Sample Filters: The right-hand gray area (outlined in orange) activates data and/or sample filters.

- Changing these values changes the displayed values accordingly without re-querying the database (see [Data and Sample Filters](#), below).

Note: These values are “sticky,” meaning that they will remain as selected until changed by the user or the browser is refreshed. This allows the user to change query parameters and re-query using the same sample and/or data filters.

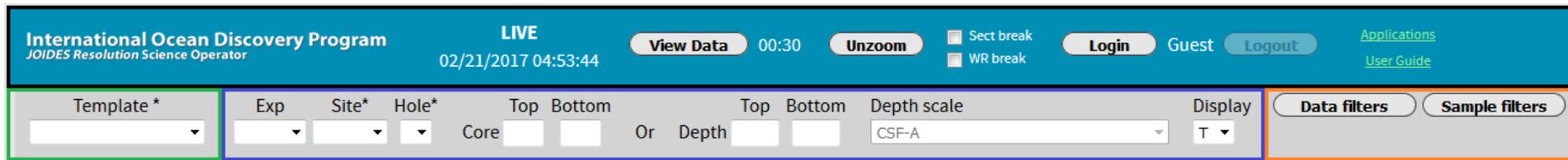


Figure 1. LIVE main screen. Black outline = title bar area; green = template selector area; blue = query filter area; orange = data and sample filter area.

Basic Workflow

Figure 2 shows the initial LIVE screen before any items are selected. The minimum workflow is as follows:

1. Select a template from the pull-down list.
2. Select at least a site and hole; expedition is an optional field.
3. To see data for the entire selected hole, click **View Data** (circled in Fig. 2).
4. After a brief pause, the data will display with depth columns and recovery panel, along with the image, data, sample, or lithology panels specified in that template.

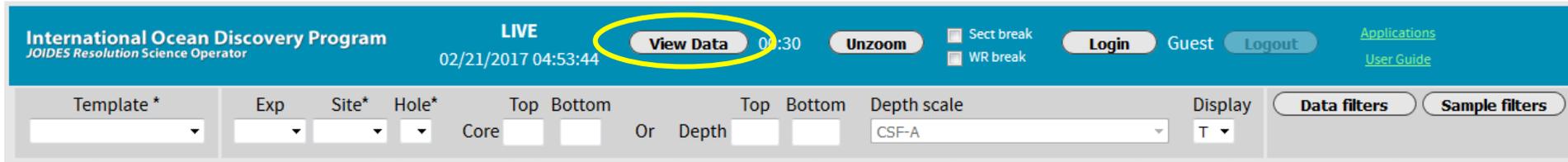


Figure 2. LIVE main screen initial view; note that Template, Site, and Hole are required fields.

Query Parameters

Query filters are used to restrict the amount of data queried (instead of viewing the entire hole).

Core Filter: Enter a top core and/or bottom core to query a specific range of cores.

- Specifying only a top core retrieves data from the specified core to the bottom of the hole.
- Specifying only a bottom core retrieves data from the top of the hole to the core specified.

Depth Filter: Enter top depth and/or bottom depth to restrict the data query to a specific depth range. The depth function returns complete sections, so slightly more information than the strict depth range may be returned.

- Specifying only a top depth (in meters) retrieves data from the specified top depth to the bottom of the hole.
- Specifying only a bottom depth (in meters) retrieves data from the top of the hole to the depth specified.

Depth Scale Filter: The default query is CSF-A, and CSF-B is available for any data set. If a composite depth scale is available in LIMS for the selected hole, it will appear on the drop-down list. Depth scale filters may be useful if there are overlaps in cores or sections (indicated by darker shading in the recovery panel).

- The CSF-B depth scale forces data from material that may have expanded into the drilled interval, thus preventing overlap.
 - For any core with recovery of $\leq 100\%$, CSF-B and CSF-A are the same.
 - For any core with recovery $> 100\%$, CSF-B compresses the core to fit the drilled interval. This compression is linear across a core, not necessarily proportional to the actual expansion that occurred.
- A composite depth scale (CCSF) is created by the stratigraphic correlators by shifting core depths to remove overlaps. If the user selects a composite depth scale, the depth of any given core may be altered from its drilled depth. Composite depth scale queries may also return overlapping cores.

Display Filter: The display flag filter applies only to section half and whole-round images and is primarily useful to IODP technicians as a quality control check.

- Display flag filter default is T (true).
- Display flag alternate options are “false” and “null” (blank). The latter queries image files for which the display flag is either true or false (all images).

Data and Sample Filters

In addition to the core range, depth range, depth scale, and display flag filters, filters may be applied using the **Data Filters** and **Sample Filters** buttons. Each type of filter applies only to its applicable data type; filtering by sample type in the sample filter will not affect any panels displaying analytical data. These filters can be selected before a data query or can be added to displayed data without re-querying the database. These filters are only applied to displayed data after the **Apply** button within the filter selector is clicked. Filter selections can be canceled by clicking **Cancel** in the filter selector window.

Data Filters

Data filters apply only to data panels (**Figure 3**).

- Data may be filtered by sample type, shipboard test code, and/or by sample name.
- To select data filters, click the **Data filters** button to open the data filters window and make the desired selections for Sample type and/or Test code and/or type in a Sample name.
- Click **Apply** to apply the changes to the graphic panels or **Cancel** to abort. Applied filters will be listed below the **Data filters** button in the post-query filter area.
- To clear all selected data filters, click **Clear filters** then **Apply**. The list of filters under the **Data filters** button will disappear and graphic panels will revert to the original query parameters.

Sample Filters

Sample filters apply only to sample panels (**Figure 4**).

- Sample data may be filtered by sample type, shipboard test code, sample name, request number, and/or request code.
- To select sample filters, click the **Sample filters** button to open the sample filters window and make the desired selections for Sample type and/or Test code and/or type in a Sample name, Request number, and/or Request code.
- Click **Apply** to apply the changes to the graphic panels or **Cancel** to abort. Applied filters will be listed below the **Sample filters** button in the post-query filter area.
- To clear all selected sample filters, click **Clear filters** and then **Apply**. The list of filters under the **Sample filters** button will disappear and graphic panels will revert to the original query parameters.

Sample Types:

BEAD, CAKE, CFRC, CLTR, CORE, CUBE, CUTS, CYL, GAS, HOLE, HRND, LIQ, MFRC, OTHR, PC, PWDR, QRND, SECT, SHLF, SLAB, SP, SPCM, SS, STS, TPCK, TS, TSB, UCHN, WDGE, WRND

Test Codes:

BIO, CARB, CELL, CHNS, CLU, CNTMASSVOL, CONT_MASS, CUBENG, DIAT, DINO, DML, FORAM, FORAMB, FORAMP, H2, HS, ICP, IW, LOI MAD, MBIO, MSPH, NANNO, NOTESTS, OSTRA, PAL, PALY, PFT, PMAG, PP, RADS, RMS, SCRAPE, SED, SEM, SRA, STRX, TCH4, TOC, TS, TSB, TSS, VAC, VP, XRD, XRF

Figure 3. Data filter window.

Figure 4. Sample filter window.

Results Display

Once data are retrieved, a number of methods of navigation for viewing data exist. In each case, navigation does not run another query but instead uses the data already retrieved. In this way, a user may zoom in to a region of interest and then zoom back out (using **Unzoom**) to a maximum of the full scale of the originally-retrieved data without having to wait for a database query to run again.

Depth Navigation Bar

The leftmost panel in the display is shown in **Figure 5**. Left: The darker-shaded area in the first column is the depth navigation bar, which always shows the top and bottom depths of the full query data range. The lighter-shaded right-hand depth column displays the depth range currently displayed. The depth navigation bar can be scrolled to zoom in or out, dragged up or down the full depth range of the query, or expanded and contracted using the triangular “handle” areas. Right: The depth control is “zoomed in” to view from 4 m to about 35 m depth.

