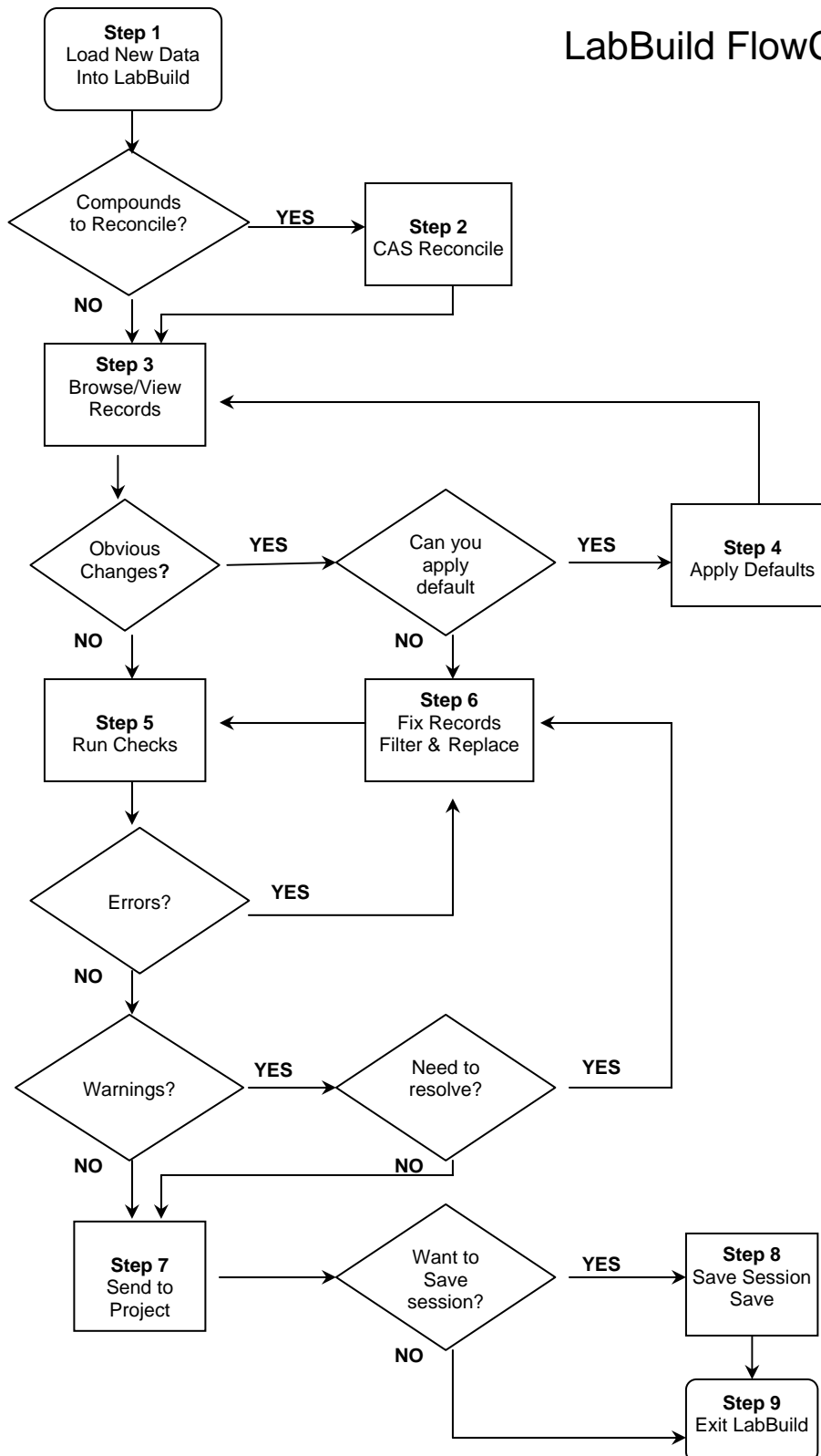




IMPORTING CHEMISTRY DATA

LabBuild FlowChart





IMPORTING CHEMISTRY DATA

Introduction: Preparing the Electronic Data Deliverable (EDD) and Setup

1. The EDD(s) must be in the format specified in the LabData Structure Notes available on the GIS\Solutions website.
 - If the EDD is a database file (dbf), the field names must match the field names of the structure notes.
 - If the EDD is not a database file, the sequence of the fields should match the sequence in the structure notes. If the import fields do not match sequence, a field mapping can be used.
2. Place the EDD(s) in an empty directory (we recommend the project\labdata directory or a subdirectory within this directory). All projects have a sub-folder called LabData. This folder is the default location where all temporary files will be created during the “building” process. It is also the location where you may place your EDD’s while building the data into your project. If you create a LabBuild folder under your project this will supersede LabData as the working folder.

