

caArray 008 - Using the Annotations tab or MAGE-TAB annotation files to annotate an experiment

Question: Should I use the Annotations tab or MAGE-TAB annotation Files to annotate my experiment?

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Topic: caArray Usage

Release: Up to caArray 2.2

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Answer

caArray offers two options to annotate the experiment.

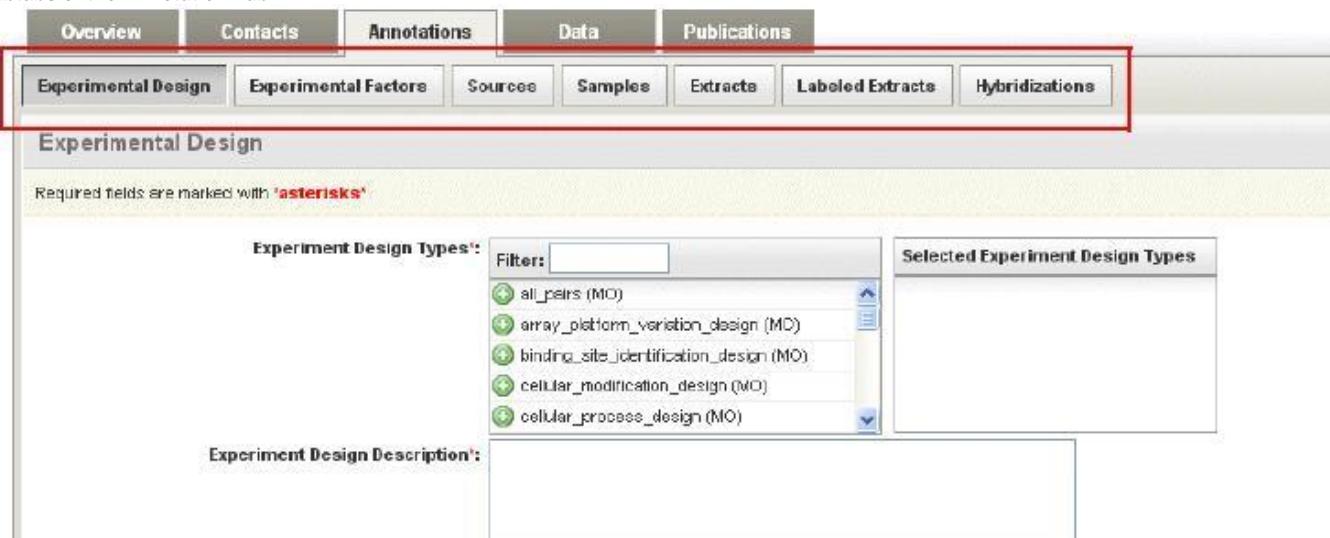
- You can annotate the experiment automatically (recommended) by uploading/Importing MAGE-TAB formatted annotation files ([caArray 007 - MAGE-TAB Files](#)).
- You can annotate the experiment manually by entering data using the [Annotations tab](#), as described in the [caArray User's Guide](#).

This knowledge base entry aims to clarify the difference and help you find an efficient way to annotate your experiment.

Differences between Annotations Tab and MAGE-TAB annotation files

The Annotations tab opens with seven subtabs for entering annotation data for the experiment you are creating: Experimental Design, Experiment Factors, Source, Extracts, Labeled Extract and Hybridizations, as shown in the illustration. Detailed definitions and explanations for each subtab can be found in the [Annotations tabs section](#), of the caArray User's Guide..

Subtabs of the Annotation Tab



A [MAGE-TAB file](#) is a simple tab-delimited, spreadsheet-based file. IDF and SDRF are the related MAGE-TAB annotation files.

The table below compares using Annotation Tab and MAGE-TAB annotation files.

Task	Annotations Tab	MAGE-TAB File
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Entering Annotations Data	Click on the Annotations Tab in caArray. Enter annotations field by field.	Upload pre-created tab-delimited MAGE-TAB files (IDF and SDRF format). Annotation data needs to be validated and imported together with the array data files referenced in SDRF file(s).
Modifying Annotation Data	Flexible. Your unpublished annotation data can be modified the annotation user interface in caArray	Flexible with some limitations. Biomaterial related characteristics/attributes can be modified or added via annotation user interface. Experimental factor, protocol, design, or publication related attributes cannot be changed. They become read-only after files are imported. Additional annotation data added through annotation interface cannot be downloaded (see below).
Auto Generated Annotation	During data import, caArray offers options of associating array data with the existing annotations or auto-creating new annotations for a Source - Sample - Extract - Labeled Extract - Hybridization chain based on the data imported. You can enter the rest of the annotations on the annotation interface after the chain has been created.	The Annotation information in IDF and SDRF files is automatically assigned to each annotation field during data import. If a biomaterial node is missing in the Source - Sample - Extract - Labeled Extract - Hybridization chain, appropriate intermediate nodes are automatically generated to complete the chain.
Portability	Annotations cannot be downloaded. Only the data file associated with annotations can be downloaded.	Annotation files can be downloaded. However, annotations added or modified via the Annotation interface will not be downloaded.
Re-usability	Vocabulary entered can be reused other experiments, but the annotations must be selected or entered in each new experiment.	Annotation files can be downloaded and reused for different experiments with necessary modifications, such as the name of the data files.
Best Usage	Experiments with few sources or samples. Useful for the experiments which can be described with the generic annotation data in caArray.	Complex experiments with large set of data, or experiments with many specific characteristics.

Summary

In summary, the annotation user interface (Annotation tab) offers a straight forward and quick way to enter annotation data. MAGE-TAB annotation files allow the user to create complex annotations and keep annotation editing and maintenance manageable at the same time. MAGE-TAB files allow users to enter the annotations that are not displayed as generically available and editable fields in the annotation user interface. These customized annotation data entered via MAGE-TAB files are visible but un-editable on caArray. Furthermore, MAGE-TAB files are portable and reusable, thus saving time and effort, especially when a large set of samples are collected from the same source.

For more information about about MAGE-TAB related files, refer to [caArray 007 - MAGE-TAB Files](#).

Have a comment?

Please leave your comment in the [caArray End User Forum](#).