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Sample Calibration Database

Explore Calibration Control with Sample Data

The Sample Database is most useful during the trial period but can be accessed at any time.

Watch "Sample Database" YouTube Video

Selecting the Sample Database on First Start

When Calibration Control starts for the first time there are two database formats to choose from, MS Access or SQL Server. The Sample Database is only available for MS Access, so click the [MS Access] button to continue.

In the next dialog (Choose Database Type), check the "CREATE New SAMPLE Database" checkbox and click the [Continue] button.

The Trial Period Notification dialog pops up each time Calibration Control starts without a
current Product Key. If a Product Key has been purchased click the [Yes] button to use it in the Sample Database. Otherwise, click the [No] button to continue.

When Calibration Control starts, about 300 sample records will be visible.
Selecting Sample Database after Program Start

Open the Options dialog from either the File or Utilities tab of the ribbon menu and navigate to the Admin tab. Click the [Switch to Sample Database] button.

Then click the [Yes] button in the following 'Show Sample Database' dialog.

Last Updated: 9 July 2019
Move Application Database

Move Application Database to a New Location

Watch this short video on how to move an application database file (apecal.mdb) in Calibration Control (our Calibration Management Software) from its initial location, to a new location to make the database easier to backup or to place it in a more central location to share with additional users.

Watch "Move Your Application Database" YouTube Video

STEP 1: Close Application

Before moving the database file, ensure the application is closed.

STEP 2: Find Database File

Before moving the ‘apecal.mdb’ file, find its location. If you need help, see the help page on finding your database file before moving to the next step.

STEP 3: Move Database File

Choose the new location either on a shared network or the same computer and move the ‘apecal.mdb’ file from its original location to the new location.

Note 1: If moving the database file to a network location, grant appropriate user permissions to that new location depending on who needs access.

Note 2: When moving a database, rename or backup to a different location the database from the first location. **The goal is to ensure that the program does not mistakenly connect to the old database sometime in the future and thereby making users assume that data is lost (old db has fewer records).

STEP 4: Point Application to New Location

Start the application to then point Calibration Control to the new database location. When the application discovers the ‘apecal.mdb’ file is missing from its known location, it will show the following ‘Choose Database Type’ dialog:

From within this dialog, select ‘BROWSE to Existing Database’ and click the [Continue] button.
Browse to and select the new database location and click the [Open] button.

The Calibration Control application should start as normal and will remember this new database location.

**Last Updated:** 27 June 2019
Creating a Multi-User Environment

Setting up Shared Data for Multiple Users

Setting up multiple users to access Calibration Control (our Calibration Management Software) is as easy as deleting or renaming a file, starting the application, and linking to the new file. Therefore, if you are using an Access database file, you should be familiar with the help topics for finding your database and moving your database. If you are using a SQL Server, then read the help topics on Installing a SQL Server and Connecting to a SQL Server Database.

Watch "Create a Multi-User Environment" YouTube Video

Move Your Database (MS Access Database Only)

Find your database and move your database to a network location where all users have read-write access. Most of the difficulties users experience with implementing a multi-user environment have something to do with network folder permissions. So if you experience any difficulties, you should first seek assistance from your network administrator.

Note: The only file needed to move to a shared network location is the 'apecal.mdb' database file.

Set Up a Common Files Folder (Access & SQL)

Calibration Control uses a Common Files Folder that contains four sub folders (i.e., Attachments, Emails, Labels, and Reports). Ensure each networked user of the Ape database software is using the Common Files Folder so its sub folders are equally accessible to all users. Do this by:

1. **Common Mapping:** Ensure each user has the exact same network mapping for the Files Folder. For instance, if a mapped drive (e.g., "M:Server2\Common Files") is used for one user, the same path will be used for all users.

2. **Point Ape Database Software:** Open the Folders tab of the Options dialog and change the 'Location of Files' (i.e., Common Files Folder) to the common network location (step 1).
3. **Move Folders**: If custom files already exist in the old location(s) of the Files Folder, remember to move those existing files to their new Common Files Folder location (step 1). Specifically, move all attachments and custom templates (e.g., reports, labels, & emails).

**Add Additional Users**

When running the software on a client for the first time, it presents the option to create a database (blank or with sample records) or to navigate to an existing database. Therefore, after starting the software on a new computer and seeing the dialog below, check the 'BROWSE to Existing Database' option and [Continue] if a database already exists in a network location.

Otherwise, if a database has already been created on a client that needs to be networked (i.e., linked to a database on the network), delete or rename (safer/suggested) the local 'apecal.mdb' file (e.g. apecal 2019-10-10). If already running the Ape database software, find the folder for this database file by selecting Open Data Folder from the Files dropdown menu. Otherwise, refer to the finding your database help topic.

![Choose Database Type dialog](image)

**Last Updated:** 27 June 2019
Data Imported To MS Access

How to Deploy Your Imported Data

This help topic only applies to the [MS Access] database format. If using SQL Server, refer to the Add Ape Database to SQL Server help topic. If a data import was arranged with Ape Database Software, you will receive your imported database in a zip file through either a download link or an email attachment. To deploy the database yourself, follow the instructions below. Otherwise, contact us and we'll take care of everything through a screen share.

Install Software

Before proceeding, download and install the most current version of Ape Database Software. Ensure the Minimum Requirements are present before installation.

Deploy Database (Scenario A)

Proceed to Scenario B (below) if the Application has already been used on this computer to access a database. Otherwise, continue with this section.

1. **Download & Unzip:** Download, unzip, and place the imported database in the desired folder. This may either be on the local computer or a network location, if the database will be accessed by multiple users.

2. **Choose Database Format:** Start the Application and select the [MS Access] button. If the Application starts in a different screen (i.e., the Choose Database Format dialog doesn't appear), proceed to the next section (below) titled Deploy Database - Replace Temp.

3. **Choose Database Type:** Select [BROWSE to Existing Database] from the Choose Database Type window.
4. **Select Database:** Navigate to the database you downloaded and unzipped (step 1), select, and click the [Open] button and the software should open with the imported data visible.

5. **Common Files Folder:** If the database was placed in a network location and/or multiple users will access the software, refer to the **Common Files Folder** section of Creating a Multi-User Environment to setup the Files Folder.

**Remove Old Database (Scenario B)**

If the Application was previously used with a Blank or Sample database, the files already present should be removed or renamed before proceeding.

1. **Open Data Folder:** After the Application is running, open the Data Folder by clicking [File] in the top-left of the screen and selecting "Open Data Folder". Confirm the existence of the database file (apecal.mdb or apecal_sample.mdb). This is the quickest and most accurate way of finding the current database. Leave this window open and proceed to the next step.
2. **Open Settings Folder**: Using the same menu as the previous step, open the Settings Folder. If the Settings Folder is the same location (file path) as in the previous step (i.e., Data Folder), close one of the windows. Note that by default, the Data Folder (previous step) and the Settings Folder are the same local location but this will not always be true if the temporary database is moved.

3. **Close Program**: Close the Application so the database files can be moved, renamed, and/or replaced.

4. **Rename or Move Files**: Although the data files can be renamed, it's easier to move ALL the files in the Settings and Data folders to a backup location (e.g., "Data Backup - Current Date"). Cleaning out these folders will create the conditions required for a clean first-run of the imported data.

5. **Scenario A**: Proceed with Scenario A (above).

**Additional Help**

Refer to the [Database Import Process](#) article for general questions about the process itself.

Other useful help topics:

- [Creating a Multi-User Environment](#)
- [Move Calibration Management Database](#)

**Last Updated**: 25 June 2019
Add Ape Database to SQL Server

Install Calibration Control on a SQL Server

Before beginning, ensure you are signed into a SQL Server with enough permissions to create and update databases and their objects (e.g., system admin).

Installing the apecal database on an existing SQL Server (2012 R2 or higher) is a simple database restore from a provided backed up file. All SQL files needed to perform the install reside in the SQL Tools folder under the CC program folder located at Program Files (x86)\Ape Software\Calibration Control.

Restore Back-Up Database

From within SQL Server Management Studio with the SQL Server connected right-click on the Database node and select 'Restore Database'.

From within the Restore Database dialog, type the name apecal in the 'Destination' field, select 'Device' as the Source, and then click on the [ . . . ] button to the right of the ‘Device’ field.
From within the Specify Backup dialog, click the [Add] button.

Locate the backup file by navigating to or pasting in the 'Selected path'. Paste or type the name of the file to restore from (e.g., apecal_s51_r52.bak). Then click [OK] to save and close the backup file and [OK] again to close the Specify Backup dialog.
When the Restore Database dialog is on the top again, click the checkbox in the Restore column of the backup set (file) you just designated and then click the [OK] button to begin the restore.

If successful, the following confirmation dialog should display:
After closing the confirmation dialog, refresh the list of databases to see the new **apecal** database.

**Restore Failed**

If the restore failed, you may need to repeat the above steps and specify different file names or path statements. Use the Options Page of the Restore Database dialog to modify the Database (e.g., Rows Data) or Log file names or the Path statement (i.e., Restore As).

**User Security**

Users can connect to the **apecal** SQL Server database using either Windows or SQL Server authentication. Each user will either need Database Roles or Explicit Permissions.
When using Database Roles, ensure each user has `db_datareader` and `db_datawriter` roles.

When using Explicit SQL Server Permissions, ensure each user is granted at least the `Connect`, `Delete`, `Execute`, `Insert`, `Select`, and `Update` permissions.
If you need help, contact Ape and we can setup a screen share and do this together.

Last Updated: 12 July 2019
Connect to SQL Server Database

Configure Calibration Control to Connect to a SQL Server

After creating the Calibration Control database on your SQL Server, follow these instructions to connect Calibration Control (our Calibration Management Software) to that SQL database.

Start Configuration Wizard

Start the Network Configuration Wizard when running Ape software for the first time and selecting [MS SQL Server] as the default database type.

... then click [Yes] ...

... or, if already connected to an MS Access database, then within Calibration Control application you can select the 'SQL Connect' option from the Utilities tab in the ribbon menu.
Either method (above) displays the following dialog. Click the [Next] button . . .

Enter the fully qualified name into the Server Name field, confirm the database name, and click the [Test Connection] button to verify that you have entered the correct credentials. When successful, the [Next] button will enable.
Then click the [Launch] button . . .
Sign-In to SQL Server

After entering the correct connection settings, Calibration Control will restart and you will be required to provide SQL Server sign-in credentials.

Contact Ape if you need help.

Restarting the Process

This entire process (above) creates a config file in the Settings folder on the computer where the Ape software application is running. Therefore, if a mistake is made during the process the best way to restart from scratch is to delete the config file and begin again. Do this by . . .

1. Closing the Ape Software application
2. Opening the Settings folder, which is usually found at: C:\Users\Public\Documents\Ape Software\Calibration Control
3. Delete the general.config file (or, for advanced users, whatever config file required)
4. Re-start at the top of this page

Connection Troubleshooting

If needed, refer to the help topic on Troubleshooting a SQL Server Connection.

Last Updated: 27 June 2019
Remove Sample Data

Remove Sample Data to Begin Entering Your Own Records

If, during the trial period of Calibration Control (our Calibration Management Software), the sample database is used to evaluate the software, the sample data should be removed before entering live equipment records.

Double Click (Automatic Method)

The easiest way to remove the sample data is to double-click on the “Blank Database” graphic in the bottom-right of the Equipment grid . . .

... and then click the [Yes] button.

After the application restarts, select the 'CREATE New Blank Database' or 'BROWSE to Existing Database' checkbox, then click the [Continue] button.
Note: If the CREATE option is selected, then the new database will be created on the local C drive of the computer being used. Therefore, note that if the database needs to be moved to a network location, follow the instructions in the move database help topic.

If you need any help, contact Ape Software and we can do a remote support screen share to do this together.

Last Updated: 8 July 2019
Grid Features

Features Common to All Data Grids

Each grid in Calibration Control (our Calibration Management Software) shares the same easy interface and basic features. Navigate data with sorting options, filters, grouping, and more.

**Context Menu:** Find more options by right-clicking anywhere in a grid for the context menu. Selections may vary by grid.