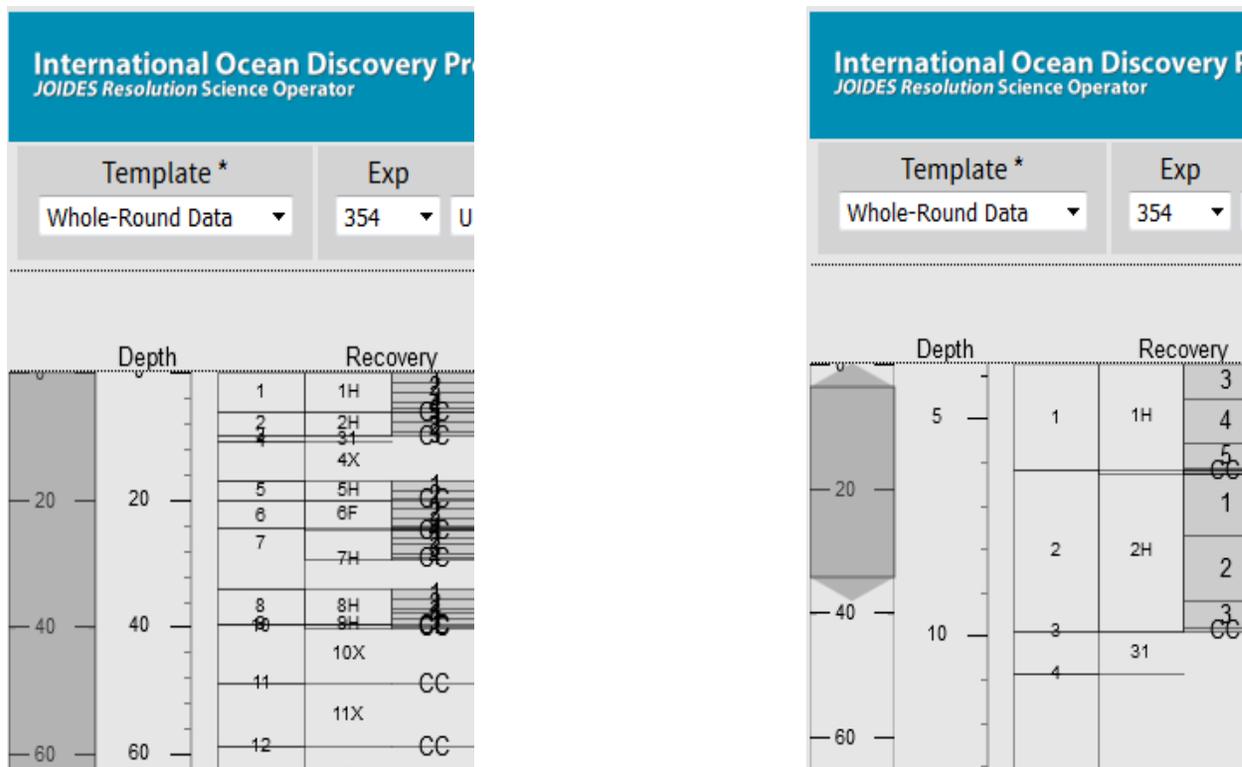


Figure 5. Depth columns and depth navigation bar (shaded area in first column).

Recovery Panel

The recovery panel is shown in **Figure 6**. The panel is divided into four column areas:

1. Interval cored: shows the full interval cored (or drilled) and the core or drilled interval number
2. Interval recovered: length recovered for that core, along with core type
3. Section: number and length of sections taken from that core
4. Whole-round samples taken from specific sections

To zoom in on data from a specific cored interval, core, section, or whole round, click on the specific boxed area on the display panel. **Figure 7** shows the recovery panel at different scales selected from the recovery panel.

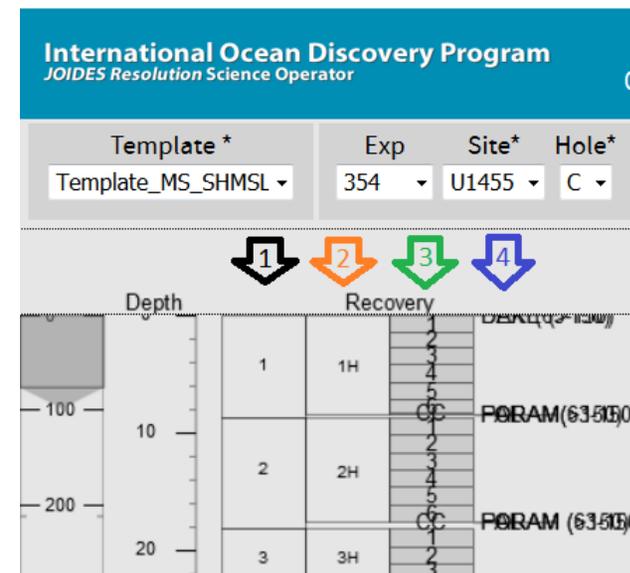


Figure 6. Recovery panel with four columns.

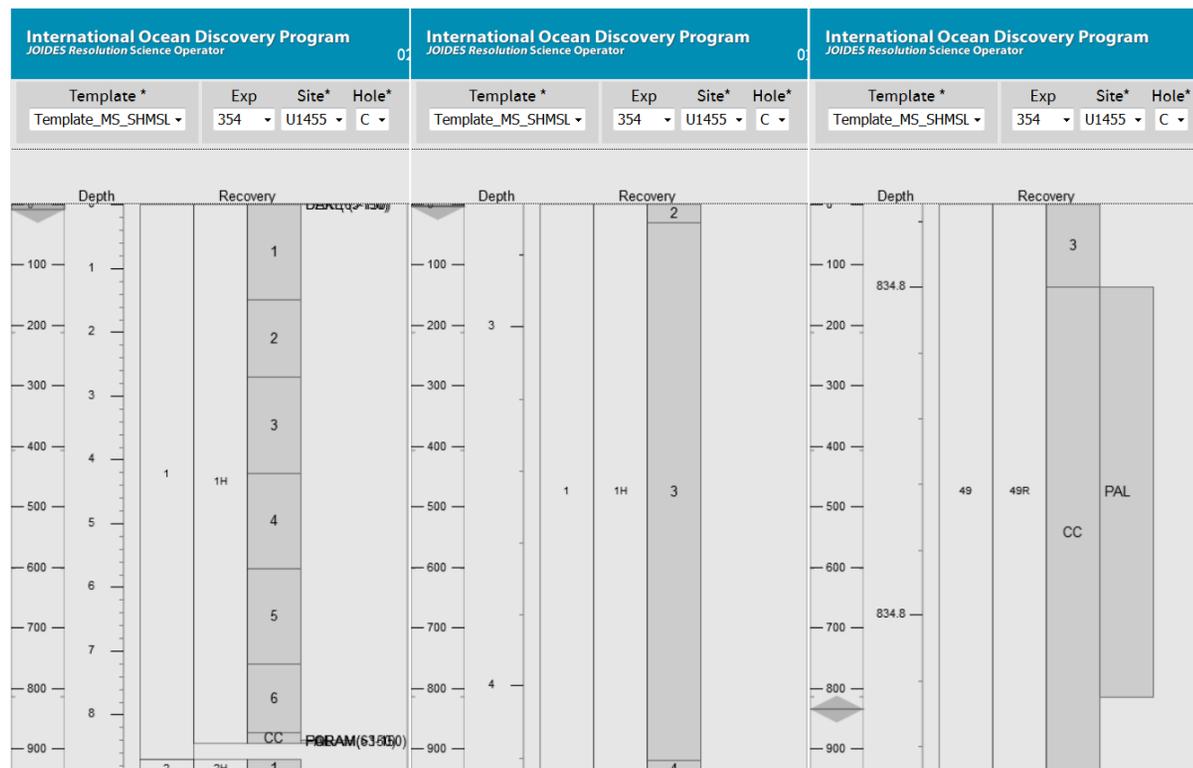


Figure 7. Recovery panel zoomed in to various scales. Left: core view, middle: section view, right: whole-round sample taken from a core catcher. Note the size and position of the depth navigation bar and the depth column for each view.

Mouse Zoom and Position Control

The mouse wheel can be used to zoom the data display in and out; all panels scale at the same rate. The mouse can also be used to “grab” and move the display up and down the hole within the original query. Because of continuous screen refreshes with mouse movement, using the mouse controls may result in program lag.

Unzoom

Click **Unzoom** on the title bar to return the display to the full scale of the original data query. It will not zoom out to the entire hole unless that was the original query. This feature allows zooming in within queried data and zooming back out to full results without running a new database query; this speeds up operations significantly.

Section and Whole-Round Sample Breaks

The checkboxes **Sect break** and **WR break** on the title bar display horizontal lines across all data panels where section breaks occur or where whole-round samples (e.g., interstitial water or microbiology samples) were taken, respectively. Either or both checkboxes may be selected.

Panel View Options

Data panels have scale bars on either the top or bottom or both horizontal axes. Components plotted against the top axis are shown in the header of the panel; those plotted against the bottom axis are shown in the panel footer.

The panel options window for each axis provides the capability to alter data and sample properties (**Figure 8**). Changes are shown in the panel immediately; **Exit** closes the window.

Panel Scale

The panel axis scale defaults to autoscale to the range of data retrieved (+5%) or can be set to a specific numerical range (e.g., 0–100 for L*). The axis scaling can be overridden by clicking in the header (for top axis) or footer (for bottom axis) to open the panel options window.

