



# Repeated Items – Library, Catalog, And Multi-Layer

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This seminar will cover three basics of Repeated Items:

- How to manipulate Repeated Items using the RI Library Manager.
- How to create and maintain Repeated Item Catalogs using the RI Catalog Manager.
- How to Create and use Multi-Layer Repeated Items.

For the purposes of this seminar, the **ARRIS** menus will be used, and **ARRIS** documentation is referenced. The topics covered are identical in BuildersCAD. For BuildersCAD users, the referenced Encyclopedia documentation may be found in the BuildersCAD Encyclopedia under the same topic names.

It is very important to understand the difference between a Repeated Item Library and a Repeated Item Catalog. Repeated Items are selected for placement from the RI Select Menu which can display the Repeated Items either directly from the Library, or from a Catalog.

## Repeated Item Library

The RI Library is a file on your computer where the actual repeated items are stored.

- Repeated Items are stored in the library alphabetically by name.
- Currently there is no description available with the RI in a Library.

When the Repeated Item itself is actually created, it is stored in a library. Libraries should be located either in the Standards directory or Project directory, depending on how they are to be used. System and Plug-In RI Libraries are found in the *Vib* directory of your **ARRIS** / BuildersCAD installation and in the application directory of the plug-in respectively. The RI Library name has a .ri extension. The Repeated Item Select Menu will search these locations automatically and list all Repeated Item Libraries found for selection.

The RI Library Manager allows you to create libraries, and manipulate RIs within the library including adding RIs to a library, extracting RIs from the library, deleting RIs from the library, and renaming RIs within the library.

The **RI Library Manager** topic of the **ARRIS Encyclopedia** is included on the conference CD for reference.



## Repeated Item Catalog

The RI Catalog is a simple text file list of repeated items organized into Categories and Headings. It is NOT where the Repeated Item itself is stored, but is merely a list referencing the RI name, Description, and Library which allows you to select the desired repeated item very quickly from a large collection.

- Repeated Items are stored and listed in the catalog within user defined Categories and Headings, in any order as defined by the user.
- A user defined description is stored in the catalog with the Repeated Item.
- Headings are a subset of a Category. Repeated Items are listed within a Heading.
- A Repeated Item may be listed more than once in a catalog.
- Repeated Items from more than one library may be listed in a Catalog.

It is important to note that the RI Library and RI Catalog are two distinct and separate things that are not linked in any way. If a Repeated Item is deleted or renamed in a Library, the listing of that RI in a catalog is not changed in any way. The RI would need to be deleted from the catalog or renamed. When a Repeated Item is created, it is stored in a Library. It is *not* automatically added to a catalog. The RI must be added to a catalog as a separate process from it's creation. The Catalog is used only in the placement process to reference to an actual Library and RI.

User created RI Catalogs are stored either in the Standards directory or in the Project directory, depending on how they are to be used. In both cases, the catalog is found in a subdirectory named ricat.dir. System and Plug-In RI Catalogs are found in the \lib directory of your **ARRIS** / BuildersCAD installation and in the application directory of the plug-in respectively. The RI Catalog file itself is an ascii text file and has a .ct extension. The Repeated Item Select Menu will search these locations automatically and list all Repeated Item Catalogs found for selection.

The **RI Catalog Manager** topic of the **ARRIS Encyclopedia** is included on the conference CD for reference.



## Multi-Layer Repeated Items

The Multi-Layer Repeated Item is now supported with **ARRIS / BuildersCAD 9.0**.

Multi-Layer Repeated Items are just like standard repeated items except they contain special flags on the geometry within the RI to display portions of the Repeated Item across more than 1 layer. Multi-Layer RIs are stored in a library, and may be placed from a library or catalog from the Repeated Item Select menu, just like any other RI. A Multi-Layer RI may be placed on any layer.

- A Multi-Layer Repeated Item is still a single entity which is placed on a single layer. When a Multi-Layer RI is created, the layer name where each entity included within the RI is drawn is stored within the RI.
- Entities in Multi-Layer RIs (and other Multi-Layer functions) will operate with a set of flags that comprise a 64 character layer name. This is the maximum length for a layer name.
- Extrema will not check for layer modes. An Unzoom command will zoom to the entire Repeated Item, even if some layers to display a portion of the RI are turned off.
- Edits are performed in the placement layer only. If you delete the RI, or move the RI, the entire RI is deleted or moved, including parts which display in layers that are turned off and are thus not currently visible.
- Searches will check the display layers. If you are searching for the display list of a point such as the endpoint of a line within the RI, the point or line must be in a layer that is currently visible.
- Multi-Layer Repeated Items may be nested, similar to normal Repeated Items.
- Multi-Layer Repeated Items may be translated.

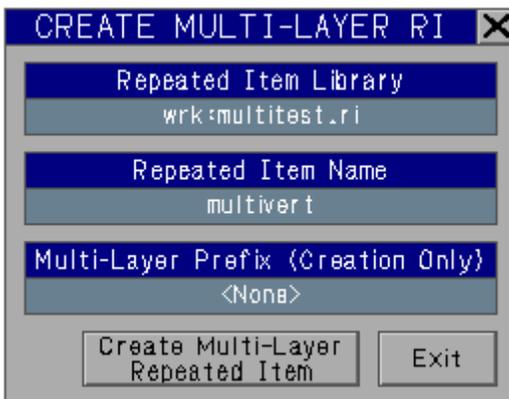
There are two basic types of Multi-Layer Repeated Items – Fixed Layer and Variable Layer. With Fixed Layer Multi-Layer RIs, the display layer names for the entities within the RI are fixed to specific layer names. The entities will only display when the specific layer name is present and turned on. Relative Layer Multi-Layer RIs store a portion of the layer name at the time the RI is created and append it to a portion of the placement layer name to determine the display layer name for specific entities within the RI.



## Creating A Multi-Layer Repeated Item

Creating a Multi-Layer Repeated Item is similar to creating a standard RI. You must first draw the item. In the case of the Multi-Layer RI, the geometry to be included in the RI may be drawn across multiple layers. Geometry which is drawn in layer "0" (name, not number) will be included in the RI as non-Multi-Layer data.

To create the Multi-Layer Repeated Item, select the Multi-Layer button under the Create heading on the Repeated Item Application Sub-Menu. This brings up the Create Multi-Layer RI pop-up menu. The parameter settings and commands on this menu are as follows:



**Repeated Item Library:** This command allows you to set the Repeated Item Library in which the new Multi-Layer RI will be stored.

**Repeated Item Name:** This command allows you to set the Repeated Item Name for the new Multi-Layer RI>

**Multi-Layer Prefix (Creation Only):** This parameter is a layer group "prefix" which is used for creating Multi-Layer Repeated Items that will be placed in a variable layer set. The prefix is the first (common) portion of the layer name for layers where the geometry to be included in the RI is drawn. As the RI is created, this portion of the RI name is dropped and only the remainder (unique) portion of the display layer name is retained. When the RI is placed, the remaining portion of the layer name is appended to the placement layer "group" portion of the layer name. This enables the RI to be placed in various groups of layers and still have the portions of the RI display on the correct specific layer for the placement group.

**Create Multi-Layer Repeated Item:** This command creates the Multi-Layer RI. The actual creation is similar to creating a normal RI using the RI Create command. The Create Multi-Layer RI menu will clear from the screen. **ARRIS** / BuildersCAD will first prompt for the first and second point of a window (fence) which defines the extent of your Repeated Item.



## Repeated Items – Library, Catalog, And Multi-Layer

Select points that will completely enclose the entities you wish to include in your Repeated Item. All entities on all layers that are completely within the fence will be a part of the new RI. **ARRIS** / BuildersCAD will then prompt for the Repeated Item *Origin* point. This is the point by which the RI will be placed and selected in the database. This is usually an existing point on an entity within the RI selected using the F3 key. The origin point may be any point however, within or outside the collection of entities comprising the Repeated Item, and may be selected based on a logical location for when the RI is placed. The name of the Repeated Item created and the RI Library into which it is placed are as they are set on the Create Multi-Layer RI menu.

**Exit:** This command clears the Create Multi-Layer RI menu from the screen. The Multi-Layer RI is not created.

### Placing A Multi-Layer Repeated Item

A Multi-Layer Repeated Item is placed using any of the placement commands or menus, just like any other Repeated Item. The RI may be placed on any layer, either a display layer for entities contained in the RI, or any other layer.

- The layer where the RI is placed must be On for display or none of the RI will display, even if other layers named on the flags for entities in the RI are on. Because of this, Multi-Layer RIs should be placed on a master layer (such as "xxx\_ribase") which can remain on, giving display control to the other layers carried on the flags within the RI. Alternately the RI should be placed on a layer which is always on if the Multi-Layer features are desired.

Example: The RI could be placed on a "furniture" layer, and use multi-layers for labels such as part number and description. The "labels" may be turned off separately from the main "furniture" layer but the labels cannot be turned on unless the main "furniture" layer is on.

- Once placed, the entities within the RI will display according to the layer modes named on the flag in the entity (the layer the entity was on when the RI was created).

Example: Say you have lines drawn on layer "one", "two", and "three", and create a Multi-Layer RI containing these lines. If the RI is placed on layer "base", then layer "base" must be on for display or none of the RI will display. Assuming layer "base" is on, the lines originally drawn in layer "one" when the RI was created will display if layer "one" is on for display, the lines originally in layer "two" will display if layer "two" is on for display, and so on. If the layer is off, the portion of the Multi-Layer RI for that layer will not display.



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- Layer "0" (layer name "0", not layer number 0) is ignored for Multi-Layer definitions. Geometry which is on layer "0" at the time the Multi-Layer RI is created is treated as non-Multi-Layer geometry. This geometry will display with the layer in which the RI is placed, similar to a normal RI.
- If the display layer for a portion of the Multi-Layer Repeated Item does not exist in the currently loaded drawing, that portion of the RI will not display. The layer is not automatically loaded if it exists, or automatically create if it does not exist.
- For "order of display", the Multi-Layer RI will be displayed when its occurrence is found on the layer where the RI is actually placed. All portions of the RI are displayed at this time, regardless of the order of the display layers contained on entities within the RI.

