IHTSDO Workbench Training: Using the Arena to Edit SNOMED CT.

Contents

1. Course Overview:

The course is intended as an Introduction to the use of the IHTSDO Workbench Arena function and will briefly cover its functions and enable attendees to obtain 'hands on' experience via tutor led examples followed by tutor supported hands on experience. It is not intended to provide detailed knowledge of the SNOMED CT concept model or any editing principles and constraints which should / may be applied.

This course does not attempt to cover all options for all functions but does provide a overview to get people started on editing using the Arena.

What is the Arena: The arena is a user interface which has been developed as part of the IHTSDO International Release migration project to enable efficient user friendly editing of SNOMED CT within the Workbench.

The course will take you through:

1. An overview of the Arena features and functions

2. How to create a new concept and edit existing concepts

3. How to undertake bulk updates

4. How to retire a concept

2. Familiarization with the Arena panels and functions:

The purpose of this section of the training is to familiarise the user with the Workbench and the Arena panels and functions. We will also cover how the Arena interacts with the classic views within the workbench.

The first section covers how to configure the Arena for you. Once configured, the panel can be re-opened to your saved profile configuration if you chose to save your profile when you exit the tool.

2.1. How to open and configure the Arena
- Click on the Arena tab shown by arrow 1:
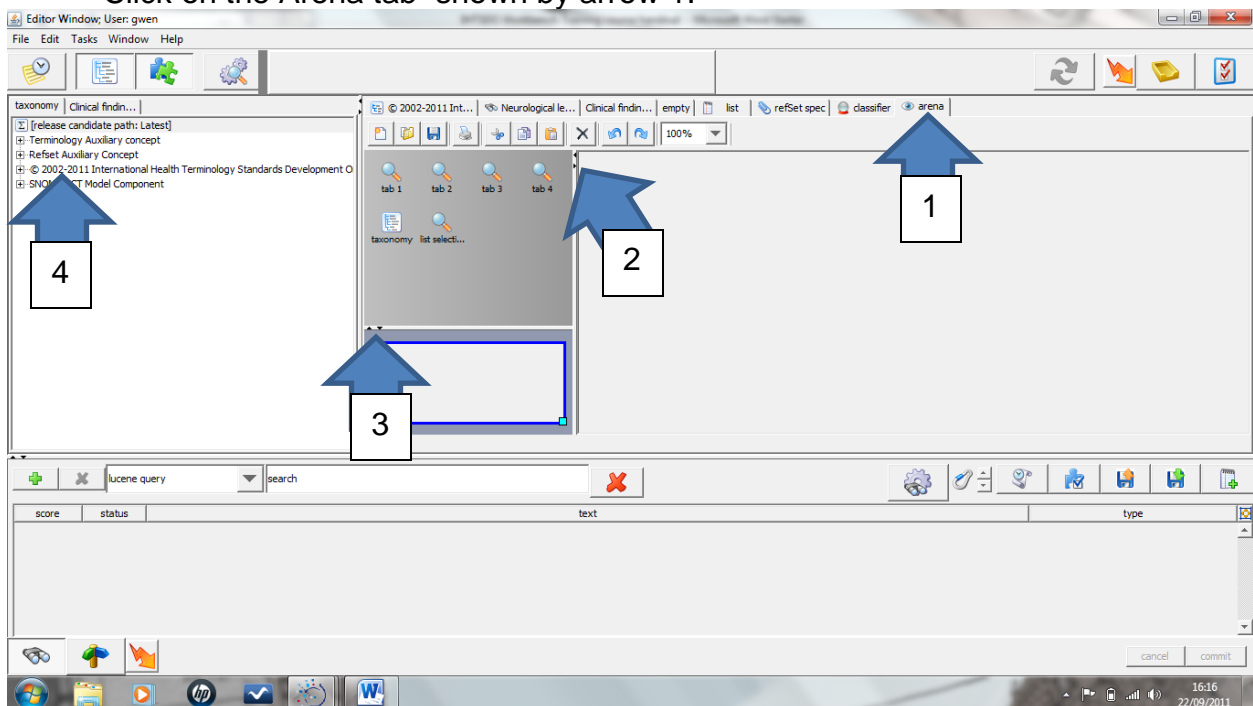
Open and close the workspace section using the arrows at 2 above: please note that when the workspace configuration panel is closed the arrows are further left adjacent to the taxonomy view (4).
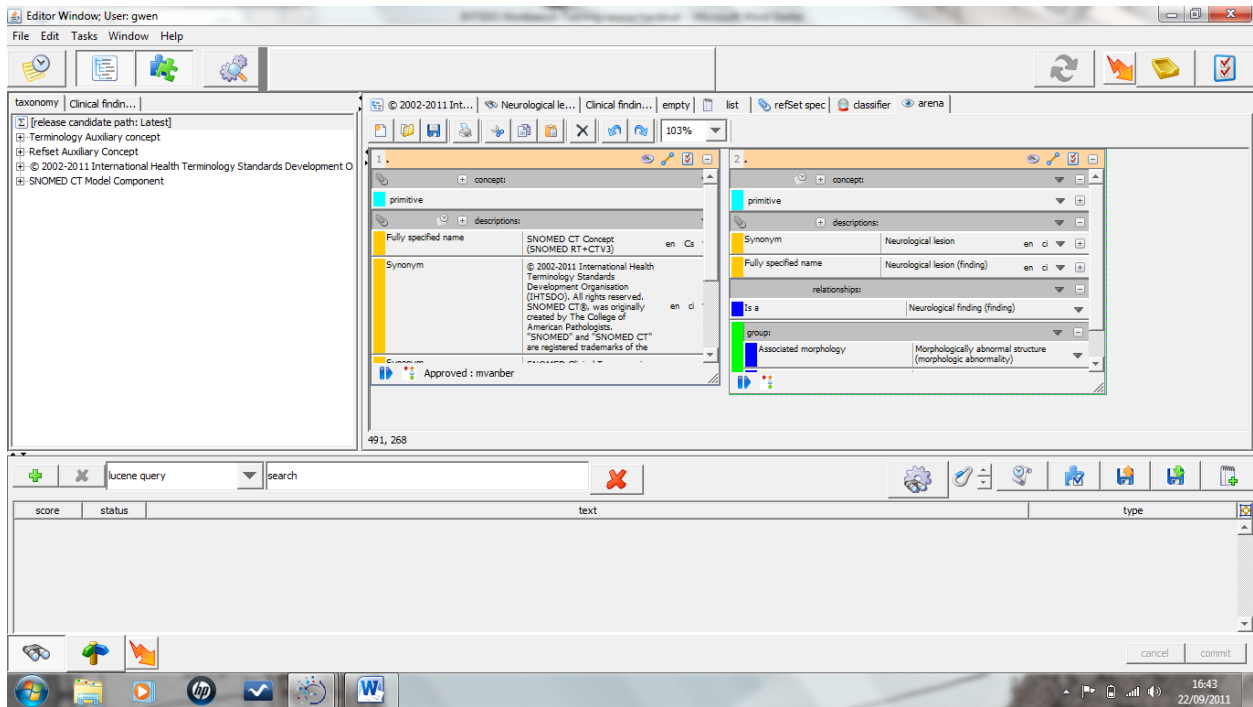Open and close the bottom view using the arrows at 3 above.
- Drag tabs (arrow 1 below) to the right panel
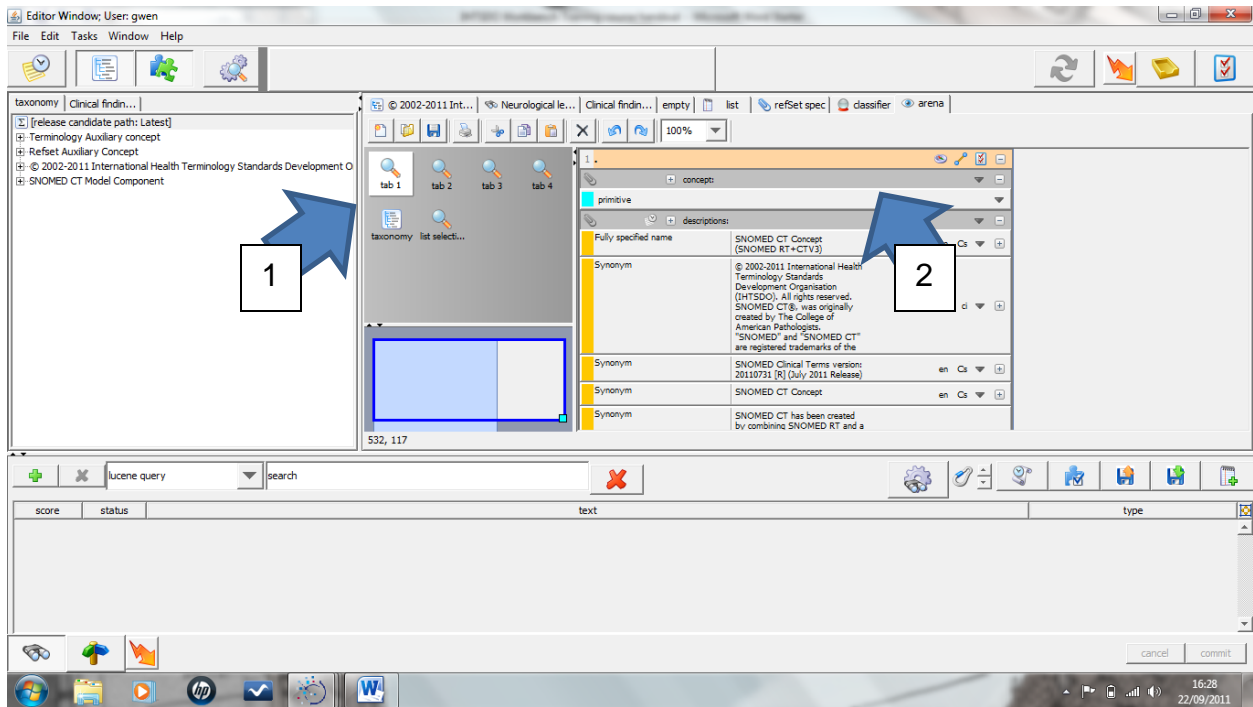
- Resize tabs by using the controls shown below (arrow 1and 2).
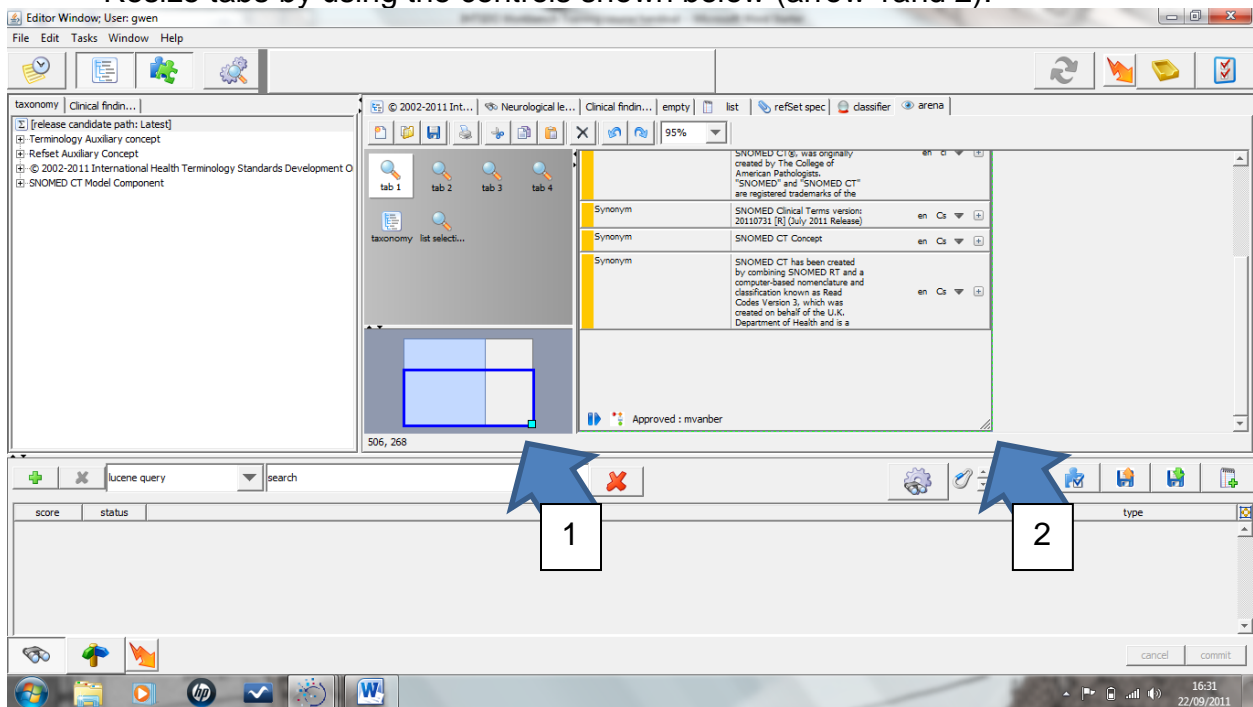
- Multiple panels can be added to the workspace.
- The view can be made larger by closing the configuration panel