Any numerical value can be entered into the minimum and/or maximum fields, then click **Apply scale change**. The change in scale will be immediately visible on the selected panel.

Data Property

For data panels, the user may choose to display or hide connecting lines, symbols, and/or text. If multiple data sets are displayed on the same axis, as shown in **Figure 8**, the user may switch between the color-coded data sets (in this case, blue for b* data and green for GRA density) in the drop-down selector to change the line, symbol, and/or text options independently for each data set. Note that only track data will display lines. Discrete sample data display only as symbols or text (e.g., chemical analyses).

Changes are shown in real time in the data panel. To cancel a change, simply uncheck the property selected.

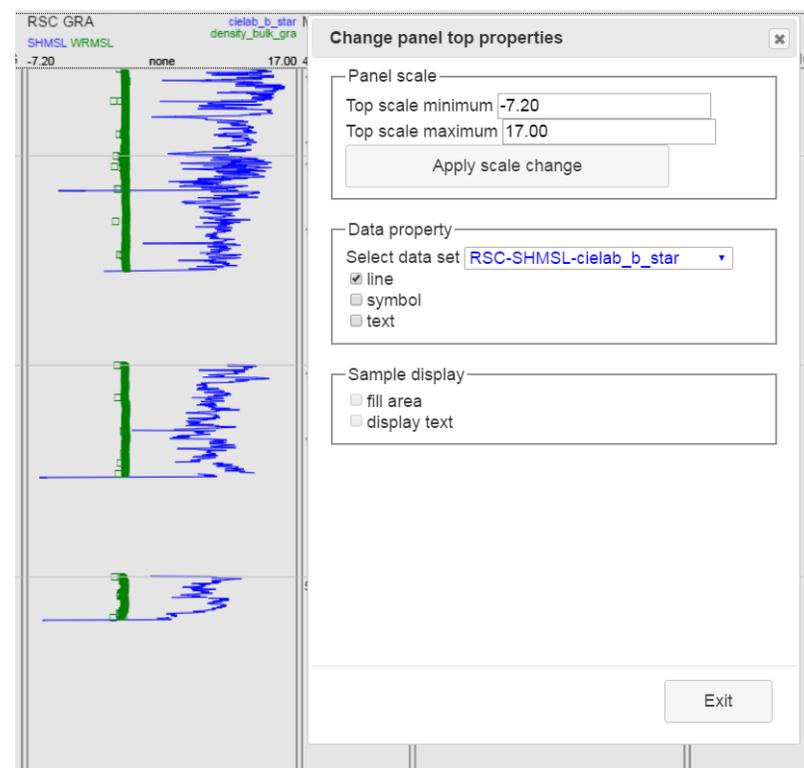


Figure 8. Panel options for top axis.

Sample Display

If the panel to be changed is a sample panel, the Sample display options will enable, allowing the user to toggle area shading (**fill area**) or display text (**display text** button).

Advanced User Options

Users with appropriate privileges may log in to access the **Panel Builder** and **Template Builder**. Links to the builders are in the top bar of the control panel (**Figure 9**).

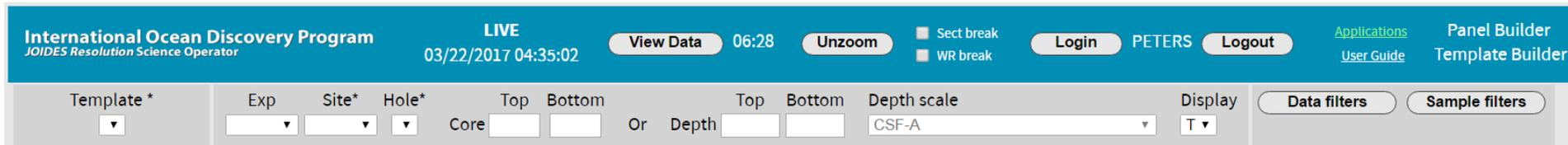


Figure 9. Links to Panel and Template Builders.

Panels can display single or multiple data sets; multiple data types can be combined in a single panel.

Templates are made up of several panels so that related data sets can be viewed simultaneously for comparison or trend recognition, or several types of data can be viewed together as an overview for quality control.

Note: The Panel Builder and Template Builder windows appear in new tabs in the browser. If the user logs out of LIVE on the main screen, or closes its tab, the Panel Builder and Template Builder windows will be orphaned. They will appear to be functional, but will not allow the user to take any action.

Note: If the user plans to make a lot of panel and template changes, a good technique is to open LIVE in two different windows, make and save changes on one, and observe the changes on the other. This prevents the user from having to log in repeatedly after refreshing the browser in order to access new templates, if any.

Panel Builder

Click **Panel Builder** on the main screen to open a new tab for the Panel Builder. The entry screen shows version information, login account, and a list of panels with two controls: **New** and **Select panel** (**Figure 10**).

After selecting an existing panel to modify, change the panel name to ensure that panels already used in active templates remain as originally designed. Changing or deleting a panel in use in active templates may cause problems for other users! Proceed with care; DO NOT give a panel the same name as an existing panel.

Panel naming: Start with data group then include component and/or analysis code + axis (top or bottom, if needed) + instrument (if needed) + other information (if needed).

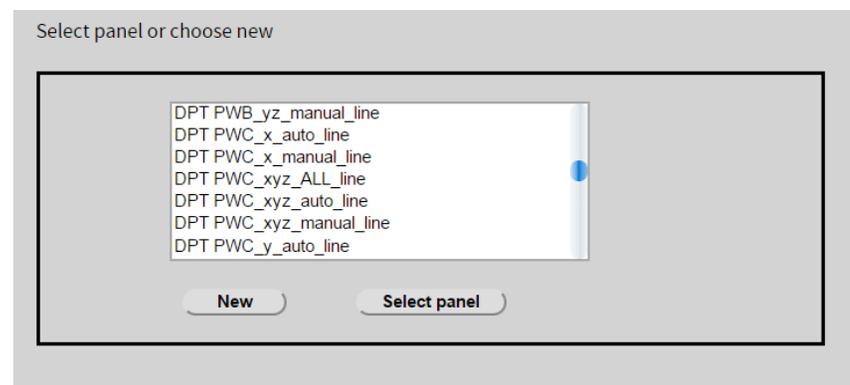


Figure 10. Panel Builder list of panels.

Example panel names:

M_MS_WRMSL_MSP
 P_RSC_AB_top_L_bottom
 C_SRANL_HI_top_OI_bottom
 P_PWB_yz_manual
 X_LSIMG_COUL_RSC-L_RGB

Magnetism panel: magnetic susceptibility from the WRMSL along with point magnetic susceptibility
 PhysProps panel: spectroscopic a* and b* on the top axis and L* on the bottom axis
 Chemistry panel: source rock analysis, hydrogen index on top axis and oxygen index on bottom axis
 PhysProps panel: discrete P-wave velocity measured with the bayonets, y and z directions, using manual pick first arrivals
 Mixed panel: section-half image, along with coulometer results, spectroscopic L*, and red, green, and blue colors

Data Groups:

C = Chemistry, D = Description, I = image, M = Magnetism, P = Physical Properties, X = mixed

Creating a New Panel

Click **New** on the Panel Builder main screen to display the controls for building a panel. **Figure 11** shows the Panel Builder options available. Each number in blue corresponds to an entry in the following table.

