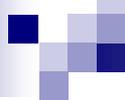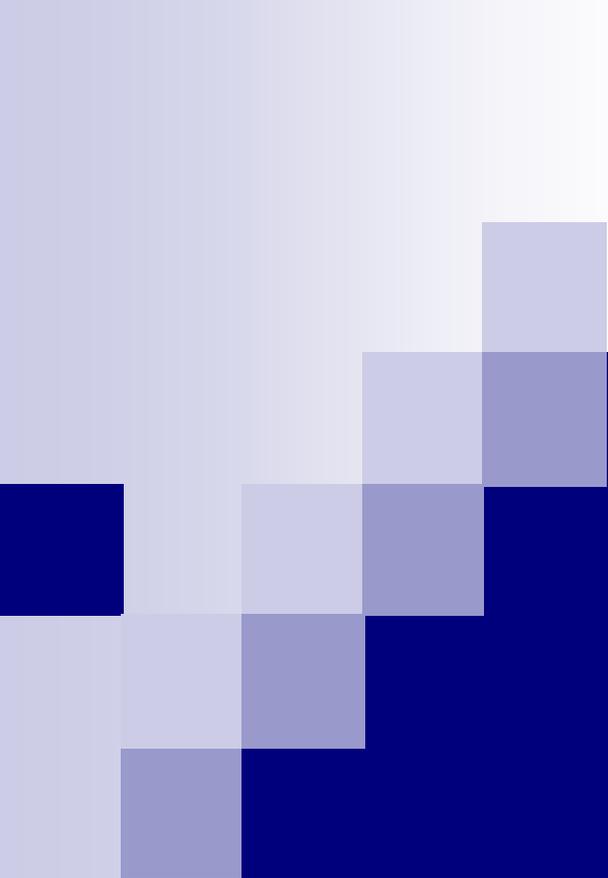# JReview Training

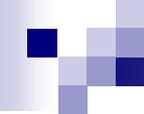## Harris Information Technology Services

(December 2016)

JReview Modules

1. Basics and Running Existing Reports
2. Modifying Existing Reports
3. Creating ad hoc Reports
4. Filters and Patient Selection Criteria

JReview Module 1

Basics and Running Existing Reports

Module 1 Outline

- Introduction
- Basics/Navigation
  - Login
  - Review of the Interface (or user screens) and Reports
  - Run existing reports
 - Export reports to excel and open it
- Demo

Introduction

- JReview is the new version of I-Review ("Integrated Review")
- Companion reporting tool in C3D family
- Intuitive and user-friendly
- Allows design of clinical data reports and to perform simple analyses
  - □ Only allows access to your C3D protocols and Sites
- Java based application
  - □ Requires the Java Runtime Environment version1.7.0_45 later installed. CCR JReview Reports Instructions/Manual http://ccrintra.cancer.gov/clin_ops/C3D/iReview_instr.asp
- Vendor's Manual https://ccrod.cancer.gov/confluence/download/attachments/72876079/JReview%20User%20Manual%209.2.6.pdf?api=v2
- CBT Training Manual http://octrials-train.nci.nih.gov/CBTsubmenu1.html
- Contact NCICB for problems/requests
  - □ 240-276-5541 (Toll free: 888-478-4423) or ncicbiit@mail.nih.gov

JReview Login

Go to the Login page:

https://octrials-rpt.nci.nih.gov/
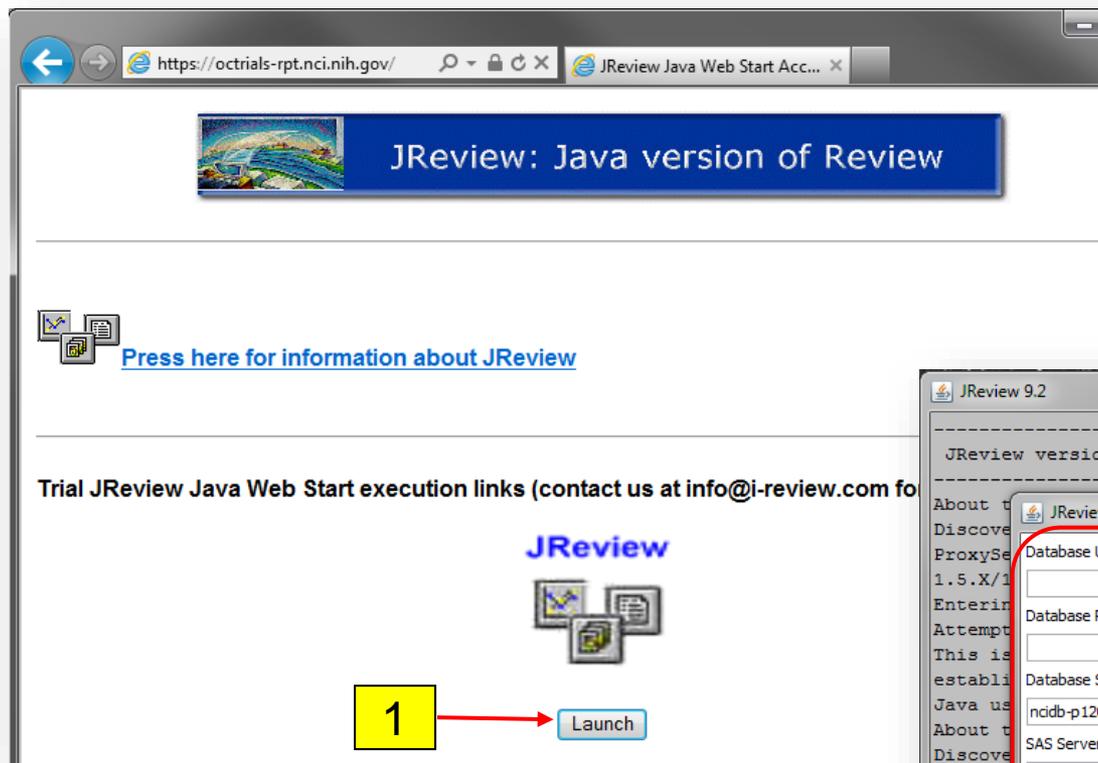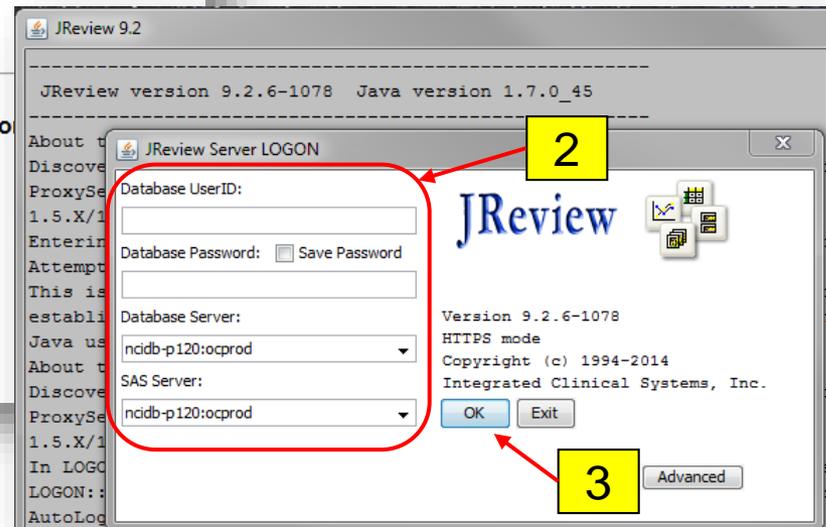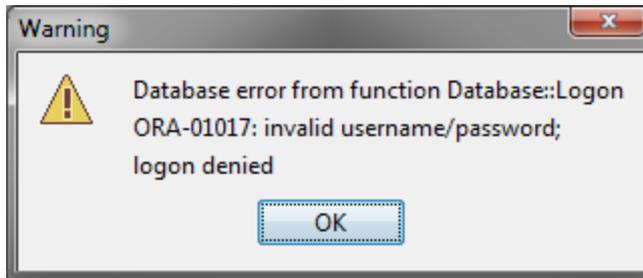

1. Click on the **Launch** button;
2. Enter your C3D:
   1. **UserID**;
   2. **Password**;
   3. **ncidb-p120:ocprod** for the Database and SAS Servers;
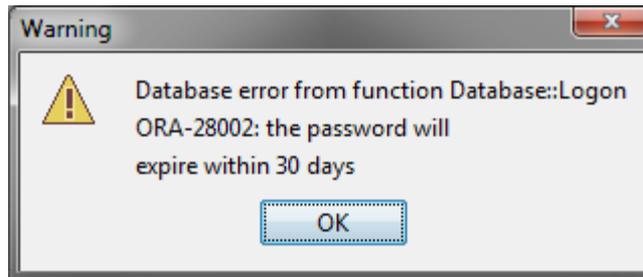3. Click on the **OK** button.