2.2 The concept view in the Arena

I. There are 3 sections within the Arena concept view:
   a. Concept details:- states if the concept is primitive or defined
   b. Description details :- displays the fully specified name and any synonyms
   c. Relationship details:- displays all relationships associated with the concept including parentage.

II. Refset toggle:- If the concept is a member of a Refset then a 'paper clip' icon (arrow 1) is displayed. This acts as a toggle and if depressed any descriptions may be expanded and collapsed as required using the +; to show the details of their Refset membership.
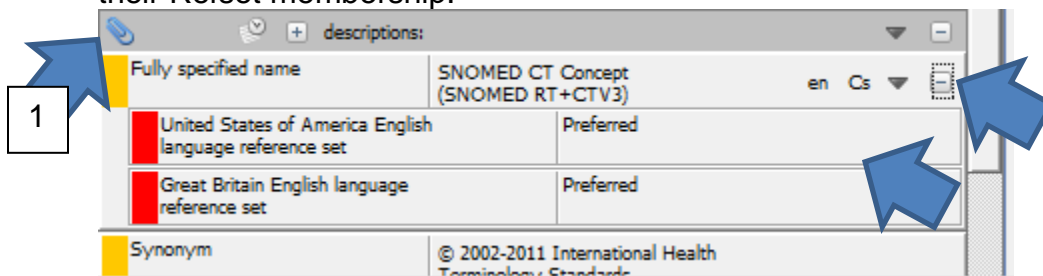
III. History toggle:- If the concept has history then a 'scroll' icon is displayed (arrow 1below). This acts as a toggle and if depressed the history of the concept is displayed. The ghost icon (arrow 2 below) is displayed to show that something is retired.

IV. You can display further details on the history by using the navigator panel. To open the navigator panel click the navigator icon. A navigator panel will slide out from the concept view panel.

To change the navigator view to history click the history icon

History view screen shot below:

The radio buttons on the history screen line up with the version of the description etc within the concept view to the left. To display the details of any version of a description or other concept component, hover over the radio button. You can do this on all radio buttons both active (with a dot) and inactive.

Synonym: 'SNOMED CT Concept'
Active value
user
SNOMED Core: 31-Jul-2003 20:00:00
latest on view
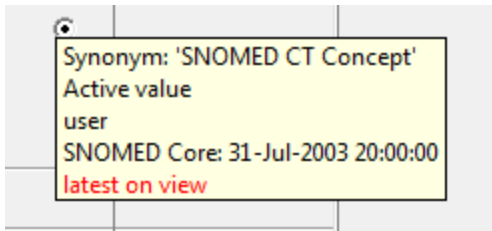
To identify visibly within the history view the version of SNOMED CT which a column relates to click on the tick box at the top of the column. This will display a line on the history view and indicate which version the column is. Please note the image below is normally displayed in portrait within the application.

SNOMED Core: 31-Jul-2003 20:00:00
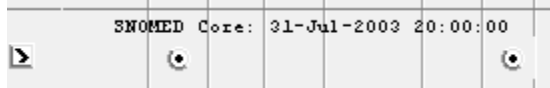
Within the history view in navigator panel you can select a previous version of the concept by activating a radio button other than the one which is currently active. This allows you to change the concept back to a previous version. If you select a different version of the concept the wizard icon becomes active. If you then click on the icon it will revert the concept component to the previous version which you have selected.
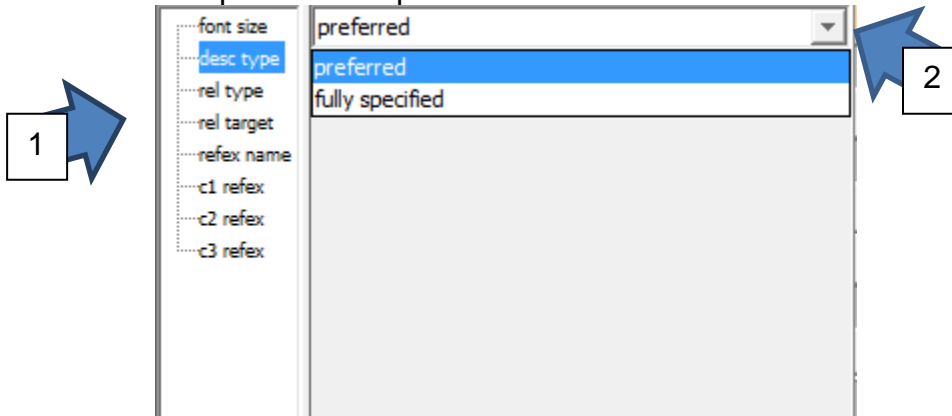

To switch the view in the navigator panel back to the tree view click on the hierarchy icon.