**Change Grid Font Size:** Change the grid's font size by clicking on the 'Row Sizing' option and entering the size value in the Font Size box. The default font size is 0, which is also equal to 08, and higher numbers yield larger font sizes.

```
<table>
<thead>
<tr>
<th>Option</th>
<th>Hotkey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highlight</td>
<td></td>
</tr>
<tr>
<td>Check Out/In</td>
<td></td>
</tr>
<tr>
<td>Asset Transfer</td>
<td></td>
</tr>
<tr>
<td>Scan Barcode</td>
<td></td>
</tr>
<tr>
<td>Open Record</td>
<td>Ctrl+O</td>
</tr>
<tr>
<td>New Record</td>
<td>Ctrl+N</td>
</tr>
<tr>
<td>New Record from Selected</td>
<td></td>
</tr>
<tr>
<td>Delete Record</td>
<td>Ctrl+D</td>
</tr>
<tr>
<td>Select All Rows</td>
<td>Ctrl+R</td>
</tr>
<tr>
<td>Copy to Clipboard</td>
<td>Ctrl+C</td>
</tr>
<tr>
<td>Select All in Cell</td>
<td>Ctrl+A</td>
</tr>
</tbody>
</table>
```

```
<table>
<thead>
<tr>
<th>Option</th>
<th>Hotkey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter Row</td>
<td></td>
</tr>
<tr>
<td>Show Fields</td>
<td></td>
</tr>
<tr>
<td>Group By Box</td>
<td></td>
</tr>
<tr>
<td>Row Sizing</td>
<td></td>
</tr>
<tr>
<td>Refresh Grid</td>
<td>F5</td>
</tr>
<tr>
<td>Reset Grid to Default</td>
<td></td>
</tr>
<tr>
<td>Print</td>
<td></td>
</tr>
<tr>
<td>Export</td>
<td></td>
</tr>
<tr>
<td>All Equipment</td>
<td></td>
</tr>
<tr>
<td>All Equipment - Show Hidden</td>
<td></td>
</tr>
<tr>
<td>Equipment Due Cal</td>
<td></td>
</tr>
<tr>
<td>Equipment Maintenance Due</td>
<td></td>
</tr>
</tbody>
</table>
```
**Column Change:** Drag any column header to change its placement on the grid. Alternatively, use the small down arrow next to each header to select which column you want changed to that space.

**Context Sort:** Click directly on a column header to sort records in ascending or descending order for that column. Hold the shift key while clicking on additional column headers to create sorts with multiple columns.

**Refresh:** Refresh the data by pressing [F5] or by right-clicking the grid and selecting Refresh Grid from the context menu.

**Add New:** Create a new record by double-clicking in the gray area of the grid, pressing [Ctrl+N], or by right-clicking the grid and selecting New Record from the context menu.

**Open and Edit:** Open a record by first selecting the record and then double-clicking, pressing [Ctrl+O], or by right-clicking a record and selecting Open Record from the context menu.

**Delete:** Delete a record by first selecting the record and then pressing [Ctrl+D] or by right-clicking the selected record and selecting Delete Record from the context menu.

**Display Count:** How many records are listed? Don't count it yourself.

**Records:** The number of records contained within the grid is indicated in the Grid Header.

**Filtered:** The number of filtered records is also indicated within the Grid Header.
Filter Row:  The Filter Row is a helpful tool for searching and reorganizing data.

- When the Filter Row is enabled from the context menu, a blank row will appear at the top of each column.
- Filters can be added to multiple columns at the same time.
- Create custom (i.e., combination) filters within a single column by selecting 'Custom' from the drop-down menu.

Clear Filters:  Clear a single column filter by placing the cursor in the filter field for that column and pressing the clear filter button (looks like a crossed out filter).  Clear all filters by selecting the clear filter button at the far left of the filter row.
**Pinned Sort Column:** Click the Pinned Sort button (looks like a thumb tac) located at the top right corner of the column header and the selected column will be "pinned" to the left hand side of the grid. When horizontally scrolling through a grid, a pinned column will stay visible.

<table>
<thead>
<tr>
<th>Equipment ID</th>
<th>Model</th>
<th>Description</th>
<th>Serial</th>
<th>Man.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAMPLE-020</td>
<td>DRPI-57</td>
<td>Drop Indicator</td>
<td>2119</td>
<td></td>
</tr>
<tr>
<td>SAMPLE-024</td>
<td>DRPI-57</td>
<td>Drop Indicator</td>
<td>203</td>
<td></td>
</tr>
<tr>
<td>SAMPLE-026</td>
<td>DRPI-57</td>
<td>Drop Indicator</td>
<td>2139_1</td>
<td></td>
</tr>
<tr>
<td>SAMPLE-027</td>
<td>DRPI-57</td>
<td>Drop Indicator</td>
<td>2129</td>
<td></td>
</tr>
<tr>
<td>SAMPLE-029</td>
<td>DRPI-57</td>
<td>Drop Indicator</td>
<td>2099</td>
<td></td>
</tr>
<tr>
<td>SAMPLE-046</td>
<td>RPM</td>
<td>Depth Point Mic</td>
<td>2060</td>
<td></td>
</tr>
</tbody>
</table>

**Grid Splitter:** Use the Grid Splitter to view multiple sections of the grid at the same time by dragging the Grid Splitter bar to the desired height of the grid. The grid can be split as many times as needed. Remove a Grid Splitter by dragging the bar all the way to the top or bottom of the grid.

<table>
<thead>
<tr>
<th>Equipment ID</th>
<th>Model</th>
<th>Description</th>
<th>Serial</th>
<th>Man.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAMPLE-001</td>
<td>DMS10-83</td>
<td>Type III</td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>SAMPLE-002</td>
<td>IDR-8111</td>
<td>Indicator</td>
<td>2213</td>
<td>East</td>
</tr>
<tr>
<td>SAMPLE-003</td>
<td>GBS0-5</td>
<td>Gage Block Set</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAMPLE-004</td>
<td>CRG-101</td>
<td>Cylindrical Ring G</td>
<td>8411</td>
<td></td>
</tr>
<tr>
<td>SAMPLE-005</td>
<td>CRG-101</td>
<td>Cylindrical Ring G</td>
<td>199</td>
<td></td>
</tr>
<tr>
<td>SAMPLE-006</td>
<td></td>
<td>10-32 UNF-3B</td>
<td>1008</td>
<td></td>
</tr>
<tr>
<td>SAMPLE-007</td>
<td>CRG-101</td>
<td>Cylindrical Ring G</td>
<td>195</td>
<td></td>
</tr>
<tr>
<td>SAMPLE-008</td>
<td>CRG-101</td>
<td>Cylindrical Ring G</td>
<td>2002</td>
<td></td>
</tr>
<tr>
<td>SAMPLE-009</td>
<td>GPS-68</td>
<td>Gage Pin Set</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAMPLE-010</td>
<td>PS-43065</td>
<td>Pin Set</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Show Fields: Add and remove columns (i.e., fields) by right-clicking and selecting Show Fields from the context menu.

- Check the desired field columns to [Add] from available fields or [Remove] from visible fields.
- Also, change the column order by selecting a visible field and clicking the [Move Up] or [Move Down] buttons.
**Grouping Data**: The GroupBy Box view is great for on-the-fly organization with “mini-data sets”, giving you the ability to arrange records by their columns.
When the GroupBy Box mode is enabled from the context menu, a gray 'Drag To' section (the GroupBy Box area) appears at the top of the grid.

Select and drag column headers (fields) into the gray area to create custom groupings.

Remove any fields from the header by simply dragging them up and out of the gray boxed area and releasing.

And if desired, the GroupBy mode can be disabled with records still organized in custom groupings.

**Last Updated:** 26 June 2019
Highlight Colors of the Equipment Grid

Understanding the Highlighted Colors of Equipment Records

The Equipment Grid currently uses five default colors to visually identify records that are 'past due' (pink), 'calibration due soon' (yellow), 'calibration standard' (green), 'calibration failed on receipt' (red), and 'received for calibration' (gray). Colors can be customized.

Showing/Hiding Colors

Show or hide highlights by right-clicking for the context menu in the Equipment grid and toggling any of the five options in the 'Highlight' section.

Default Colors

Manage the default highlight colors by clicking the [Default Colors] button in the General tab of the Program Options dialog. Change the colors to ones that makes sense for your company, or
click the [Reset] button to restore the default colors.

Highlight Past Due

Equipment records with a Next Cal date less than the current date are highlighted Pink. Records marked as Calibration / Test Standards (usually Green) are also marked as Pink when they are Past Due.

Equipment records not past due but “due soon” are highlighted Yellow. Due soon is defined by the Reminder Lead Days field in the Calibrations tab of the Options dialog.
Highlight Standards

Equipment marked as Calibration / Test Standard are highlighted Green unless they are also Past Due or soon to be Due Cal. Mark Equipment as a Standard by checking the 'Is Calibration / Test Standard' check box in the Calibrations tab of the Equipment dialog.
Highlight Received Out of Tolerance

If any of the past Calibrations of a given Equipment have an As Found status of Out of Tolerance (OOT), the record is highlighted red in the main Equipment grid.

Remove the Red highlight of an Equipment record by marking all of the Calibration Events with an 'As Found OOT' status as 'OOT Investigated'.
Received for Calibration

Equipment that has been received for calibration will have a gray highlight in the grid.

**Last Updated:** 25 June 2019
Filtering Records Using the Filter Row

How to Use the Filter Row in the Data Grids

The Filter Row is a helpful tool for searching and reorganizing your data in Calibration Control (our Calibration Management Software).

Display Filter Row

By default, the filter row is already displayed at the top of the grid; it looks a bit like a blank row. If the filter row is not displaying, right-click the grid and select Filter row from the context menu.

- When the Filter Row is enabled from the context menu, a blank row will appear at the top of each column.
- Filters can be added to multiple columns at the same time.

Create New Filter

Choose which column to add a filter to and either use the drop-down menu to search for the filter, or type it into the blank field. Results will immediately appear as you type.
Clear Filter(s)

**Single Filter:** Clear a filter within a single column by placing your cursor within that column’s filter field (in the filter row) and clicking on the [clear filter] button on the right side of the field. The [clear filter] button is an icon of a filter with a line through it.

**All Filters:** Clear all filters by clicking the [clear filter] button on the *far left* side of the filter row.

Filter Methods

Additional filter operators (i.e., filter method) are available by clicking on the blue square to the left of each filter field.
Custom Filters

Create combination filters within single columns by clicking the drop-down button (downward arrow) within the filter field of that column and selecting (Custom).
Grouping Records in Grids

Group and Ungroup Records in Data Grids

Right-click anywhere on the grid for the context menu in Calibration Control (our Calibration Management Software). Select the [GroupBy Box] option and a gray box will appear at the top of the grid. Drag a field header into the gray area to group by that field (i.e., column).

Drag another field header into the gray area to make a sub-grouping.

Expand or minimize the selections by clicking on the [+]- and [-]- buttons.

Remove a grouping by dragging a field header up and out of the gray area and let go.

To remove (close) the Group By Box feature, right click for the context menu and uncheck the [GroupBy Box] option.

**Last Updated:** 26 June 2019
Hiding Equipment Records by Status

Use Equipment Status to Manage Visibility

It's a good practice to not delete equipment records in Calibration Control (our Calibration Management Software) even after the equipment is no longer in use. Keeping out-of-use equipment visible can clutter up the Equipment grid and Due Cal reports making them more difficult to use.

To help fix this problem, choose which status codes should be visible and which should be hidden.

Status Codes Visibility

Select the Codes grid from the Data Grids tab of the ribbon menu.

The status codes under the 'Equipment' grouping includes an [Is Hidden] checkbox that, when checked, hides the equipment records with this status code and they will no longer be visible in the Equipment grid or default Due Cal reports. Uncheck the checkbox to make the records with that status visible again.
Select a record's status by using the drop-down field in that record's main Equipment dialog. Adding a NEW status code is easy, just click on the shaded Status box and create a new status code.

**Show/Hide All Hidden Records**

From the Equipment grid, right-click for the context menu and toggle the [All Equipment - Show Hidden] option to show or hide all records with a hidden Equipment Status. The Equipment grid will show an [Equipment Including Hidden] status as the header to remind users that there are records being hidden.
Manage Out-Of-Tolerance (OOT) Equipment

Manage and Investigate OOT Equipment

When performing calibrations on measuring equipment in Calibration Control (our Calibration Management Software), it is proper to check the condition of the equipment (aka unit-under-test or UUT) before calibration (As Found) and after calibration (As Left). If measurement equipment is found out-of-tolerance (OOT) before performing calibration, an assessment of the effect of the OOT condition on processes must be performed. If it has been 12 months since the last calibration of the UUT, all the product and processes the UUT measured in the last 12 months are suspect. For instance, were products or processes falsely judged good when they were bad?

Calibration Event

In a Calibration record, if the As Found field is OOT, the OOT 'Investigated' checkbox and the [Print OOT Form] button become visible. Upon finding OOT equipment, conduct an investigation in accordance with your organization's corrective and preventive action (CAPA) or nonconforming material (NCM) processes. After the investigation is complete, check the 'OOT Investigated' checkbox.

If useful to your organization's CAPA or NCM processes, print the OOT Form from the Calibration record for use as an investigative tool.

Red Highlighted Records

Calibration Events with pending OOT investigations are highlighted red in the Equipment grid when the 'Highlight - Received Out of Tolerance' option is enabled from the context menu. Clear the red highlighting by checking the 'OOT Investigated' checkbox for all Calibration
Events (see above) that have OOT conditions for a given Equipment record.