JReview Login

- The following message is shown if an invalid C3D account and/or password is used:

Warning

Database error from function Database::Logon
ORA-01017: invalid username/password;
logon denied

[OK]

- If your C3D password is about to expire (a warning is displayed when you log into C3D saying your password is about to expire in xx days), change your C3D password otherwise you will not be able to log into JReview and this message is displayed:
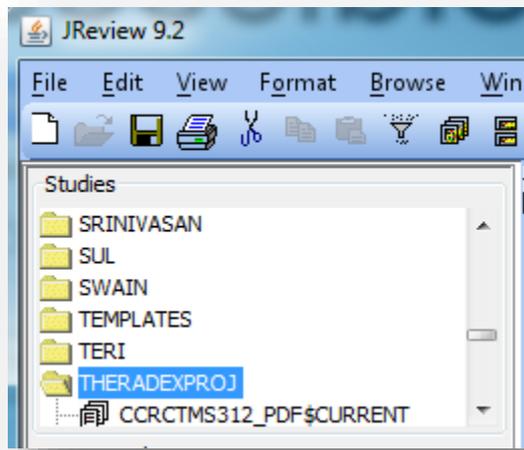
Warning

Database error from function Database::Logon
ORA-28002: the password will
expire within 30 days

[OK]

- Three failed logins attempts will your C3D account just like in C3D RDC. You will have to contact the C3D Help Desk to have your account unlocked.
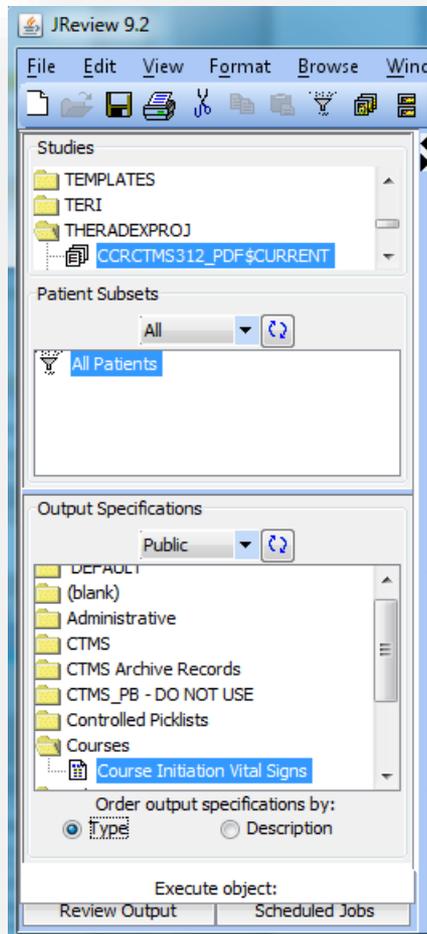
JReview Interface
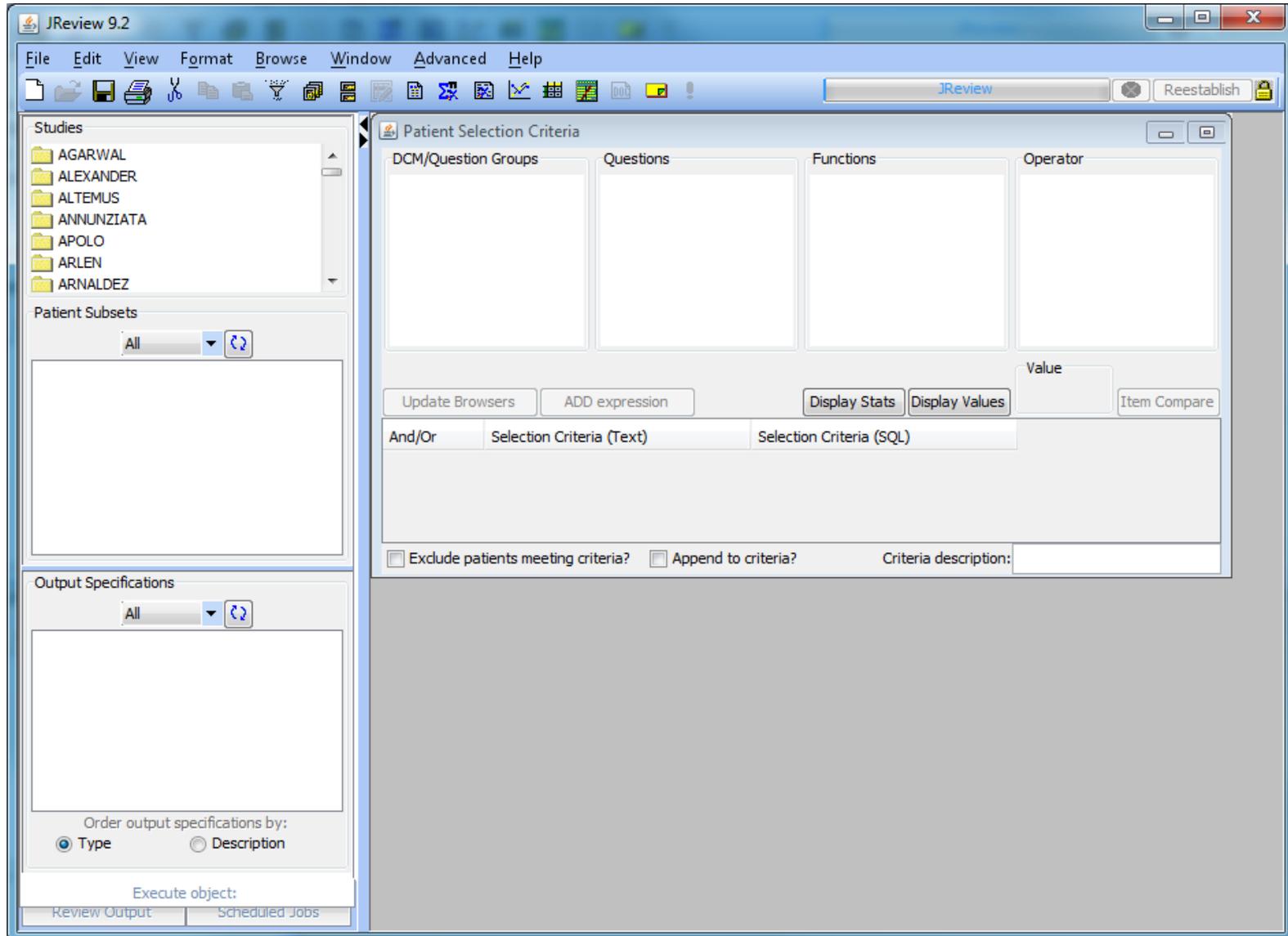
Accessible Studies

Studies you have access to

- Studies that you have access to are listed in a folder with the Principal Investigator's name. "**$Current**" in name of the study indicates live data.
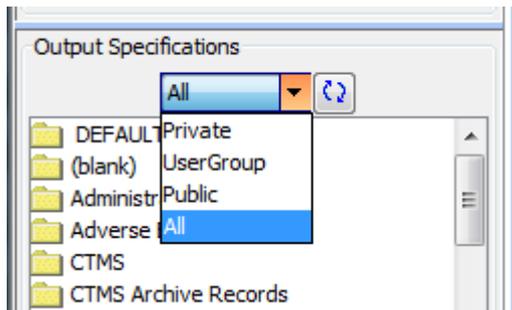
Saved Reports

The image on the left shows a JReview 9.2 application window with the following interface elements:

Studies section listing:
- TEMPLATES
- TERI
- THERADEXPROJ
- CCRCTMS312_PDF$CURRENT

Patient Subsets section:
- All
- All Patients

Output Specifications section (Public):
- DEFAULT
- (blank)
- Administrative
- CTMS
- CTMS Archive Records
- CTMS_PB - DO NOT USE
- Controlled Picklists
- Courses
  - Course Initiation Vital Signs

Order output specifications by: Type / Description

Execute object:
Review Output | Scheduled Jobs

Saved Reports (highlighted label)

- The Output Specification area lists the reports, saved by you and other users, that are available for the selected study.

- The reports are organized in folders.

Output Specifications

- **Reports can be saved as Private or Public.**
  - □ A Private report is only accessible by the user that created it.
- **Use the Output Specification drop-down to choose which reports to show:**
  - □ <u>Private</u> – shows only reports created by you and available to you in the study;
  - □ <u>Public</u> – shows reports available to anyone with access to the study (even reports saved by other users;
  - □ <u>All</u> – same as Private and Public combined.

Execute a Saved Report

To Execute an Existing Report

1. Click on folder with the PI's name and click on the desired study (use $CURRENT for live production data);
2. Optionally, change the Output Specification drop-down to Private or Public;
3. Double-click on folder to open and list the reports in it;
4. Double-click on the name of a saved report to execute it.

The report executes for a few seconds and the output will be presented in a separate tab labeled with the report title.

Note: Lab reports on studies with a lot of lab data can take a few minutes to execute.