Step 1: Load New Data

1. LabBuild is a GIS\Key component that imports and checks EDDs, and then prepares them for import into the GIS\Key database.
 - a. From GISKey Suite (Scout Project Manager), double-click the 'LabBuild' icon.
 - b. In the LabBuild window from 'Load' drop-down menu, select “New”.
 - c. If this is the first time LabBuild has been run in the project it will take you to a file listing in the current project’s LabData folder. Select the appropriate file type to display, and select the files for loading using shift or ctrl to select more than one file at a time. If this is not the first time running LabBuild then before the file listing LabBuild will ask if you want to append the data to current set of data or overwrite. Select “Yes” to clear the current data, or “No” to append data. If there are varying file types you may identify the various types in the “Load New” window. In the “Load New” window select apply to finish the loading of the current file list.
 - d. If you have data files in non-dbf format that has specific order other than that of the labdata structure notes, use the “Field Mappings” menu at the bottom of the main window to create a custom field mapping for the import files.

Step 2: CAS Reconciliation

1. After loading your EDDs, LabBuild tries to match the constituents supplied by the lab to CAS numbers defined in the GIS\Key database. If no match is found for a lab constituent (i.e., LabBuild cannot match it with an existing compound in the database), GIS\Key will display a



IMPORTING CHEMISTRY DATA

'Load/Save Data Report'. Click 'Print' to display all the constituents that did not match with constituents in the database.

2. You must match (i.e., reconcile) these lab constituents to ones in the database:
 - a. In the main window, from the bottom menu 'CAS Reconcile'. This displays all previously reconciled constituents and new ones to be reconciled.
 - b. Select the constituent that needs to be reconciled.
 - c. Right-click in the 'Reference CAS' field, select the corresponding constituent.

NOTE: If the correct CAS Number for that lab constituent has not been defined, add it to the database (see Chapter 6 for details). Then rerun the CAS Reconciliation.

Step 3: Browse/View Records

1. As soon as the records are loaded they can be browsed and viewed in the right window
2. There are several 'Browse/View Options'. Most of the time, the defaults are appropriate.
 - a. **Filter** - you can View specific records (The browse/view will be filtered to specific records when an item is selected in the left pane).
 - **Checked OK** - records that have no errors or warnings
 - **Deleted** - records that have been deleted
 - **Sent** - records that have already been 'Sent to Import' (see Step 7)
 - **Unchecked** - records that have not been checked
 - **Warnings** - records that may have something wrong with them, but can be imported into the database. Select individual codes to view only those records.
 - **Exceptions/Errors** - records that have an error and cannot be imported. Select individual codes to view only those records.
 - b. **View** - Specify the order of the fields (from left to right). Available field orders are displayed if you select "Custom". Highlight the appropriate entry (e.g., 'Sites') and select apply. You can create your own order by selecting "Add New", create a new description, then modify the field order as desired and select apply.
 - c. **Sort** - Options for changing the order of the records.
3. Click 'Apply' to view the records

Step 4: Apply Defaults

1. From the main window click 'Defaults'. Enter default values in the appropriate fields (e.g. Iced = "U"). If the 'Only If Empty' box is "Y", the change will only be applied for records where that



IMPORTING CHEMISTRY DATA

field is empty (i.e., if the lab supplied a value, the value will not be changed). If "N", the default value will be applied to every record.