V.   To change your default editing preferences within the Arena concept view you should click on the preferences icon.


The preferences panel will slide out.

You may change any of the preferences by selecting them on the left (arrow 1) which will change the display on the right in context with your choice. By clicking on the down arrow (arrow 2) the options will be displayed for you to select the default for your profile.

2.3 Relationship of Arena panels to classic view

Each of the tabs which you can drag into your Arena workspace is linked to a tab on the classic view e.g. tab1 is linked to the tab 1 in the classic view.
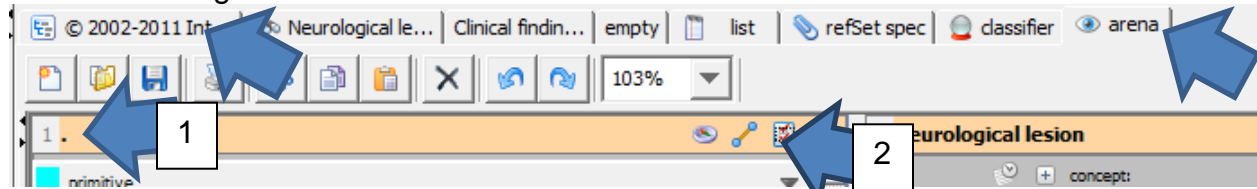
If you click on the number at the left hand corner of the arena panel (arrow 1) it will switch you to the corresponding classic view. To switch back to the Arena view, click on the Arena tab.

- Tab 1 is by default linked to the tree view
- Tab 2 is by default linked to the search view

2.4 Stated, inferred and merged view

To switch between a stated view, inferred view and merged view of the concept the concept view toggle should be used to select different views. This toggle is to the right of the concept view window in the header panel (arrow 2). As you click the toggle the icon changes appropriately depending which view you are looking at.

 is the stated view

 is the inferred view. This view will only display inferred relationships which are clearly identified by the inferred icon.

 is the merged view and shows both inferred and stated relationships
Any inferred relationships are identified by the inferred icon; where a relationship is both stated and inferred then it is displayed twice.


## 3. Create a new SNOMED CT concept
1. To view context sensitive editing actions click on the 'context sensitive editing options' icon (double arrow) at the bottom left of the Arena tab.

This will switch the view in the tab to show the actions which an editor may take. The double arrow icon acts as a toggle, so to switch back to concept view click the arrow icon again. Please note that on the top level concept; no actions are permitted and so this screen is blank.
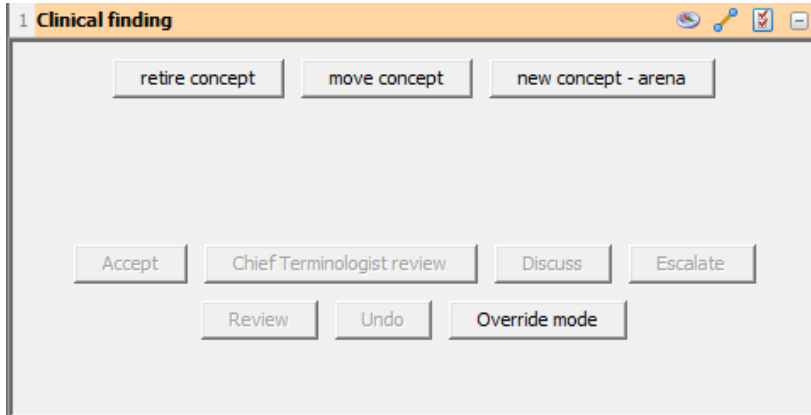
2. Select new concept – arena. The new concept wizard will be displayed; enter your new concept fsn (the preferred name will be automatically completed based on your fsn). (*Please note until you have selected the new concept action and completed the wizard the information bar in the tab continues to display the concept from which you initiated the action.*)
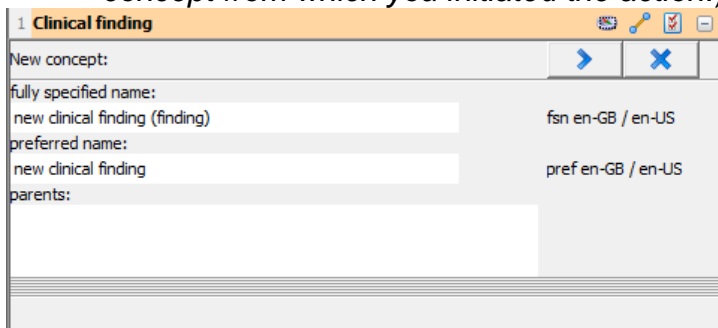
The parent concept can be populated either by using the navigator panel and dragging the parent concept from the tree view within the navigator; or by dragging the parent from the classic tree view on the left of the Arena. In both instances the parent /s should be dragged and dropped into the 'parents' box within the wizard (arrows 1).
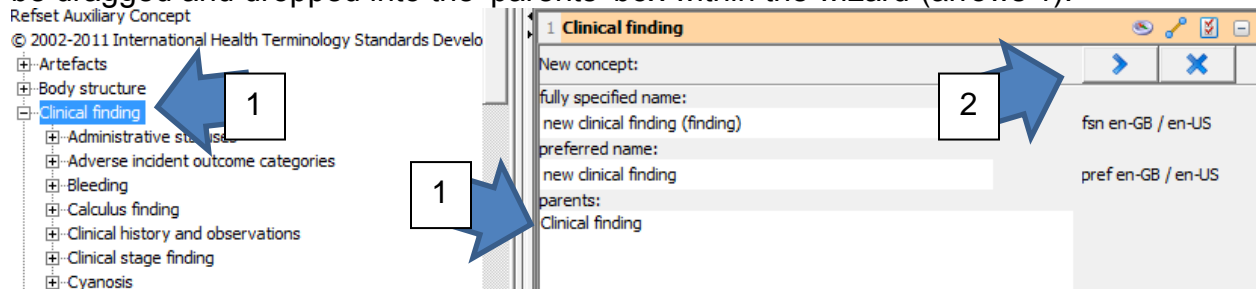

3. When you have added at least 1 parent click on the 'step' button (a single arrow) (arrow 2).

Your newly created concept is then displayed in the arena concept view. As it is in an uncommitted state it is highlighted in yellow.