How to Export Reports
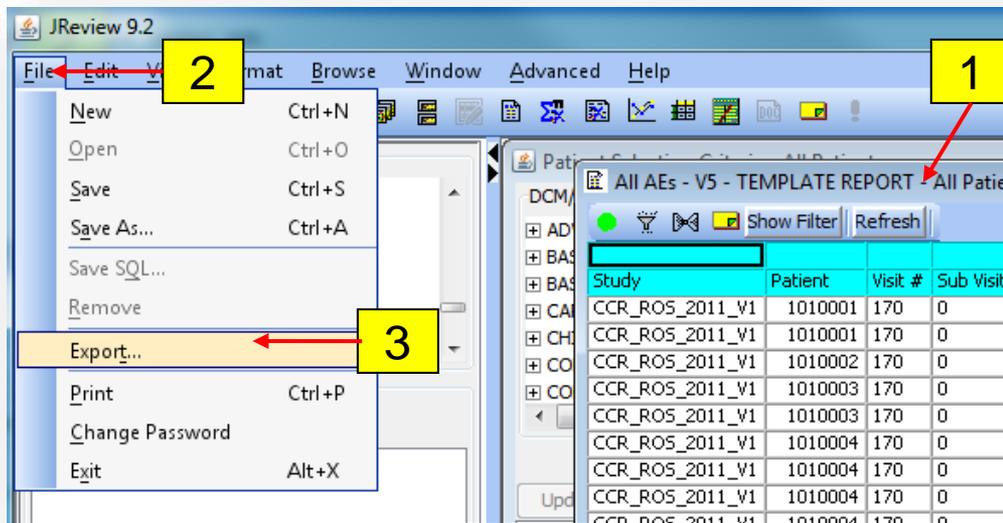
Once a report has completed executing:

1. Click on the **Report Output** window;
2. Click on **File** menu item;
3. Select the **Export** menu option;

How to Export Reports
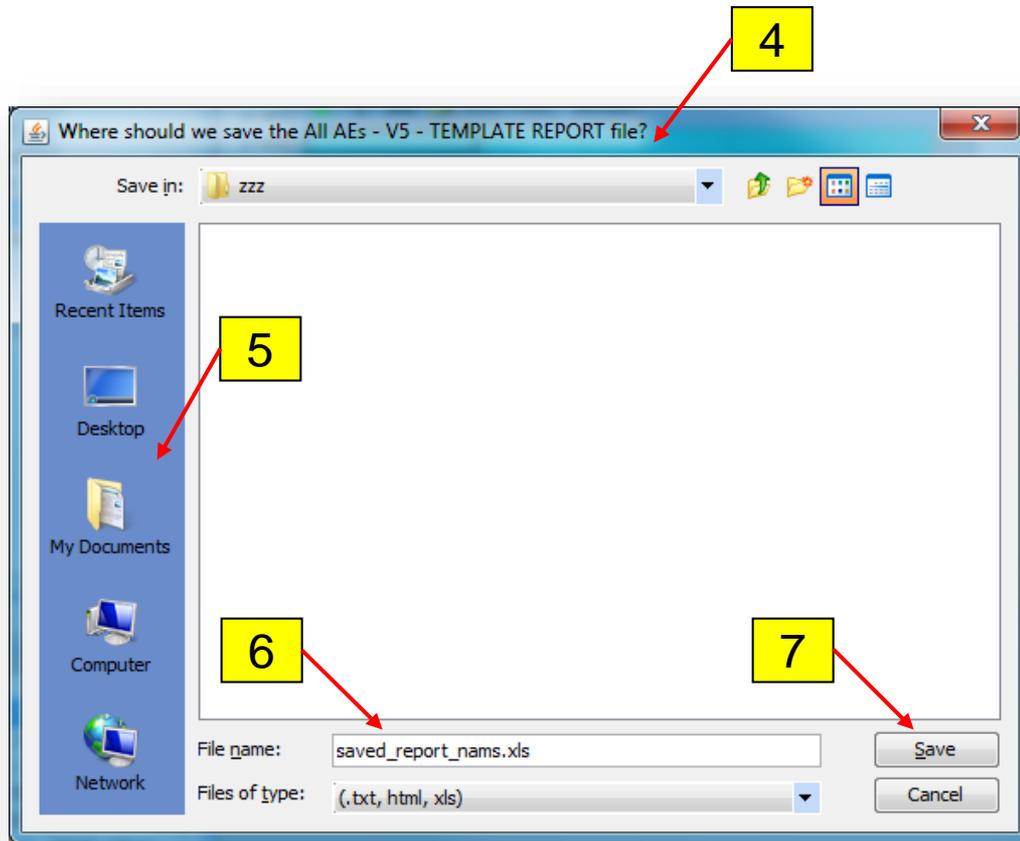
4. Save dialog window will appear;
5. Select a **location** (desktop, my documents..) to save the report;
6. Enter a **file name** with extension (use **.xls** for spreadsheets, **.txt** for text files);
7. Click **Save** button.

CCR JReview Manual

CCR JReview Manual

- Link to JReview Manual:
  https://ccrod.cancer.gov/confluence/download/attachments/72876079/IReview%20Reports_v3.0_manual.pdf?version=1&modificationDate=1319117587187&api=v2

- General Instructions on how to execute saved reports, export output, customize saved reports, create your own reports, set filters and save report.

- Catalog of template reports that can be used as is or as a starting point for your own custom reports.

- Since studies have their peculiarities and sometimes deviate from the CCR Standard eCRFs, some of the saved template reports might contain items that are not applicable to a study. JReview shows a prompt indicating which items are not compatible and remove them from the report. It the item exists in the study, it most likely has a different name, but it still can be added to the report. Module 2 covers modifying reports.

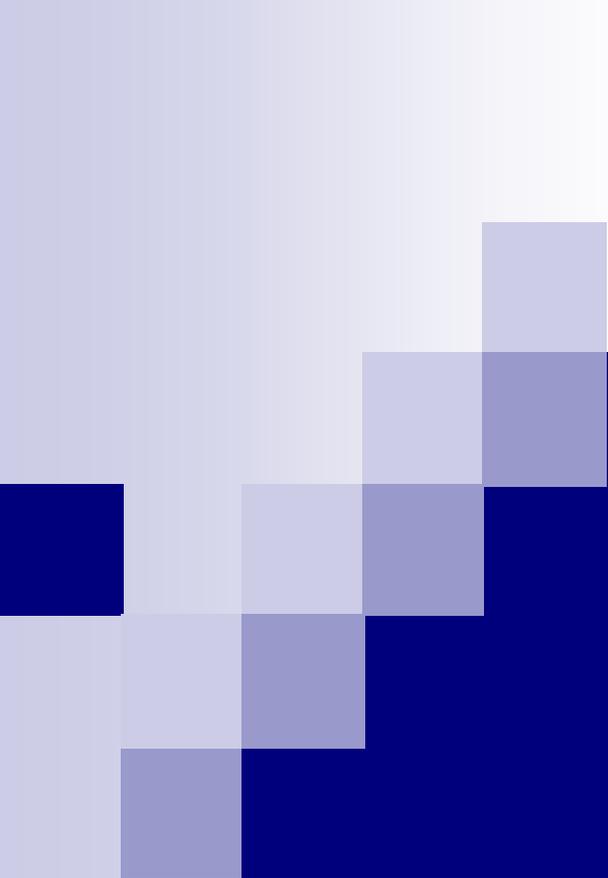# Module 1 Demo

- DEMO
  - Log-in
  - Run a Saved Report
  - Export output to Excel spreadsheet

JReview Module 2

Modifying Existing Reports

Module 2 Outline

- C3D Terminology
- Setting Recommended Preferences
- Oracle/JReview Relationship
  - ☐ JReview and C3D Correlation
  - ☐ F1 function
- Open and Modify Saved AE report
- Actual/Decoded, Print change, Sort order
- Save Report
- Demo

C3D Oracle Clinical Terminology

- **DCI** – Data Collection Instrument (i.e. a CRF!)
- **DCM** – Data Collection Module (Section or "Tab" of a CRF.)
- **Question** – a single element of a CRF in which datum ("Response") in entered.
- **Non-repeating Question Group** – A group of Questions that occurs once – ex: Course Initiation CRF.
- **Repeating Question Group** - A group of Questions that occurs more than once – ex: Adverse Events CRF.

Changing Preferences

Default
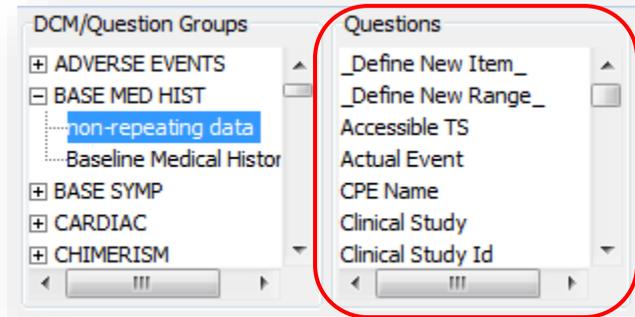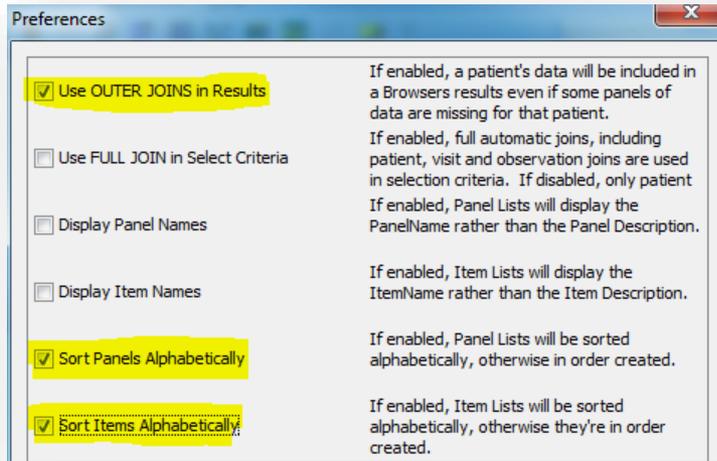
Recommended
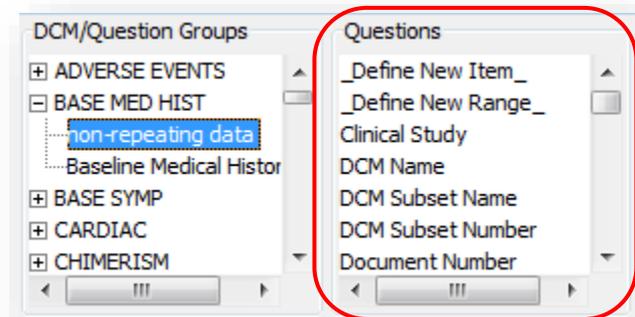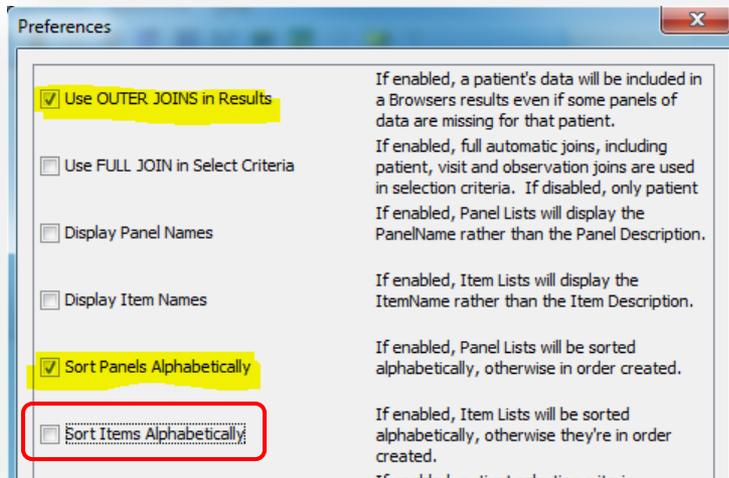
Setting "Preferences"