<table>
<thead>
<tr>
<th>Equipment ID</th>
<th>Location</th>
<th>Manufacturer</th>
<th>Units</th>
<th>Next Cal</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAMPLE-001</td>
<td>Shelf</td>
<td></td>
<td>2</td>
<td>11/29/2020</td>
</tr>
<tr>
<td>SAMPLE-002</td>
<td>Shelf</td>
<td>East Coast Cal</td>
<td>0</td>
<td>08/19/2019</td>
</tr>
<tr>
<td>SAMPLE-003</td>
<td>Shelf</td>
<td></td>
<td>0</td>
<td>05/03/2020</td>
</tr>
<tr>
<td>SAMPLE-004</td>
<td>Shelf</td>
<td></td>
<td>0</td>
<td>04/26/2020</td>
</tr>
<tr>
<td>SAMPLE-005</td>
<td>Shelf</td>
<td></td>
<td>0</td>
<td>04/26/2020</td>
</tr>
<tr>
<td>SAMPLE-006</td>
<td>Test Area</td>
<td></td>
<td>0</td>
<td>07/03/2019</td>
</tr>
<tr>
<td>SAMPLE-007</td>
<td>Shelf</td>
<td></td>
<td>5</td>
<td>06/31/2019</td>
</tr>
</tbody>
</table>

**Last Updated:** 27 June 2019
Calibration History Grid

Calibration Event Quick Reference and Filter

Use the Calibration History Grid in Calibration Control (our Calibration Management Software) to quickly find Calibration Events without having to go through their Equipment record.

Top N Records

Ape Software limits the default display of Calibration records to the top 100 in descending Calibration Date order.

Change the number of records displayed by right-clicking on the grid and then selecting the "Show Top N Records" menu item . . .

. . . enter the number of records to display and click [OK].

Filtering and Sorting

Enter Filters and Sorts just like any other data grid. Refer to the Features Common to All Data.
Grid for additional instructions. The difference here is to remember that the Calibration Grid is only displaying the Top N records (see above). This means that the Filters and Sorts only apply to the collection of records currently displayed.

To apply a Filter or Sort to the entire list of records and then display the Top N Records, enter the desired Filter/Short in the grid and then refresh the grid by clicking the [F5] button or right-clicking and selecting the "Refresh Grid" option.
Equipment Dialog

Edit Equipment Records

Use the Equipment dialog to edit all data related to the tool / test equipment. Change the name of any field to continue using words that make sense to your organization. If the field name* is in a shaded box, click on it to add new values in the drop-down list of available values (combos).

Equipment Dialog Fields

- **Equipment ID**: The unique identification given to your own tools / test equipment and is often referred to as an Asset Number. This is the only required field for a new record.
- **Serial Number**: The unique identification the manufacturer gives their tools / test equipment. (You may periodically find that some manufacturers do not assign serial numbers or that a serial number label has fallen off.)
- **Model***: The model number of the tool / test equipment usually assigned by the manufacturer.
- **Size/Range***: The size or range of the equipment.
- **Description**: Description of the tool model number, which automatically changes to reflect the description of the model field (above). After a Model number is selected, the Description field can be edited.
- **Manufacturer***: The company that made the equipment/tool. This field is also automatically set if an existing Model Number from the Model combo box is chosen.
- **Equip Type***: Classification system developed by you, the user of Calibration Control. (Examples of Equipment Types include Caliper, 6" Caliper, Thermatron, Oven, etc.) This field will automatically populate if an existing Model Number is chosen and has a Type field assigned.
- **Alternate ID**: This is a second ID field, the Equipment ID being the first. Use this field to record a company Asset number, if it is not the same as the Equipment ID, or a customer's Equipment ID.
- **Site***: Company field for a geographic Site or Company.
- **Department***: The department in the organization where the tool is currently located.
- **Location***: The location within the department where the tool is currently located. (This could be a specific work area or even an engineer's desk.)
- **Custodian***: The individual who has custody or possession of the Equipment/Tool.
- **Status***: The status of the tool / test equipment (e.g., accepted, removed from service, failed calibration, or any other status needed).
- **Notes**: Like the User fields, use the Notes field for whatever purpose needed.
Calibrations Tab of Equipment Record

- **Calibrations Panel Grid:** Click on the [+] button at the bottom of the dialog to create a new Calibration Event.
- **[Calibration] Last:** The date of the last calibration is set automatically when entering a new Calibration Event with a Status of Pass. The Calibration Last date can be set manually, which automatically updates the Calibration Next field based on the value of the Frequency field.
- **[Calibration] Next:** The date of the next calibration is calculated automatically when entering a new passing calibration event or when manually updating the Calibration Last field. In either situation, the next calibration date is calculated based on the chosen Frequency and Units.
- **Override Calibration Next [check box]:** Manually extend or otherwise override the Calibration Next date by checking the box to the right of the Calibration Next field.
- **Received [for calibration]:** The date when equipment is received for Calibration.
- **[Print Certificate] button:** Click this button to send a Calibration Certificate worksheet straight to your default printer.
- **Frequency / Units:** The frequency between calibrations, like yearly or semi-annual. If choosing a frequency that requires a unit multiplier (e.g., weeks, days, or months), the Units field will enable to adjust the number of units (weeks, days, or months, etc.). The 'Month of' and 'Week of' frequencies set a general due date of an entire month or week.
- **Calibration Standard [check box]:** Check this box if the current equipment is used as a calibration standard for other equipment.
- **Company*: The organization (Calibration Company) that regularly calibrates this instrument. This is a useful field when wanting to create a report of all the equipment due in a given period for a specific calibration resource.
- **Technician*: The person who normally calibrates this equipment.
- **Certificate**: Number of the certificate issued by the organization responsible for the last calibration event. Used primarily to aid in traceability back to a national measurement standard, especially if this equipment is a Calibration/Test Standard.
- **Template**: Calibration Template used when creating new calibration events.

**Maintenance**

Use the Maintenance tab to add or link maintenance requests to an Equipment record.
Attachments | Documents | Notes | Parts Tab

Use these panel grids to add, link, and edit the Attachments, Documents, Notes, and Part Numbers records related to an Equipment record.

Misc. (Miscellaneous) Tab

The Miscellaneous tab contains groups of data that help organize information related to the Equipment record.

- **Miscellaneous Group:**
  - **Owner**: The Equipment Owner (Person field), if not the organization.
  - **[Equipment] System**: System that this Equipment belongs to.
  - **Barcodes**: Use this field to add additional barcodes to the record that may already be on the equipment. This field is useful when no additional bar-coded labels are needed and Calibration Control will recognize the barcode labels already affixed to the equipment.
  - **Equip Cost**: The purchase price or calibration cost of the Equipment.
  - **Acquired**: Acquisition date of the equipment.
  - **In Service**: In-Service date of the equipment.
  - **Cal Cost**: The standard (normal) cost of calibrating this Equipment.
  - **Time**: The standard amount of time required to calibrate this Equipment.

- **Check Out Group**: Using the Check In/Out dialog automatically populates the following
fields:
  - **By**: The Checked Out By field shows the person who has checked out the Equipment.
  - **Date**: The Checked Out Date field shows the most recent date this Equipment was checked out, and only populates if it is checked out. When not checked out, this field is blank.
  - **Use Count**: Number of times this Equipment was checked out since its last Calibration.

- The **Uncertainty Studies** panel grid allows you to add or link and Uncertainty group to the equipment record.

![Uncertainty Studies Panel Grid](image)

**Other Tabs in the Equipment Dialog**

There are some extra tabs within the Equipment dialog that help organize data related to Equipment records.

The **Custom** tab contains extra fields available in text, date, number, and checkbox format to easily rename and use for whatever needed.

The **Image** tab allows you to select one main image that represents that specific Equipment record.

The Overrides tab, while default labels and reports are defined at a global (application) level in the Options dialog, overrides for the Labels and Reports listed here can be entered for this specific Equipment.

The Meta tab is a **READ-ONLY** information tab used as a reference to view which user created the record and which user was the last to edit it, including the dates and times these occurred.

**Last Updated**: 25 June 2019
Calibration Events

Understanding the Structure and Fields

- Each Calibration Event can have several Measurement Groups or none at all.
- Each Measurement Group can have any number of measurements in it.
- Each Measurement Group has its own tolerance, unit of measure, and calibration standards.

To illustrate, the diagram below is a single Calibration Event with three Measurement Groups and a different number of Measurements for each Group.

A Simple Calibration Event

The following image shows a Calibration Event without Measurements, as is often the case when recording Calibrations handled by an external calibration laboratory. The Technician, Temperature, and Humidity fields are usually not required in the outside lab scenario because this data would be included on the calibration certificate.
Calibration Event Fields

- **Certificate**: A sequential number is assigned to each Calibration Event. This number is automatically used as the Certificate number unless another value is entered in this field. To set a manual value automatically for this field, see the Date and Number Masks topic for instructions.
- **Date**: Date the Calibration Event took place. This field defaults to today's date.
- **Company**: The organization that calibrated the equipment, like your own company (Internal) or a calibration laboratory (External).
- **Temp (Temperature)**: Enter the ambient temperature of the room where the calibration is performed. If a THUM device (USB hygrometer) is plugged in and configured this field will auto populate.
- **Humidity**: Enter the Relative Humidity of the room where the calibration is performed. This field is also auto populated with a configured THUM device.
- **Technician**: The individual who performed the calibration. This field is auto populated from the Technician field on the parent Equipment record.
- **As Found**: Record the condition of the equipment when it was received for calibration (e.g., Out of Tolerance or In Tolerance). This field gets auto populated when the results are tied to the results of the Measurement Groups.
- **As Left**: Record the condition of the equipment at the end of the Calibration Event. This field is auto populated when using Measurement Groups because the results of the groups are tied to the overall result of the Calibration Event.
- **Remarks**: Use this field for any remarks related to the Calibration Event.

Attachments | Documents | Notes | Parts Tab

This panel grid contains the Attachments, Documents, All Notes, and Part Numbers grids. Use the Add, Link, Edit, Unlink, and Delete buttons at the bottom of each panel grid to edit the information. Resize the panel grids by clicking and dragging the spacer bars.
Standards | Misc. Tab

Edit and view the Standards used in the Calibration Event. Take a look at the Standards help topic for more info. Miscellaneous information related to the Cal Event is also available in this tab.

- **Use Count:** Shows how many times the equipment being calibrated has been used since its last calibration. Checking the box in this tab will approve and lock the current Calibration Event record. If the current user is signed-in at the time the box is checked, that user's name will be tied to the approval of the Event.
- **Cal Cost:** The actual cost of this Calibration Event.
- **Cal Time:** The actual time required to perform this Calibration Event.
- **Last Due Date:** This is the most recent due for Calibration date.
- **Received for Calibration:** Choose the date the equipment was received for calibration.

![Calibration Event Edit Form](image)

**Calibration Due for Certificate**

At the bottom of the Standards/Miscellaneous tab are settings for the Calibration Certificate.

- **Calibration Frequency:** Choose the frequency of calibration. This is displayed on the Calibration Certificate.
- **Units:** Select how many pieces of equipment are being calibrated. This is displayed on the Calibration Certificate.
- **Next Cal:** Select the date of the equipment's next calibration. This is displayed on the Calibration Certificate.
Measurement Group Fields

From the main Calibration tab use the Measurement Groups panel grid to add measurement groups to a calibration event.

- **Group Number**: Enter a group number for the measurement, if needed.
- **Tolerance Type**: Set as None, Percent (%), Tolerance (+/-), and Limit Values. The following is the result of each type:
  a. **None**: The Upper and Lower Limits are the same as the Nominal.
  b. **Percent (%)**: \[Upper \text{ Limit} = \text{Nominal} + (\text{Nominal} \times \text{Plus Tolerance})\] and \[Lower \text{ Limit} = \text{Nominal} - (\text{Nominal} \times \text{Minus Tolerance})\]
  c. **Manual Entry**: Manually enter the Tolerance numbers.
  d. **Tolerance (+/-)**: \[Upper \text{ Limit} = \text{Nominal} + \text{Plus Tolerance}\] and \[Lower \text{ Limit} = \text{Nominal} = \text{Minus Tolerance}\]
- **Plus (+) and Minus (-)**: Choose the upper and lower tolerance limits when using 'Percent' or 'Tolerance' as the Tolerance type.
- **Mask**: Number mask used to set the Integer spaces (number places to left of decimal) and significant digits (number places to right of the decimal). The Number Mask field formats all numeric fields in the given Measurement Group.
- **Group Name**: Enter a group name for the Measurement, if needed.
- **As Found**: Automatically In Tolerance (green) or Out of Tolerance (pink) dependent on the value of the As Found Result column in the Measurement Grid below (yellow area). If any record has a failing result (red X), the Measurement Group As Found value will be Out of Tolerance.
- **As Left**: Automatically Pass (green) or Fail (pink) dependent on the value of the As Left Result field in the Measurement Grid below (blue area). If any record has a failing result (red X), the Measurement Group As Left value will be Fail.
- **Units**: Select the Unit of Measurement for all number fields (e.g., measurements and tolerances) in the current Measurement Group. If a different Measurement Unit is required for the same Calibration Event, then create an additional Measurement Group in the Event. Edit the selections available in the Units combo box from the Measure Units screen accessible from the main screen.
- **Measurement Notes**: Add any notes specific to the current Measurement Group.
Standards Used

The Standards tab shows a list of the Calibration Standards used for the measurements in the current Measurement Group. Click on the [Edit Standards] button to bring up a list of available Standards to choose from. Check the box(es) next to the Standard(s) and click OK. Add additional items to the Standard combo box by checking the 'Is Calibration / Test Standard' checkbox in the Equipment Edit dialog, Calibrations tab. If the Equipment identified as Calibration Standards have a Calibration Due date of greater than the current day AND with their most recent (if any) Calibration Event as 'Passing', then it will be selectable when clicking on the Standards Used button. (Standards that need calibration are shown in red, but cannot be selected.)

