ST 8 Overview

A ST "**criteria**" defines the "question" to answer by summarizing a group of ARM trials. It is the match (query) definition for selecting trials to include in a multi-trial summary.
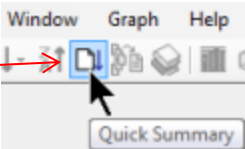
Requirements to define ST criteria (*.stc8) that can **obtain grand means of assessment data** calculated from assessments in one or more trials:

1) Select trials to summarize.

2) Define treatments to summarize.

3) Identify assessment information to summarize.

Methods to **define new criteria** to summarize:

1) **Quick Summary**. This is the most automated summary method, to use when:
   - Original protocol and all trials to summarize are stored in the same folder
   - An empty default criteria file is in the study data or study definition folder.
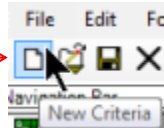
   Steps are:
   a. Select "Quick Summary" from Tools menu or toolbar.
   b. Select original protocol file from study folder that contains trials to summarize.
   c. On Criteria settings dialog identify whether trial descriptions are stored in study list or ATD database (if available), plus the desired treatment units to display on the ST summary.
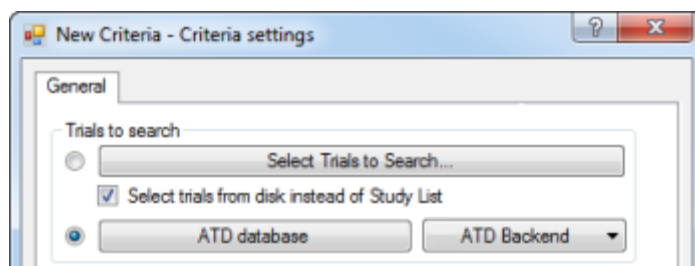
   ST then:
   a. Opens the default criteria (*.stc8/*.stc) file: criteria with same name as protocol in the study data folder, one named "Default" in study data folder, or one named "Default" in study definition folder. From the criteria ST uses treatment fields to match, assessment data header selections, and any header or site description criteria selections.
   b. Names the criteria file with the same name as the protocol.
   c. Selects all trials in the same study data folder as the protocol, and begins summarizing these trials.
   d. After summary is completed the message viewer displays briefly, then Print ST Summary preview opens.

2) **New Criteria**. This method guides you through each step of defining summary criteria, to use when any of the following apply:
   - Summarizing a diverse group of trials that either do not have one protocol in common, or are not stored in the same study data folder.
   - A default criteria file is either not defined or not appropriate for the summary.
   - Treatment criteria wildcards, synonyms, or equivalent treatments must be defined to match desired trials.
   - Additional trial selection filters must be defined to select or narrow the group of trials to summarize.

   Steps are (use "Next >" or "< Back" buttons to move between the first 4 steps):
   a. Select "New Criteria" from File menu or toolbar.
   b. Choose study definition to use for defining summary criteria.

   Note: Use the study definition that best matches the trials to summarize.

   c. On Criteria settings dialog General tab, identify whether trials to summarize will be selected from study list, from disk (Select Batch dialog), or from ATD database (if available).
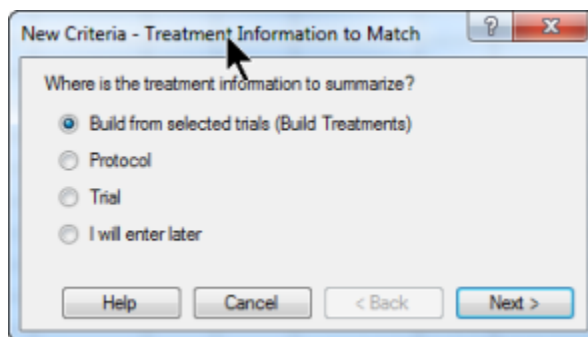
Note: If you plan to use "Build Treatments" to obtain a list of unique treatments, then reduce the number of trials *now* by selecting those trials that are of interest, such as those containing a treatment product of interest, or those based on the same project or protocol. When the "ATD Database" options is selected, click the "ATD database" button to apply a filter to reduce the number of trials. Otherwise click "Select Trials to Search" button to select which trials to include in the summary.

d. On Criteria settings dialog Treatment tab, specify whether treatment units should be Metric or US Standard. Also, clear any default untreated treatment number that is specified.

> **Note**: After selecting "Next >", ST creates a blank criteria, and the "< Back" button is no longer available.
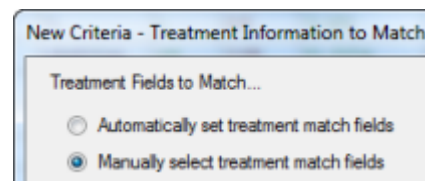
e. On Treatment Information to Match dialog, identify how criteria treatments to summarize will be specified:

   i. By **build**ing a list of unique **treatments** from trials selected to include in the summary.
   Note: All trials to search are scanned, and all unique treatments in those trials are copied into the treatments editor. If there are more than 100 trials, this can take several minutes and can build hundreds (or maybe thousands) of treatments.

   ii. From a selected **protocol**. A protocol selection dialog displays after selecting "Next >".

   iii. From a selected **trial**. A trial selection dialog displays after selecting "Next >".

   iv. By **entering them yourself**. Shortcuts are to merge from another study (Tools - Merge Study), copy/paste from another study that uses the same study definition, or directly type the treatments.