- Edit JReview Preferences to change the order the **DCM/Question Groups** and **Questions** are listed.

- To change preferences:
  1. Click on **Edit** menu item;
  2. Select **Preferences** menu option**;**
  3. Click on check boxes to enable or disable preferences - See recommendations on previous slide**.**

C3D and JReview Correlation

C3D: F1 & Field Help Function

- Displays Oracle Clinical question name and default prompt for selected data point.

- Useful in finding out the question's **Default Prompt** as it appears in JReview.

  1. Click on a specific data point on eCRF in C3D:
     a) On <u>RDC Onsite studies</u>, press the mouse's right button and select the "Field Help" option;
     b) On <u>non RDC Onsite studies</u>, press the keyboard F1 key.
  2. A pop-up window appears and shows the data point's question name and default prompt .

F1 and Field Help Function

RDC Onsite

Non RDC Onsite

Question's Default Prompt

Open and Modify Reports

Right click, then choose open

Report definition in Report Browser
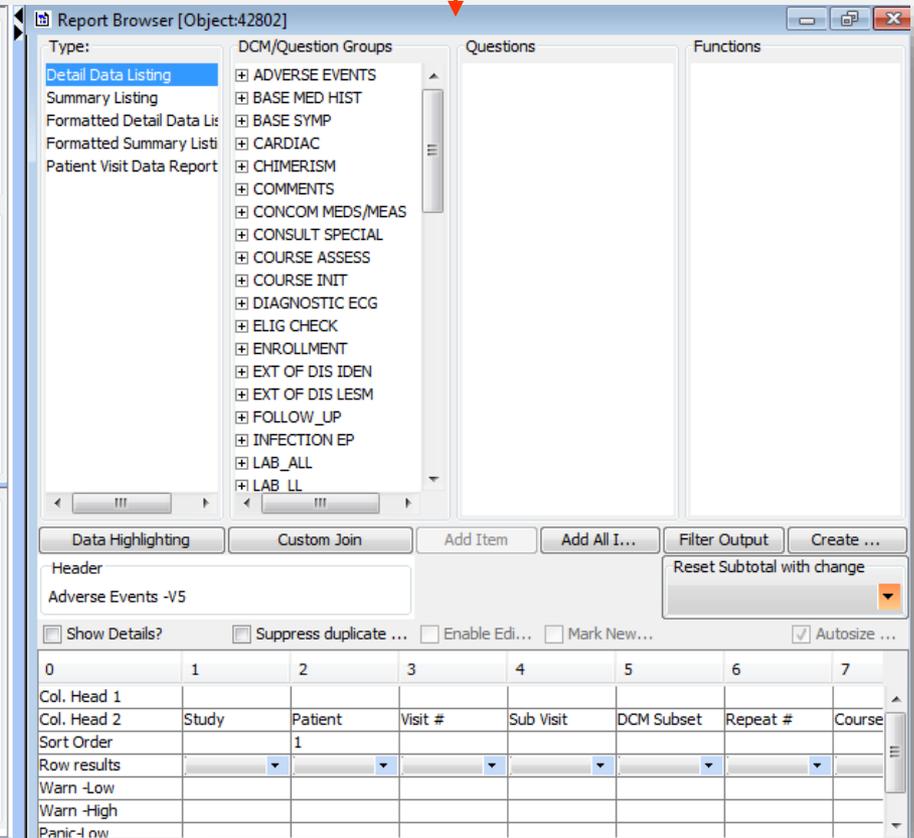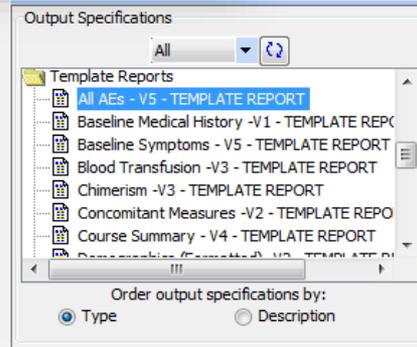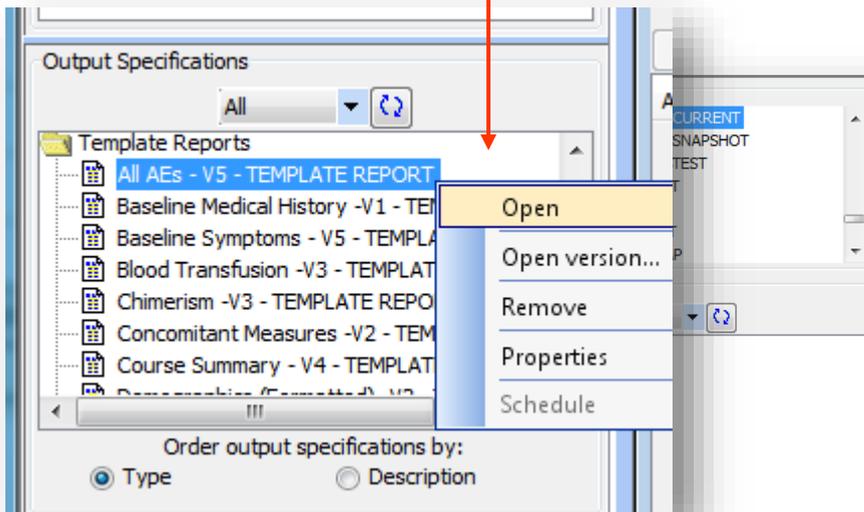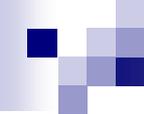
Modifying Saved Reports

- A saved report can be modified to suit your requirements.
- The following changes can be made:
  - Remove **Columns**
  - Rename **Columns Headings**
  - Set **Sort Order**
  - Set **Print Change**
- The modified report can also be saved for later use.

Remove Columns

1. Click on the cell with a number above the column to remove
2. Select the **Edit** menu item
3. Select the **Cut** menu option

Hint: Use the scissors on the toolbar instead of steps 2 and 3 to remove the selected column.

Rearrange Report Column Order

1. Click and drag the cell with a number above the column to move to the desired location and release the mouse button.

Edit Column Heading
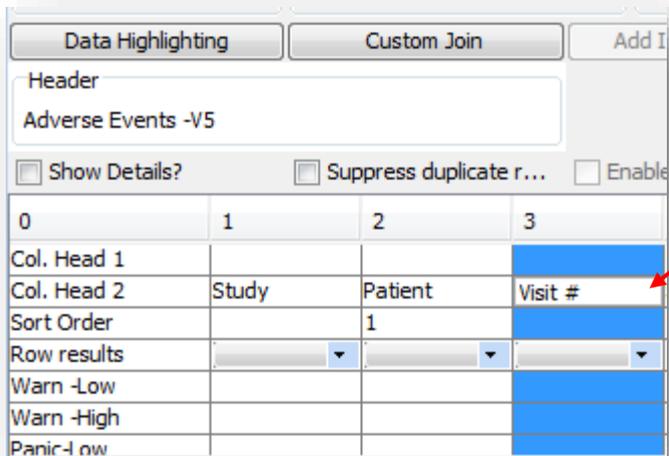
1. Double-click on the Column Header 1 or 2 to enter edit mode
2. Type in the desired new text

Note: Press the **Enter** or **Tab** key or click on another cell when done.
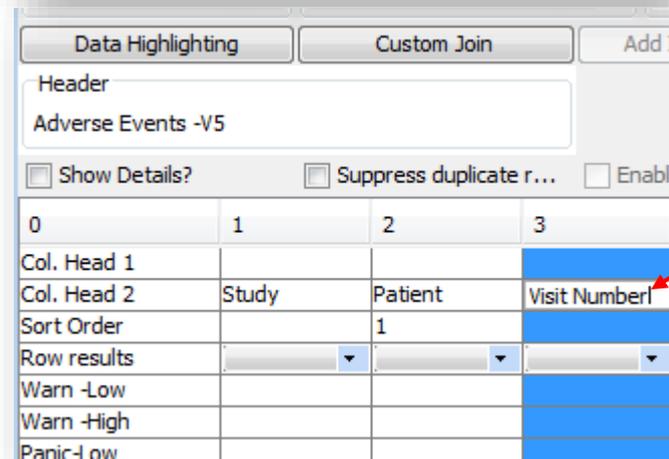
Setting Sort Order

- Enter numbers in the Sort Order cells that correspond to the way the report output data is to be sorted. In this example, the output is sorted first on the patient position ID and then on the patient initials alphabetically.