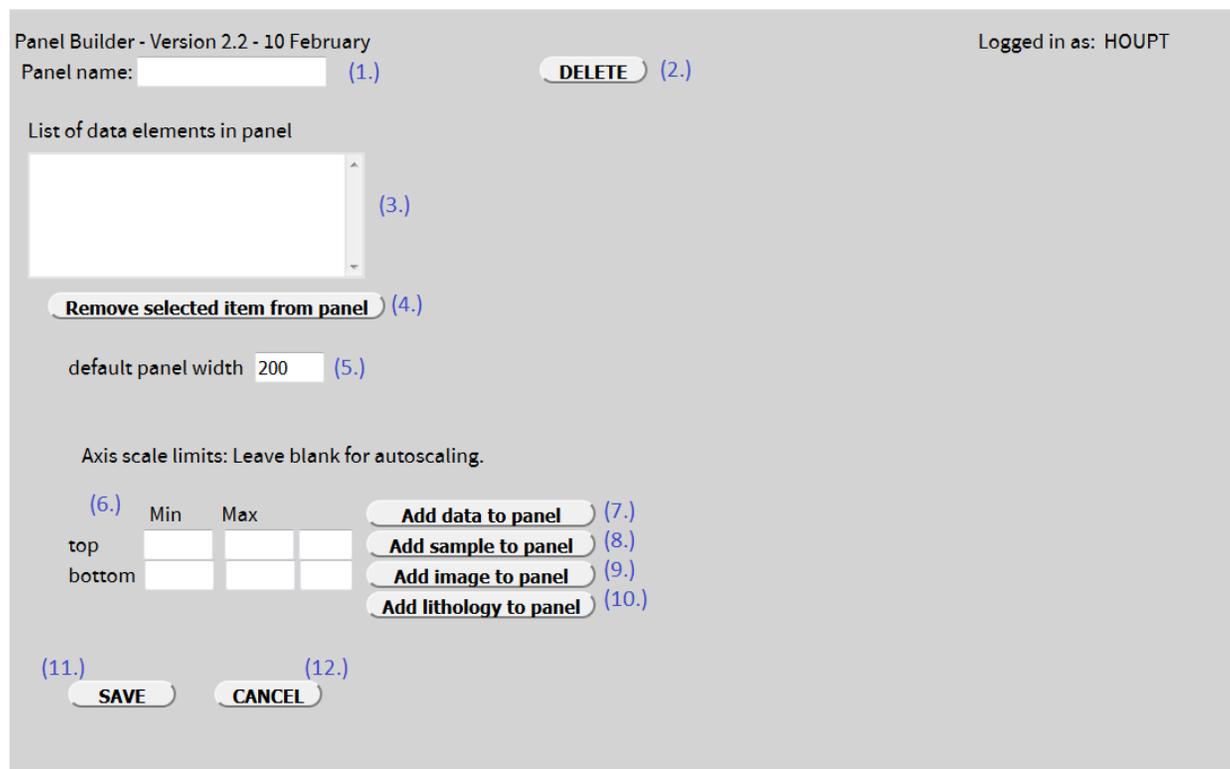


Figure 11. Building a new panel.

Panel Builder fields and controls

No.	Field/Control Name	Field/Control Description
1	Panel name	Text field for the panel name; the name should conform to panel naming convention (see above). Use a new/unique and meaningful name for each panel created.
2	Delete (panel)	Deletes the selected panel if already saved. NOTE: DO NOT delete an existing panel that may be used in an active template.
3	List of data elements	Shows the data elements defined for that panel, including top or bottom axis, type of data, default display type, etc. See Figure 12 .
4	Remove selected item from panel	Removes a highlighted element from the list of data elements. Note: In general, you should this only if the panel has been renamed from the original.
5	Default panel width	Sets the default width for this panel (minimum = 100; 200 is suggested).
6	Min/Max for Top/Bottom	Sets predefined limits for top and bottom axis scales. If the data parameter has a unit, the third field will be populated. Leaving the Min and Max fields blank will cause the data display to autoscale to the minimum and/or maximum values based on the data set retrieved.
7	Add data to panel	Click this button to open a window to add analytical (typically numerical) data to the panel (data panel).
8	Add sample to panel	Click this button to open a window to add sample data to the panel (sample panel).
9	Add image to panel	Click this button to open a window to add either depth-referenced (section and section half) images or thumbnail images (e.g., close-ups, photomicrographs, or SEM) (image panel).
10	Add lithology to panel	Click this button to open a window to select a DESClogik template, tab, and lithology parameter. Only a few lithology-related parameters are allowed (lithology panel).
11	Save	Click SAVE to save the panel using the name given in the name field and return to the entry Panel Builder screen; the user will be prompted if required information is missing. Note: rename an existing panel before saving.
12	Cancel	Click this button to discard all changes and return to the entry Panel Builder screen.

Note: Combined data type panels may be created (e.g., an image panel showing a section-half photo can have analytical data plotted over the image).

Note: Plot multiple data sets on a single axis only if they share the same unit (e.g., PWL, PWC, and/or PWB; MSL, MSP, and MS).

Adding Data to a Panel

Controls for adding data to a panel (#7 on Figure 11) are shown in **Figure 12**. This panel will show **L*** data as **line/symbol** on the plot with scale on the top axis. This data set is assigned to the **Physical Properties** data group. The panel definition default view showing data values as lines/symbols can be changed to area and/or text using the Panel View Options on the results screen.

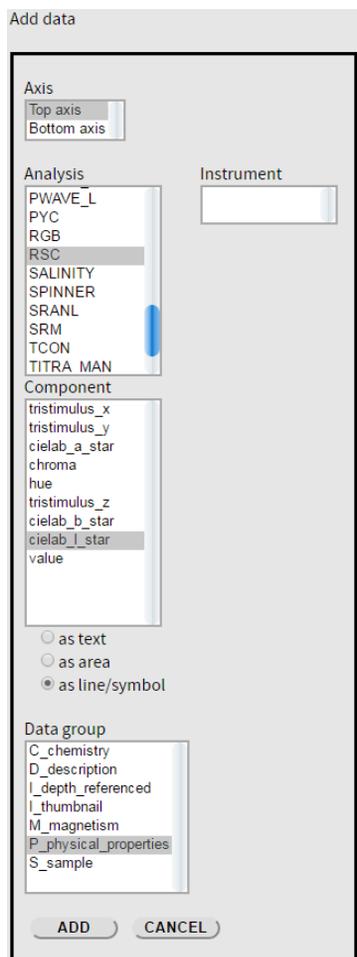


Figure 12. Add data to panel.

Field/Control Name	Field/Control Description	Required?
Axis	Select top or bottom axis for the horizontal scale of this panel	Yes
Analysis	Select the analysis code for the desired data; this populates Instrument (WRMSL or STMSL only) and Component list	Yes
Instrument	Possible instrument choices appear for WRMSL or STMSL loggers; only active for GRA, MS, and PWAVE_L analyses	No
Component	Select the desired component to be plotted; only one component can be selected for a panel at a time	Yes
Display Options Radio Button: display as text	Set the default behavior for the panel to display data values as text labels (this can be changed later in Panel View Options)	No
Display Options Radio Button: display as area	Set the default behavior for the panel to display data as filled area plots (not suitable for most data types) (this can be changed later in Panel View Options)	No
Display Options Radio Button: display as line/symbol	Set the default behavior for the panel to display data as lines and/or symbols (this can be changed later in Panel View Options); track data can be displayed as lines and symbols; discrete data can be displayed only as symbols	No
Data Group	Assign a data group for this particular set of data; used to filter panels in the template builder	Yes
Add	Add the defined parameters to the list of data elements in the panel	NA
Cancel	Abort the operation without saving the parameters	NA

Analysis Codes:

ALKALINITY, CHNS, COUL, DH_TEMP, DO, FORM_FACT, GC3, GRA, H2, LOI, MAD, MSL, MSPPOINT, NEEDLE_PEN, NGAFID, NGATCD, NGR, ORIENT, PENET_CONE, PENETRATE, PWAVE_B, PWAVE_C, PWAVE_L, PYC, RGB, RSC, SALINITY, SPINNER, SRANL, SRM, TCON TITRA_MAN, TOC TOR_SHEAR, VANE_SHEAR

Data Groups:

C_chemistry, D_description, I_depth_referenced, I_thumbnail, M_magnetism, P_physical_properties, S_sample

Adding Samples to a Panel

Figure 13 shows the controls for adding samples to a panel (#8 on Figure 10). The panel shown here will display all **sample types** collected in the depth range of the query as **text**. The text will display at the top left-hand corner of the depth from which the sample was collected (default convention), and the “Samples” label will appear on the **top axis** of the panel. The display as text or area can be changed on the results display using the Panel View Options.

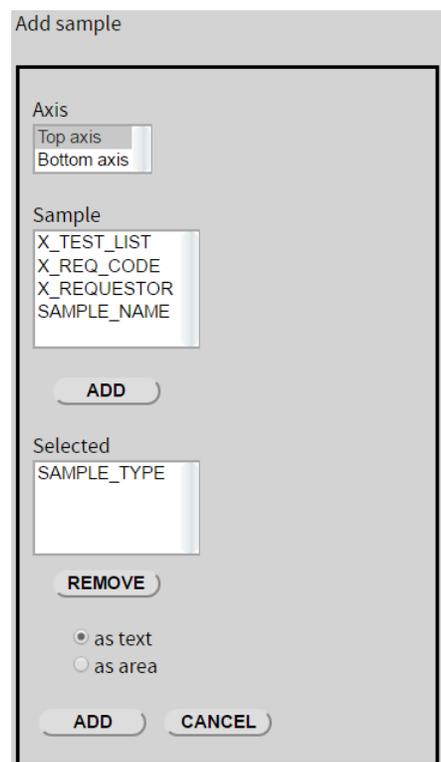


Figure 13. Add sample to panel.