f. On "Treatment Fields to Match..." dialog, identify how to select which treatment fields to match when ST scans selected trials to identify those that match this new criteria that is being built:
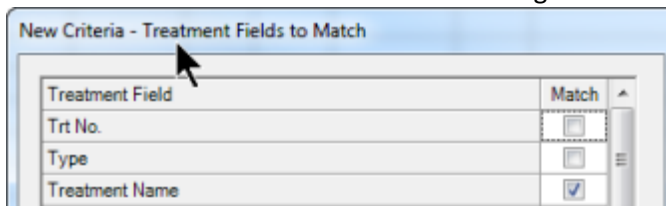

   i. **Automatically**, by auto-selecting all criteria treatment fields that contain match information.

   ii. **Manually**, by clicking a checkbox beside each treatment field to match (see item g below).

   This dialog only displays after selecting **Protocol** or **Trial** on dialog e described above.

g. On the dialog that lists all possible Treatment Fields to Match, put a checkbox beside each criteria treatment field that should be matched against trial treatments when ARM ST is determining which trials to include in a summary.

Note: Only select those criteria treatment fields that contain match criteria, since blank treatment criteria fields only match trial treatments in which the same field is blank. By default Treatment Name, Rate, and Rate Unit are selected (only Treatment Name on a seed study definition.)

Important: Only match against "Treatment No." field when trial treatments are **always** listed in the same order as criteria treatments. When summarizing a protocol for which the treatments are different in every trial, such as when each treatment is combined with a local standard, matching by only the treatment number field may be the most effective way to achieve the desired treatment matching. When matching by treatment number only, ARM ST matches treatments with the same treatment number, even if these treatments have a different number of treatment component lines.

Shortcut: Double-click a treatment field (column) heading on the treatment editor to select or deselect that field as a treatment match field. Also change treatment fields to match in ST Summary Options.

The Treatment Criteria dialog displays after selecting "Next >" on "Treatment Fields to Match dialog. Next, you should specify assessment data criteria matching rules to use for this criteria (see item h below).

h.   Identify which **assessment header fields** to match (see below).

Defining **Assessment Header fields to match**:

1)   Begin by clicking into any entry field in Assessment Data header column 1, which fills default ST match wildcards.

2)   Change the default match criteria either by entering either a code to exactly match, or entering the @ match wildcard (Start of field with different items in separate summary columns).

The @ wildcard matches any entry in that trial field, and ST creates separate assessment grand mean columns on the ST Summary Report for every different assessment entry in these fields. This default may well provide a more detailed summary report than you wish, so change @ wildcard to * in fields where ST should average across different entries on the summary report.
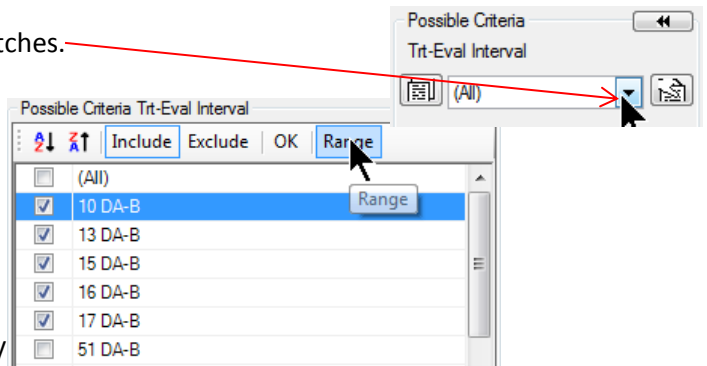
3)   Number fields such as Days After First Application, Days After Last Application, Treatment-Evaluation Interval (TEI), or Planting-Evaluation Interval accept either a match wildcard, an individual value, or a range to match during a summary. Use a hyphen ("-") to indicate a range (for example "13-15").
Use the ST "range builder" to automate building ranges:

a.   Click into field for which to build range, then click "Scan for Criteria" button.
ST verifies the trials to search, and whether to "Match existing entries" to only get field entries

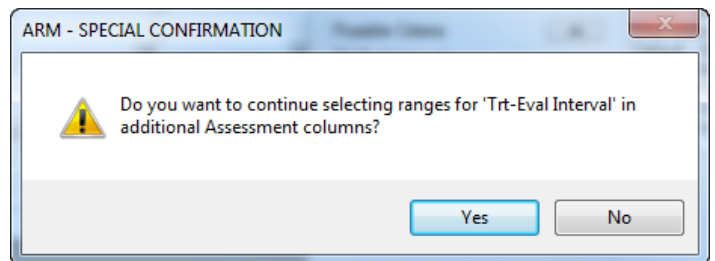for data columns that match current criteria.

b.   Click "Possible Criteria" button to display matches.

c.   Check box beside each value to include in Range, and then select the Range button to build range that includes the selected values. The range is automatically inserted into the current assessment editor field.

d.   When asked whether to "continue selecting ranges", select "Yes" to build another range for the next criteria column. ST will then copy the current criteria column to the next, and display the "Possible Criteria" to build a range for the next criteria column.

e.   Select "No" when finished building ranges for a group of criteria columns.

Press the F1 key to display ST help on the assessment data criteria editor.

Select Begin Summary on Tools dialog or toolbar button to begin summarizing selected trials with the current criteria.