Chosen Order

Report Output

- In this example, the sort order numbers were reversed and now the output is sorted first on the patient initials alphabetically and then by patient position ID.

Chosen Order

Report Output

Hints: Optional descending sort is specified by a trailing " D" after the sort order number.
Do not repeat numbers.

Print Change Enabled

■ On columns that have a sort order number, it is possible to select the "Print Change" option from the drop-down list as shown below.

■ Data will only display on the output when the value differs from the contents of the cell above.

Warning: Although it is a nice visual cue, sometimes this feature could misled the user into thinking a value is missing simply because its display was suppressed since it was the same and the one above. The other issue is that an empty cell is exported to the Excel spreadsheet making it hard to sort and filter in the data.

Print Change Disabled

- To disable the Print Change feature, select the empty option from the drop-down as shown below.
- The output will always show the contents of the cell and not suppress it.

Handling a Panel Items Not Found in Saved Reports

- Some saved reports may contain items (questions) that are not applicable to a study.
- When you try to execute or open such saved report, a warning message (see below) indicates which items are not found. These items are automatically removed.
    - Click "**Yes**" to proceed and load the rest of the report's items.
    - Click "**No**" to abort and not load/execute the report.
- Optionally, these items can be replaced with the appropriate ones for your study.

Note: Review Filters and Patient Selection Criteria as well since items are also present there and could affect the result of the report.
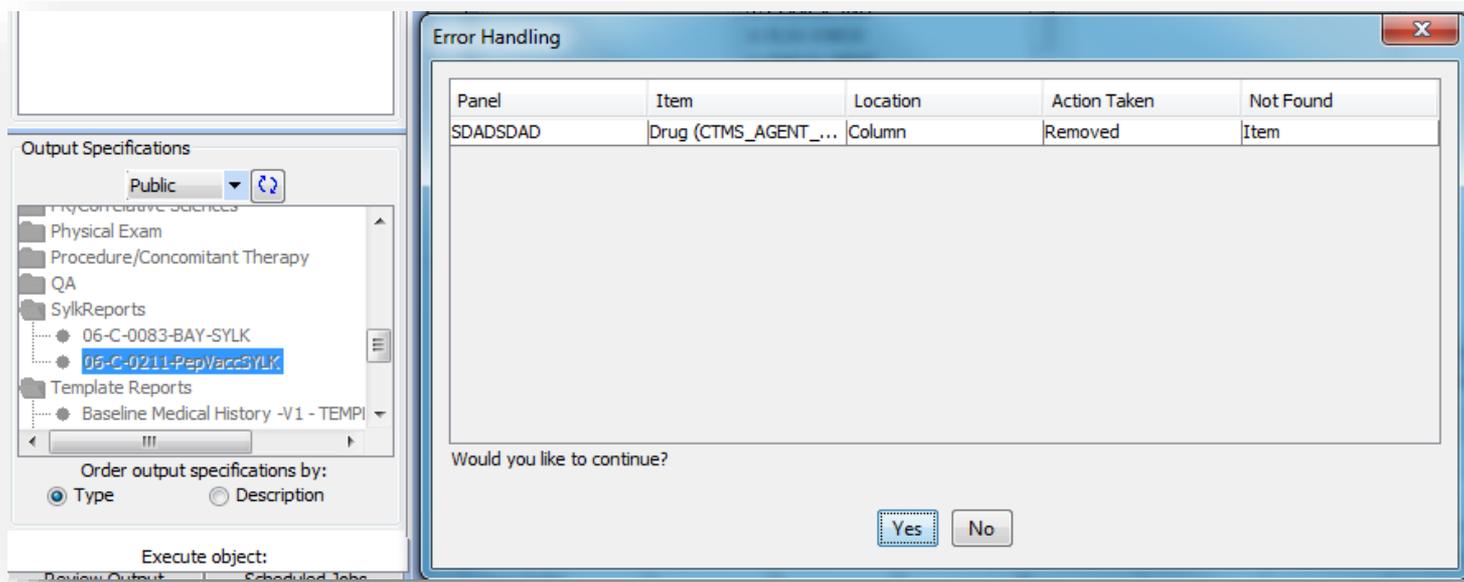
Saving a Report

- After making changes to the saved report, you are able to save it as a new report (necessary if you did not create the saved report) or update it (if you created it).
- Click on the **File** menu item and then choose the **Save As** menu option to save the current report definition as a new report. Use the menu item **Save** to update the existing report.
- Click on the **Definition** tab and enter:
  1. The report name in the **Description** box;
  2. Select a folder from the **Category** drop-down list (or type in the name of a new folder);
  3. Enter a brief description about the report in the **Summary Information** box.
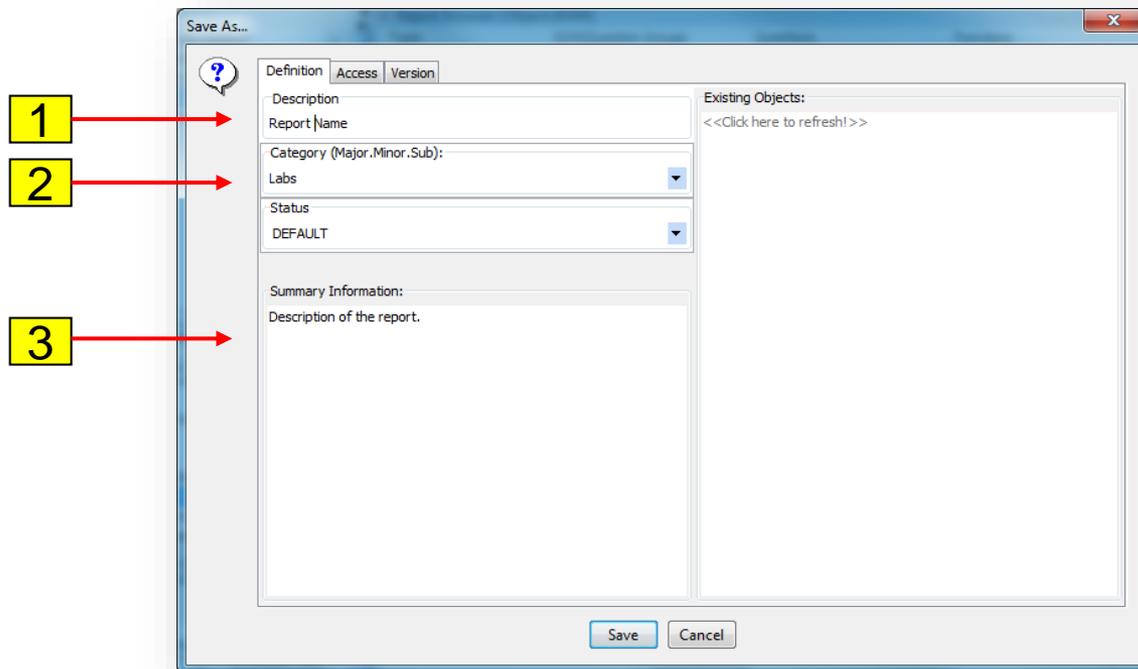
Saving a Report

■ Click on the **Access** tab and select:

4. Choose whether the report will be **Private** (only accessible by you) or **Public** (accessible to all user with access to the study) from the **Object Storage Location** drop-down list;

5. Choose the **Object Level** radio button **Study** to make the report only be available in the currently selected study; or choose **Project** to make the report available to all studies associated with the current **PI** selected;

6. Click on the **Save** button.

Hint: After saving a new report that was based on an existing report, it is advisable to open the newly saved report if you will continue modifying it.
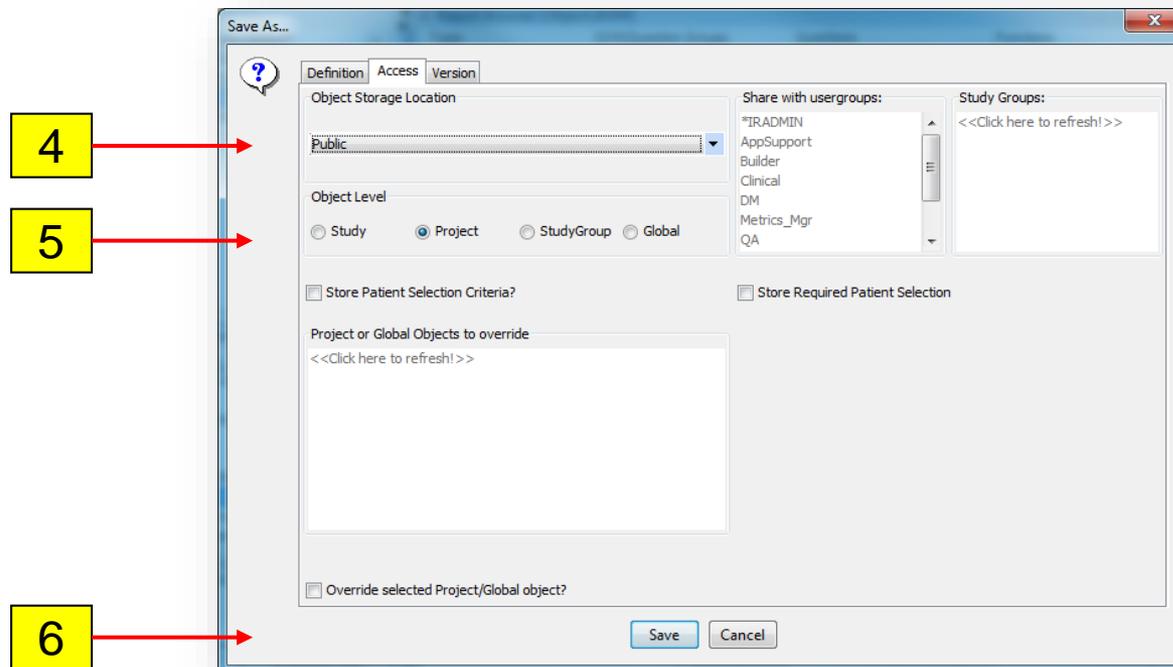
Module 2 Demo