Field/Control Name	Field/Control Description	Required?
Axis	Select top or bottom axis for the horizontal scale label of this panel	Yes
Sample (Field)	Select the sample information field that is to be added	Yes
Add	Click to add the sample field to the “Selected” list; multiple sample fields may be selected (but this is not recommended)	Yes
Remove	Click to remove a selected sample field from the “Selected” list	No
Display Options Radio Button: display as text	Sets the default behavior for the panel to display samples as text labels	No
Display Options Radio Button: display as area	Sets the default behavior for the panel to display samples as filled area plots	No
Add	Adds the defined parameters to the list of data elements in the panel	NA
Cancel	Aborts the operation without saving the parameters	NA

Samples:

SAMPLE_TYPE, X_TEST_LIST, X_REQ_CODE, X_REQUESTOR, SAMPLE_NAME

Data Group:

By default, all sample panels are assigned to the S_sample data group

Adding Images to a Panel

Figure 14 shows the image panel controls. The left panel will show the cropped section-half line-scan image aligned to both top and bottom depths of the interval where the image was taken. The right panel will show the jpeg file of the close-up thumbnail image aligned at the top of the depth interval where it was collected.

*Note that only one choice can be made for these two fields, either depth-referenced or thumbnail. A panel cannot have both types.

Field/Control Name	Field/Control Description	Required?
Axis	Select top or bottom axis for the horizontal scale label of this panel	Yes
Depth-referenced image OR	Select the depth-referenced (section or section half) image to be displayed	Yes (*)
Thumbnail image	Select the thumbnail image (closeup, micro image, SEM image, or thin section image) to be displayed	Yes (*)
Component	Populated by selecting the image type, shows the plottable component(s) for that image type	Yes
Selected	Displays the selected component to be added to the panel	NA
Add	Adds the defined parameters to the list of data elements in the panel	NA
Cancel	Aborts the operation without saving the parameters	NA

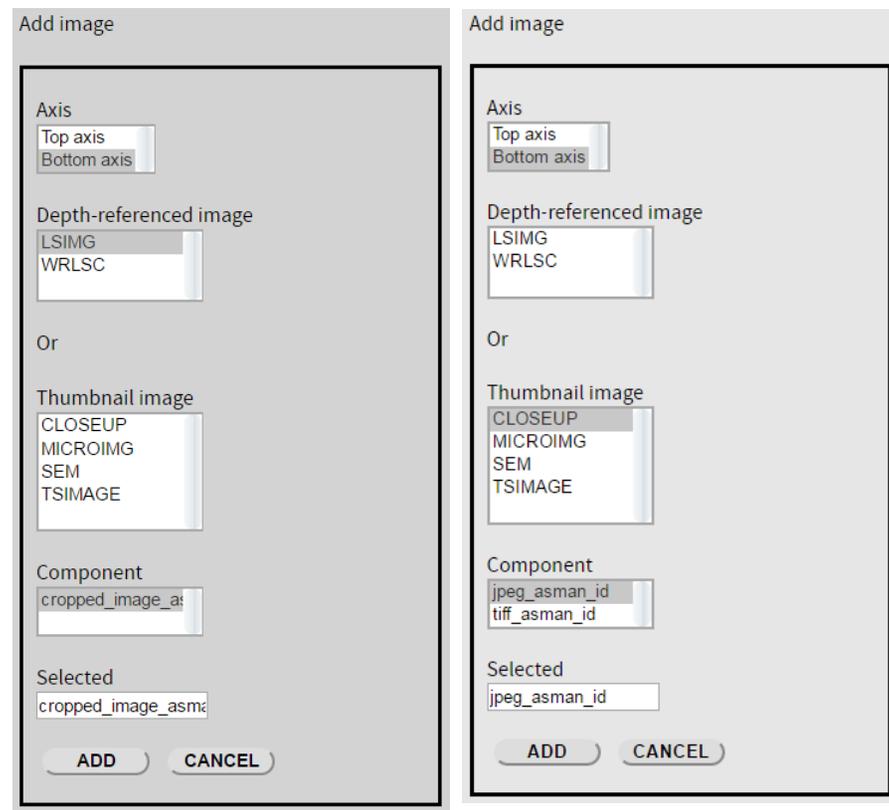


Figure 14. Add image to panel.

Images:

Cropped_image_sman_id, jpg0_asman_id, jpg90_asman_id, jpg180_asman_id, jpg270_asman_id, jpg360_asman_id, jpeg_asman_id, tiff_asman_id, jpeg_image_asman_id

Data Groups:

By default, all image panels are assigned to the I_depth_referenced or I_thumbnail data groups

Adding Lithology to a Panel

Figure 15 shows the lithology panel controls. This panel retrieves a few specific lithology components. The panel shown will plot the **principal lithology** component as a colored **area** block. The lithology is picked up from the **Sediment** tab in the **362-macro** DESCLogik template. The label “Principal lithology” will appear on the **bottom** axis of the panel.

Important! This panel will only work for a specific expedition DESCLogik template, and DESCLogik tab! It must be created at the beginning of each expedition.

Figure 15. Add lithology to panel.

Field/Control Description		Required?
Field/Control Name	Select top or bottom axis for the horizontal scale label of this panel	Yes
Template name	Select the expedition-specific DescLogik template to be used for this panel; lithology is usually found in the macroscopic template for sediment cores. Clicking a template will populate the “Tab name” field (takes a few seconds)	Yes
Tab name	Select the tab name where the lithology parameters can be found; selecting a tab that does not contain any of the allowed lithology components will produce an error message warning the user	Yes
Component	Populated by selecting a tab with the allowed components; select the lithology component to be plotted	Yes
Display Options Radio Button: display as text	Sets the default behavior for the panel to display lithology names as text labels	No
Display Options Radio Button: display as area	Sets the default behavior for the panel to display lithologies as filled area plots	No
Add	Adds the defined parameters to the list of data elements in the panel	NA
Cancel	Aborts the operation without saving the parameters	NA

Lithology Components:

lithology_before_principal; principal_lithology; lithology_after_principal; lithology_ab, lithology_abc, lithology_bc (a = lithology before principal, b = principal lithology, and c = lithology after principal)

Data Group:

By default, all lithology panels are assigned to the D_description data group

Editing an Existing Panel

Warning! Changing or deleting a panel in use in active templates may cause problems for other users! Proceed with care.

Highlight a panel from the panel list on the Panel Builder main page and click **Select Panel**. The builder screen will populate with defined parameters for the selected panel (**Figure 16**). The name can be changed, data elements added or removed, default panel width changed, and min/max top and bottom axis scales set or (if left blank) set to autoscale.

Important: Rename the panel to avoid conflict with this existing panel being used in active templates.

This panel shows caliper P-wave velocities in the x, y, and z directions, both manual pick and autopicked, all on a single plot. Autopicked and manual pick x-direction measurements are shown on the top axis, and autopicked and manual pick y- and z-direction measurements are shown on the bottom axis. The data values will be shown as symbols, as they are discrete measurements, and top and bottom axes will automatically scale to fit the data sets plotted on each axis. As these components all share the same unit, they will be directly comparable plotted on the same axes.

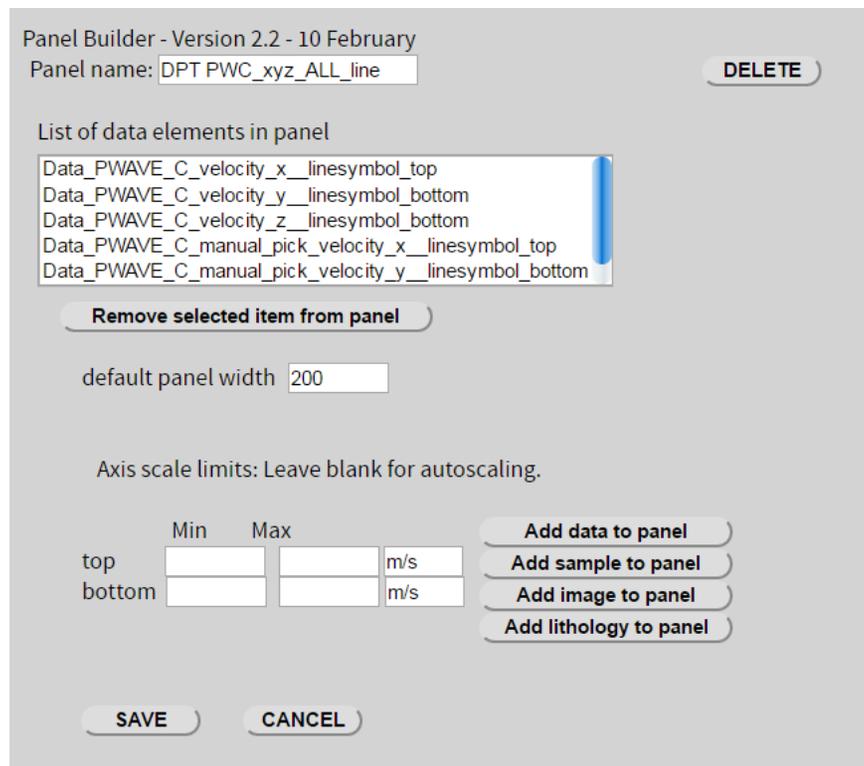


Figure 16. Data elements in panel.