### Variable Layer Names

When a Multi-Layer Repeated Item is created, a prefix may be designated which indicates a portion of the layer name for entities within the RI that is dropped during creation of the RI. When the RI is placed, a special layer name ending in "ribase" is used for the placement layer that allows the portion of the placement layer name before "ribase" to be substituted for the prefix that was dropped during RI creation. This feature allows placement of Multi-Layer Repeated Items in different layer "groups" such as first floor, second floor, etc. using the same Repeated Item. In order to use this feature you *must* have a well designed layer standard and naming convention.

- The layer where the RI is placed must be named using a layer "group" designation plus "ribase".

Example: Create a Multi-Layer Repeated Item which will display using 5 layers which are in a variable group. Assume you have the layers "p01wall", "p01fixt", "p01poch", "p01keys", and "p01note". Draw the various parts of the RI in the various layers – walls in layer "p01wall", fixtures in layer "p01fixt", poche in layer "p01poch", and so on. When the Multi-Layer Repeated Item is created, designate the *Multi-Layer Prefix* as "p01". When the RI is placed on a layer "p01ribase" and this layer is on for display, the walls will display with layer "p01wall", the fixtures will display with layer "p01fixt", the poche with layer "p01poch" and so on. When the RI is placed on a layer "p02ribase" and this layer is on for display, the walls will display with layer "p02wall", the fixtures with layer "p02fixt", the poche with layer "p02poch" and so on. The portion of the base layer name before "ribase" (such as "p02") is substituted for the prefix designated when the RI was created ("p01" in our example) in the original display layer name.



## Repeated Items – Library, Catalog, And Multi-Layer

- Layer names are used for variable layer names in Multi-Layer Repeated Items instead of layer numbers (+1, +2, etc.) because layer numbers in **ARRIS** are not necessarily consistent across drawings. The same layer may have 2 different numbers in 2 different drawings. Also this method had been used, if a layer were to be deleted within the range of numbers used, then the display of portions of the Multi-Layer RI would shift to the wrong layer.

Refer to the Repeated Items topic in the **ARRIS** or BuildersCAD Encyclopedia for more information on Repeated Items.

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# REPEATED ITEM LIBRARY MANAGER



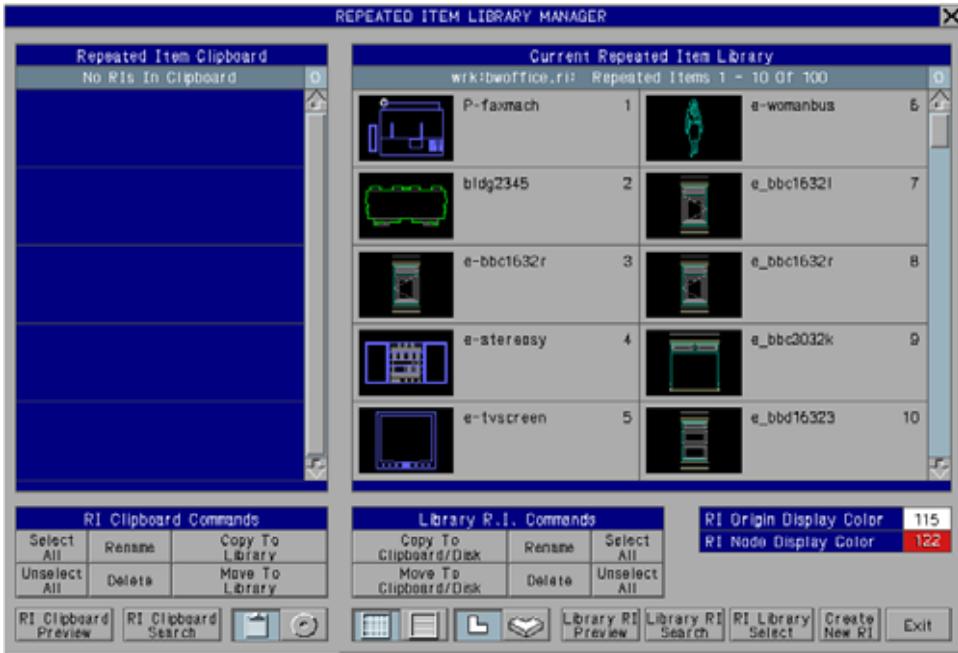
*Repeated Item Libraries* are special files where *Repeated Items* are stored. It is an archive file which contains the Repeated Items, and any associated *Attributes*.

The *Repeated Item Library Manager* provides tools for creating, renaming, and deleting Repeated Items within the current library, and also provides a Library Manager Clipboard which may be used to store Repeated Items, and move them from one library to another. Any associated Attributes are moved or deleted along with the Repeated Item. Repeated Items may also be archived to and extracted from libraries directly from/to the disk. The Repeated Item Library Manager also provides tools which allow you to load and unload Repeated Item libraries, select the current library. It may also be used to create, rename, and delete Repeated Item libraries. Refer to the [Repeated Items](#) topic for more information about Repeated Items and Libraries.

While a Repeated Item library may be loaded from anywhere on your system, they are generally found in one of four places - The current *Project* directory, the *Standards* directory, **ARRIS** Plug-in libraries, and **ARRIS** system libraries. A Repeated Item library uses the *.ri* extension.

The **ARRIS** and **ARRIS** Plug-In Repeated Item libraries are distributed with **ARRIS** and the individual Plug-Ins. They may not be altered using this program. The Repeated Item libraries found in *Standard* and *Project* directories are user created and defined. There may be as many Standard and/or Project RI libraries as you wish.

The *Repeated Item Library Manager* may be accessed by selecting the Library Mgr. button located under the Create heading on the **Repeated Items** Application Sub-menu. The **REPEATED ITEM LIBRARY MANAGER** pop-up menu will appear on the screen.



## General Commands

The **REPEATED ITEM LIBRARY MANAGER** menu is divided into two main sections. The left portion is devoted to the Repeated Item Library Manager Clipboard / Disk List, and the center and right portion is devoted to the current Repeated Item Library. The Repeated Items within the current RI library, Clipboard, and Disk List are shown in alphabetical order by RI name. The Manager functions for the RI Library and Clipboard/Disk are found grouped below the Library and Clipboard/Disk displays. General functions are found at the bottom of the menu.

## Menu List Selections

*Repeated Items* on the Current RI Library list, the RI Clipboard list, and the RI Disk list, and *RI Libraries* on the RI Library Select list in the menus are selected or made current by selecting the box in which they are displayed. The current *Library*, *Clipboard*, or *Disk RI* or *Library Select RI Library* is highlighted in the menu. A Repeated Item which is displayed in Preview mode from either the Current RI Library or RI Clipboard list is considered selected. In some cases, selecting the current (highlighted) Library, Clipboard or Disk RI, or RI Library Select list Library, or a right-click selection on these lists will perform a separate function. These are described with the function they perform.

If the displayed Repeated Item has *attributes* associated with it, a blue Attributes indication will be displayed in the menu box along with the RI and /or RI name.

## Slidebars

The menu slidebars contained within the **REPEATED ITEM LIBRARY MANAGER** Menus allow the user to quickly browse through the lists Repeated Items or RI Libraries when the list is longer than the menu available to display it. These slidebars are located on the menu on the right side of the list for which they function. A sidebar consists of an up arrow at the top, a down arrow at the bottom and a sidebar in between. The sidebar shows the proportion of, and relative location within the entire list of the portion of the list currently displayed in the menu. Refer to the [Slidebars](#) topic for more information. Sidebar commands are as follows:

**UP ARROW:** A left click selection on the [Up Arrow](#) moves the display of the list up 1 item. A right click selection on the [Up Arrow](#) moves the display of the list up 1 menu page.

**DOWN ARROW:** A left click selection on the [Down Arrow](#) moves the display of the list down 1 item. A right click selection on the [Down Arrow](#) moves the display of the list down 1 menu page.

**SLIDEBAR:** Selecting on the [Slidebar](#) moves the portion of the list displayed in the menu to the relative position of the selection on the sidebar.

## General Commands

The general commands found at the bottom right portion of the **REPEATED ITEM CATALOG MANAGER** menu perform overall tasks which relate to all-portions of the program.

**EXIT:** Exits the *Repeated Item Library Manager* and clears the menu from the screen.

Note 1: Selecting the **REPEATED ITEM LIBRARY MANAGER** menu title bar or the "X" icon at the right end of the title bar will also exit the RI Library Manager.

**CREATE NEW RI:** This function duplicates the [Create RI](#) function on the **Repeated Items** Application Sub-menu. When this button is selected, **ARRIS** will prompt for the new Repeated Item name. Enter the name as desired. Remember that the name is limited to 12 alpha-numeric (plus underscore) characters with no spaces. The **Repeated Item Library Manager**

menu will clear from the screen and the command will prompt for the first and second fence points of an area on the screen which contains the new Repeated Item. **ARRIS** will then prompt for the Repeated Item origin. The **Repeated Item Library Manager** menu will return to the screen and the new Repeated Item will be added to the current RI library, and shown on the *Repeated Item Library Manager* list. Refer to the [Repeated Items](#) topic for further description of creating a Repeated Item.

Note 1: The entities which will be contained within the new Repeated Item must be already drawn and on a searchable layer(s) when the Create New RI function within the *Repeated Item Library Manager* is invoked.

**RI LIBRARY SELECT:** Selecting this button toggles the *Repeated Item Library Manager* to *RI Library Select* mode. This allows you to select a new Repeated Item Library as current, or to access one of the library management functions. Refer to the *Library Select* portion of this topic below.

### Repeated Item Sample Views

#### Plan View



Displays all Repeated Items in display boxes in the **REPEATED ITEM LIBRARY MANAGER** menus in plan view. The display of all repeated items currently shown in the *Repeated Item Library Manager* is updated when this box is selected.