- DEMO
  - ☐ Set Preferences
  - ☐ Open Saved Report
  - ☐ Edit Column Order, Remove Questions, Change Sort Order and Set Print Change
  - ☐ Save report
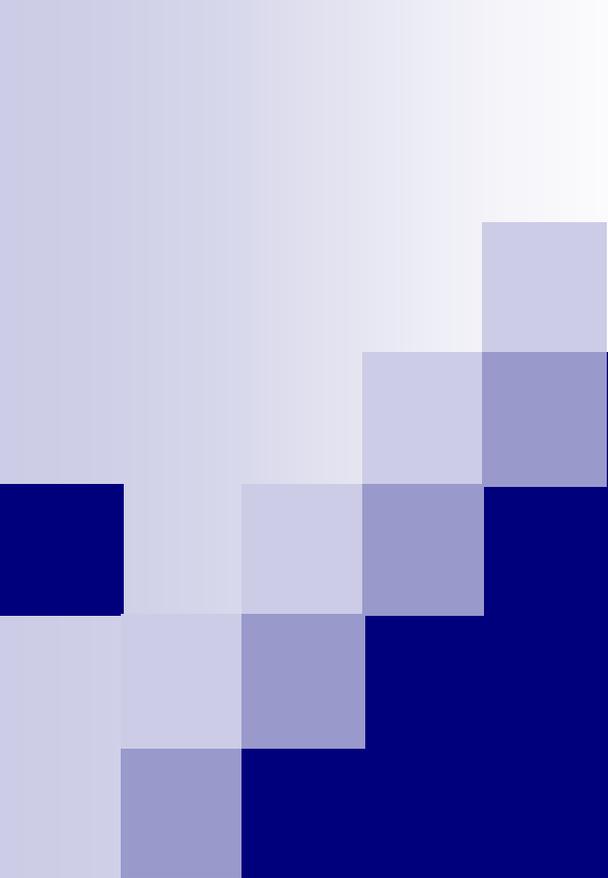
JReview Module 3

Creating ad hoc Reports

Module 3 Outline

- Report Browser
- Creating New Reports
- Difference Between Actual and Decoded Values
- Choosing Date Format
- Demo

Report Browser

- Report Browser has two basic report types:
  - <u>Detail Data Listing</u> – Lists details of selected questions from one of more CRFs.
  - <u>Summary Data Listing</u> – Allows for displaying counts, averages, minimum and maximum values without the details.
- Output of these reports are shown in a grid layout and can be exported to an Excel spreadsheet.
- Their "Formatted" counterparts show data in a layout that can be exported to a PDF file.
- **Detail Data Listing** is the most used report type.

Creating a Detail Data Listing Report
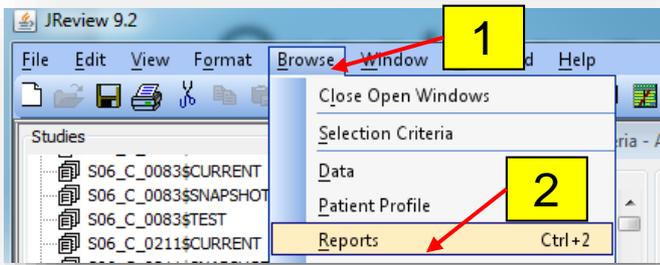
1. Click on the **Browse** menu item;
2. Click on the **Reports** menu option.

Hint: Optionally, click on the ⊡ toolbar icon to open the Report browser.
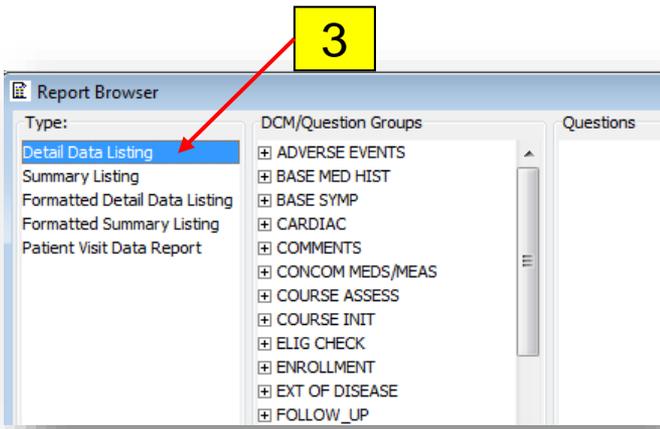
3. Click on the **Detail Data Listing** Type.

Creating a Detail Data Listing Report
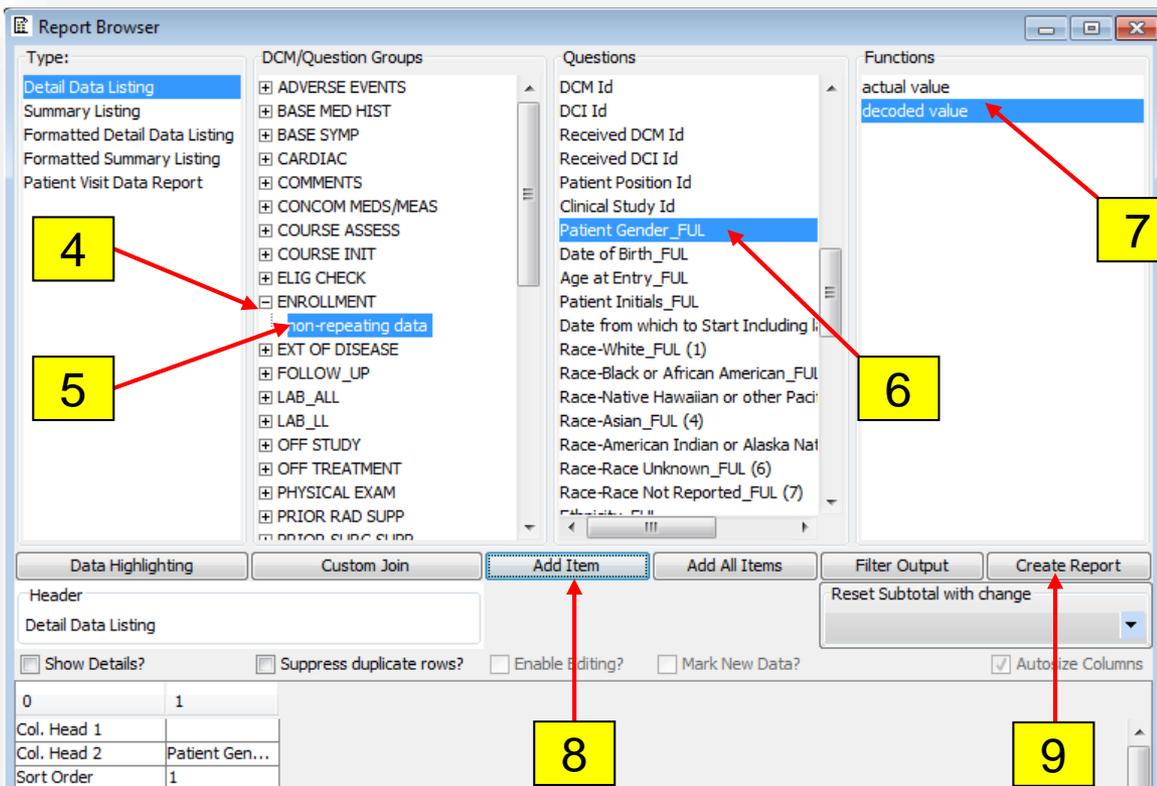
4. Expand the **Enrollment** DCM;
5. Click on the **non-repeating data** Question Group;
6. Click on a desired **Question**;
7. Click in one of the **Functions**;
8. Click on the **Add Item** button to add the Question to the report;
   - ❑ Repeat steps 4-8 to add additional questions to the report;
9. Click on the **Create Report** button to run the report and view the output.

Note: "Actual Value" should be highlighted under function unless the question:
  a) is a date question, then choose desired date format;
  b) has a pick list in C3D CRF, then "Decoded Value" is automatically selected.

Actual versus Decoded value
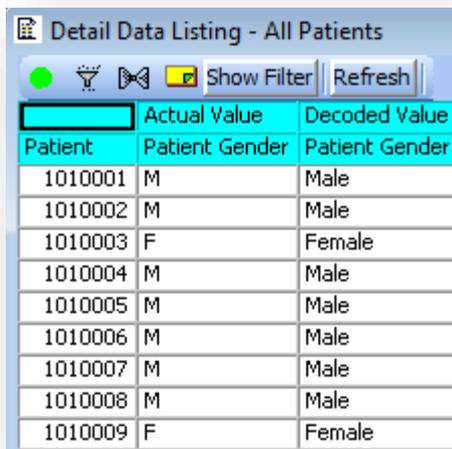
- **Actual Value:** is the <u>actual</u> representation of a data point entered in a C3D CRF and stored in the database.
- **Decoded Value:** is the <u>long</u> description of the <u>actual</u> value. It is available for questions which have pick lists in C3D.
- JReview selects the decoded value by default.