![Image of Standards Used tab]

Additional Tabs in the Edit Calibration Event Dialog

There are three other tabs in this dialog that help organize and display information related to the Calibration Event.

- **Custom Fields**: Custom fields are available for adding Characters, Dates, Numbers, and Check boxes. Visit the Change Field Names help topic to learn how to edit these fields.
- **Scatter Plot**: This tab displays a Scatter Plot of the measurements entered for a given Measurement Group. In-Tolerance As Found measurements are displayed Green while Out-of-Tolerance measurements are Red.
- **Meta**: This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it, including the dates and times these occurred.

Last Updated: 25 June 2019
Calibration Frequencies

Quick Start Video

Watch a short video to learn about Calibration Frequencies in Calibration Control (our Calibration Management Software) and how they work.

How do Calibration Frequencies Work?

Calibration Frequency is the interval of time between required calibrations of any given piece of test equipment. Set the Calibration Frequency of Equipment in the Calibrations tab of the Equipment dialog (below).

Calibration Fields

There are four fields involved in the Calibration Frequency function. They are:

- **Last [Calibration]**: Date of the last calibration.
- **[Calibration] Frequency**: How often the Equipment is calibrated.
- **Units**: Calculates the frequency automatically based on the unit selected. The Unit field is disabled with Frequencies like Yearly or Monthly because they have an inherent Unit value.
- **Next [Calibration]**: Due date of the next required Calibration.

Calibration Frequencies

The following are all the Calibration Frequencies in Calibration Control where 'n' is the number value in the Units field.
<table>
<thead>
<tr>
<th><strong>Frequency Name</strong></th>
<th><strong>Frequency Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Biennial</td>
<td>Every 2 years</td>
</tr>
<tr>
<td>Bi-Monthly</td>
<td>Every 2 Months</td>
</tr>
<tr>
<td>Bi-Weekly</td>
<td>Every 2 Weeks</td>
</tr>
<tr>
<td>Cal Not Required</td>
<td>No Due Date . . . Not Calibrated</td>
</tr>
<tr>
<td>Daily</td>
<td>Every Day</td>
</tr>
<tr>
<td>Days</td>
<td>Every n Days</td>
</tr>
<tr>
<td>Manual</td>
<td>Set the Next Calibration (Due Date) manually</td>
</tr>
<tr>
<td>Month End</td>
<td>Every n Months due on the last day of the month</td>
</tr>
<tr>
<td>Month of</td>
<td>Every n Months due at any day within the calculated month</td>
</tr>
<tr>
<td>Month Start</td>
<td>Every n Months due on the first day of the month</td>
</tr>
<tr>
<td>Monthly</td>
<td>Every Month</td>
</tr>
<tr>
<td>Months</td>
<td>Every n Months</td>
</tr>
<tr>
<td>Next Use</td>
<td>No Due Date . . . Next Use</td>
</tr>
<tr>
<td>Not Calibrated</td>
<td>No Due Date . . . Not Calibrated</td>
</tr>
<tr>
<td>Quarterly</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>Reference Only</td>
<td>No Due Date . . . Reference Only</td>
</tr>
<tr>
<td>Semi-Annual</td>
<td>Every 6 Months</td>
</tr>
<tr>
<td>Undefined</td>
<td>No Frequency Defined</td>
</tr>
<tr>
<td>Use Count</td>
<td>Calibrate every n uses where n = Units. Use the Check In/Out dialog to automatically increment uses.</td>
</tr>
<tr>
<td>Use Days</td>
<td>Calibrate every n days where n = Units. Use the Check In/Out dialog to automatically increment uses.</td>
</tr>
<tr>
<td>Week of</td>
<td>Every n Weeks due at any day within the calculated week</td>
</tr>
<tr>
<td>Weekly</td>
<td>Every Week</td>
</tr>
<tr>
<td>Weeks</td>
<td>Every n Weeks</td>
</tr>
<tr>
<td>Yearly</td>
<td>Every Year</td>
</tr>
<tr>
<td>Years</td>
<td>Every n Years</td>
</tr>
</tbody>
</table>
“Month of” and “Week of” Frequencies

Unlike the other Frequencies that calculate due dates on specific days, the "Month of" and "Week of" are special Frequencies that calculate the month or week a calibration is due. These Frequencies are also affected by two settings in the Options dialog for "First Day of Week" and "Due Date 'Week/Month of' Offset". By default, the "First Day of Week" is set to whatever is standard on your operating system. The default for the Offset is the Next Month or Week after the calculated due date.
"Month of" Example

- **Frequency:** Month of
- **Last Calibration:** 04/27/2019
- **Units:** 12
- **Offset:** Next
- **Calibration Due:** 04/27/2020
- **Label Display:** Due Month of Apr-2020 *

**How the math works . . .**

1. Calculate 12 Months after Last Calibration, which yields 04/27/2020
2. The Offset is set to Next [Month] so the Due Month jumps to the next Month, which yields 05/1/2020

"Week of" Example

- **Frequency:** Week of
- **Last Calibration:** 06/01/2019
- **Units:** 30
- **Offset:** Next
- **First Day of Week:** Monday
- **Calibration Due:** 07/01/2019
- **Label Display:** Due Week of 07/01/19 *

**How the math works . . .**

1. Calculate 4 Weeks after the Last Calibration, which results in 06/29/2019.
2. Since the Offset is set to Current [Week] and the First Day of Week is set to Monday, the Monday of the current week results in a due week starting on 07/01/2019.

* "Month of" and "Week of" Date Masks

Use the Date Masks tab of the Options dialog to modify how Due Dates display on Due Cal labels. For instance, the default “Month of” mask is MMM-yyyy, which results in "Month of Apr 2020". The default "Week of" mask is MM/dd/yy, which yields "Week of 04/01/20". Use the combo boxes to select other pre-defined date masks or create your own.

Note that placing the letter 'u' at the end of any date mask will cause all letters in the mask to display in upper case.
Custom Frequencies

Unfortunately, users are not able to add or remove frequencies because code exists within the software to perform date calculations based on the frequency chosen. If you believe a special frequency is needed that is not already in the table, let us know. It’s possible that the frequency is already there under a different name. If the frequency you need is not there, maybe we can add it for you.

Last Updated: 25 June 2019
Referencing Calibration Standards

How to Link Masters to Calibrated Equipment

Linking Standards (Masters) to Calibration Events in Calibration Control (our Calibration Management Software) is simple. They create a data trail (traceability) between national measurement standards and the Equipment Under Calibration.

ID a Calibration Standard (Master)

Before referencing in a Calibration Event, the Standard must exist as an Equipment record with the "Is Calibration / Test Standard" checkbox checked. Find this checkbox in the Calibrations tab of the Equipment dialog.

Standards are Green in Grid

By default, Calibration Standards display with a green highlight in the Equipment grid. Refer to the color coding help topic for more on equipment highlight colors.
Link Calibration Masters

After Equipment records for Calibration Masters are created and identified as Masters (Standards), they can be linked to individual Calibration Events. Double-click on a Calibration Event within the Edit Equipment dialog and click on the Standards/Misc tab. From there, click on the [Edit Standards] button to select Standards. Refer to the Calibration help topic for more information on creating a Calibration Event.

Available Standards

Clicking the [Standards] button in the Measurement Group of 'Calibration Details' displays a list of available Standards. Unavailable Standards are those (a) standards currently out of calibration, (b) standards with their last calibration event with an As Left result of "Failed" or "Unknown", or (c) is the current equipment under calibration.
Results

The process of linking a Standard to a Calibration Event makes a copy of the calibration information for that Standard and stores it in the Calibration Event record. This means that when the calibration information for the Standard changes (after the Calibration Event), a snapshot of the Standard at the time of Calibration is preserved, which helps maintain accurate traceability.

**Note:** If the Due Cal date has passed the present Calibration date, then the Standard is red and unavailable because it is past due for Calibration.

**Last Updated:** 25 June 2019
Calibration Templates

Learn How to Use Calibration Templates

A Calibration Template in Calibration Control (our Calibration Management Software) is a collection of Measurement Groups without final measurement data. Therefore, a Template can have multiple Groups. A Measurement Group is a collection of information and standard measurements required each time the template is used. For more information on each of the fields in the Template, see the Calibration Event help topic.

Default Template

By default, the 'Use Last Calibration as Template if No Template Linked' option is checked. When this option is checked AND if there are no user-defined Calibration Templates linked to an Equipment record, Calibration Control will use the most recent Calibration Event record as a Calibration Template when creating new Calibration Events.
User-Defined Calibration Templates

Calibration Templates can be created, edited, and managed by clicking on the Calibration Template icon in the Calibration tab of the ribbon menu. Templates can also be created from existing Calibration Events by selecting the ‘Make Template’ button in the Calibrations tab of the Calibration Event dialog.

A Calibration Template needs to be linked to an Equipment record to be useful. When linked, new Calibration Events will automatically contain the structure of the linked Calibration Template so that only measurement data (As Found / Left) needs to be entered and a Calibration Standard recorded. Also, Calibration Worksheets will replicate the linked Template structure for consistent data collection.

Referring to the diagram below, a Calibration Template can be linked to an Equipment record in four ways. It is even possible to link four different Templates to an Equipment record although only one template will be used and in the following priority:

1. **Direct (blue line)**: Link a Template directly to an Equipment record by selecting the Template in the Calibrations tab of the Equipment record. A Template directly connected to an Equipment record in this way supersedes all other methods. Therefore, this direct link overrides all other indirect links.

2. **Equipment Type (red line)**: Link a Template to an Equipment Type record and then link the Type to an Equipment record in the Equipment tab of the Equipment's dialog. This link overrides the two that follow.

3. **Model Number (green line)**: Link a Template to a Model Number record and then link the Model Number record to the Equipment record in the Equipment tab of the Equipment's dialog.

4. **Equipment Type – Model Number (yellow line)**: Link a Template to an Equipment Type, which is linked to a Model Number, and then is finally linked to an Equipment record. This is the lowest priority.
Multiple methods for links exist to provide the choice of how an organization chooses to manage its calibration data. Therefore, choose the method that works best for your team.

**Last Updated:** 25 June 2019
Measurement Group

A Measurement Group is a collection of information and standard measurements required each time a measurement template is used. For more information on each of the fields in the Template, look at the Calibration Event help topic.

Measurement Group Fields

Within each Calibration Event there may be a series of measurements done in-house that test the limits of each piece of equipment being calibrated. These test results are presented as Nominal, Limits, As Found, and As Left. After the calibration of each piece, enter the numbers in the corresponding box and the results will automatically record as a pass or fail with a green checkmark or red [X].

- **Group Number**: Enter a group number for the measurement, if needed.
- **Tolerance Type**: Set as None, Percent (%), Tolerance (+/-), and Limit Values. The following is the result of each type:
  a. **None**: The Upper and Lower Limits are the same as the Nominal.
  b. **Percent (%)**: \[\text{Upper Limit} = \text{Nominal} + (\text{Nominal} \times \text{Plus Tolerance})\] and \[\text{Lower Limit} = \text{Nominal} - (\text{Nominal} \times \text{Minus Tolerance})\]
  c. **Manual Entry**: Manually enter the Tolerance numbers.
  d. **Tolerance (+/-)**: \[\text{Upper Limit} = \text{Nominal} + \text{Plus Tolerance}\] and \[\text{Lower Limit} = \text{Nominal} - \text{Minus Tolerance}\]
- **Plus(+) and Minus(-)**: Choose the upper and lower tolerance limits when using 'Percent' or 'Tolerance' as the Tolerance type.
- **Mask**: Number mask used to set the Integers spaces (number places to left of decimal) and significant digits (number places to right of the decimal). The Number Mask field formats all numeric fields in the given Measurement Group.
- **Group Name**: Enter a group name for the Measurement, if needed.
- **As Found**: Automatically In Tolerance (green) or Out of Tolerance (pink) dependent on the value of the As Found Result column in the Measurement Grid below (yellow area). If any record has a failing result (red X), the Measurement Group As Found value will be Out of Tolerance.
- **As Left**: Automatically Pass (green) or Fail (pink) dependent on the value of the As Left Result field in the Measurement Grid below (blue area). If any record has a failing result (red X), the Measurement Group As Left value will be Fail.
- **Units**: Select the Unit of Measurement for all number fields (e.g., measurements and tolerances) in the current Measurement Group. If a different Measurement Unit is required for the same Calibration Event, then create an additional Measurement Group in the Event. Edit the selections available in the Units combo box from the Measure Units screen accessible from the main screen.
- **Notes**: Add any notes specific to the current Measurement Group.
Standards Used

The Standards tab shows a list of the Calibration Standards used for the measurements in the current Measurement Group. Click on the [Edit Standards] button to bring up a list of available Standards to choose from. Check the box(es) next to the Standard(s) and click OK. Add additional items to the Standard combo box by checking the 'Is Calibration / Test Standard' checkbox in the Equipment Edit dialog, Calibrations tab. If the Equipment identified as Calibration Standards have a Calibration Due date of greater than the current day AND with their most recent (if any) Calibration Event as 'Passing', then it will be selectable when clicking on the Standards Used button. (Standards that need calibration are shown in red, but cannot be selected.)