3.1 Adding relationships

To add additional parents (or any other relationship) to the concept; a relationship may be dragged from another tab in the Arena. As you drag a relationship from another tab and move it to the relationships within your target concept context sensitive 'drop trays' are displayed. Drop the relationship in the appropriate tray to perform the action e.g. in the case of creating a new parent of 'neurological finding' drag the relationship from neurological finding and drop it into the 'copy rel' tray (arrow 1).
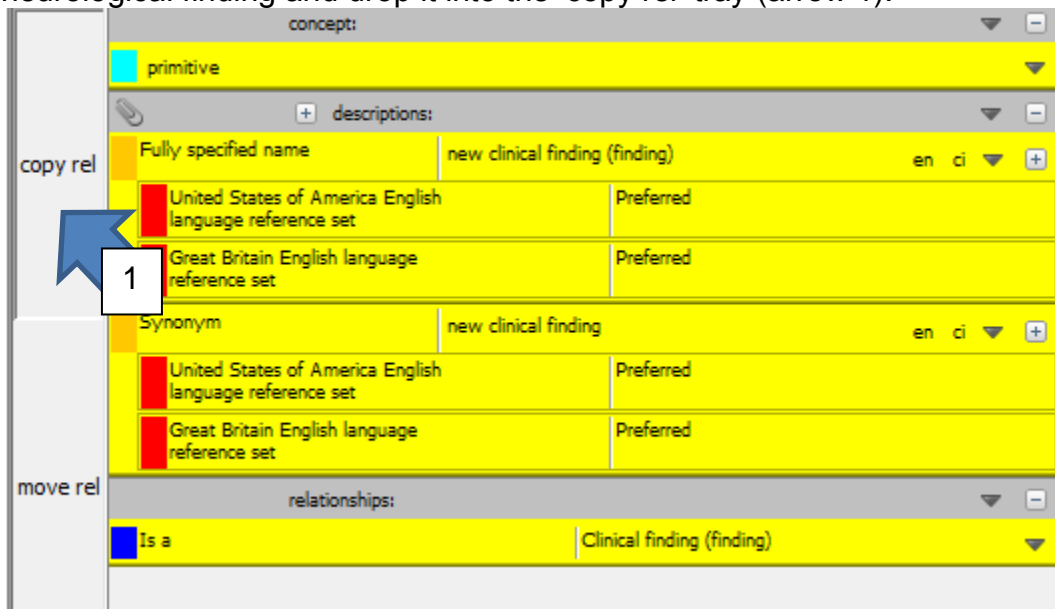
3.2 Retiring relationships: contextual editing actions

For each component of a concept there are contextual editing actions available via a drop down menu (down arrow to the right of the component). Please note that these are contextual; while a component is in an uncommitted state the only action available is to cancel the change.

Changes can be committed or cancelled by using the commit buttons at the bottom of each tab:
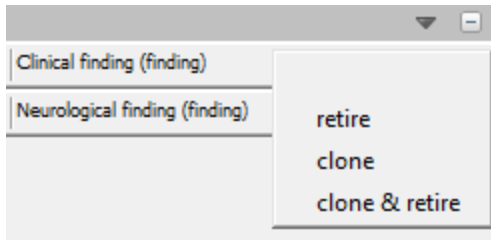
Please note these buttons are a concept level commit and will only commit changes within that tab. Global commit is available via the global cancel / commit buttons at the bottom right of the Workbench.
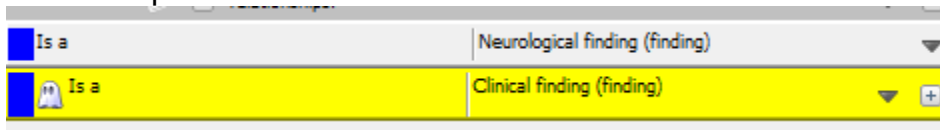
To retire a relationship click on the contextual editing action button and select retire from the drop down menu.
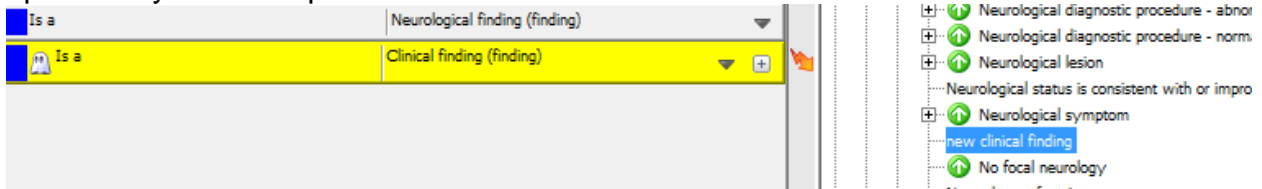
When the relationship is retired the ghost icon is displayed to show that it is a retired relationship.

When using the navigator to add relationships it should be noted that the tree view will open with your concept in focus.