Date Formats

Available Date Functions

Sample output

- **Actual value (yyyymmdd) (ex: 20060422)**
  - □ Use this when date sort is needed.
- **Oracle Date (dd-mon-yy) (ex: 22-APR-06)**
  - □ If used and partial dates exist for the question, then JRreview will show an error message.
  - □ Note: Same format shown in C3D RDC.
- **Oracle Dates (mm-dd-yyyy (ex: 04-22-2006) and dd-mm-yyyy (22-04-2006))**
  - □ Allows for date calculations in Excel.
  - □ Note: Do not use this format when sorting dates.

Important Reports Considerations

- When using multiple CRFs in a report, select CRFs in the same chronological order as they would have been filled out according to the protocol schema.
  - For example: Enrollment, Course initiation, AE, Course Assessment, Off-Treatment
- JReview "knows" how to put together data from different CRFs
  - By patient position and sometimes by course as well.
- Watch out when combining questions from two or more repeating groups
  - Results in a Cartesian Product!
- Note on reports with Course End Date for patients still on treatment:
  - C3D defaults the current (ongoing) course End Date to "August 15 3501" date.

Module 3 Demo

- **DEMO**
  - ☐ Create a Detail Data Listing with questions from different CRFs and using Actual/Decoded value and the various Date Formats.
  - ☐ Save the report.
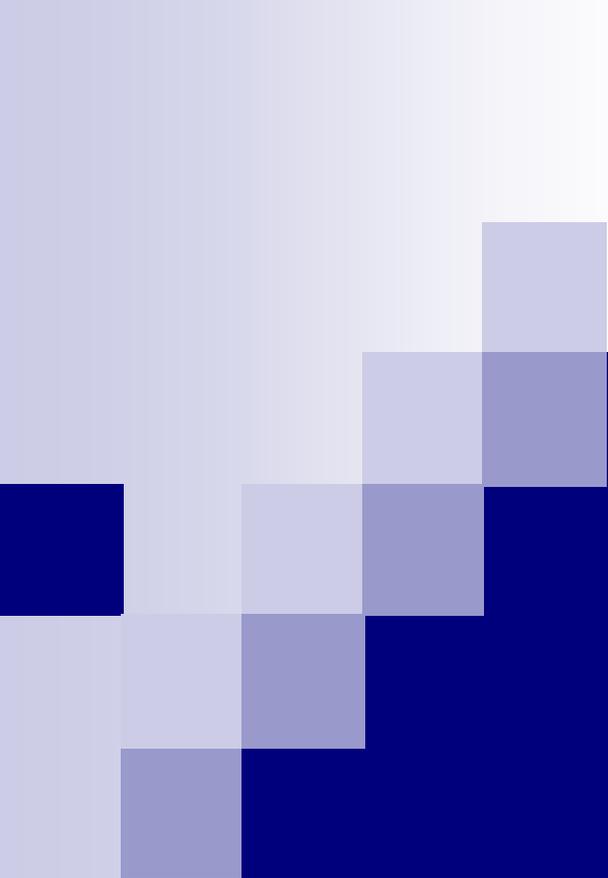
JReview Module 4

Filters and Patient Selection Criteria

Module 4

- JReview Terminology
- Patient Selection Criteria
- Filters
- Demo

JReview Terminology

- <u>Patient Selection Criteria</u> – Specification of how to subset the patient population based on their data.
  Ex: (Female Patients) Gender = "F"
  - ☐ Can be saved as part of the report or independently (Patient Subset).

- <u>Patient Subsets</u> – Saved Patient Selection Criteria! Re-usable across reports.
  - ☐ Listed between studies and output specification sections

- <u>Filter</u> – Criteria specified as part of a report and used to include or excludes data (rows or records).
  Ex: AE Grade >= 3
  - ☐ Automatically saved with the report.

Note:

- If you do not use a patient selection criteria, or patient subset, your reports will include data from all the patients for the Study Sites you have access to.

Create a Patient Selection Criteria
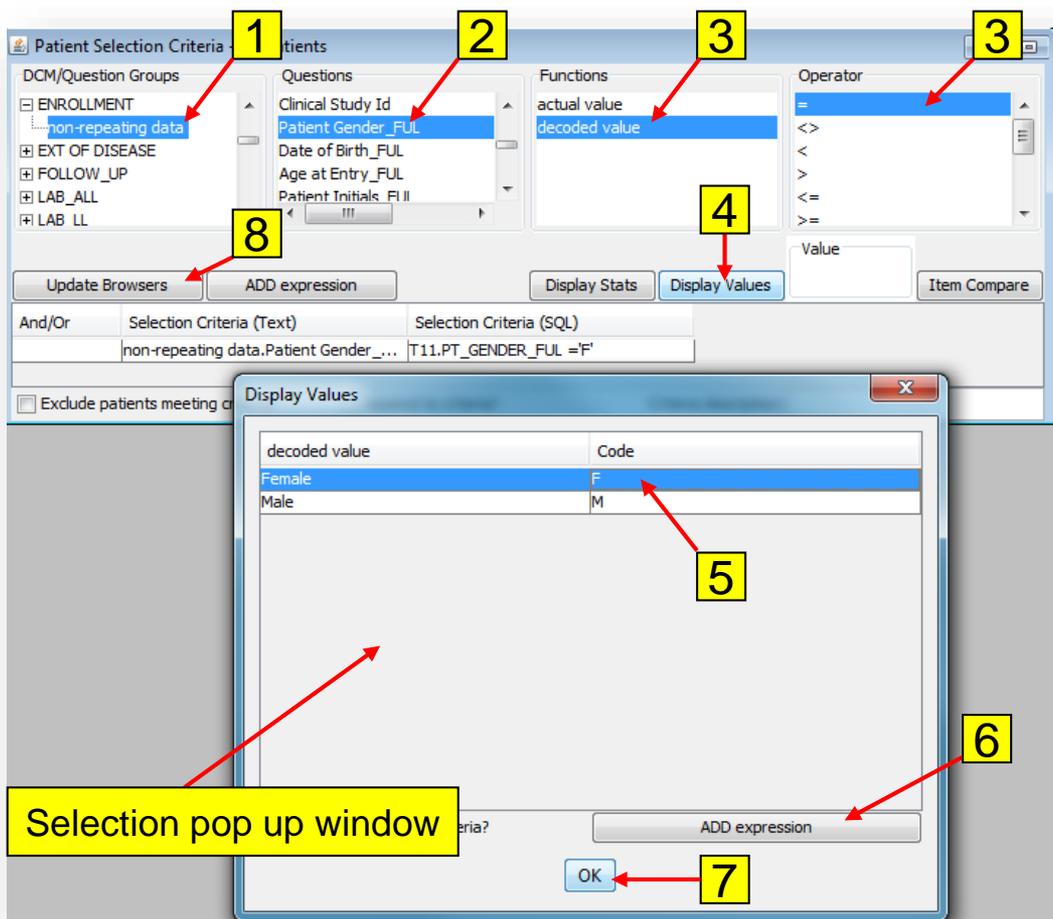
Select the Patient Selection Criteria window and then:

1. Expand the **DCM** in the **DCM/Question Groups** list and select the **non-repeating data** Question Group;
2. Click on a **Question** to select it;
3. Click on an **Operator**;
4. Click on the **Display Values** button;
   - Window shows up listing values for the selected question
5. Click on the **desired value** to select it;
   - To choose multiple values, hold down ctrl key when selecting values
6. Click on the **ADD expression** button;
7. Click on the **OK** button when done
   - Repeat steps 1-6 to add criterion using other questions.
8. Click on the **Update Browser** button to activate Patient Selection Criteria