Template Builder

Click **Template Builder** on the main screen to open a new tab for the Template Builder. The user will see version information, what account they are logged in as, and a list of templates with two controls: “New” and “Select template” (**Figure 17**).

To see newly created panels in the Template Builder, refresh the browser tab. New panels will not appear without doing so. Login will be maintained in this case—note that refreshing the main screen will cause automatic logout to occur.

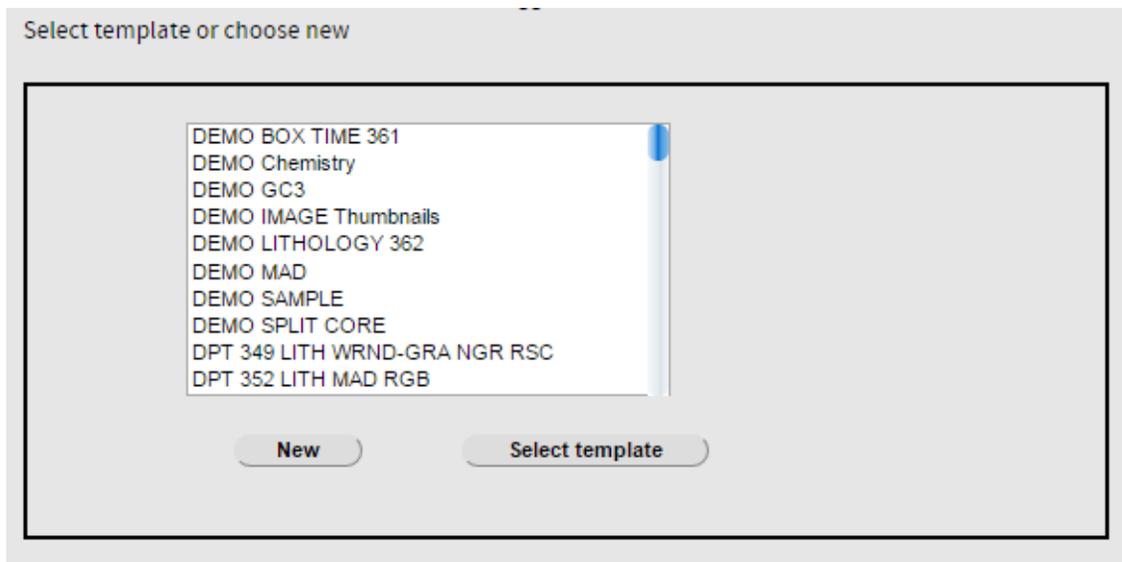


Figure 17. Template builder - list of existing templates.

After selecting an existing template to modify, change the template name to ensure you are not changing or deleting a template that is being used.

Template naming

Include enough information so users can tell what is in the template, for example:

LSIMG_COUL_RGB_RSC-L MS_MSP GRA_MAD PWL_PWB_PWC (or maybe PWAVE_ALL) 349_LITH_WRND-GRA_NGR_RSC

Alternatively, templates used for routine QA/QC can be named for their function, for example:

BOX TIME LITHOLOGY 362 SPLIT CORE WHOLE-ROUND DATA MICRO IMAGES ALL

Creating a New Template

Click **New** on the Template Builder main screen to display the controls for building a template. **Figure 18** shows the options available to build a template. Each number in blue corresponds to an entry in the corresponding table below.

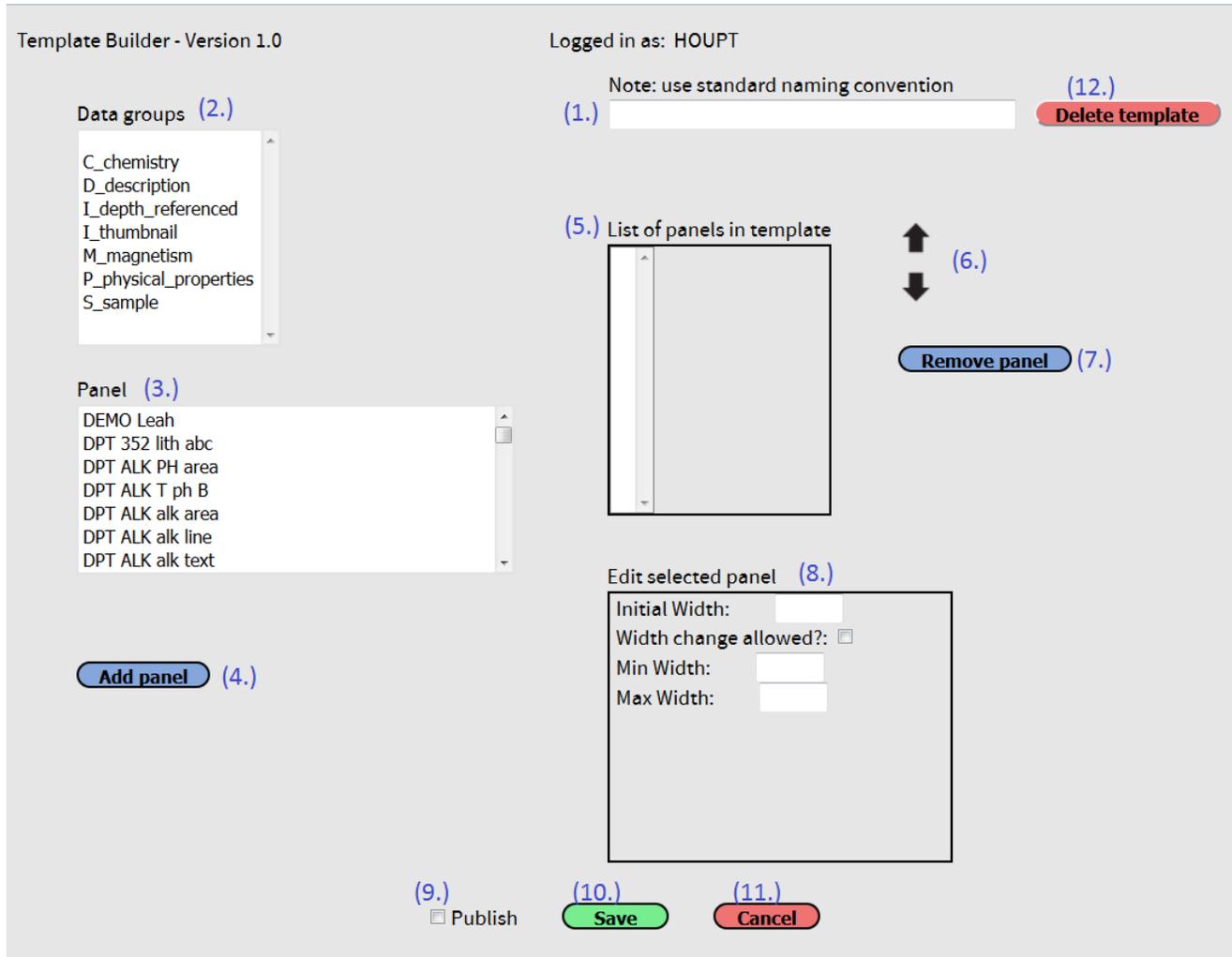


Figure 18. Template builder "New" screen.

Template Builder fields and controls

No.	Field/Control Name	Field/Control Description
1	Template name	Text field for the template name; the name should conform to the template naming convention.
2	Data groups	User may filter the panel list by selecting a data group. Some panels have multiple data groups assigned, and these panels will show up in all applicable data groups.
3	Panel	Displays the panels available to add to the template; filterable by using data groups (2). User highlights a panel before moving to the next control.
4	Add panel	Adds the highlighted panel to the list of panels in the template (appends to end).
5	List of panels in template	List of the current panels in the template, in order of their display (left to right) (see Figure 19).
6	Reorder panel arrows	These arrows are used to move a highlighted panel up or down in the order in the list of panels in template.
7	Remove panel	Removes a highlighted panel from the list of panels in template.
8	Edit selected panel	Allows definition of initial panel width, minimum and maximum panel width, and whether panel width can be changed in the active template in LIVE.
9	Publish checkbox	Selecting this checkbox will make the template viewable to users without a login. Only authorized, logged-in users can see templates without this selection.
10	Save	Click this button to save the template and return to the entry Template Builder screen; the user will be prompted if required information is missing. Note: Give the template a unique name (1) before saving.
11	Cancel	Click to discard all changes and return to the entry Template Builder screen
12	Delete template	Click to delete the template completely. Use with caution!