Meta Tab

This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it, including the dates and times these occurred.

Last Updated: 26 June 2019
Attachments and Pictures

Quick Start Video

Watch a quick video to learn how to use the Attachments function in Calibration Control (our Calibration Management Software).

Add Attachments to Equipment and Calibration Records

Add attachments to an Equipment record by double-clicking on a record and navigating to the 'Grids' tab, where you will find the [Attachments] panel grid. Use this panel grid like you would any other grid: Add, Link, Edit, break a Link, or Delete attachments.

To add a new attachment click on the green [+] button and choose whether to add a File, Link to File, add a Folder path, or a URL path. Double-click on an attachment to edit the record and add information related to it like a title, category, owner (if the image is of a piece of equipment), and a description. The [Link to File] selection means the file being attached will stay at its current location and a link to that location will be saved in the database; [Add File] means a copy will be made and saved in the application Attachments folder.
If the Files Folder is moved to a new location then all of the attached pictures that are tied to that folder will no longer be there. The destination folder and the location of the attached image must stay the same for it to be viewable. If an attached image has gone missing or is not viewable, check that its location in the Files Folder has not been changed.

Add Folder and URL

The [Add Folder] and [Add URL] buttons allow a user to copy and paste a path to a specific folder (directory) or website. Adding a link to a specific folder is helpful if more than one file is being attached.

View Image in Equipment Dialog

To view the default image for an equipment record, click on the [Image] tab within a selected Edit Equipment dialog. Double-click in the gray area to bring up the [Image Select] dialog and choose which image to set as the default. Right-click for viewing options.
Relationships

The one picture displayed in the Picture tab is simply an Attachment designated as the Default Image for the Equipment. Of course, in order for an attachment to be designated as the default picture, it must be a picture. This also means the Picture will be listed as an attachment.

Last Updated: 24 June 2019
Recording and Researching Jobs

Record Equipment Used on Jobs for Traceability

It is important to know all the processes that measurement equipment touches because if the equipment is ever found out-of-tolerance (OOT) an organization must be able to determine the effect of the OOT condition on its processes.

The following dialog (‘Record Job’ in Common tab) is available for quick recording of equipment used on Jobs or Work Orders and can be used with barcode scanners for increased data accuracy. Any string can be entered in the Job field while the Equipment field will recognize the label barcodes printed by Ape Software or the Equipment ID.

In the Job Browse grid, past Job entries can be filtered by Equipment ID, Job, Dates, and several other fields. The results of a search / filter can then be printed or exported to Excel or PDF.

**Last Updated:** 26 June 2019
Asset Transfer Dialog

Change Site, Department, Location, Custodian, or Status

Transfer Assets quickly to new Sites, Departments, Locations, Custodians, or change the Status in Calibration Control (our Calibration Management Software). Administrators can control which fields are shown by adjusting permissions in the Options dialog under the Security tab. Transactions made using the Asset Transfer dialog are automatically logged in that Equipment's dialog Notes tab.

Open the dialog by clicking on the Asset Transfer icon in the Tools tab of the ribbon menu. This dialog can also be opened directly from the Equipment grid by right-clicking on the Equipment record to be changed and selecting 'Asset Transfer'.

Use the Asset Transfer Dialog

First type an Equipment ID, Master ID, or Serial Number in the 'Equipment ID' box or select the [Use Scanner] button first when using a barcode scanner. Then select the desired fields for a new Site, Department, Location, Custodian, or Status and click [Validate], then the [Submit] button. Fields left blank will not be changed.

Last Updated: 29 April 2019
Asset Issue & Receive Dialogs

Change Site, Department, Location, Custodian, or Status

Use the Asset Issue Dialog

The Asset Issue dialog quickly issues equipment using specified values and saves a history note to that specific equipment's Notes tab. Open the Asset Issue dialog by clicking on the red arrow icon in the Tools tab of the ribbon menu. For convenience, the Site, Department, Location, Custodian, and Status selections will be remembered by the software until they are changed.

3-Step Process to Issue Equipment

- **STEP 1:** Select the Site, Department, Location, Custodian, or Status that the equipment is going to be issued to. Unused selections may be left blank.
- **STEP 2:** Check the box next to the desired Print and Update selections.
- **STEP 3:** Type the equipment ID in the provided box or check the 'Scanner' box to scan an asset tag, and then click [Submit].

The new information will be displayed in the info box once the Asset Issue has been submitted.
Use the Asset Receive Dialog

The Asset Receive dialog has all the same features as the Asset Issue dialog. Open the Asset Receive dialog by clicking on the green arrow icon in the Tools tab of the ribbon menu.

3-Step Process to Receive Equipment

- **STEP 1:** Select the Site, Department, Location, Custodian, or Status that the equipment is going to be received to. Unused selections may be left blank.
- **STEP 2:** Check the box next to the desired Print and Update selections.
- **STEP 3:** Type the equipment ID in the provided box or check the ‘Scanner’ box to scan an asset tag, and then click [Submit].

The new information will be displayed in the info box once the Asset Receive has been submitted.
### Calibration Control Manual

**Last Updated:** 24 June 2019

#### Asset Receive

**STEP 1: Select Transfer To Values**
- **Site:** Transcat
- **Department:** Quality Assurance
- **Location:** Test Area
- **Custodian:** Victor James
- **Status:** Recalibrate

**STEP 2: Worksheet Print Preferences**
- **To Printer**
- **Print Preview**
- **Update First**
- **Update After**

**STEP 3: Scan Asset Tags**
- **Equipment ID:** SAMPLE-001
- **Scanner:**

*Equipment ID SAMPLE-001. Changed Site to Transcat from Blank, Location to Test Area from Cabinet, Custodian to Victor James from Ron Harrington, Status to Recalibrate from Active.*

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**Last Updated:** 24 June 2019

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Calibration Control Manual
The Transaction Dialogs of Calibration Control

This help topic covers the available fields within the various transaction dialogs of Calibration Control (our Calibration Management Software), including their differences and similarities.

The Links between Transaction Dialogs

Within the transaction dialogs there are similar fields and drop-down menus available that provide a specific snapshot of information for each action. The available fields used in the transaction dialogs are: Master GUID, Site GUID, department, location, custodian, status, scanner, check-out to (Person), work order, use increment, check-in, and check-out.

Asset Transfer Dialog

In the Asset Transfer dialog there are 7 fields - the Master GUID, Site GUID, department, location, custodian, status, and scanner. This dialog determines the location where the asset is going, who has custody of the asset, and whether or not the asset's status is changing during the transfer. A scanner option is available for transferring multiple assets quickly.
Asset Receive and Asset Issue Dialogs

In both the Asset Issue and Asset Receive dialogs there are 7 fields - the Site GUID, department, location, custodian, status, Master GUID, and scanner. This dialog determines the location where the asset is going, who has custody of the asset, and whether or not the asset's status is changing during the transfer. A scanner option is available for issuing or receiving multiple assets quickly.

The difference between the Transfer and Issue/Receive dialogs is that the latter has a section for selecting Worksheet print preferences once the asset has changed hands. For both dialogs Meta data is saved after each transfer in the Master ID's Notes tab.

Check Out Dialog

In the Check Out dialog there are 7 fields - the check-in/out checkboxes, a 'use scanner' checkbox, the use increment counter, Master GUID, check-out to (Person), work order, and status fields. This dialog determines whether the asset is being checked in or out, the use count (increment), the person the asset is checked out to, and whether its status is being changed (if at all).

This dialog is different from the Asset Transfer dialog in that it counts how many times an asset has been used in order to determine when it must be due for Calibration. Work Orders are useful within this dialog so they may be addressed during Calibrations.
Status Change Dialog

Within the Status Change dialog there are 3 fields - status, Master GUID, and scanner. This dialog determines which status the asset is being changed to, and the asset's ID number.

This dialog is different from the Asset Transfer dialog in that only the status of the asset is being changed (i.e., a status from 'Active' to 'At Calibration Lab'), while the Asset Transfer dialog changes an asset's location, custody, and may or may not change its status.
Auto Notify Utility

Send Emails and Desktop Notifications Automatically

Configure one or several Notification Events for scheduled reminders through email, desktop, or website publishing in Calibration Control (our Calibration Management Software). Send email notifications to specific groups of people such as Equipment Custodians, Technicians, Owners, Department Managers, etc. Receive a desktop notification of Equipment due for calibration. Note: Auto notify only needs to be set up on ONE computer in order to avoid duplicate emails.

Email

Before sending Emails Automatically, you will need to add your email settings in the Options dialog. The database will need additional related data discussed at the bottom of this page.

Start the Auto Notify utility from the Calibration tab in the ribbon menu.

Auto Notify Grid

Currently, 9 Auto Notify events are defined.

- **DueCal_[Person]**: Auto email notifications for the Person identified after the "DueCal_" string.
- **DueCal_Desktop**: Auto desktop notifications on the current computer.
- **Website_General**: Auto publication of a simple website listing all equipment in Department groups. Set the publish location in the Folders tab of the Options dialog.
Auto Notification Files

These four fields are only used for Email Notifications . . .

- **Email Template**: Defines which HTML file is used as the template for the email.
- **Signature File**: Defines which HTML file is used as the email signature.
- **Email Subject**: The text that appears in the Subject line of the Auto Email Notifications.
- **BCC**: Whenever an Auto Email is sent, a copy of the email can be sent to an additional email or list of emails. If more than one email is added to the BCC field, separate those emails with a comma, semicolon, or a hard return.

There is one live fire button and one test button . . .

- **Send Message(s)**: Pressing sends all the email notifications to the defined Person group (e.g., Custodian, Technician, Manager), displays the desktop notification, or creates the default website.
- **Send Test Message(s) to BCC**: Sends the email notifications to the email(s) listed in the BCC field only as a test run.

Setting a Schedule

Set the repeat frequency (How Often), time of day (Date & Time), and if the Event is Active.
Related Data for Email Notifications

The Email Notifications require related data in the following tables:

- **People Fields in Equipment Record**: Identify the Custodian, Technician, Owner, or Checked out By fields so Calibration Control knows which equipment is related to who.
- **Department Field in Equipment Record**: Identify the Department in the Equipment dialog and then, in the Department record, identify the Manager and Contact people.
- **Site in Equipment Record**: Identify the Site (e.g., Customer or Company Site) in the Equipment record and then, in the People records, connect them to Companies.
- **Emails in People Records**: Ensure the People identified in other locations (e.g., Equipment or Department records) have valid email addresses and that their Send Email Notifications option is checked.

Take a look at the SMTP Test Procedure help topic if you are having difficulties with sending Auto-Notify emails.

**Last Updated**: 24 June 2019
Projects

Keep track of projects within your organization using the Projects grid and dialog. Find the Projects icon in the Calibration tab of the ribbon menu.

Projects Dialog

The 'Add/Edit Project' dialog keeps all information related to a project organized.

Project Dialog Fields

- **Project ID and Title**: Choose a project ID and give the project a title.
- **Description**: Add a description about the project.
- **Type & Priority**: Select the project type and its priority from the drop-down fields.
- **Requestor/Sponsor/Manager**: Choose which person is requesting the project, which person is sponsoring the project, and which person is the project's manager.
- **Status & Site**: Select the status of the project's completion and its location.
- **Start Est. & End Est.**: Select the estimated start and end dates for the project.
- **Start Act. & End Act.**: Select the actual start and end dates for the project.
- **Hours Est. & Hours Act.**: Choose the estimated and actual hours spent on completing the project.
- **Cost Est. & Cost Act.**: Choose the estimated and actual cost spent on completing the project.
Equipment/People/Parts/Work Orders Tab

Use these panel grids to add, link, and edit records for a project's Equipment, People, Part Numbers, and Work Orders.
Notes/Attachments/Documents Tab

Use these panel grids to add, link, and edit records for a project's Notes, Attachments, and Documents.