#### Iso View



Displays all Repeated Items in display boxes in the **REPEATED ITEM LIBRARY MANAGER** menus in isometric view. This function is particularly useful with 3 dimensional repeated items. The display of all repeated items currently shown in the *Repeated Item Library Manager* is updated when this box is selected.

### Repeated Item Display Mode

#### Icon Mode



Displays the contents of the current Repeated Item library and clipboard showing the repeated item graphics, and the names. The current library Repeated Items are shown on the menu 10 at a time with a sidebar, and the Clipboard Repeated Items are shown on the menu 5 at a time with a sidebar.

#### List Mode



Displays the contents of the current Repeated

Item library and clipboard showing the Repeated Item names only. The current library Repeated Items are shown on the menu 36 at a time with a slide-bar, and the Clipboard Repeated Items are shown on the menu 18 at a time with a sidebar.

## Repeated Item Clipboard / Disk Mode

### Repeated Item Library Manager Clipboard



Toggles the left side of the **REPEATED ITEM LIBRARY MANAGER** menu to *RI Library Manager Clipboard* mode. The menu displays the contents of the RI clipboard showing the Repeated Item graphics and names 5 at a time with a sidebar in *Icon* mode, or RI names only 18 at a time with a sidebar in *List* mode. Refer to the [RI Library Manager Clipboard](#) portion of this topic below.

### Repeated Item Library Manager Disk List



Toggles the left side of the **REPEATED ITEM LIBRARY MANAGER** menu to *Disk* mode. This displays un-archived Repeated Item files (RI's which are not archived in a library) in the currently selected disk directory location. The un-archived Repeated Items are shown on the menu by name only, 18 at a time with a sidebar. Refer to the [RI Library Manager Disk List](#) portion of this topic below.

## Repeated Item Node/Origin Display

### RI Origin Display Color

Displays the color used to display the RI origin marker in the Library Repeated Item and Clipboard icon and Preview displays. The RI origin location is displayed with a rectangle in the set color. On the Library RI and Clipboard lists, the origin is displayed only if an Origin marker was added and saved to the Repeated Item using the Edit RI menu. In the Library RI and Clipboard Preview menus, the RI origin location is displayed with a color rectangle whether an origin marker has been added to the RI or not. Refer to the [Repeated Items](#) topic for more information on origin markers. The desired display color may be set by selecting the color box.

### RI Node Display Color

Displays the color used to display *Nodes* within the RI in the Library Repeated Item and Clipboard icon and Preview displays. The RI node locations are displayed with an X in the set color. Refer to the [Repeated Items](#)

topic for more information on nodes. The desired display color may be set by selecting the color box.

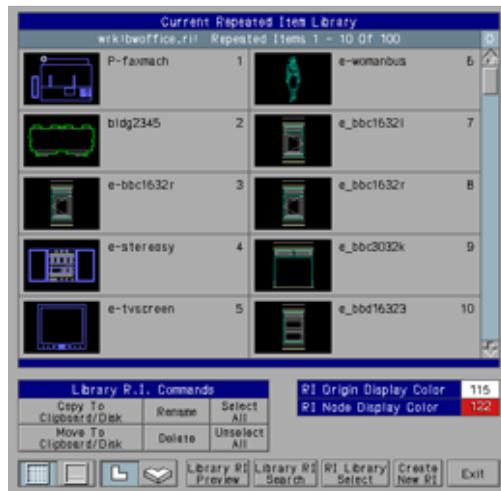
### Permissions

**ARRIS** system and Plug-In RI libraries may not be saved or altered. If the current Repeated Item library is an **ARRIS** system or Plug-In library, the buttons which edit the library or any Repeated Items within it are blanked out and not active.

## Current Repeated Item Library

### Repeated Item Library

The current Repeated Item library name is displayed at the top of the Library Repeated Item list. If this button is selected, the **REPEATED ITEM LIBRARY MANAGER** Menu toggles to Library selection mode and the **RI Library Select** list is displayed. Refer to the *Library Select* portion of this topic below. This box also displays the range of Repeated Items within the library displayed on the menu below, and the total number of Repeated Items in the library.



The highlighted box containing a number to the right of the current Repeated Item Library name indicates the number of items within the current RI library that are selected. This is particularly useful in *Icon* display mode if the current RI library contains more than 10 Repeated Items, or in *List* display mode if the current RI library contains more than 36 Repeated Items since in these cases not all Repeated Items in the library are shown on the menu at one time. A library Repeated Item may be selected, even if it is not in the portion of the library displayed on the menu.

### Library RI Commands

**SELECT ALL:** Selects and highlights all Repeated Items in the Current

Repeated Item Library list.

**UNSELECT ALL:** Unselects and unhighlights all Repeated Items in the Current Repeated Item Library list.

**RENAME:** Renames the currently selected Library Repeated Item. A single current library RI must be selected first. The user is prompted for the new Repeated Item name. Any attributes associated with a renamed Repeated Item will remain associated with that item.

Note 1: This box is blank if permissions are denied on the current Repeated Item library. See the *Permissions* discussion in this topic.

**DELETE:** Deletes the currently selected library Repeated Item(s). At least one current library RI must be selected first. **ARRIS** will prompt to verify the deletion. All selected Repeated Items will be deleted from the current RI library. Any attributes associated with a Repeated Item will be deleted along with the RI.

Note 1: This box is blank if permissions are denied on the current Repeated Item library. See the *Permissions* discussion in this topic.

Note 2: *WARNING!* Deleting a Repeated Item from a library has far reaching consequences. If the Repeated Item has been placed in a drawing and no Repeated Item of that name is found in an available RI library, any action which touches the display list of the drawing will cause the display of that Repeated Item to disappear, even though the entity itself remains in the database. The deletion of a Repeated Item should be well thought out and not taken lightly.

**COPY TO CLIPBOARD / DISK:** Copies the currently selected library Repeated Item(s) from the current RI library to either the RI Library Manager Clipboard, or to the currently set Disk location, depending on the current Clipboard/Disk mode. At least one current library RI must be selected first. The selected Repeated Items are copied and thus not removed from the current Repeated Item library. Any attributes associated with a Repeated Item will be copied along with the RI.

Note 1: This box is blank if permissions are denied on the current Repeated Item library. See the *Permissions* discussion in this topic.

**MOVE TO CLIPBOARD / DISK:** Moves the currently selected library Repeated Item(s) from the current RI library to either the RI Library Manager Clipboard, or to the currently set Disk location, depending on the current Clipboard/Disk mode. At least one current library RI must be selected first. Any attributes associated with a Repeated Item will be moved along

with the RI.

Note 1: This box is blank if permissions are denied on the current Repeated Item library. See the *Permissions* discussion in this topic.

**LIBRARY RI SEARCH:** This function allows you to search the current Repeated Item library for a particular RI by name. This is especially useful for determining if a given RI name is used in the library, or to move the display to a particular RI within a large library. **ARRIS** will prompt for the Repeated Item name to search. Type the RI name and enter. If an RI by the given name is contained within the current library, the current RI Library display will scroll to show the given RI and it will be selected and highlighted on the menu. If no RI within the current library has the given name, **ARRIS** will give a "Not Found" message.

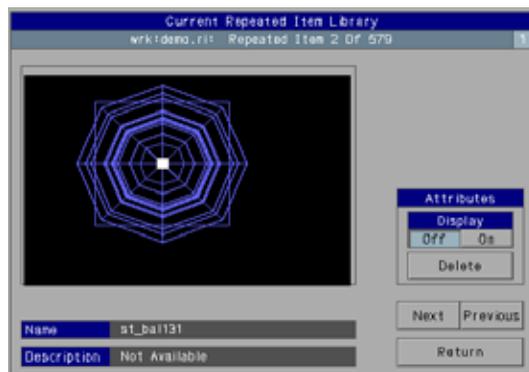
**LIBRARY RI PREVIEW:** Displays the currently selected library Repeated Item in the **LIBRARY RI PREVIEW** sub-menu on the right side of the **REPEATED ITEM LIBRARY MANAGER** menu. Refer to the *Library RI Preview* portion of this topic below. This button remains highlighted while in Library RI Preview mode. Selection of this button when in Preview mode will toggle the display back to the Current Library RI list.

Note 1: A single Repeated Item must be selected (highlighted) in order to preview.

Note 2: A right click selection of a Repeated Item on the Current Library RI list will unselect any selected Repeated Items on the list, Select the RI picked, and toggle to *Library RI Preview* mode.

### Library RI Preview

In *Library RI Preview* mode, the one currently selected library RI is displayed in a large box on the right portion of the **REPEATED ITEM LIBRARY MANAGER** menu. The name of the RI is displayed below the graphic. If the Repeated Item has *Attributes* and the Attribute Display is on, the attributes are displayed as well.



The description box below the Name display is for future use. Descriptions are not currently available directly on the Repeated Item, although a description may be assigned to a Repeated Item when it is listed in a Catalog.

**NEXT:** Displays the next Repeated Item in the current Repeated Item library list in Preview mode. From the last RI in the library, the display will cycle to the first RI in the library.

**PREVIOUS:** Displays the previous Repeated Item in the current Repeated Item library list in Preview mode. From the first RI in the library, the display will cycle to the last RI in the library.

**RETURN:** Returns the Repeated Item Library Manager current RI Library display from Preview mode to the full current library RI list. Selection within the Repeated Item menu display itself will also execute this function.

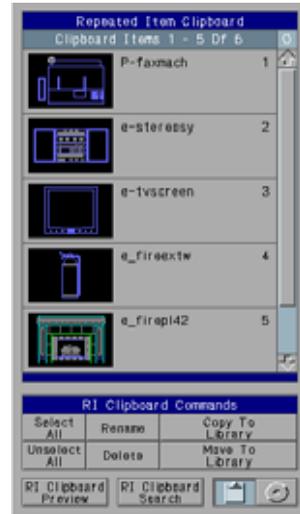
**ATTRIBUTE DISPLAY OFF:** When Attribute Display is Off, any displayable attributes associated with the previewed Repeated Item are not displayed in the Library RI Preview menu.