2. Click 'Apply' to apply the default values.

Step 5: Run Checks

1. In the main window on the top menu bar, select 'Checks'. This will check your data against other records in your dataset and against the database. Checked records are flagged as one of the following:
 - **Deleted** - Will not be imported
 - **Exceptions** - The record has an error that will prevent it from being imported
 - **Warnings** - The record may have an error, but it can be imported
 - **Checked OK** - The record has no Exceptions or Warnings and can be imported.
3. Select any of the displayed warning or exception codes to view the records that were flagged with the selected errors or warnings.

Step 6: Fixing Records

1. To resolve exceptions and warnings, you will want sort and select the affected records that need fixing. If the exceptions or warnings are minimal, they may be fixed by direct editing in the data window. Large sets of exceptions and warnings may be more effectively handled by using the "Replace" menu
2. **Filtering/Sorting** - You can filter on specific records by selecting an exception or warning code displayed in the left pane of LabBuild. You can sort the selection further by clicking any column header, which will apply an index based on the values in that column. If the selection is for the identification of Data Set Duplicates (Warning codes of 90, 91, and 92) use the corresponding defaults in the "Sort" menu to stack the duplicates for easy viewing. There is also a "Filter" menu which has a pull down list of all values in each field that can be filtered on.
3. **Selecting** – You can select subsets of data within a display by clicking on the left bar of the record(s), using the shift or ctrl keys to select blocks
4. **Replace** - Select the 'Replace' menu.
 - a. **Description** - if a description is entered, the replace statement will be saved for future use. Use the the description field pull down menu to select a previously-saved replace statement.
 - b. **Scope** - which records will the replace statement apply to (All, Filtered, Selected)
 - c. **Field** - Select the field (column) in which your changes will be applied.
 - d. **With** - Enter the values or a statement that will go into the field.



IMPORTING CHEMISTRY DATA

- e. **For (optional)** - Enter a condition (using FoxPro syntax). The Replace will only apply to records that meet the condition.

Examples of Replace statements

- **Field:** site_id
With: left (samp_id,5)
For: samp_id = "MW"

Replaces site_id field with the five leftmost characters of samp_id for all records where samp_id starts with MW.

- **Field:** samp_depth
With: val(substr(samp_id,7,2))
For: samp_depth = 0

Populates samp_depth with a substring of samp_id. The substring starts with the seventh character of samp_id and returns two characters (i.e., the seventh and eighth characters). Replace only applies to records where samp_depth is zero. NOTE: Samp_id is a character string and samp_depth a number string, so VAL must be added to convert the character string to a number string.

Step 7: Sending the Records to Import

1. If there are no Exceptions and all the Warning records are acceptable, the records are ready to send to the project database:
 - a. Click the 'Send' drop down menu and chose "To Project"
2. Click 'Yes' at the prompt. This creates temporary import files (with a ".tmp" extension) in the 'LabBuild' folder (where your EDD is stored). The next screen will show how many records and which tables are being created. The numbers under the "Records" title are records that will be imported to the project. The numbers under the "Proj Dups" title are those that have been found already in the project and will not be imported again. The numbers under the "DSet Dups" title are records that were found to be duplicates in the current data set (Warning codes 90, 91, 92) with one or more duplate records being left behind while one of them is sent to project. If everything looks good click "Apply". The final "Apply" imports the project "Records". If you click "Cancel" instead the process will be halted and the records will not import. The DUP's and the DSD's are left behind in the working folder named after the target table with extensions of "DUP" or "DSD". These files are DBF tables and can be open in FOXPro or Excel if needed.
3. The final import screen displays the status of the TMP files.
 - 'Skip' - no records were imported into that table (no data of this type in the data set)
 - 'OK' - records were imported successfully



IMPORTING CHEMISTRY DATA

- 'REJ' - no records were imported. Error reports are generated for each rejected table. These error reports are the c:\gistemp directory, with an "REJ" extension, and can be opened in Notepad.

Step 8: Saving the LabBuild Session

1. We strongly recommend you save your LabBuild session. This will not only keep a record of your changes in LabBuild, but a saved session can be used for reimport later if a mistake was made:
 - a. Click the 'Save' pull down menu, and select "As Table" or "To Zip". If saved as a zip the file will need to be extracted before the can be reloaded.
 - b. Enter a file name. The default is the letters CC for ConvChem (the name of the working file) followed by the date and time.
2. To reload a saved session, click 'Load' pull down menu and select 'Saved'.