Other Tabs

- **Custom Tab:** Custom fields are available for adding Characters, Dates, Numbers, and Check boxes. Visit the Change Field Names help topic to learn how to edit these fields.
- **Meta Tab:** This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it; including the dates and times these occurred.

_Last Updated: 8 July 2019_
Work Orders

Create and manage work orders within Calibration Control (our **Calibration Management Software**) and link them to specific equipment records.

Find the Work Orders icon in the Data Grids tab of the ribbon menu.

![Work Orders Icon](image)

Work Orders Dialog

The 'Edit Work Order' dialog contains 5 tabs useful in organizing each record.

Submit Tab

Create a work order number and add information like who requested it, which department and location it's at, which account it's related to, what category it falls under, and a priority level. Add a description of the work order and then link related equipment using the panel grid on the right side of the dialog. Click on any of the shaded boxes to quickly add new fields for its drop-down box.
Service Tab

Add work order information related to its status, due date, received and completed date, as well as the technician in charge, the work order’s estimated labor time, labor cost, and material cost. This tab also includes a space to write out the actions taken to complete the work order.
Documents/Notes/Parts/Attachments Tab

Within these 4 panel grids you can add and link documents, notes, part numbers, and attachments to a work order. Filter and sort each panel grid using the gray shaded Filter Row.

Other Tabs

- **Custom Fields Tab**: Custom fields are available for adding Characters, Dates, Numbers, and Check boxes. Visit the Change Field Names help topic to learn how to edit these fields.
- **Meta Tab**: This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it; including the dates and times these occurred.

_Last Updated:_ 10 July 2019
Equipment Check Out and Use Count

Use the Equipment Check Out feature to quickly issue out items while automatically creating an audit trail, tracking Use Count or Days, linking the Person, and connecting to a work order.

Quick Start Video

Watch a quick video to learn how to check-out Equipment in Calibration Control (our Calibration Management Software).

Opening the Check Out Dialog

Select the Check Out feature icon from the Tools tab of the ribbon menu.

Or right-click on the Equipment record from the Equipment grid and select [Check Out/In] from the context menu. Checking Out equipment directly from the Equipment grid will automatically generate the ID number in the Check Out dialog.

Check Out (Basics)

To issue out Equipment, select the 'Out' checkbox, enter a valid Equipment ID, and click the [Submit] button.

Enable the checkboxes next to optional fields to track the Person, Work Order, or Status Change related to the current Equipment Check Out.
Confirmation of Check Out will appear in the Response Area of the dialog:

Check In (Basics)

To return the Equipment, select the 'In' checkbox, enter a valid Equipment ID, and click [Submit]. Confirmation of Check In will appear in the Response Area of the dialog:
Check Out by Equipment System Name

Equipment System Names can be used in place of an Equipment ID only if the Equipment System Name is NOT all numeric, making it appear like an Equipment Master ID, and it does NOT have the same name of an Equipment ID.

Check Out with Barcode Scanner

Enable the checkbox for "Use Scanner" to enable barcode label scanning. Using scanner for field input will disable manual entry.

Using Scanner for Barcoded Equipment ID

The default barcode used in Calibration Control is the Equipment Master ID (a unique sequential number for each Equipment).

However, the Equipment Master ID can be overridden in barcode labels for an Equipment ID or Equipment System Name using the following format:

- Upper Case A-Z (Capital Letters)
- Integers 0-9 (Numbers)
- Special Characters: Plus (+), Minus/Dash (-), Period (.), Forward Slash (/), Space ( )
- Note: Barcodes must begin and end in alpha-numeric form, surrounding special characters.
Barcode Recognition Order

Sometimes scanning barcodes in Check Out can reveal data conflicts, so it is helpful to know the barcode recognition order in Calibration Control. When a barcode is scanned, Calibration Control performs database tests to determine what information (string) the barcode contains. The string is searched for in the following order:

1. Is it an Equipment Master ID? (Default in Calibration Control)
2. Is it an Equipment ID?
3. Does the string appear in the Barcodes field of an Equipment record?
4. Is it an Equipment System Name?
5. Is it the ID of a Person? (if a Person entry is required)
6. If none of the above, the string will be placed in the Work Order field.

Equipment Use Count or Use Days

Some equipment or tools require calibration after a certain number of uses or days used, as opposed to a time interval (e.g., by units of months or years). We refer to tools with this kind of Calibration Frequency as Equipment Use Count or Equipment Use Days.

**Tracking Uses:** The Increment field in the Check Out dialog only affects Equipment Use Count and Equipment Use Days, and only if its Next Calibration date is not overridden.

**Increment Value:** By default, the Use Count Increment during Check Out equals zero (0), and Check In equals one (1).

**Manual Override:** Increasing the Increment that automatically appears in the Check Out dialog will override the default values to apply the new value to that Equipment Use Count.

![Check Out Dialog](image)

Default Increments in Check Out

The Response Area of the Check Out dialog will recognize Equipment Use Count / Days.
Equipment Use Count (+1 per Use)

The default Increment during Check Out is zero, increasing the Use Count by nothing. Equipment Use Count updates during Check In to increase by one (1), the default value. In other words, return the tool or check it out again (if applicable) to add one count of usage in the Equipment record.

Equipment Use Days (+1 per Day)

Check In increases the Use Count (Days) by one (1) Increment for each day the Equipment was checked out. The nature of this calibration frequency is time sensitive so tracking days of usage also occurs during Check Out and may update the Use Count (Days):

- If the tool is checked out multiple times (before Check In), then Calibration Control will apply its automated algorithm to count the number of days this tool has been out and used.
- If the previous Check Out occurred on another date, then the Use Count (Days) adds one Increment for each day, just like Check In would.
- If the previous Check Out occurred on the same date, then there is nothing to change.
- Note that if Check In occurs on the same day as Check Out, by default, it counts as one day of use.

Options: Check Out options are available in the 'Check Out' tab of the Program Options dialog.
Verify Check Out Status

**Current Status:** In the Equipment dialog, select the Misc. tab to verify the current Check Out status with the Person (if applicable) and date. The Use Count is also visible, which resets to 0 after calibration.

**Override Count:** You are able to override any of these fields to include current and accurate information.
**Check Out Activity:** All Equipment Check Out activity is automatically logged in the Notes panel grid of the Equipment dialog located under the Grids tab. Double-click any note to view or edit.

<table>
<thead>
<tr>
<th>Date</th>
<th>Subject</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/17/2019 02:47 PM</td>
<td>Check Out</td>
<td>Check Out</td>
</tr>
<tr>
<td>06/17/2019 02:47 PM</td>
<td>Check In</td>
<td>Check In</td>
</tr>
<tr>
<td>06/17/2019 02:46 PM</td>
<td>Check Out</td>
<td>Check Out</td>
</tr>
</tbody>
</table>

**Last Updated:** 25 June 2019
Custom Barcodes

Use Unique Barcodes Already on Equipment

If Equipment already has a unique barcode (e.g., asset or serial number), that number can be entered into its equipment record and used to locate and open its record. Make sure that this barcode is only used once per equipment record because there is no way for Calibration Control (our Calibration Management Software) to differentiate between two equipment records with the same barcode number.

Custom Barcode Field

Open an Equipment record and select the Misc. tab. Enter the unique custom barcode in the 'Barcodes:' field in the Miscellaneous category (left side). The most accurate way of entering a custom barcode is to place the computer's cursor into the custom Barcode field and scan the barcode into the field.

Barcode Scan Dialog

Close the Equipment dialog, returning to the Equipment grid. Press the [F3] button to bring up the following dialog. When this dialog (below) is visible and a barcode is scanned, Calibration Control will know to look in the custom barcode field in addition to the default field.

Last Updated: 25 June 2019
Limit Equipment Visibility by Site

Make Site Equipment Visible to Specific Users

There are several scenarios where this feature may be useful. Remember that the Site field names can be changed to names like Customer, Group, Type, etc.

- When a central database is used by multiple sites where Users should only view Equipment from their own Site.
- Each Site represents a different Customer, and Users should only have access to the Equipment of specific Customers. In this scenario it would be helpful to rename the Site field to "Customer", or whatever is most appropriate.
- When sites represent different Groups (e.g., Calibration, Maintenance, etc.) and Users in each Group should only have access to their own Equipment. In this scenario it would be helpful to rename the Site field to "Group", or whatever is most appropriate.

General Process

Use the following checklist to ensure all steps are completed to set up Limited Equipment Visibility by Site:

1. Create Company records designated as a Site, Customer/Client, or any Company Type designated as a Site.
2. Update the Site field for all Equipment that will be included.
3. Enable User Authentication being sure to create Users who will be granted access.
4. Link Users to Sites using the User Sites feature found in the Utilities tab of the ribbon menu.
5. In the Admin tab of the Options dialog, check the "Display Equipment Only From Assigned Sites When Signed In" checkbox.

Last Updated: 26 June 2019
Feature Visibility Options

Simplify the ribbon menu by hiding features your company is not using.

Quick Start Video

Watch a quick video to learn how to hide features that you're not using in Calibration Control (our Calibration Management Software).

Make Features Invisible

Feature Visibility is found under the Admin tab in the program Options.

Click on Feature Visibility for the table of features to appear. Select a feature (or group of features) to become invisible on the ribbon menu.

Note: Restart the program to apply these changes.
In the above image, notice how the feature group 'Advanced Tools' is marked to be invisible. The ribbon with the 'Advanced Tools' feature group visible looks like:

The ribbon with the 'Advanced Tools' feature group hidden looks like:

When it is made hidden or invisible, a feature or a feature group is simply removed from view. To make a hidden feature visible again, return to the Feature Visibility dialog in Program Options and remove the feature's checkmark, then restart the program.

**Minimize Ribbon**

For a better view of the open windows, right-click on the ribbon and select the 'Minimize the Ribbon' option. Bring it back the same way, by right-clicking where the ribbon would normally appear.
Last Updated: 26 June 2019
Print Future Calibration Labels

Print Calibration Labels to Apply at a Future Date

Using Calibration Control (our Calibration Management Software), this feature is useful in a scenario where a Technician must calibrate Equipment at a remote site but does not have the ability to print labels while at that site. With this feature, a Technician can print a range of labels with a future Calibration date and apply those labels on site assuming the Unit Under Test (UUT) passes. Printing labels with this feature does not update the Calibration dates of the Equipment.

Printing Future Labels

Print Future Calibration Labels by selecting a group of records, right-clicking to get the pop-up menu, and selecting Print -> Future Calibration Labels. Use the Filter Row in the Equipment grid to filter only the rows required.

Set the future calibration date and the appropriate technician for the labels.
Depending on the type of label selected, different information will be displayed in different styles. This label shows the Technician name, the Future Calibration Date, and the date it will be Due for Calibration. The customizable fields are shown in red for reference.

Last Updated: 8 July 2019
Labels & Reports Overrides

Override Global Defaults for Reports and Labels

By default, the Global (application-wide) settings in Calibration Control (our Calibration Management Software) for file templates that are used for Labels and Reports are defined in the 'Labels/Reports' tab of the Options dialog (below). For most users, this is the only place where Label and Report templates are defined.

In situations where the Global template is not acceptable, Ape can override the template in the Equipment, Site (Client), Model Number, or Equipment Type. For example, if a 12mm label is set at the Global level and a different size (larger or smaller) is required for a specific Model Number or Equipment, a different label template can be selected at the Model or Equipment level.

Override Settings

Just like the 'Labels/Reports' tab of the Options dialog (above), the 'Other' tab of the Equipment dialog (below) has all the same Labels and most of the same Reports. The other dialogs that have Label and Report Override ability have similar fields. The only difference at the Override level, compared to the Global level, is that the template values can be cleared by clicking on the red [X] buttons.
Label Fields

- **Calibration Due**: Prints when the calibration frequency generates a due date and uses labels with the "Due Cal" string in their file name.
- **Asset**: File templates are identified as Asset labels by the "Asset" string in the file name.
- **Cal Not Required**: Prints in place of the Calibration Due label when the Calibration Frequency is "Cal Not Required" and is identified as a CNR label by the CNR string in the file name.
- **Next Use**: Print in place of the Calibration Due label when the Calibration Frequency is "Next Use" and the labels are identified by a "NextUse" string in their file name.

Report Fields

- **Calibration Cert**: Template used when printing a Calibration Certificate.
- **Due Cal Report**: Report template used when printing the Calibration Due Report.
- **Cal Worksheet**: Calibration Worksheet that prints when the Equipment record has a Calibration Template or a previous Calibration Event.
- **Cal History**: Calibration History of an Equipment record.
- **OOT Investigation**: Designates the Out-Of-Tolerance (OOT) Investigation worksheet used when Equipment received for calibration is found OOT.
Referring to the diagram below, overrides apply to Labels and Reports via four paths of priority.