In the example used in the training; adding the additional parent of 'general clinical state finding (finding). The relationship should be 'dropped' in the is_a tray.
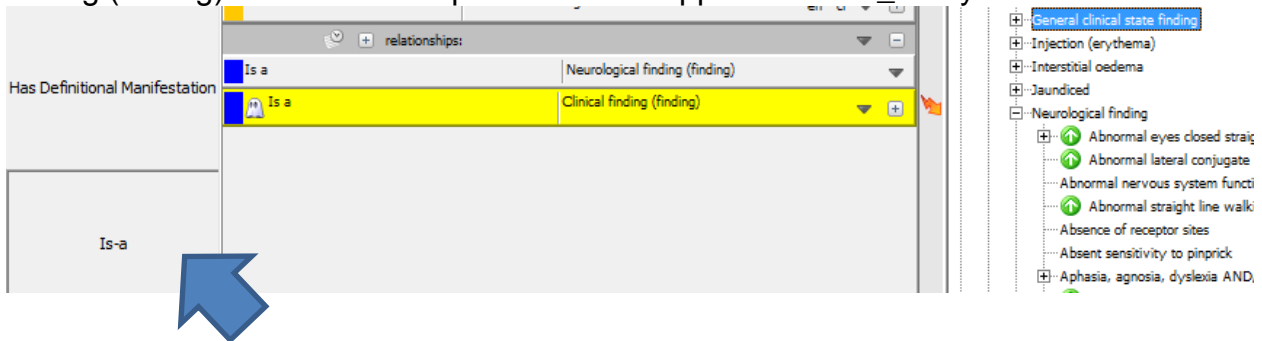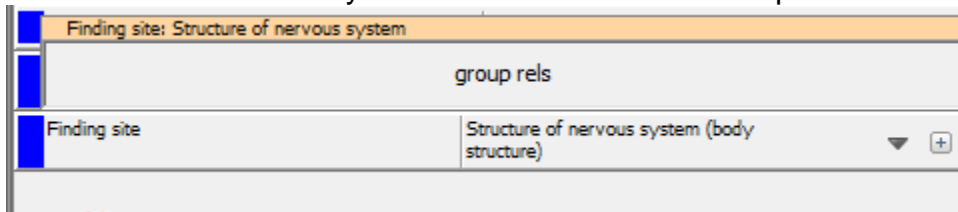

## 3.3 Cloning relationships and relationship groups

Relationships may be added to a concept by dragging relationships and / or relationship groups from another window in the Arena. In this way they can be either copied or moved between concepts.
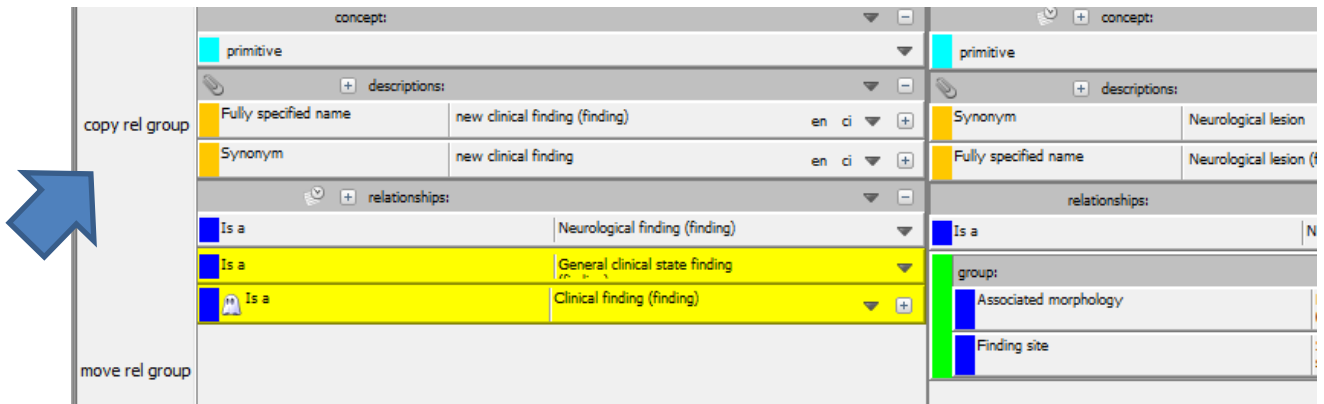
To group relationships within a concept you can drag one relationship onto another one. This will activate a context sensitive drop tray to group rels.

Please note this can only be done while the relationships are in a saved state.


Within a concept you may also use the 'clone and retire' action to change a relationship. This will retire the existing relationship and create a new identical relationship in an uncommitted state. You may then change the attribute value in the relationship using the navigator panel or by dragging a value from another concept.

In the training example is_a general clinical state finding (finding) is cloned and retired; sensory nervous system finding is then dragged into the new uncommitted relationship to create an' is_a sensory nervous system finding' relationship.
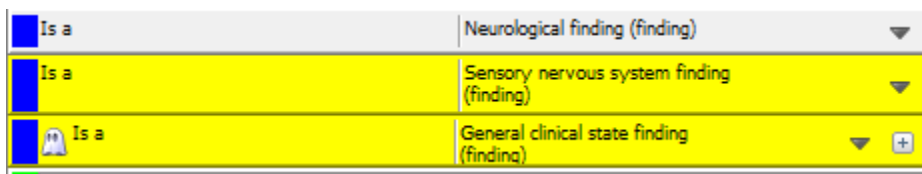
4. Bulk changes

Bulk changes can be performed within the list view tab.
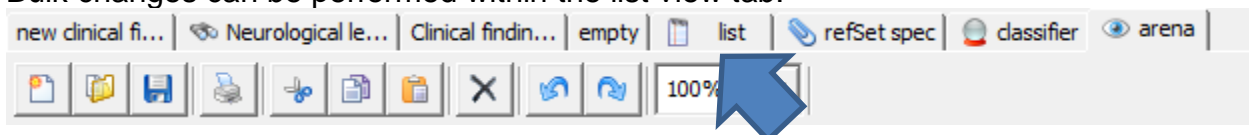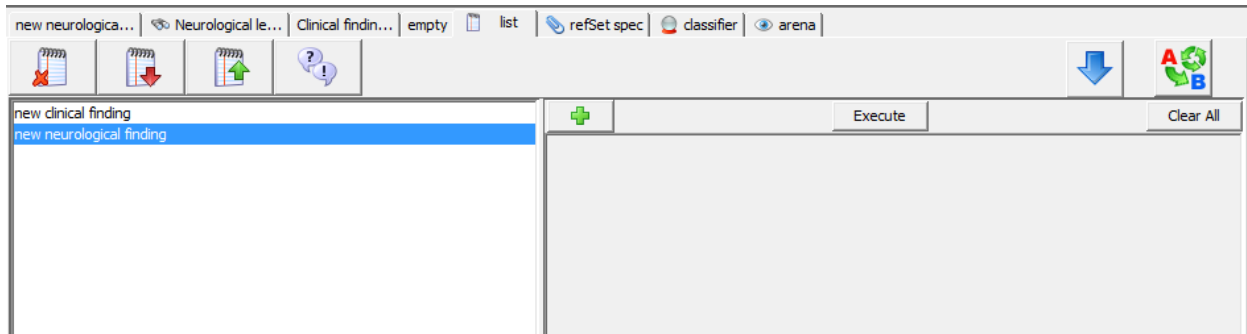
Concepts can be added to the list view in two ways:

- Performing a search and clicking on the 'add concepts from search to list view' icon

- Within the list view clicking on the' add concepts with uncommitted components to the list view' icon

Once you have concepts in the list view you are able to perform bulk changes to these concepts. There are a number of changes which you are able to perform in bulk mode:

- Parent, Add New
- Parent, Replace
- Refset, Add Member
- Refset, Move Member
- Refset, Replace Value
- Refset, Retire Member
- Role, Add
- Role, Replace Value
- Role, Retire

Within this training we will only cover Parent, Replace.

4.1 Move concepts to a new parent

This section covers how to move concepts to a new parent using the bulk change facility. It should be noted that as you select options within the bulk change window the screen changes in context to provide you with the appropriate options to continue.
The training example is to move two concepts in the list view from neurological finding to clinical finding:
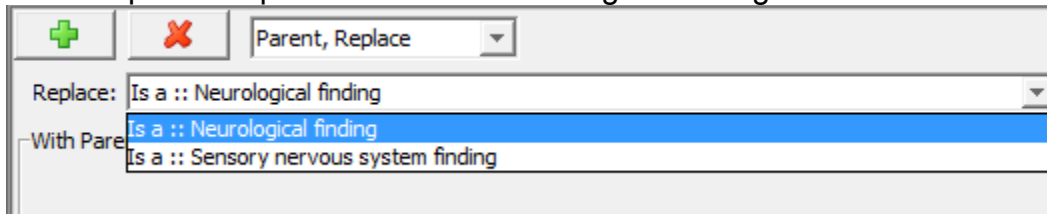To complete the training example:

- From list tab Click on + icon

- From drop down select "parent replace"
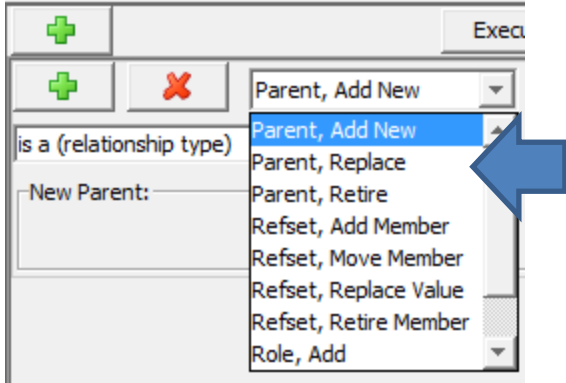
- In "replace drop down" select " neurological finding"

The options within the 'replace' drop down are derived from the parents of the concepts in the list view. You will only be given the option to select appropriate parents.

- A new parent may be added by dragging from the tree view; in tree view find "clinical finding" and drag it into bulk change screen into "with parent box"

When you have entered values for all necessary fields, click on the 'execute' button (arrow 1).
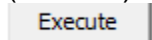
To view the results of the bulk change you can expand the list view by clicking on the arrows to display either a classic view of the changed concepts, arena view of the changed concepts or the batch action results.
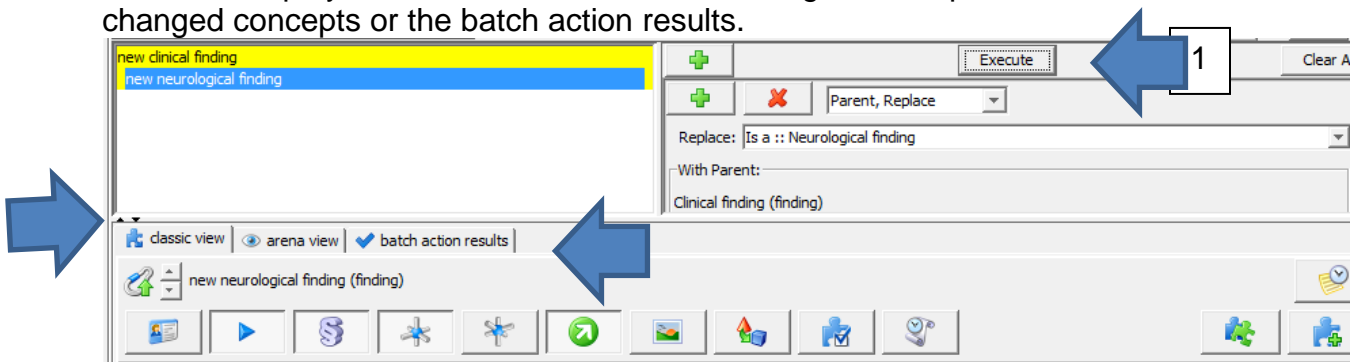
You can select these different views by clicking on the appropriate tabs.
Please note when selecting arena view you must open the configurator panel and drag tab 3 into the window. To populate the tab with a concept, drag it from the list view and drop onto the tab.
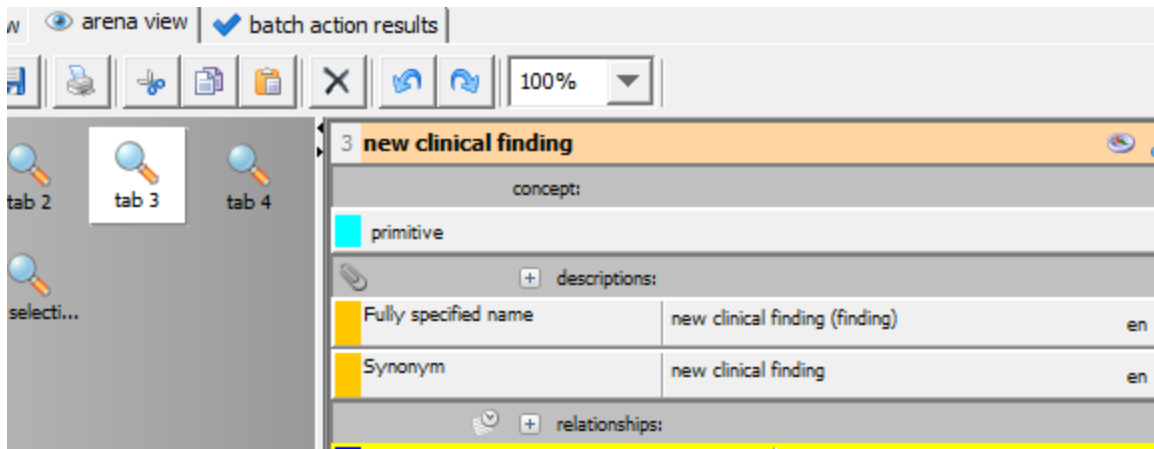
The batch action results tab shows the results of the batch action for each concept in the list.