**ATTRIBUTE DISPLAY ON:** When Attribute Display is On, any displayable attributes associated with the previewed Repeated Item will also be displayed in the Library RI Preview menu along with the RI.

**ATTRIBUTE DELETE:** If the previewed Repeated Item has attributes, selecting this button will delete them. **ARRIS** will prompt to verify the deletion.

## RI Library Manager Clipboard

The Repeated Item Library Manager Clipboard is used as a temporary holding point while moving Repeated Items from one library to another, or as a "reservoir" for storage of Repeated Items not currently in use. Note that the Repeated Item Library Manager Clipboard is a feature completely contained within the *Repeated Item Library Manager* and is not tied in to either the **ARRIS** Clipboard feature (used for cutting & pasting drawing data), the Repeated Item Catalog Manager Clipboard, or the MS Windows Clipboard.



The Repeated Item Library Manager Clipboard is actually a special Repeated Item library "clipboard.ri" which is stored in the user home directory. This library is automatically loaded and unloaded as needed for function of the clipboard. It is not intended to be generally available as a Repeated Item library in **ARRIS**. Because it is stored in the user home directory, the RI clipboard will be unique for each login user, and will have network availability depending on the availability of the user home directory.

### Clipboard RI Commands

**SELECT ALL:** Selects and highlights all Repeated Items in the RI Clipboard list.

**UNSELECT ALL:** Unselects and unhighlights all Repeated Items in the RI Clipboard list.

**RENAME:** Renames the currently selected Clipboard Repeated Item. A single clipboard RI must be selected first. The user is prompted for the new Repeated Item name. Any attributes associated with a renamed Repeated Item will remain associated with that item.

**DELETE:** Deletes the currently selected clipboard Repeated Item(s). At least one clipboard RI must be selected first. **ARRIS** will prompt to verify the deletion. All selected Repeated Items will be deleted from the RI Library Manager clipboard. Any attributes associated with a Repeated Item will be deleted along with the RI.

**COPY TO LIBRARY:** Copies the currently selected Repeated Item(s) from the RI clipboard to the current Repeated Item library. At least one clipboard

RI must be selected first. The selected Repeated Items are copied and thus not removed from the Repeated Item Library Manager clipboard. Any attributes associated with a Repeated Item will be copied along with the RI.

Note 1: This box is blank if permissions are denied on the current Repeated Item library. See the *Permissions* discussion in this topic.

**MOVE TO LIBRARY:** Moves the currently selected Repeated Item(s) from the RI clipboard to the current Repeated Item library. At least one clipboard RI must be selected first. Any attributes associated with a Repeated Item will be moved along with the RI.

Note 1: This box is blank if permissions are denied on the current Repeated Item library. See the *Permissions* discussion in this topic.

**RI CLIPBOARD SEARCH:** This function allows you to search the Repeated Item Library Manager Clipboard for a particular RI by name. This is especially useful for determining if a given RI name is contained in the clipboard, or to move the display to a particular RI if there are a lot of RIs stored in the clipboard. **ARRIS** will prompt for the Repeated Item name to search. Type the RI name and enter. If an RI by the given name is contained within the RI clipboard, the RI Library Manager Clipboard display will scroll to show the given RI and it will be selected and highlighted on the menu. If no RI within the RI clipboard has the given name, **ARRIS** will give a "Not Found" message.

**CLIPBOARD RI PREVIEW:** Displays the currently selected Clipboard Repeated Item in the **CLIPBOARD RI PREVIEW** sub-menu on the left side of the **REPEATED ITEM LIBRARY MANAGER** menu. Refer to the *Clipboard RI Preview* portion of this topic below. This button remains highlighted while in Clipboard RI Preview mode. Selection of this button when in Preview mode will toggle the display back to the full RI clipboard list.

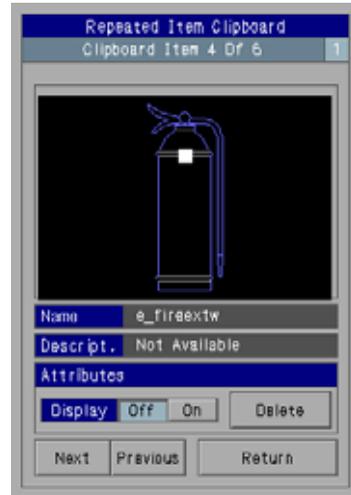
Note 1: A single Repeated Item must be selected (highlighted) in order to preview.

Note 2: A right click selection of a Repeated Item on the RI clipboard list will unselect any selected Repeated Items on the list, Select the RI picked, and toggle to *Clipboard RI Preview* mode.

## Clipboard RI Preview

In *Clipboard RI Preview* mode, the one currently selected clipboard RI is displayed in a large box on the left portion of the **REPEATED ITEM LIBRARY MANAGER** menu. The name of the RI is displayed below the graphic. If the Repeated Item has *Attributes* and the Attribute Display is on, the attributes are displayed as well.

The description box below the Name display is for future use. Descriptions are not currently available directly on the Repeated Item, although a description may be assigned to a Repeated Item when it is listed in a Catalog.



**NEXT:** Displays the next Repeated Item in the Repeated Item Clipboard list in Preview mode. From the last RI in the clipboard, the display will cycle to the first RI in the clipboard.

**PREVIOUS:** Displays the previous Repeated Item in the Repeated Item Clipboard list in Preview mode. From the first RI in the clipboard, the display will cycle to the last RI in the clipboard.

**RETURN:** Returns the Repeated Item Library Manager RI Clipboard display from Preview mode to the full RI clipboard list. Selection within the Repeated Item menu display itself will also execute this function.

**ATTRIBUTE DISPLAY OFF:** When Attribute Display is Off, any displayable attributes associated with the previewed Repeated Item are not displayed in the Clipboard RI Preview menu.

**ATTRIBUTE DISPLAY ON:** When Attribute Display is On, any displayable attributes associated with the previewed Repeated Item will also be displayed in the Clipboard RI Preview menu along with the RI.

**ATTRIBUTE DELETE:** If the previewed Repeated Item has attributes, selecting this button will delete them. **ARRIS** will prompt to verify the deletion.

## RI Library Manager Disk List

The *Repeated Item Library Manager Disk List* displays un-archived Repeated Item (and attribute) files within a specified directory on your computer. These Repeated Item files are the individual Repeated Items which have been extracted from a Repeated Item library. The extracted RI files have a .ri\_ extension.

The current disk list location is displayed on the menu at the top of the list. Selection of this box allows you to browse for the current disk list directory. See the [Directory Browse](#) command discussion below.



Note 1: Repeated Items which are not archived in an RI library are not usable in **ARRIS**. They may not be displayed, selected, placed in a drawing, or otherwise addressed. The ability to archive and unarchive individual Repeated Items is provided in the Repeated Item Library Manager as a way to be able to move a Repeated Item from one library to another, or to store unused Repeated Items.

## RI Disk List Commands

**SELECT ALL:** Selects and highlights all Repeated Items in the RI Disk list.

**UNSELECT ALL:** Unselects and unhighlights all Repeated Items in the RI Disk list.

**RENAME:** Renames the currently selected Disk Repeated Item. A single disk RI must be selected first. The user is prompted for the new Repeated Item name. Any extracted attribute file in the same disk directory which contains the same base name as the RI will also be renamed, thus attributes associated with a renamed Repeated Item will remain associated with that item.

**DELETE:** Deletes the currently selected disk Repeated Item file(s). At least one clipboard RI must be selected first. **ARRIS** will prompt to verify the deletion. All selected Repeated Items will be deleted from the Disk List directory. Any attributes associated with a Repeated Item will be deleted along with the RI.

**COPY TO LIBRARY:** Copies (or archives) the currently selected Repeated Item(s) from the disk to the current Repeated Item library. At least one disk list RI must be selected first. The selected Repeated Items are archived to the

current RI library and the un-archived RI file(s) will remain in the directory. Any attributes associated with a Repeated Item will also be archived along with the RI.

Note 1: This box is blank if permissions are denied on the current Repeated Item library. See the *Permissions* discussion in this topic.

**MOVE TO LIBRARY:** Moves (or archives) the currently selected Repeated Item(s) from the disk to the current Repeated Item library. At least one clipboard RI must be selected first. The selected Repeated Items are archived to the current RI library and the un-archived RI file(s) will be removed from the directory. Any attributes associated with a Repeated Item will also be archived and deleted from the directory along with the RI.

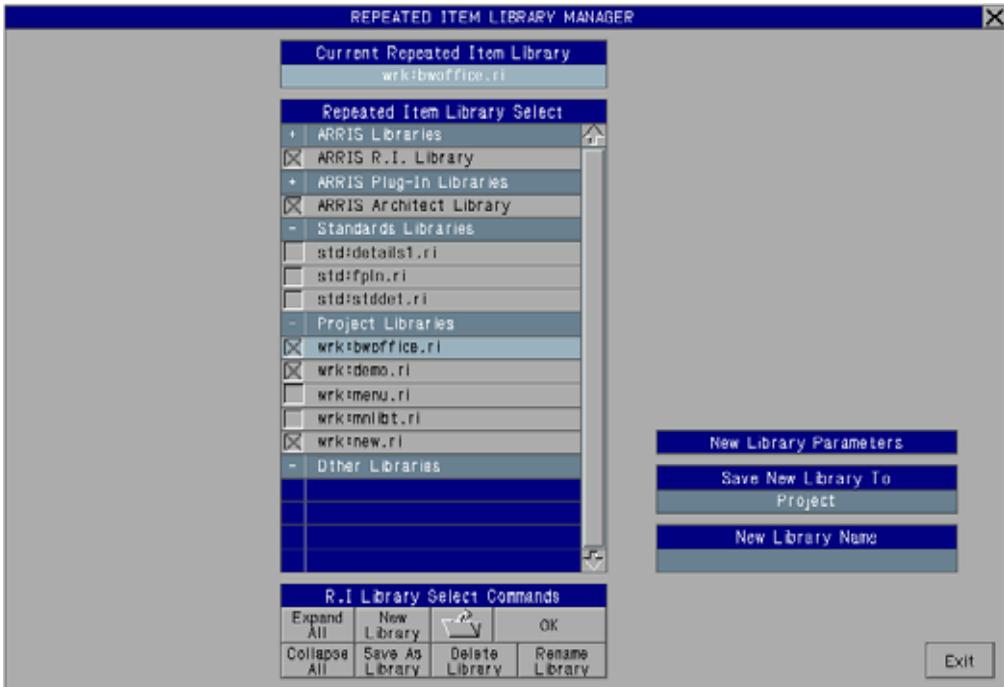
Note 1: This box is blank if permissions are denied on the current Repeated Item library. See the *Permissions* discussion in this topic.