1. **Direct**: Override directly through an Equipment Record on the 'Other' Tab. An override through an Equipment Record supersedes all other methods.
2. **Company (blue line)**: Override labels or reports through a Company record connected to an Equipment Record. This override holds priority over those below.
3. **Model Number (red line)**: Override labels or reports through a Model Number record connected to an Equipment Record. This override holds priority over those below.
4. **Equipment Type (green line)**: Override labels or reports through an Equipment Type record connected to an Equipment Record. This override holds priority over those below.
5. **Equipment Type — Model Number (yellow line)**: Override labels or reports by linking an Equipment Type to a Model Number, then linking the Model Number to the Equipment Record.
6. **(Not Shown) Options Dialog**: Override labels or reports through the Options Dialog.

*Last Updated: 26 June 2019*
A mask is a way to format a field to make the data in that field look a specific way. Calibration Control (our Calibration Management Software) gives you the ability to format some of the more important date, string, and number fields. Find the 'Date Masks' tab in the Labels tab of the Program Options dialog.

Date Masks

Each section in this dialog controls the settings for that specific date mask. They give users the ability to define a standard mask for all new records in that category. The date masks are sorted into 3 categories - masks for grids, masks for controls, and label date masks. Each mask uses a drop-down menu to select the desired format (i.e., MM/dd/yyyy). An example of each mask is shown in orange and changes in real time. To reset all masks to default settings, click on the [Reset All Masks & Formats] button at the bottom of the dialog. When done, click [Submit] to save changes.
Number Masks in Calibration Control

A mask is a way to format a field to make the data in that field look a specific way. Calibration Control (our Calibration Management Software) gives you the ability to format some of the more important date, string, and number fields. Find the 'Number Masks' dialog in the Labels tab of the Program Options dialog.

Number Masks

Each section in this dialog controls the settings for that specific number mask. They give users the ability to define a standard mask for all new records in that category. The first box controls the look of the mask, with a sequence of capital letters and '-####' leading zero masks. The 'Current Increment' is the next number CC will use in the mask when the next new Equipment record is created. An example of each mask is shown in orange and changes in real time. Activate or deactivate each mask feature by checking or unchecking the 'Enable' checkbox.

The Calibration Certificate Number Auto Increment box is an example of what the PDF format will look like when saved.

Leading Zeros Mask (LZ Mask)

Leading zeros can be important in number formats if all numbers require the same minimum number of characters. Instead of a counting number sequence of 1, 2, 3, etc. an LZ Mask of '000' results in 001, 002, 003, etc.

In the case where a counting number has more characters than the mask, the counting number wins. For instance, with a mask of 000 and a number of 5348, the result will be 5348 even though the mask has only 3 characters.
Calibration Measurement Mask

The Mask field in the Measurement Group of the Calibration dialog sets the leading and trailing zeros of all the numbers in the given group. Unlike the Leading Zeros Mask, the number of leading and trailing places of these fields are strictly limited by the mask. For instance, a mask of 00.000 will only allow two places to the left and 3 places (rounded) to the right. Therefore, if a number of 100 or higher is required, the mask must be modified to include three zeros to the left 000.000.

Last Updated: 27 June 2019
Measurement Uncertainty Studies

Perform Uncertainty Analysis of a Measurement

The Measurement Uncertainty Studies grid (formerly called Uncertainty Budgets) in Calibration Control (our Calibration Management Software) is a simplified budget where Ape Software assumes no responsibility or liability for any unintentional errors. It is the User’s responsibility to ensure calculations and data entry are accurate and to confirm the suitability for any particular purpose.

This budget is useful in situations where (a) each Component of Uncertainty is independent of the others, (b) the major Components are estimated with a high degree of accuracy, and (c) measurement results are measured directly or calculated with a linear formula using only multiplication or division (e.g., \( W=V\times I \)).

Note that each Measurement Uncertainty Budget is conducted for a single Nominal measurement for a unique piece of Equipment.

Uncertainty Study Dialog

- **Study ID**: Add a name or number as the ID for an uncertainty study.
- **Date**: Date the Uncertainty Budget calculations were performed.
- **Nominal**: Target value for the overall Uncertainty Budget analysis.
- **Measure Units**: Measurement unit (e.g., inches, degrees, etc.) of the Nominal value for the Uncertainty Budget analysis.
- **Significant Digits**: Number places to the right of the decimal.
- **Description**: Description or title of the Uncertainty Budget analysis.
- **Notes**: Any notes relevant to the Uncertainty Budget analysis.
- **Combined [Standard] Uncertainty \((uc)\)**: Summation in quadrature (i.e., root sum of the squares) of all the Sources of Uncertainty in the grid. \(uc=\sum_{k=1}^{n} u_k^2\)
- **Coverage Factor (e.g., \(k=2\))**: Used in the calculation of the Expanded Uncertainty and has a default value of \(k=2\). The Coverage Factor is a confidence level of the interval accounts for the variation in the estimate of the residual standard deviation, and is based on the assumption that the random errors have a normal distribution.
- **Expanded Uncertainty \((U)\)**: The Expanded Uncertainty \((U)\) assures a high level of confidence by re-scaling the Combined Uncertainty \((uc)\) expressed with a different confidence level, e.g., 95 percent. The re-scaling is accomplished by multiplying by the coverage factor (i.e., \(U=k\times uc\)). In many cases, the coverage factor may be 2, which is typically used to approximate a 95% level of confidence.
- **Expanded Uncertainty Rounded \((Uce)\)**: The expanded uncertainty \((Uc)\) rounded to two significant digits.
Uncertainty Detail Dialog

Use the Detail dialog to describe each source of uncertainty (i.e., Component of Uncertainty) to be included in the overall Measurement Uncertainty Budget.

- **Source Name**: Descriptive name for the Source of the Component of Uncertainty, which will be combined with other Components to create a single Uncertainty Budget.
- **Value (a)**: Numeric value related to the Unit of Measure.
- **Unit of Measure**: Units measured in such as inches, Fahrenheit, mph, etc.
- **Type A/B**: Method used to estimate uncertainty either Type A, if estimated statistically, or Type B, if inferred through non statistical methods such as historical measurements, manufacturer specifications, calibration certificates, published data, mathematical formulas, or general experience.
- **[Probability] Distribution**: The Probability Distribution selected dictates the Divisor (next field). For example, a Normal 1s distribution has a Divisor of 1 where a Normal 2s distribution has a divisor of 2. The following values for each Probably Distribution are defaulted into the Divisor field, which can be overridden.
  - No Divisor
  - Normal 1s = 1
  - Normal 2s = 2
  - Normal 3s = 3
  - Normal @ 99% = 2.58
  - Rectangle = 3 = 1.7321
  - Triangle = 6 = 2.4495
  - U-Shaped = 2 = 1.4142
  - U-Shaped = 12 = 3.4641
- **Divisor (d)**: The numeric value related to the Probability Distribution chosen. This
value is automatically set when choosing the Probability Distribution (previous field) but can be edited independently after choosing the Distribution.

- **Degrees of Freedom (v):** For Type A uncertainties, use the d.f. for the corresponding standard deviations. For Type B sources refer to calibration certificates or published reports. In some instances, where the standard deviation must be estimated from scientific judgment or partial data, an infinite d.f. is normally assumed.

- **Sensitivity Coefficient (c):** Used to describe how the Component of Uncertainty contributes to the Combined Uncertainty when a simple functional relationship does not exist between the input quantities and the measurement result. For example, the unit of measure for the study may be in length units where an Uncertainty Component may be expressed in temperature or angular units. Use this field to change the weighting of the Component from the default of 1 (one).

- **Standard Uncertainty (u):** Calculated by dividing the Value (v) by the Divisor (d) and then multiplying by the Sensitivity Coefficient (c): \( u = \frac{v}{d} \times c \)

- **Assumptions Explanation:** Use this field to Explain any Assumptions made for the current Uncertainty Component.

### Learning about Measurement Uncertainty

Here are a few online resources to get started with learning about Measurement Uncertainty.

- How to Calculate Uncertainty - [Dr. Jody Muelaner](#)
- Uncertainty Budgets and Sensitivity Coefficients - [NIST, Information Technology Laboratory](#)
- Calculating an Uncertainty Budget for a Measurement - [wikiHow](#)
- Example of Uncertainty Budget - [NIST](#)
- Policy on Estimating Measurement Uncertainty for Construction Materials & Geotechnical Testing (P103d) - [The American Association for Laboratory Accreditation](#)
- A Beginner’s Guide to Uncertainty of Measurement - [Stephanie Bell, National Physical Laboratory](#)
- An Introduction to Expressing Uncertainty in Measurement - [Mr. Ouellette, National Laboratory](#)
Here are a few spreadsheet examples of Measurement Uncertainty Budgets:

- Uncertainty Budget Template - *NIST, Laboratory Metrology Program*
- Simplified Uncertainty Budget Template (xls) - *National Research Council Canada*
- Measurement Uncertainty Budget Template - *American Society of Crime Laboratory Directors / Laboratory Accreditation Board*

References

- Degrees of Freedom - *Wikipedia*

**Last Updated:** 10 July 2019
Procedural Steps and Groups

Step-by-step Procedures for Worksheets


Concept

Each Step in a Procedure is a Procedural Step while each Procedural Group (i.e., step-by-step procedure) is a collection of Procedural Steps in a specific order. To eliminate the need for duplication, each Procedural Step can be linked to multiple Procedural Groups.

Procedural Groups can be linked to Equipment Type, Model Number, and Equipment records. When linked, the Steps for a given Group will appear on the default Calibration Worksheet for Procedural Steps.

Procedural Groups

Create a new Procedural Group record to represent a new Procedure.

- **Group Name:** Name that represents a collection of Procedural Steps
- **Code:** Procedure Group Code, if needed
- **Group Type:** Used to classify the group
- **Active:** Currently in use (active record)
- **Notes:** Keep track of additional details about the group
Procedural Steps

Create a Procedural Step record from its main grid or from within the Procedural Steps tab of the Procedural Group dialog.

![Edit Procedural Step](image)

- **Description**: Short description of the actual step (action)
- **Code**: Procedural Step Code, if needed
- **Step Type**: Assigning a Step Type is a good way to categorize Steps
- **Response Type**: While currently not in use, this field will designate what kind of response (in the software) will be required from the user
- **Active**: Procedural Step is still in use when checked
- **Notes**: Add any additional notes required for a Step

Add Procedural Steps to a Procedural Group

The Procedural Steps tab of the Group dialog contains the steps linked to the Group. Use the buttons at the bottom of the grid to:

- [Add] a new Step
- [Link] an existing Step
- [Edit] the selected Step
- [Unlink] the selected Step from the current Group without deleting it
- [Delete] the selected Step from ALL Groups

To add sequence numbers to the procedural steps simply type the desired number into the Sequence column of the 'Procedure Steps' panel grid.
Linking Procedural Groups to Equipment

Procedural Groups can be linked to the Equipment Type, Model Number, or directly to the Equipment record. Therefore, any Equipment record linked to an Equipment Type or Model Number will also be linked to that Type or Model Number's Procedural Group. In the instance that a different Procedural Group is linked to all three records (i.e., Type, Model, & Equipment), only the highest priority link will be displayed on the Calibration Worksheet. The record priority is (1) Equipment record, (2) Model Number, and (3) Equipment Type.
Equipment Record

Model Number
Equipment Type

Calibration Worksheet
Set the Cal Worksheet with Procedural Steps as the Global Default Report

Within the Program Options dialog, go to the Reports tab and click on the 'Cal Worksheet' hyperlink. Select the [CalibrationWorksheetProcedureSteps.rpx] file and click [Open].

Override Instructions at Equipment Level

To override the procedural steps at the equipment level, navigate to the Overrides tab of the Edit Equipment dialog for a piece of equipment. Click on the 'Cal Worksheet' hyperlink and choose the [CalibrationWorksheetBlankProcedureSteps.rpx] file. Click [Open], then [Submit].

Last Updated: 8 July 2019
Publish a Custom Website

Publish Website of Equipment Grouped by Departments

Instantly publish a static Website of all equipment in Calibration Control (our Calibration Management Software) to your company network so everyone has access to online lists of equipment sorted by Department. Schedule the website to be refreshed regularly using the Auto Notify Utility.

One-Click Website Publishing (Create)

Select the ‘Publish Website’ menu item in the Utilities group of the Calibration tab.

Website will be automatically published from the available Equipment Records. A dialog box will pop up with an option to go to the Home Page, which has links to all Department pages. Here is an example of the type of information available with the Publish Website feature.
Auto Publication with Auto Notify Utility

Publish (refresh) the website automatically at a set schedule using the Auto Notify utility. Begin by selecting 'Auto Notify' from the Utilities group of the Calibration tab.

From the Auto Notify grid, open the WebSite_General record (e.g., double click to open).

Within the Schedule tab, (a) change the Frequency (i.e., 'How Often'), (b) the start date and time of day (i.e., 'Date & Time'), (c) ensure the Active checkbox is checked, and (d) submit by selecting the [OK] button.