Save a Patient Selection Criteria
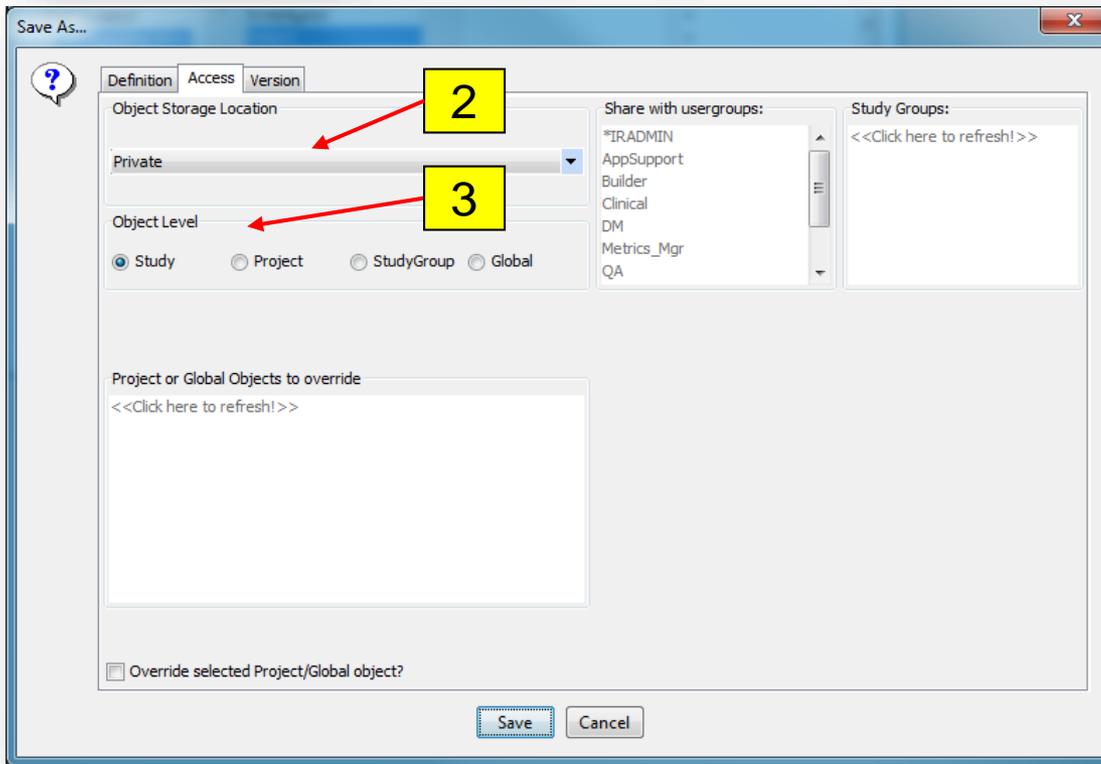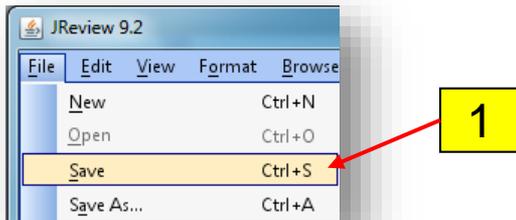
Select the Patient Selection Criteria window and then:

1. Select the **File** menu item and then the **Save** menu option.

2. On the **Access** tab, select a **Project Storage Location** drop-down list:
   a) **Private** – Only you will have access to the saved Patient Selection Criteria.
   b) **Public** – Everyone with access to the selected study will have access to the saved Patient Selection Criteria.

3. Then select the **Object Level**:
   a) **Study** – Patient Selection Criteria will only be available to the selected study
   b) **Project** – Patient Selection Criteria will be available to all the studies associated with the PI (folder that groups the studies.).

Save a Patient Selection Criteria
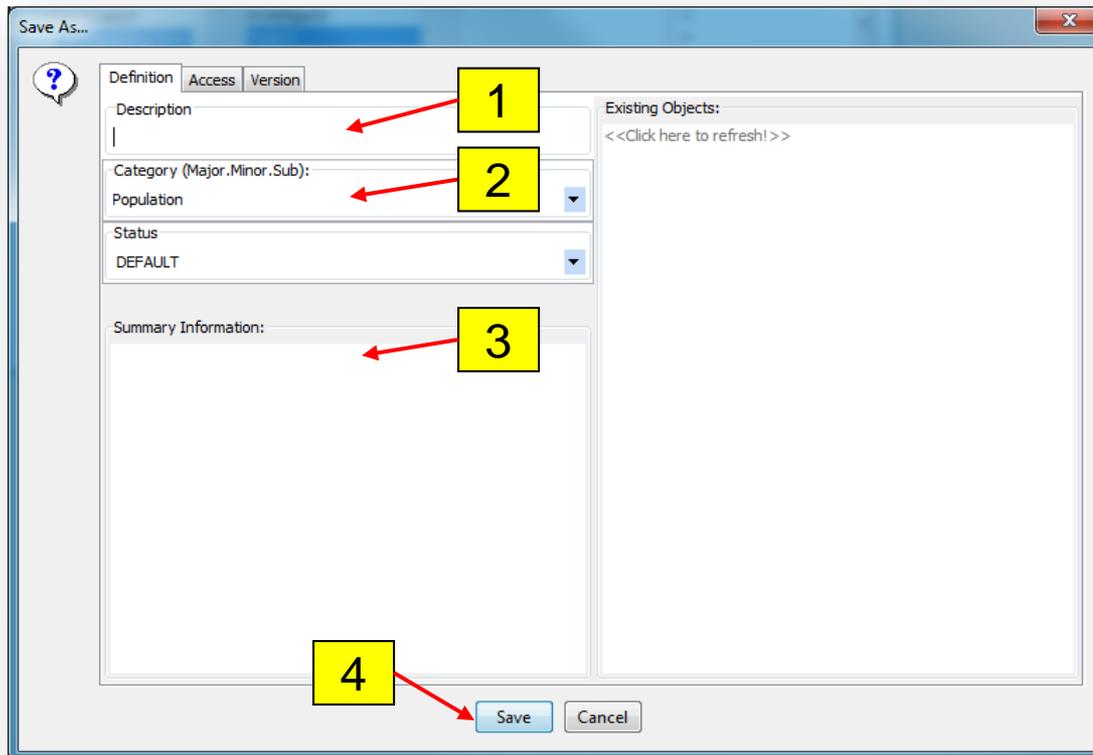
Then click on the **Definition** tab and:

1. Enter the **Name** of the Patient Selection Criteria being saved in the **Description** area.
2. Select a **Category** from the drop-down list. Category is the folder name where the criteria will be saved. A new Category can be created by typing in a new folder name.
3. Optionally, enter a brief description of the Patient Selection Criteria in the **Summary Information** area.
4. Click on the **Save** button.

Note: You cannot update or delete a Patient Subset that was not created by you.

Saving Patient Selection Criteria with a Report

- While Filters are automatically saved with the Report, a Patient Selection Criteria is not.
- When saving a Report, check the **Store Patient Selection Criteria?** option on the **Access** tab to save the Criteria as part of the report.
- Next time the Report is opened or run, the Patient Selection Criteria loads and the report only runs for the patients that satisfied the criteria.

Filter Output

- <u>Filter Output</u> is a criteria used to select which data from a CRF should be included in the Report's output (undesired rows are not included in the report output)

- Filter Output is always saved as a part of the report.

- The Patient Selection Criteria and Filter Output can be used together or individually to meet your needs.

Create and Save a Filter

1. If the Report you want to set the Filter Output is not open, locate the report in the **Output Specification** area, right-click on the report's name and select the **Open** option.

2. If the Report is already open, then select the **Report Browser** window.

3. Click on the **Filter Output** button.

Create and Save a Filter

1. Select a **DCM/Question Group;**
2. Select a **Question;**
3. Select a **Function;**
4. Select an **Operator;**
5. Click on **Display Values** button to show the list of values stored in the database for this study;
6. Click on the desired value to select it;
   - To choose multiple values, hold down ctrl key when selecting values
7. Click on **the ADD expression** button;
8. Click on the **OK** button when done;
   - ❑ Repeat steps 1-6 to add criterion using other questions
9. Click on the **Save Filter** button to enable the filter.
   Note: On the **Report Browser** window the **Filter Output** window has now changed to **Filter is On** indicating a filter has been set on the report.
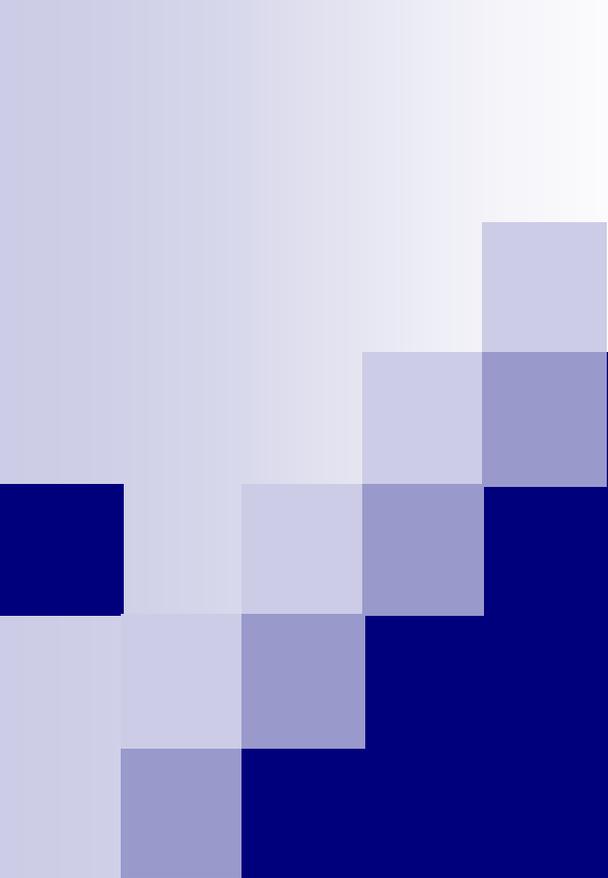
Patient Selection versus Filter

- <u>Patient Selection Criteria</u> = Patient positions selected
  - ☐ Ex: Patients with Arm A in Course Initiation CRF. Patients 1, 7 and 22, which have Arm A are selected and report runs only for these Patients.
- <u>Filter Output</u> = Observation level subset
  - ☐ Ex: Patient with Serious AEs.
    Only patients that have at least one Serious AE are selected and report runs only for these Patients.
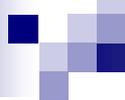
Module 4 Demo and Exercises

- Demo
  - Using the previously created report with enrollment and AE questions create the following:
    - Create a filter for AEs >= grade 3
    - Create Patient selection criteria for "Male"
    - Generate report for "Male" patients with AE>= grade 3

Questions???