**DISK RI SEARCH:** This function allows you to search the Repeated Item Library Manager current disk directory for a particular RI by name. This is especially useful for determining if a given RI name is contained in the directory, or to move the display to a particular RI if there are a lot of RIs stored in the directory. **ARRIS** will prompt for the Repeated Item name to search. Type the RI name and enter. If an un-archived RI by the given name is contained in the current disk RI directory, the RI Library Manager Disk List display will scroll to show the given RI and it will be selected and highlighted on the menu. If no RI within the directory has the given name, **ARRIS** will give a "Not Found" message.

**DIRECTORY BROWSE:** allows you to set the directory in the computer file system which is displayed for un-archived Repeated Items on the disk. Selecting this button brings up the **ARRIS** browse pop-up menu with which you can navigate to the desired directory. The current Disk List directory location is displayed at the top of the **Un-Archived Repeated Items On Disk** menu.

## Library Select

When the RI Library Select button or the current Repeated Item Library name display is selected, the *Repeated Item Library Manager* toggles to *Library Select* mode and the *Library Select* functions are displayed in the **Repeated Item Library Manager** menu.



The *current* Repeated Item Library is selected by left clicking on the box in which the desired library is displayed. Selecting one of the 4 location titles will expand or collapse the list of RI libraries shown under that title.

### New Library Parameters

The *New Library Parameter* settings are shown on the right side of the **REPEATED ITEM LIBRARY MANAGER** menu. These settings are used when creating new or renaming existing Repeated Item libraries.

**SAVE NEW LIBRARY TO:** Repeated Item Libraries may be saved to either the Standards (std:) or Current Project directories. The current setting is displayed in this box. Select the box to toggle between the two settings.

**NEW LIBRARY NAME:** Select this box to enter a name for a new Repeated Item library. RI libraries must end in a .ri suffix. The New Library Name must be set before using the New Library, Save As Library, or Rename Library functions.

### R I Library Select Commands

These commands allow you to create new RI libraries, rename or delete

existing RI libraries, or select a Repeated Item library as current.

**EXPAND ALL:** Expands all standard RI library locations on the RI Library Select list. All available RI libraries are now viewable on the list.

**COLLAPSE ALL:** Collapses all standard RI library locations on the RI Library Select list. Only the RI library location titles and the **ARRIS** RI Library, Architect RI Library, and current RI library are now viewable on the list.

**NEW LIBRARY:** Creates a new RI library using the name set in the New Library Name box, placed in either the *Standard* or *Project* directory as shown in the Save New Library To box. A new library name must be specified in the New Library Name box before this function is executed. The new RI library will display in the appropriate location on the RI Library Select list in the center portion of the **REPEATED ITEM LIBRARY MANAGER** Menu and be highlighted and set as the current RI library.

**LIBRARY BROWSE:** Selecting this button brings up a browse pop-up menu which allows you to find and select as current, a Repeated Item library which is not located in one of the standard locations (*Current Project*, *Standards*, *Loaded Plug-In*, or **ARRIS**). The newly loaded library will appear on the RI Library Select list at the bottom under the Other heading. As an example, this allows you to find and load an RI library which is in a project directory other than the current project.

**OK:** Toggles the **REPEATED ITEM LIBRARY MANAGER** back to the current RI library display. The highlighted RI library on the RI Library Select list is the current library and the contents of this library will be displayed on the menu. Selecting the highlighted current library on the list will toggle the menu as if the OK button were selected.

**DELETE LIBRARY:** Deletes the currently selected *Standard* or *Project* Repeated Item library on the RI Library Select list in the center portion of the **REPEATED ITEM LIBRARY MANAGER** Menu from the disk. **ARRIS** will prompt to verify the deletion. The **ARRIS** RI Library will be set as current after the selected library is deleted. **ARRIS** System and Plug-In RI libraries may not be deleted.

**RENAME LIBRARY:** Renames the currently selected *Standard* or *Project* Repeated Item library on the RI Library Select list in the center portion of the **REPEATED ITEM LIBRARY MANAGER** Menu. The library is renamed to the name set in the New Library Name box, and is placed in the *Standard*

or *Project* directory as shown in the Save New Library To box. If the Save New Library To setting is different than the current location of the library, it will be moved as it is renamed. A new library name must be specified in the New Library Name box, and a library must be selected in the RI Library Select list before this function is executed. **ARRIS** System and Plug-In RI libraries may not be renamed.

## See Also

[Repeated Items, Catalogs, Repeated Item Catalog Manager, Slidebars, & Clipboard.](#)

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# REPEATED ITEM CATALOG MANAGER



Repeated Item Catalogs are an organization tool for repeated items which allows quick and easy location and selection of the desired item. Within a repeated item catalog, R.I.'s are organized in a hierarchy of *Category*, *Heading*, and *Item*. *Categories* may be created which have one or more *Headings* within them, which in turn may have one or more *Repeated Items* listed in them, along with description data about the repeated item. The catalog itself does not contain the repeated items, but is a text file which contains the organization data. The repeated items are stored in *libraries*. See the [Repeated Item](#) topic for more information. All three levels of organization are required, i.e. a Repeated Item entry must be within a Heading which is within a Category. For any given catalog there must be at least one Category, and each Category must contain at least one Heading in order to store a Repeated Item entry. A given repeated item may be listed in a catalog more than once, and a catalog may have repeated items which are stored in more than one library. A repeated item may be selected for placement from either its library, or from catalogs.

The *Repeated Item Catalog Manager* provides tools for creating, renaming, and deleting Repeated Item Catalogs, as well as tools for adding, deleting, and manipulating categories, headings and item entries within a catalog.

Repeated Item catalogs may be found in 4 places. These are *Project* RI Catalogs, *Standard* RI Catalogs, *Plug-In* RI Catalogs and *System* or **ARRIS** RI Catalogs.

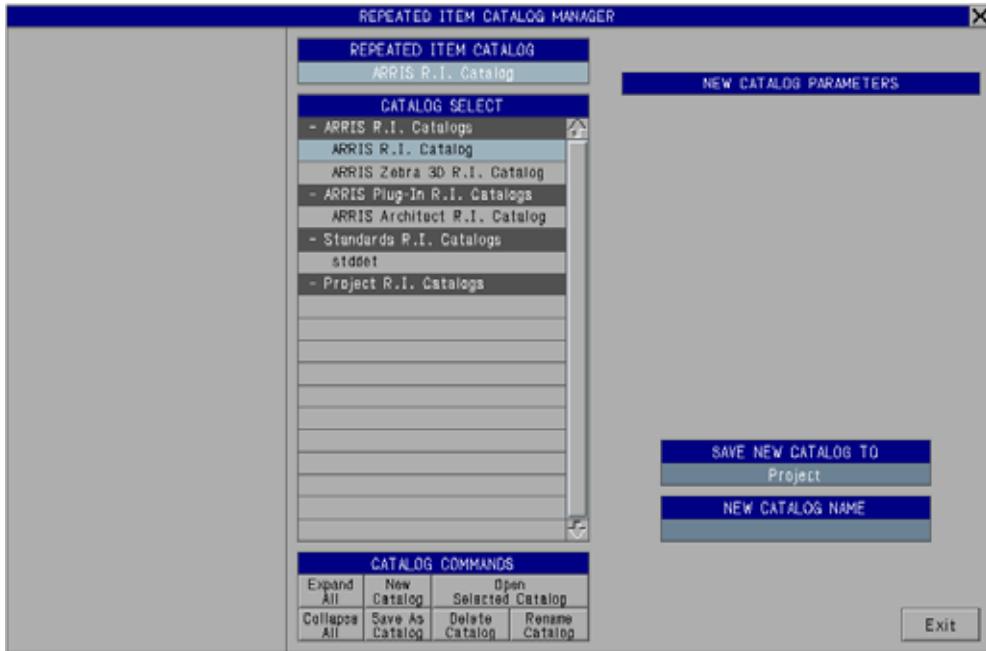
The **ARRIS** and Plug-In Repeated Item catalogs are distributed with **ARRIS** and the individual Plug-Ins. They may not be altered. While they may be used, these catalogs are primarily intended as examples or templates of a repeated item catalog, from which you can create your own. The Repeated Items created or used most often will vary from company to company or user to user and are therefore best defined by the user.

The Repeated Item catalogs found in *Standard* and *Project* directories are user created and defined. There may be as many Standard and/or Project RI catalogs as you wish. A *Standard* or *Project* RI Catalog is stored in a user-named file with a ".ct" extension and is saved in the *ricat.dir* sub-directory under the standards (std:) or current project directory.

The *Repeated Item Catalog Manager* may be accessed by selecting the [Catalog](#) button located under the [Create](#) heading on the **Repeated Items** Application Sub-menu. The **REPEATED ITEM CATALOG MANAGER** pop-up menu will appear on the screen.

## Catalog Select

When the *Repeated Item Catalog Manager* feature is first opened, or when the current [Repeated Item Catalog](#) name display is selected, the *Catalog Select* functions are displayed in the **Repeated Item Catalog Manager** menu.



A Repeated Item catalog is selected by left clicking on the box in which the desired catalog is displayed. Selecting one of the 4 location titles will expand or collapse the list of RI catalogs shown under that title.