| Action	Status	Concept	Result
PARENT_REPLACE	EVENT_SUCCESS	new clinical finding	from: Neurological finding to: Clinical finding
PARENT_REPLACE	EVENT_SUCCESS	new neurological finding	from: Neurological finding to: Clinical finding

5. Retire concepts

The retire concepts action is available through the contextual editing actions as an option.

To display contextual editing actions click on the 'contextual editing actions' icon

 within the concept tab in the Arena.

The contextual actions including 'retire concept' will be displayed.
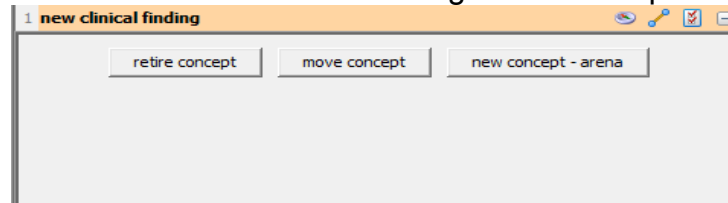
If the concept you are retiring has children you will be given the option to either cancel your change or add the children to the list view to enable you to either move or retire the children in bulk before retiring the concept.
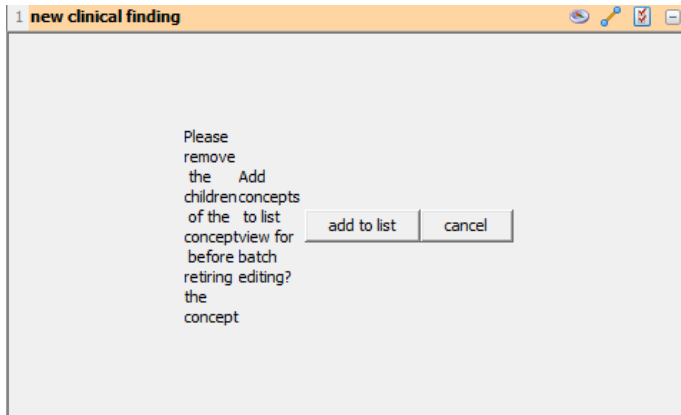
If you select 'add to list' you will be given the option to overwrite any concept that may already be in your list view or to cancel your action.
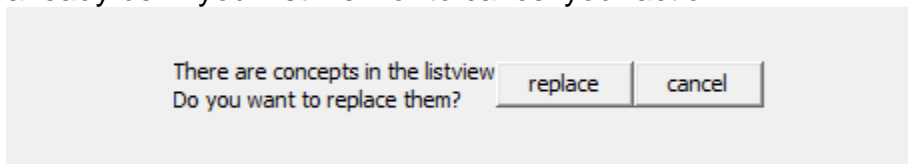
If the concept has no children, you will be asked to select a new parent in the special concepts hierarchy for the concept you are retiring.
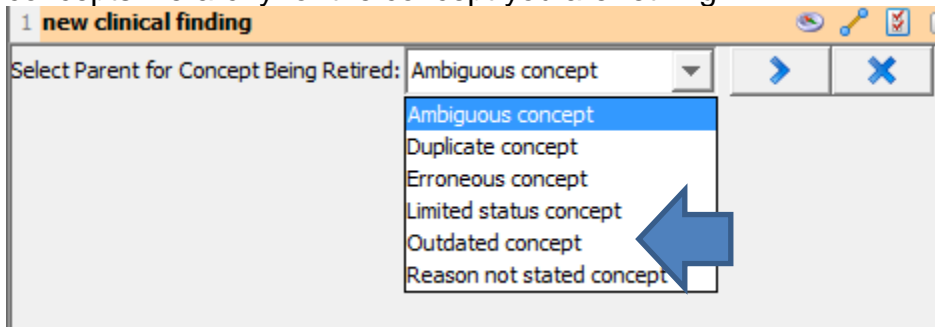
When you have selected a new parent click on the next step icon .
Your newly retired concept is then displayed in the Arena tab in an uncommitted state. In addition to retiring existing relationships you are also provided with some 'Templates' for additional relationships which are necessary. There Templates are identified clearly by a .
You can either ignore a Template or chose to use it. If you chose to use it then you should dray the chosen template to the relationship area of the tab and drop it into the 'is_a' drop tray. The template is not complete and you will have to change the attribute value within the template.

In the case of our training example the was_a template was used to add new relationship, the value was then changed to 'clinical finding' using the navigator panel.

The templates which are provided are context sensitive and dependant on the new parent concept you select. If you select 'Duplicate concept' as in our second training example, only a same_as Template is provided.

relationships:		
Is a	Duplicate concept (inactive concept)	▼
Is a	Clinical finding (finding)	▼ ⊞

aggregate extras		⊟
T SAME AS	Duplicate concept	