Editing an Existing Template

An existing template can be modified and saved as a new template. Warning: rename the modified template before saving! The template in **Figure 19** was built as a quality control check on whole-round data. The panels in the template are listed (note the panel names are not exactly like they were named in the Panel Builder, as the application adds additional information to the panel name). The five panels in this template include (1) magnetic susceptibility from WRMSL and STMSL, both plotted on the same axis (top), (2) GRA density from WRMSL and STMSL, both plotted on the same axis (top), PWL (by default, x- and y-directions only), (4) NGR plotted on the top axis, and (5) thermal conductivity plotted on the top axis. Note that both the panel names and the template names are clear enough to determine what they contain.

If we wanted to add the section-half image to this template, we would select Data group `I_depth_referenced`, select the panel that shows the cropped jpeg or tiff, and click **Add panel**. If we wanted the image to be the first panel shown, we would use the up arrow to move the image panel to the top of the list. Very important – we would rename the template something descriptive such as Whole-Round Data plus LSIMG.

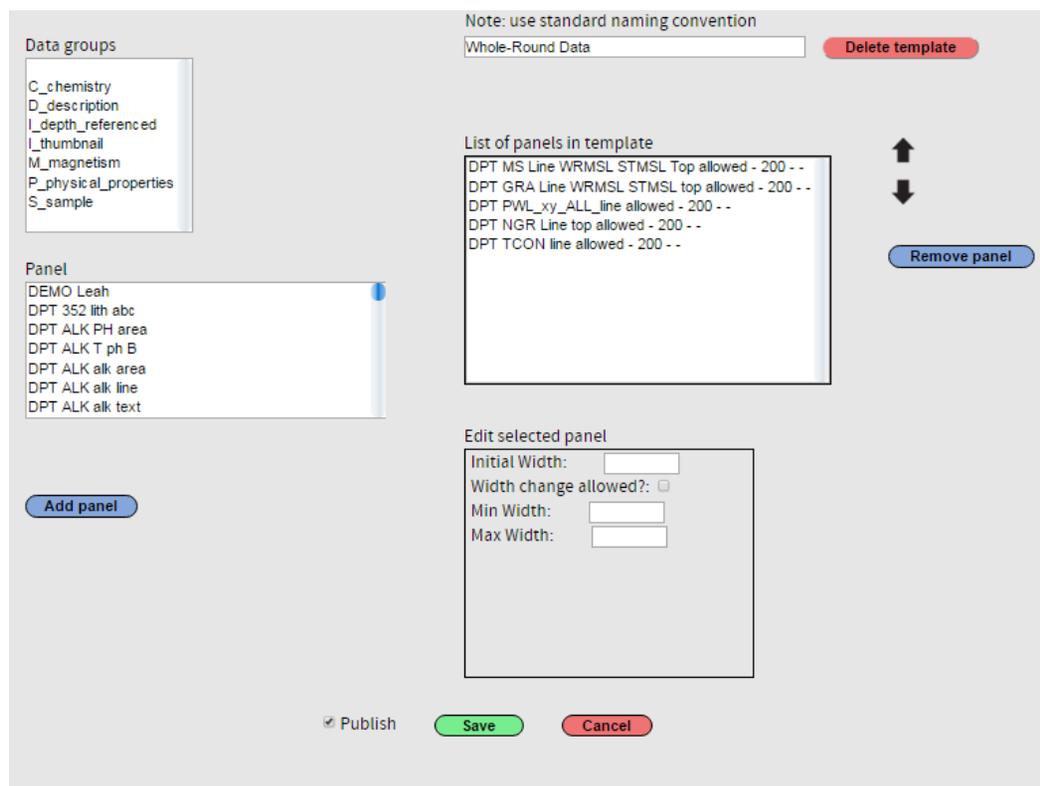


Figure 19. Edit an existing template.

Data Viewer

Figure 20 shows a data query with an image panel showing section-half image (LSIMG), a lithology panel showing principal lithology, and data panels: RSC L*, a*, and b* (note that the color of the data symbols and/or line matches the color of the corresponding header); point magnetic susceptibility (labels on the bottom axis); SRM raw declination in degrees, and SRM raw inclination in degrees. On all data panels, the magenta areas are duplicate samples or duplicate runs.

Note the core overlap (darker shading) between Sections 18H-CC and 19H-1 in the section column and the lithology panel.

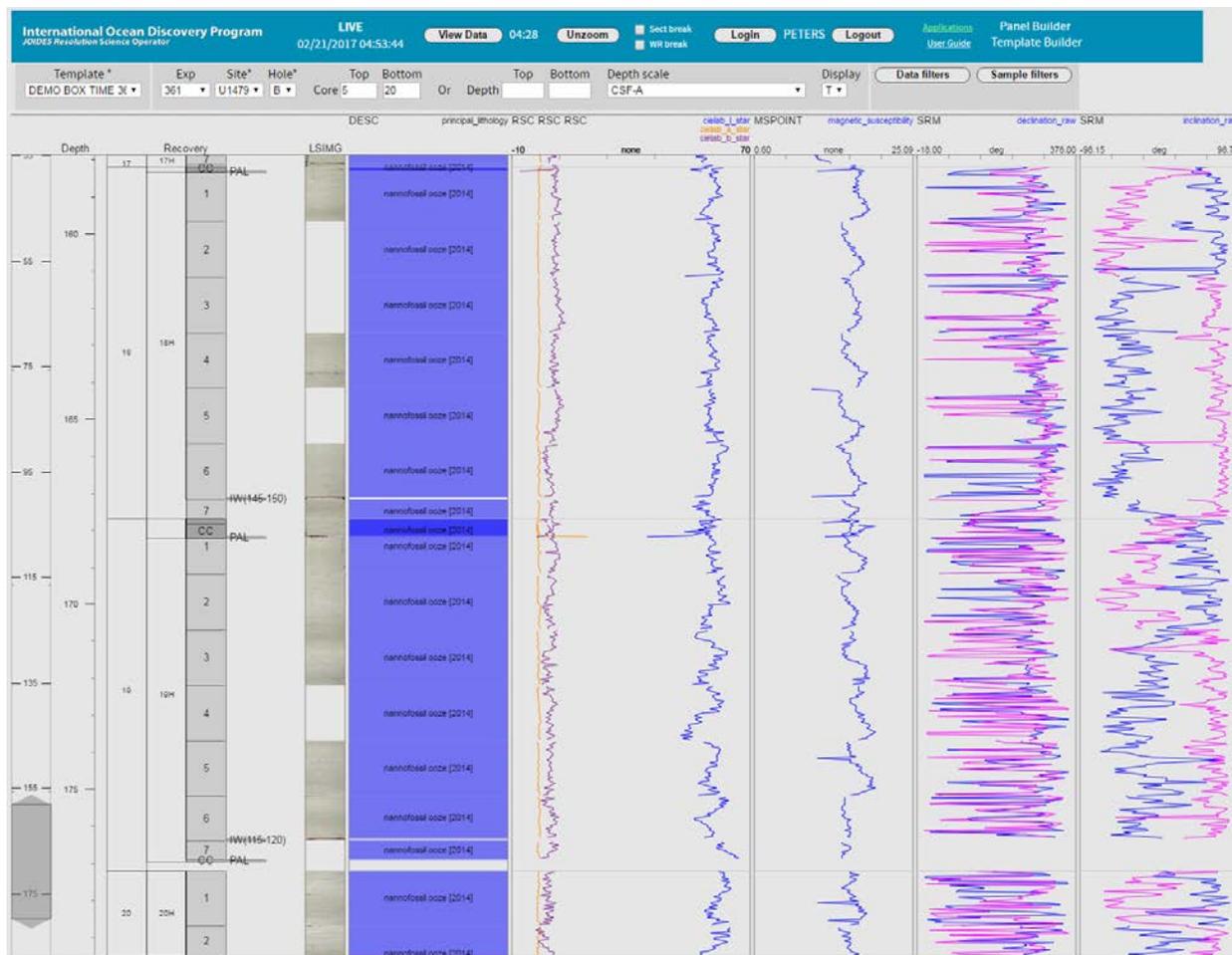


Figure 20. Core overlap between Sections 18H-CC and 19H-1 on the CSF-A depth scale.