### New Catalog Parameters

The *New Catalog Parameter* settings are shown on the right side of the **REPEATED ITEM CATALOG MANAGER** menu. These settings are used when creating new or renaming existing Repeated Item Catalogs.

**SAVE NEW CATALOG TO:** Repeated Item catalogs may be saved to either the Standards (std:) or Current Project directories. The current setting is displayed in this box. Select the box to toggle between the two settings.

**NEW CATALOG NAME:** Select this box to enter a name for a new Repeated Item catalog. RI catalogs must end in a .ct suffix. The New Catalog Name must be set before using the New Catalog, Save As Catalog, or Rename Catalog functions.

### R I Catalog Commands

These commands allow you to create new catalogs, rename or delete existing catalogs, or open repeated item catalogs for editing.

**EXPAND ALL:** Expands all RI Catalog locations on the RI Catalog Select list. All available catalogs are now viewable on the list.

**COLLAPSE ALL:** Collapses all RI Catalog locations on the RI Catalog Select list. Only the RI Catalog location titles and the current RI Catalog are now viewable on the list.

**NEW CATALOG:** Creates a new RI catalog using the name set in the New Catalog Name box, placed in either the *Standard* or *Project* directory as shown in the Save New Catalog To box. A new catalog name must be specified in the New Catalog Name box before this function is executed. The new RI catalog will display in the appropriate location on the RI Catalog Select list in the center portion of the **REPEATED ITEM CATALOG MANAGER** Menu and be highlighted as the current selection.

**SAVE AS CATALOG:** Creates a new Repeated Item catalog using the name set in the New Catalog Name box, placed in either the *Standard* or *Project* directory as shown in the Save New Catalog To box. The new Repeated Item catalog created is a copy of the currently selected Repeated Item catalog on the RI Catalog Select list in the center portion of the **REPEATED ITEM CATALOG MANAGER** Menu. A new catalog name must be specified in the New Catalog Name box, and a catalog must be selected in the RI Catalog Select list before this function is executed. The new RI catalog will display in the appropriate location on the RI Catalog Select list in the center portion of the **REPEATED ITEM CATALOG MANAGER** Menu and be highlighted as the current selection.

**OPEN SELECTED CATALOG:** Opens the currently selected Repeated Item catalog on the RI Catalog Select list in the center portion of the **REPEATED ITEM CATALOG MANAGER** Menu. If the currently selected (highlighted) RI catalog on the list is selected again, the catalog will open as if this button were selected. When the selected catalog is opened, the **CATALOG CATEGORIES / HEADINGS** and the **CATALOG REPEATED ITEMS** will display in the **REPEATED ITEM CATALOG MANAGER** Menu. Refer to the *Catalog Categories / Headings* and the *Catalog Repeated Items* sections of this topic below.

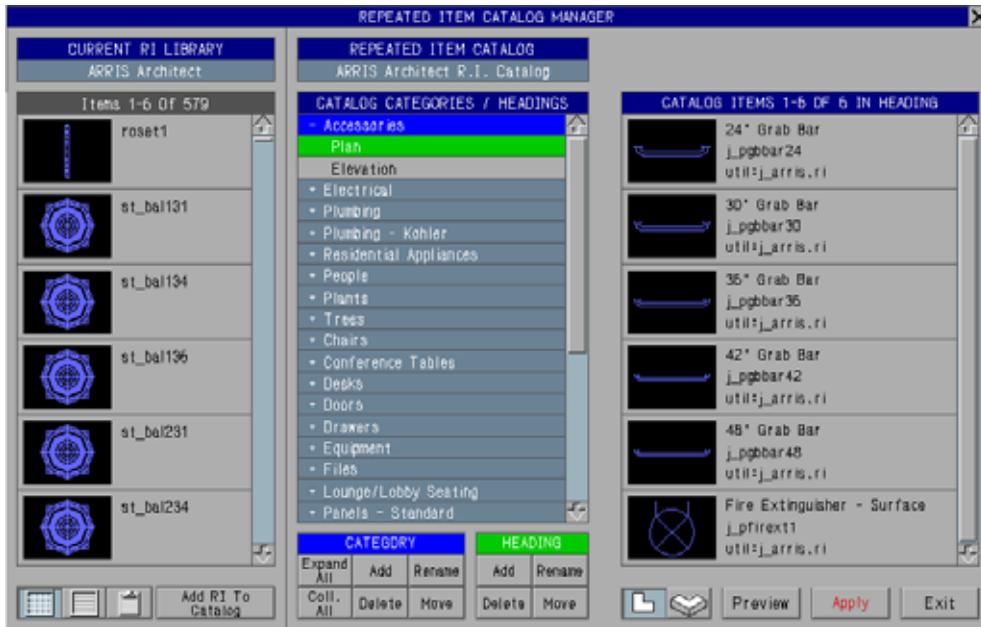
**DELETE CATALOG:** Deletes the currently selected *Standard* or *Project* Repeated Item catalog on the RI Catalog Select list in the center portion of the **REPEATED ITEM CATALOG MANAGER** Menu from the disk. **ARRIS** will prompt to verify the deletion. **ARRIS** System and Plug-In RI Catalogs catalogs may not be deleted.

**RENAME CATALOG:** Renames the currently selected *Standard* or *Project*

Repeated Item catalog on the RI Catalog Select list in the center portion of the **REPEATED ITEM CATALOG MANAGER** Menu. The catalog is renamed to the name set in the New Catalog Name box, and is placed in the *Standard* or *Project* directory as shown in the Save New Catalog To box. If the Save New Catalog To setting is different than the current location of the catalog, it will be moved as it is renamed. A new catalog name must be specified in the New Catalog Name box, and a catalog must be selected in the RI Catalog Select list before this function is executed. **ARRIS** System and Plug-In RI catalogs may not be renamed.

## General Commands

When a Repeated Item Catalog is opened, the **REPEATED ITEM CATALOG MANAGER** pop-up menu will change to show the contents of the catalog including Categories, Headings, and Items, as well as the currently loaded Repeated Item Library. The menu is divided into two main sections. The left portion is devoted to the Repeated Item Library / Catalog Manager Clipboard, and the center and right portion is devoted to the Repeated Item Catalog. The Manager functions which allow the user to edit the Catalog are included at the bottom of the menu.



## General Commands

The general commands found at the bottom right portion of the **REPEATED**

**ITEM CATALOG MANAGER** menu perform overall tasks relating to the currently open Repeated Item catalog.

**EXIT:** Exits the *Repeated Item Catalog Manager* and clears the menu from the screen. If there are any unsaved changes and changes are allowed, the Repeated Item Catalog Manager will prompt to save these changes. You have the choice of *Saving* the changes and exiting, *Continuing* to exit with-  
out saving the changes, or *Stop* the exit command.

Note 1: Selecting the **REPEATED ITEM CATALOG MANAGER** menu title bar or the "X" icon at the right end of the title bar will also exit the RI Catalog Manager.

Note 2: The Repeated Item Catalog Manager must be exited normally, using the Exit button, or by selecting the Title Bar or "X" icon in order to check and prompt for unsaved changes. Selecting another command in **ARRIS** before exiting the *Repeated Item Catalog Manager* will cause unsaved changes to be lost.

Note 3: The *Repeated Item Catalog Manager* will check for unsaved changes and prompt to save those changes when an editable currently loaded catalog is exited by selecting the Repeated Item Catalog box.

**APPLY:** Applies any changes made to the RI Catalog and writes the RI Catalog to disk. No changes are saved until this button is selected. If changes have been made to the currently open RI catalog, the "Apply" text in this button appears yellow, warning that there are unsaved changes. If the current RI Catalog is either an **ARRIS** System or Plug-In catalog, or if write permission is denied on the catalog (see the Permissions section below), the "Apply" text in this button will appear red, indicating that changes are not allowed.

**PREVIEW:** Displays the currently selected Repeated Item entry in the **CURRENT CATALOG ITEM** sub-menu on the right side of the **REPEATED ITEM CATALOG MANAGER** menu. Refer to the *Preview* functions in the *Catalog Repeated Items* portion of this topic below.

## Repeated Item Sample Views

### Plan View



Displays all Repeated Items in display boxes in the **REPEATED ITEM CATALOG MANAGER** menus in plan view. The display of all repeated items currently shown in the *Repeated Item Catalog Manager* is updated when this box is selected.

### Iso View



Displays all Repeated Items in display boxes in the **REPEATED ITEM CATALOG MANAGER** menus in isometric view. This function is particularly useful with 3 dimensional repeated items. The display of all repeated items currently shown in the *Repeated Item Catalog Manager* is updated when this box is selected.

### Repeated Item Catalog

The current Repeated Item catalog name is displayed here. If this button is selected, the **REPEATED ITEM CATALOG MANAGER** Menu toggles to Catalog selection mode and the [RI Catalog Select](#) list is displayed. Refer to the *Catalog Select* portion of this topic above.

### Current RI Library

The current Repeated Item library name is displayed here. If this button is selected, the **RI LIBRARY SELECT** sub-menu is displayed. Refer to the *RI Library Select* portion of this topic below.

### Menu List Selections

*Categories* and *Headings* on the [Catalog Categories / Headings](#) list, *Items* on the [Catalog Repeated Items](#) list, *RI Catalogs* on the [RI Catalog Select](#) list, *RI Libraries* on the [RI Library Select](#) list, and *Repeated Items* on the [Current RI Library](#) list in the menus are selected or made current by selecting the box in which they are displayed. The current *Category*, *Heading*, *Item*, *RI Catalog*, *RI Library*, or *Library RI* is highlighted in the menu. An *Item* which is displayed in [Preview](#) mode on the menu is the current catalog item. In some cases, selecting the current (highlighted) *Category*, *Heading*, *Item*, *RI Catalog*, *RI Library*, or *Library RI*, or a right-click selection on these lists will perform a separate function. These are described with the function they perform.

### Slidebars

The menu slidebars contained within the **REPEATED ITEM CATALOG MANAGER** Menus allow the user to quickly browse through lists of Catalogs, Categories, Headings, or Items when the list is longer than the menu available to display it. These slidebars are located on the menu on the right side of the list for which they function. A sidebar consists of an up arrow at the top, a down arrow at the bottom and a sidebar in between. The sidebar shows the proportion of, and relative location within the entire list of the portion of the list currently displayed in the menu. Refer to the [Slidebars](#) topic for more information. Sidebar commands are as follows:

**UP ARROW:** A left click selection on the [Up Arrow](#) moves the display of the

list up 1 item. A right click selection on the Up Arrow moves the display of the list up 1 menu page.

**DOWN ARROW:** A left click selection on the Down Arrow moves the display of the list down 1 item. A right click selection on the Down Arrow moves the display of the list down 1 menu page.

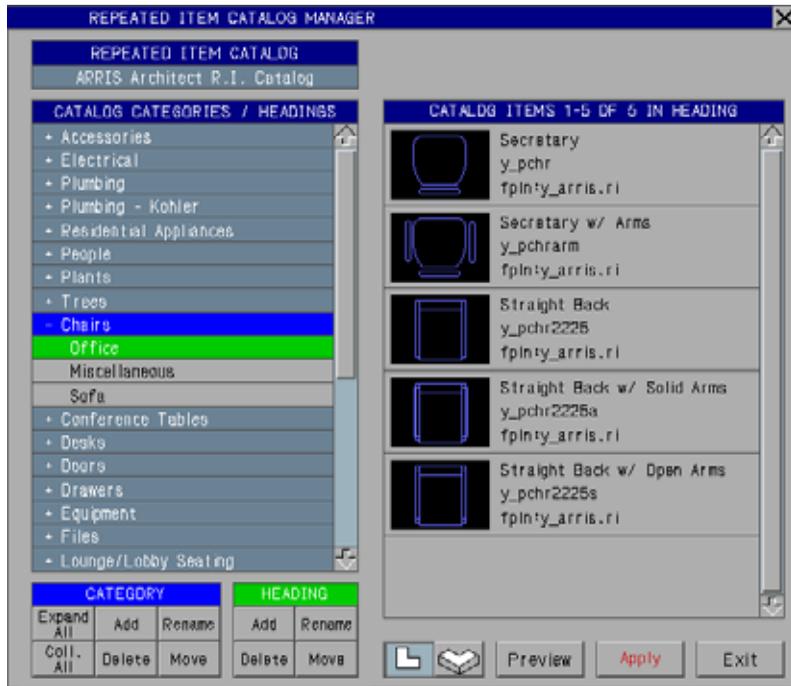
**SLIDEBAR:** Selecting on the Slidebar moves the portion of the list displayed in the menu to the relative position of the selection on the slidebar.

### **Permissions**

Access to add, change, or delete repeated item catalogs can be limited to specific users. When the "Apply" button is selected, the program checks the ricat.dir directory under the standards (std:) directory for a text file named "*ricatalog\_rw.txt*". If it exists, the file is read and the users found within are compared to the current computer login user. If the current user is on the list, permission is granted and the RI catalog ".ct" file is saved. If the user is not on the list, an error message "Catalog Write Permission Is Denied" is displayed and the catalog is not saved. If the file does not exist, permissions are open to everyone. The file is a simple ascii text file with one user per line which can be created with any text editor. Note that **ARRIS** system and plug-in RI catalogs may not be saved or altered by any user.

### **Catalog Categories / Headings**

Categories and Headings within the currently opened Repeated Item Catalog are displayed on the Catalog Categories / Headings list , in the center portion of the **REPEATED ITEM CATALOG MANAGER** menu.



*Categories* are displayed in the Menu Data color with a "+" or "-" symbol in front of the Category name. The "+" or "-" symbol indicates the expansion status of the Category. The "-" symbol indicates that the category is expanded, displaying all headings contained within the category below it. The "+" symbol indicates that the category is collapsed, displaying only the Category name, and the currently selected heading below (highlighted) if it occurs in that category. The currently selected category is highlighted in Bright Blue (default colormap). Selecting on the category name will toggle the expansion status of the category, expanding or collapsing it. A right-click selection of the Category name will clear the current Category/Heading selection and select the Category picked as current.

*Headings* are displayed below the category in which they occur, with the Heading name indented. The currently selected Heading is highlighted in Bright Green (default colormap). Selecting on the heading name will make the selected *Heading* and the *Category* in which it occurs current. The Catalog Categories / Headings list will redisplay showing the newly selected current Category and Heading. The list of Repeated Item entries contained within the selected Heading will display on the **CATALOG REPEATED ITEMS** sub-menu on the right side of the **REPEATED ITEM CATALOG MANAGER** menu.

### Category Commands

**EXPAND ALL:** Expands all Categories on the Catalog Categories / Headings list to show the Headings contained within them. The Catalog Categories / Headings list display on the **REPEATED ITEM CATALOG MANAGER** Menu is updated.

**COLLAPSE ALL:** Collapses all Categories on the Catalog Categories / Headings list to show only the Category titles. The Category containing the current Heading will display the current Heading only below it, with both the Category and Heading highlighted. The Catalog Categories / Headings list display on the **REPEATED ITEM CATALOG MANAGER** Menu is updated.

**ADD:** Adds a Category to the Repeated Item Catalog. The user is prompted for the location on the Catalog Categories / Headings list to add the category. The new category is inserted in front of the category selected. Pressing the <cr> or <Enter> key, or selecting a position on the menu Catalog Categories / Headings List display beyond the end of the list will add the new category to the end of the list. **ARRIS** will then prompt for the new Category name.

**DELETE:** Deletes the currently selected category from the Repeated Item Catalog. A catalog Category must be selected first. All Headings and Item entries within the category are also deleted.

Note 1: This command deletes the Category and all Headings and Item entries contained within from the currently open catalog only. It does not affect any other catalogs, or any graphic data in the database.

**RENAME:** Renames the currently selected Category. A catalog Category must be selected first. The user is prompted for the new Category name.

**MOVE:** Moves the currently selected Category from one location on the Catalog Categories / Headings list to another. A catalog Category must be selected first. The user is prompted for the new location. The selected Category is inserted at the new location in front of the category shown in the box selected. If a position beyond the end of the list is selected, or if the <cr> or <Enter> key is pressed at the New Location prompt, the category is moved to the end of the list. All Headings and Item entries contained within the category are moved along with the Category.

## Heading Commands

**ADD:** Adds a Heading to the Repeated Item Catalog. The user is prompted for the location on the Catalog Categories / Headings list to add the heading. The new Heading is inserted in front of the heading selected in the same cat-

egory as the selected location heading. Selecting a Category name on the list will add the new Heading to the end of the selected Category. Pressing the <cr> or <Enter> key will add the new Heading to the end of the current Category if one is highlighted. **ARRIS** will then prompt for the new Heading name.

**DELETE:** Deletes the currently selected heading from the Repeated Item Catalog. A catalog Heading must be selected first. All Item entries within the Heading are also deleted.

Note 1: This command deletes the Heading and all Item entries contained within from the currently open catalog only. It does not affect any other catalogs, or any graphic data in the database.

**RENAME:** Renames the currently selected Heading. A catalog Heading must be selected first. The user is prompted for the new Heading name.

**MOVE:** Moves the currently selected Heading from one location on the Catalog Categories / Headings list to another. A catalog Heading must be selected first. The user is prompted for the new location. The selected Heading is inserted at the new location within the Category and in front of the Heading shown in the box selected. If a Category name is selected, the Heading is moved to the end of the selected Category. If the <cr> or <Enter> key is pressed at the New Location prompt, the Heading is moved to the end of the same Category in which it is located. All Item entries contained within the Heading are moved along with the Heading.

## Catalog Repeated Items

When a Catalog Category and Heading are selected as current, the Repeated Item entries within the Heading are displayed on the **CATALOG ITEMS** list Sub-menu on the right side of the **REPEATED ITEM CATALOG MANAGER** menu. This display shows a picture of the repeated item, along with a *Description* if one has been entered, the *Repeated Item Name*, and the *Repeated Item Library* where the repeated item is stored. The Repeated Item Description may be edited from the **CURRENT CATALOG ITEM** menu described below. The Repeated Item Name and Library are displayed for information only and may not be edited. An individual Repeated Item entry is made current by selecting it on this menu. The selected current entry will highlight. If a Repeated Item entry is selected using a right click, the entry is made current and the menu is toggled to the **CURRENT CATALOG ITEM** Preview menu, as if the Preview button had been selected also.

### Current Catalog Item Menu

The **CURRENT CATALOG ITEM** Preview menu displays the *Repeated Item Name*, *Repeated Item Description* and *Repeated Item Library*. The Preview button will highlight when the **CURRENT CATALOG ITEM** Preview menu is displayed. Selecting The Preview button while the **CURRENT CATALOG ITEM** Preview menu is displayed will toggle the menu back to the **CATALOG ITEMS** list sub-menu. A right click selection on the Repeated Item display in the **CURRENT CATALOG ITEM** Preview Sub-menu will toggle the display back to the **CATALOG REPEATED ITEMS** Sub-menu.



## Current Catalog Item Commands

**REPEATED ITEM DESCRIPTION:** This box displays the *Description* of the Repeated Item. A description is a user defined text string, descriptive of what the repeated item is. The description is displayed in the **REPEATED ITEM SELECT** Menu, as an aid in selecting the desired repeated item. The Repeated Item Description may be set or changed by selecting this box. The default value is <None>.

**RETURN:** Returns the menu display on the right side of the **REPEATED ITEM CATALOG MANAGER** to the **CATALOG ITEMS** list sub-menu.

**NEXT:** Displays the *Next* Repeated Item entry in the current Catalog Heading in Preview mode. From the last Repeated Item entry in the Heading, the display will cycle to the first Repeated Item entry in the current Heading.

**PREVIOUS:** Displays the *Previous* Repeated Item entry in the current Catalog Heading in Preview mode. From the first Repeated Item entry in the Heading, the display will cycle to the last Repeated Item entry in the current Heading.