Changing the search query to depth scale CSF-B resolves the overlap:

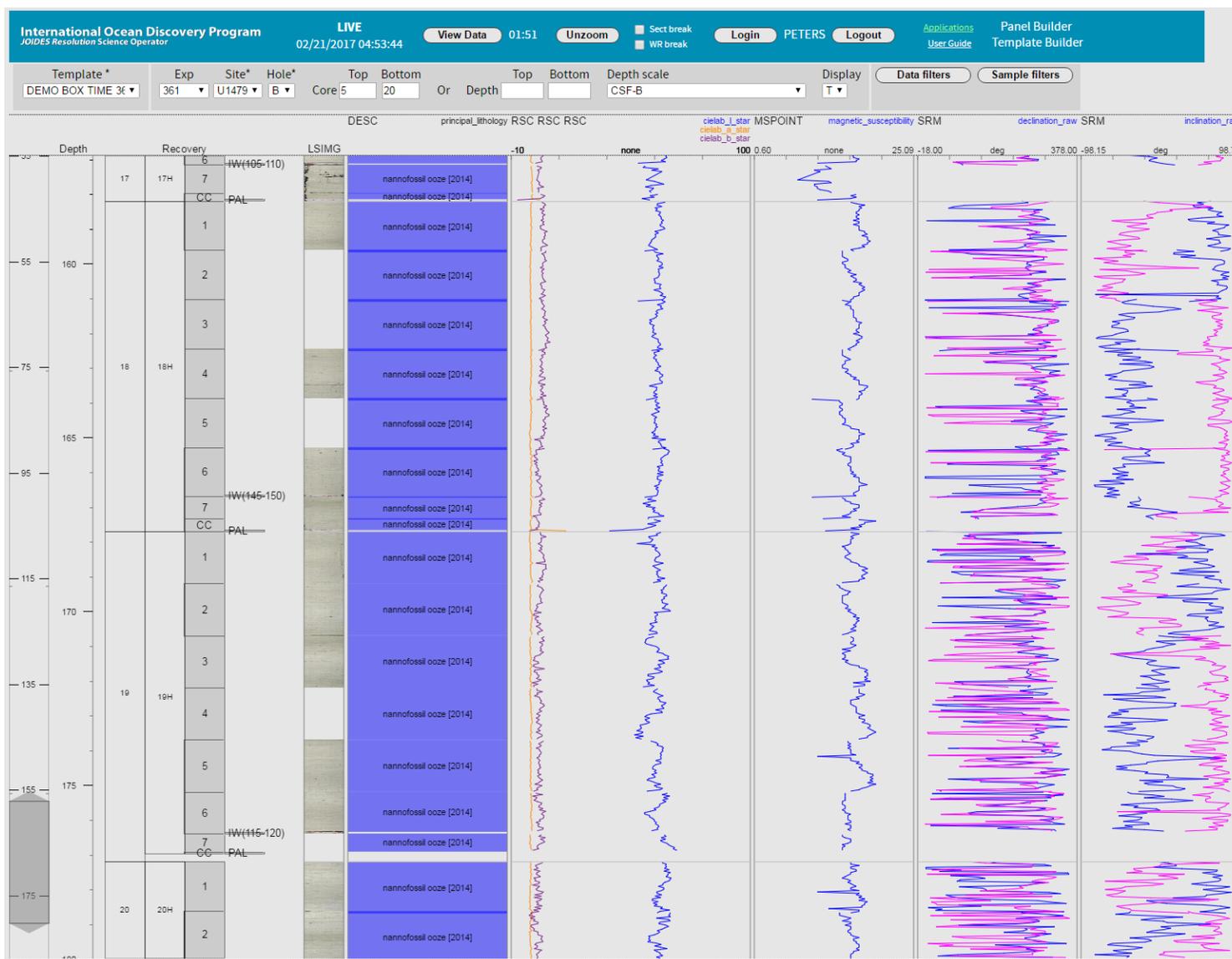


Figure 21. No core overlap on the CSF-B depth scale.

This data query displays LSIMG, sample type as area intervals and text, and sample panels with request code and test list as text:

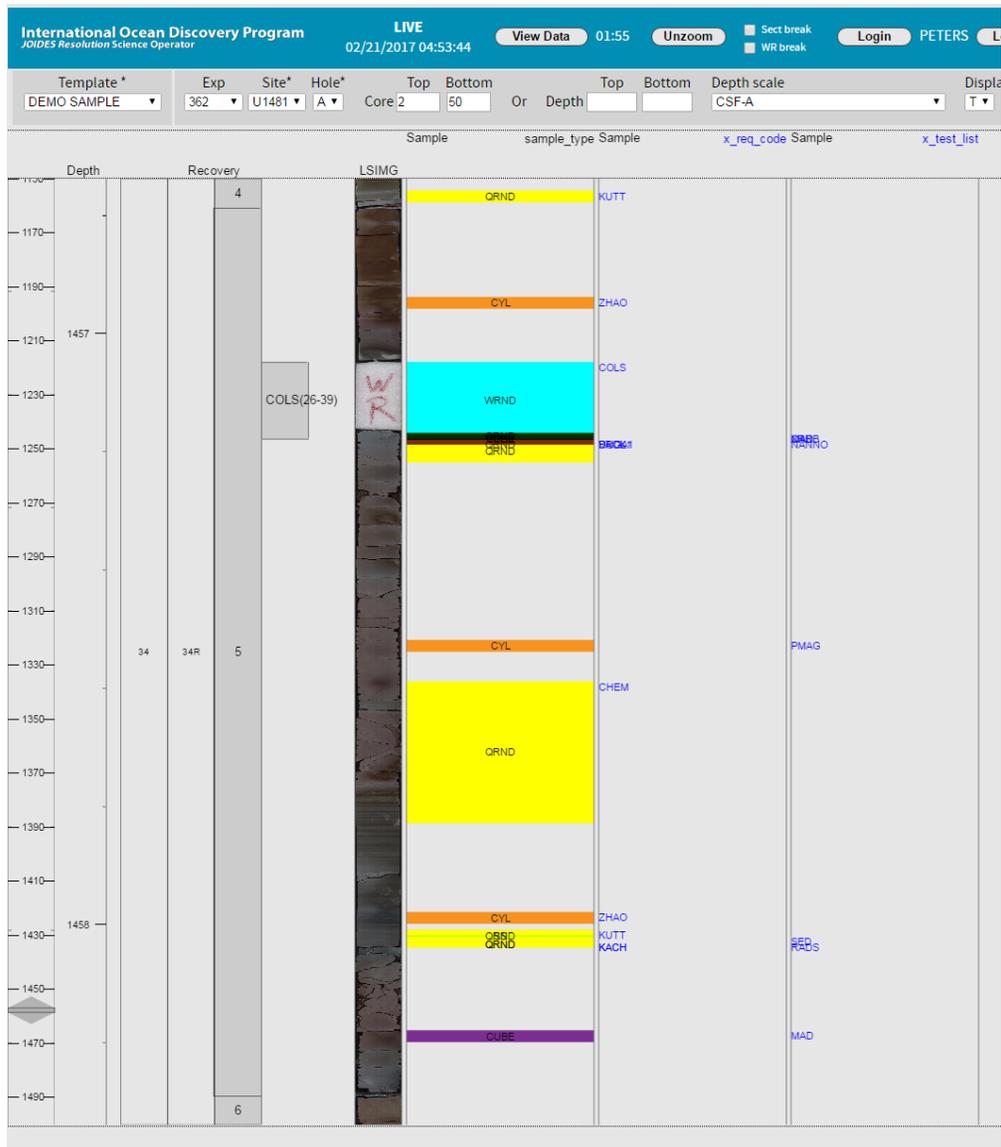


Figure 22. Sample type, request code, and test list.

Figure 1. LIVE main screen. Black outline = title bar area; green = template selector area; blue = query filter area; orange = data and sample filter area. 3

Figure 2. LIVE main screen initial view; note that Template, Site, and Hole are required fields. 3

Figure 3. Data filter window. 5

Figure 4. Sample filter window. 5

Figure 5. Depth columns and depth navigation bar (shaded area in first column). 6

Figure 6. Recovery panel with four columns. 7

Figure 7. Recovery panel zoomed in to various scales. Left: core view, middle: section view, right: whole-round sample taken from a core catcher. Note the size and position of the depth navigation bar and the depth column for each view. 7

Figure 8. Panel options for top axis. 8

Figure 9. Links to Panel and Template Builders. 9

Figure 10. Panel Builder list of panels. 9

Figure 11. Building a new panel. 10

Figure 12. Add data to panel. 12

Figure 13. Add sample to panel. 13

Figure 14. Add image to panel. 14

Figure 15. Add lithology to panel. 15

Figure 16. Data elements in panel. 16

Figure 17. Template builder - list of existing templates. 17

Figure 18. Template builder "New" screen. 18

Figure 19. Edit an existing template. 20

Figure 20. Core overlap between Sections 18H-CC and 19H-1 on the CSF-A depth scale. 21

Figure 21. No core overlap on the CSF-B depth scale. 22

Figure 22. Sample type, request code, and test list. 23