**DELETE FROM CATALOG:** Deletes the current *Repeated Item Entry* from

the current Catalog Heading. The Display on the right side of the **REPEATED ITEM CATALOG MANAGER** Menu will return to the **CATALOG ITEMS** list sub-menu.

Note 1: The Repeated Item Entry is removed from the current catalog Category and Heading only. It does affect any other listing in the current catalog, or any other catalogs. It does not delete the repeated item from from the library in which it is stored, or affect any data placed in the database in any way.

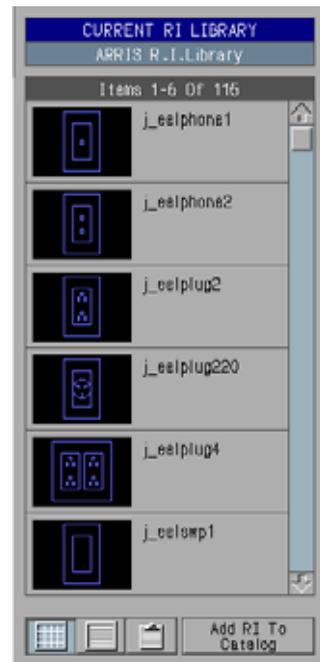
**ADDING A REPEATED ITEM TO THE CATALOG:** A Repeated Item is added to the catalog by selecting the desired repeated item on the current RI Library list and using the Add RI To Catalog button. See the *Current Repeated Item Library* section below.

### Current Repeated Item Library

The current repeated item library name is displayed at the top left of the **REPEATED ITEM CATALOG MANAGER** Menu. Selecting on the name allows you to change the current RI Library. See the *Repeated Item Library Select* section below.

The contents of the current repeated item library are displayed on the left side of the **REPEATED ITEM CATALOG MANAGER** Menu, below the current RI library name. The repeated items in the current library may be displayed either in icon mode, which displays the repeated item graphics and the names, or list mode, which displays the repeated item names only.

A library repeated item is made "current" in the *Repeated Item Catalog Manager* by selecting the box in which it is shown. The current library Repeated Item is highlighted in the display



Note 1: A right click selection of a repeated item will make the selected RI the current library repeated item and add it to the RI catalog as if the Add RI To Catalog button had been selected. Refer to the discussion on the Add RI To Catalog button below.

### Current RI Library Commands

**ICON MODE:** Displays the contents of the current repeated item library, showing the repeated item graphics, and the names. The repeated items are shown on the menu 6 at a time, with a slidebar.

**LIST MODE:** Displays the contents of the current repeated item library, showing the repeated item names only. The repeated items are shown on the menu 21 at a time, with a slidebar.

**RI CATALOG MANAGER CLIPBOARD:** Displays the contents of the Repeated Item Catalog Manager Clipboard. Refer to the *RI Catalog Manager Clipboard* section below.

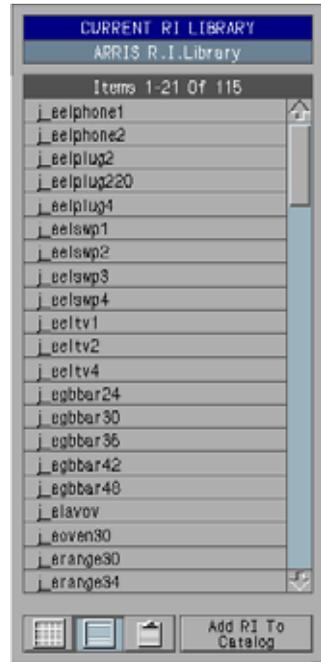
**ADD RI TO CATALOG:** Adds the currently selected library repeated item to the Currently open Repeated Item Catalog. A

repeated item in the current library must be selected first. The user is prompted for the location to add the repeated item to the catalog. The location is selected by selecting a box on the **CATALOG ITEMS** List sub-menu on the right side of the **REPEATED ITEM CATALOG MANAGER** Menu, selecting the RI display on the **CURRENT CATALOG ITEM** Preview sub-menu on the right side of the **REPEATED ITEM CATALOG MANAGER** Menu, selecting a *Heading* box in the Catalog Categories / Headings List in the center of the **REPEATED ITEM CATALOG MANAGER** Menu, or by pressing the <cr> or <Enter> key on the keyboard.

If a box on the **CATALOG ITEMS** List sub-menu is selected, the currently selected library Repeated Item is inserted at this point on the list of items in the current Category and Heading of the Catalog in front of the entry shown. If the selected box is beyond the end of the list of items in the current heading, the RI is added to the end of the Heading.

If the Repeated Item display on the **CURRENT CATALOG ITEM** Preview sub-menu is selected, the RI is inserted in front of the current item entry shown in the current Category and Heading.

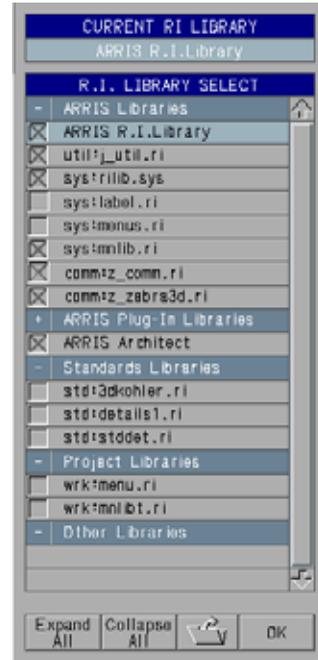
If a *Heading* is selected on the Catalog Categories / Headings list, the Repeated Item is added to the catalog at the end of the selected heading. The Heading selected and the Category in which it occurs will become the current Category and Heading and the **CATALOG ITEMS** List sub-menu will display the Repeated Item entries in the selected Heading.



If the <Enter> key is pressed, the current library Repeated Item will be added to the end of the list in the current Heading. A Catalog *Category* and *Heading* must be selected first for this option.

### Repeated Item Library Select

This function of the *Repeated Item Catalog Manager* allows the user to load and unload Repeated Item libraries and select which RI library is current. When the Current RI Library name display is selected in the top left portion of the **REPEATED ITEM CATALOG MANAGER** Menu, the left side of the menu will display the **RI LIBRARY SELECT** sub-menu. This listing displays all repeated item libraries found in the **ARRIS** system directory, in **ARRIS** Plug-ins, in the Standards directory, in the current Project directory, and any library which is currently loaded and is not located in one of the four locations above. Each of these 5 categories may be expanded and collapsed to show/not show the RI libraries contained there. To the left of each RI library is a checkbox. An "X" in the box indicates that the library is currently loaded. The current repeated item library is highlighted.



Selecting on a library in this menu will load the Repeated Item library and make it the current RI Library. Selecting on the checkbox containing the "X" on a loaded RI library will unload the library.

### RI Library Select Commands

**EXPAND ALL:** Expands the display of all RI Library Select location categories to show all Repeated Item Libraries contained in them on the menu.

**COLLAPSE ALL:** Collapses the display of all RI Library Select location categories to show only the Categories on the menu. The **ARRIS** RI Library, **ARRIS** Architect RI Library, and the current RI Library are always shown regardless of the expansion status of the RI Selection Category.

**OPEN:** The Open icon allows the user to browse the computer file system to locate and load a Repeated Item library not found in one of the 4 standard locations.

**OK:** Returns the *Repeated Item Catalog Manager* to the Current RI Library display on the left side of the **REPEATED ITEM CATALOG MANAGER** Menu. The display will return to either Icon or List mode, or the RI Catalog Manager Clipboard, which ever was current at the time the RI Library Select was entered.

## R I Catalog Manager Clipboard

The *Repeated Item Catalog Manager Clipboard* features allow the user to Cut, Copy, and Paste Repeated Item entries from one portion of the RI Catalog to another. One Repeated Item entry is allowed on the *RI Catalog Manager Clipboard* at any given time. All catalog data of the RI entry including the *RI Name*, *Description*, and the *RI Library* in which the RI is stored are remembered and displayed in the clipboard. Note that the Repeated Item Catalog Manager Clipboard is a feature completely contained within the *Repeated Item Catalog Manager* and is not tied in to either the **ARRIS** Clipboard feature (used for cutting & pasting drawing data), or the MS Windows Clipboard.

This feature is accessed by selecting the Clipboard Icon in the *Current RI Library/Repeated Item Catalog Manager Clipboard* section on the left side of the **REPEATED ITEM CATALOG MANAGER** Menu.



### RI Catalog Manager Clipboard Commands

**CUT FROM CATALOG:** Cuts (removes) the currently selected Repeated Item entry from the Current Category and Heading Catalog Items list and places it in the *Repeated Item Catalog Manager Clipboard*. An Item must be selected before this function is used. Any RI entry previously stored in the *Repeated Item Catalog Manager Clipboard* is overwritten.

**COPY FROM CATALOG:** Copies the currently selected Repeated Item entry on the Current Category and Heading Catalog Items list into the *Repeated Item Catalog Manager Clipboard*. An Item must be selected before this function is used. Any RI entry previously stored in the *Repeated Item Catalog Manager Clipboard* is overwritten.

**PASTE TO CATALOG:** Pastes (copies) the Repeated Item entry stored in the *Repeated Item Catalog Manager* Clipboard to a selected position in the current Category and Heading Catalog Items list. **ARRIS** will prompt for the Catalog Items list location. The Repeated Item entry will be placed in the current Catalog *Category* and *Heading*, inserted in front of the Item entry contained in the line selected. If a *Heading* is selected on the Category/Heading list, a position beyond the end of the Item list is selected, or a <cr> is entered at the location prompt, the item entry will be added to the end of the list in the current Category and Heading. Refer to the Add RI To Catalog discussion in the *Current Repeated Item Library* section above. The *Repeated Item Catalog Manager* Clipboard must contain a Repeated Item entry before this function may be used.

**CLEAR CLIPBOARD:** Clears the *Repeated Item Catalog Manager* Clipboard.

### See Also

[Repeated Items](#), [Catalogs](#), [Slidebars](#), [Clipboard](#), & [Datalinks](#).