**Note:** None of the fields in the 'Files and Names' tab affect the WebSite_General Event and therefore, can be ignored.
Change Location Where Site is Published

The default location where the site is published is the Settings Folder. Change the Website publication directory to a network folder so other network users have access by selecting 'Options' in the Utilities tab of the menu ribbon and navigating to the 'Folders' tab. Click 'Edit' in the 'Location of Auto Generated Website' group, and select the desired network location.

Last Updated: 8 July 2019
Startup INI

Single Connection Configuration for All Users

In network environments where the Calibration Control (our Calibration Management Software) program files are installed on a single file server and executed from multiple clients, the Startup INI (startup.ini) gives Network Administrators the ability to configure database connection properties in a single location. Each time Ape starts, it looks for the “startup.ini” file in the same folder as the executable. If found, the connection settings in the “startup.ini” file take precedence over connection settings, or absence of settings, at the Client level.

Additionally, all data stored in the INI file (e.g., database name, location, server, password, etc.) is 128 bit encrypted.

Before Using the INI Utility

Before creating the “startup.ini”, install the Ape Software on the computer/server and Create a Multi-User Environment. Note that the Minimum System and Configuration Requirements is a highly relevant and useful document that will help prevent deployment issues and should be followed.

Start the INI Utility

Select the Startup INI menu option of the Utilities tab of the ribbon menu.

Startup INI Editor

Work with your internal IT group to assist with setup if further help is needed. All enabled fields (fields that can be typed in) are required except for the Password fields when the Database Type is set to [MS] Access.
Last Updated: 9 July 2019
Status Change Dialog

Change Status of Multiple Equipment Quickly

Change the status of multiple pieces of equipment quickly and accurately in Calibration Control (our Calibration Management Software). For instance, when receiving several pieces of equipment for calibration (or any other status), change the status of each tool with a single barcode scan after setting the "Change to What Status?" field.

Fields Changed by Status Dialog

The Status dialog (a) updates the status in the Equipment record and (b) saves a note in the Equipment record describing the status change. Additionally, if the status changed to is "Received for Calibration Status" (defined in the Calibrations tab of the Options dialog), the Received (for Calibration) date in the Equipment record is also set to the current date. If the status changed from is "Received for Calibration Status", the Received date is cleared.

Status Change in Ribbon

Open the Status dialog from the Status Change option.

Using the Status Change Dialog

Select a NEW status for a piece of equipment using the “Change to What Status?” field. If entering the Equipment ID manually, uncheck the "Use Barcode Scanner for Data Entry" box and enter the Equipment ID and click [Submit]. When done, click [Finished].

If using a barcode scanner, ensure the "Use Barcode Scanner for Data Entry" box is checked and scan the barcode on the product label previously printed from Calibration Control. There is no need to click the [Submit] button when using a barcode scanner. Repeat the equipment scan (or data entry) with as many pieces of equipment that require the new status.
Repeat the equipment scan (or data entry) with as many pieces of equipment that require the new status.

Last Updated: 9 July 2019
Ape Software Terminal Mode

Minor Tasks in Ape Terminal Mode

Calibration Control (our **Calibration Management Software**) in Terminal Mode is useful for those who require limited access. The simplified Terminal allows your Production employees or Shop personnel to make minor changes via feature shortcuts.

Both the main Ape program and Ape Terminal install together. The Terminal is the same application executable (apecal.exe), except it is started with the switch -t1 (i.e., apecal.exe -t1).

![Ape Terminal Interface](image)

**Limited Use**

Currently featured in the Ape Terminal dialog:

- Check Out/In
- Status Change
- Asset Transfer
- Equipment Grid
- Systems Grid
- Calibration History
- Print Menu

**Further Limitations**

Disable any Terminal features from the Security tab in program **Options**.
Last Updated: 9 July 2019
Companies Grid

Manage Companies within Calibration Control

Keep track of all the companies you do business with, link them to other records, and manage report overrides using the Company grid and dialog. Find the Companies grid in the Common tab of the menu ribbon of Calibration Control (our Calibration Management Software).

Company Dialog

Use the Main tab to organize all information related to the company itself.

- **Name**: The name of the Company. This is the only required field for a new Company record.
- **ID Number**: The unique identification number assigned to a company record.
- **Web**: The company's website URL.
- **Status**: Select the status of the company (Active, Approved, Inactive, etc).
- **Next Onsite**: Select the date that the technician will be on site next.
- **Primary and Alternate Addresses**: Enter the Company’s street address(es).
- **Notes Field**: Add notes related to the Company record.
Email, Phones, People, and Types Dialog

Use these panel grids to keep track of the email addresses, phone numbers, people, and company types associated with the Company record.

- **Email Addresses:** Click on the chain link icon to link an existing email address to a company record or click on the green [+] icon to create a new record. Within the email address dialog, select the Type (i.e., Personal, Work, Other) and choose whether the email is Primary, Opted Out, or Invalid. You are also able to easily link or add Company and People records to the email address record right from the dialog.

- **Phone Numbers:** Add and link phone and fax numbers to a Company record. Within the phone numbers dialog, select the Type (i.e., Direct, Fax, Office) and choose whether the number is Primary, Opted Out, or Invalid. You are also able to easily link or add Company and People records to the phone number record right from the dialog.

- **People:** Use this tab to link Person records to a Company and designate someone as the 'Due Cal Contact'. Use the chain link and green [+] icons just like the other panel grids. To select a person as the 'Due Cal Contact', open their Person record and within the Main tab check the 'Company Due Cal Contact' checkbox.

- **Company Types:** Select a Company's Type using the 6 checkboxes. Examples of Company types include Supplier, Manufacturer, Calibration, etc.
Notes and Attachments Tab

Keep track of notes, documents, and images related to a company record by adding or linking them using these panel grids.

- **Notes**: Add or link Notes associated with a company record.
- **Attachments**: Add or link an attachment to a company record.
Other Tabs

- **Overrides Tab**: While default labels and reports are defined at a global (application) level in the Options dialog, overrides for the Labels and Reports listed here can be entered for a specific Company.
- **Custom Tab**: Custom fields are available for adding Characters, Dates, Numbers, and Check boxes. Visit the Change Field Names help topic to learn how to edit these fields.
- **Meta Tab**: This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it, including the dates and times these changes occurred.

![Edit Company](image)

**Last Updated**: 25 June 2019
Departments Grid

Use the Departments grid and dialog to edit data related to Departments that appear in Calibration Control (our **Calibration Management Software**) Equipment Records. Display the Departments grid by clicking on its icon in the Data Grids tab of the ribbon menu.

**Edit Department Dialog**

Manage information related to a Department record:

- **Department**: The name of the department. This is a required field.
- **Code**: A short identifier or acronym for the Department. This is a required field.
- **Type**: The department type (i.e., Fabrication, Engineering, etc.).
- **Manager**: The Department Manager; Person to whom Calibration Control can send emails.
- **Contact**: The Department Contact; Person to whom Calibration Control can send emails.
- **Is Active Checkbox**: If checked, this shows that the Department Code is actively being used in the database.
- **Notes**: A notes field for the department record.
Other Tabs

Within the Departments dialog there are three other tabs besides the main Department tab. The first is for Notes related to the Department dialog that can be added or linked from other records.

The Custom tab contains fields that can be customized to add Characters, Dates, Numbers, and Check boxes. Visit the Change Field Names help topic to learn how to edit these fields.

The Meta tab shows a READ-ONLY log of who created the Department record and when, as well as who updated the record and when. This tab is populated automatically for security purposes and is not editable.

Last Updated: 25 June 2019
Equipment Systems

Groups of Equipment Records

Combine separate equipment records in Calibration Control (our Calibration Management Software) into a group (system) for any purpose, such as creating a single test system.

View Systems Grid

Select the Systems feature from the Calibration tab of the menu ribbon.

Equipment System Dialog

From the Systems grid, double-click to open a record or right-click to use the context menu. Use the Equipment System dialog to enter and edit information related to Equipment Systems.
• **Name:** Name of the System. This is the only required field for a new Systems record.
• **Site:** Company field for geographic Site or Company.
• **Department:** The department in your organization where the System is currently located.
• **Location:** The location within the department where the System can be found. This could be a specific area or work place, even an engineer's desk.
• **Custodian:** Select an individual who has possession or custody of a System.
• **Certificate:** Certificate number that was issued by the organization responsible for its last Calibration event. Primarily used as an aid for traceability back to a national measurement standard, especially if this System is a Calibration/Test Standard.
• **Personal Property checkbox:** Check this box if the equipment System is owned by an individual at the company.
• **Technician:** The person who normally calibrates this System.
• **Owner:** The System Owner (Person field), if not the company.
• **Status:** Select the system's current Status from the combo box.
• **Notes:** Add notes to a System record.

**Notes Tab**
Add and link Notes related to an Equipment System record.

**Custom Fields Tab**
Custom fields are available for adding Characters, Dates, Numbers, and Check boxes. Visit the Change Field Names help topic to learn how to edit these fields.
Meta Tab

This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it, including the dates and times these occurred.

Link Equipment

To link an existing Equipment record to an Equipment System, select the ‘Other’ tab in the Equipment dialog. Use the drop-down arrow to select which System this Equipment belongs to. All Equipment Systems will be listed in the combo box.
Mass Update Function

When editing fields in the System dialog, select the [Update Equipment Records] button to apply changes to the Equipment tied to the System.
From the pop-up dialog, confirm which fields to update for all linked Equipment.

Barcode labels of Systems may also be scanned for Check Out. Default System labels are configured in program Options.
Calibration Control Manual
Equipment Types

Classify Equipment and Link to Calibration Templates

Although the Equipment Type in Calibration Control (our Calibration Management Software) can be used for any classification, its intent is specifically related to ease of equipment selection and the management of Calibration Templates. For instance, even though generic 6 inch calipers are made by several manufacturers, their use and calibration is usually the same. Therefore, creating an Equipment Type of "6 Inch Caliper" can be a useful grouping.

Additionally, a single Calibration Template (calibration method) for 6 inch calipers can be linked to one Equipment Type record, which in turn is linked to all the Equipment records of the same type. Using Equipment Types and Calibration Templates together like this provides calibration management with the ability to define and apply more consistent calibration controls.

Equipment Types Grid

Display the Equipment Types grid by clicking on the 'Equipment Types' icon in the Data Grids tab of the ribbon menu.

<table>
<thead>
<tr>
<th>Type Name</th>
<th>Type Co</th>
<th>Measure</th>
<th>Size/Range</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analogue Pressure Gauge</td>
<td>APG</td>
<td>23844</td>
<td>0-100 PSI</td>
<td></td>
</tr>
<tr>
<td>Barometer</td>
<td>BM</td>
<td>4bdd0</td>
<td>.0005 +/- .020</td>
<td></td>
</tr>
<tr>
<td>Caliper</td>
<td>CAL</td>
<td>c9377</td>
<td>.0005 +/- .015</td>
<td></td>
</tr>
<tr>
<td>Counter timer</td>
<td>CT</td>
<td>69248</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital Indicator</td>
<td>DI</td>
<td>c0c83</td>
<td>.0005 +/- .010</td>
<td></td>
</tr>
<tr>
<td>Digital Pressure Gauge</td>
<td>DPG</td>
<td>102db</td>
<td>0-100 PSI</td>
<td></td>
</tr>
<tr>
<td>Insulation Tester</td>
<td>INS</td>
<td>c9377</td>
<td>0-1&quot;</td>
<td></td>
</tr>
<tr>
<td>Micrometer</td>
<td>MC</td>
<td>4bdd0</td>
<td>0-6&quot;</td>
<td></td>
</tr>
<tr>
<td>Multi-meter</td>
<td>MM</td>
<td>23844</td>
<td>.0005 +/- .015</td>
<td></td>
</tr>
<tr>
<td>Test Gauge</td>
<td>TC</td>
<td>4bdd0</td>
<td>0.8&quot;</td>
<td></td>
</tr>
</tbody>
</table>
Equipment Types Dialog

Double-click on a record to open and edit or double-click in the gray space to open a new record dialog box. Right-click inside the grid for the context menu.

- **Type Name:** The name of the Equipment Type or group of equipment. This is a required field.
- **Type Code:** The unique code for the Equipment Type or group of equipment. This is a required field.
- **Size/Range:** Select the Size and Range of the equipment.
- **Calibration Template:** Though not required, Equipment Types can be linked to a corresponding Calibration Template. This may influence the naming convention for the Equipment Type.
- **Procedural Group:** Allows users to define step-by-step procedures that appear on Calibration Worksheets or within Custom Reports.

Other Tabs

There are four other tabs within this dialog to help manage the Equipment Type records.

- **Equipment Tab:** Use this panel grid to link equipment to an equipment type record.
- **Uncertainty Tab:** Use this panel grid to add or link an Uncertainty Study to an Equipment Type record.
- **Overrides Tab:** While default labels and reports are defined at a global (application) level in the Options dialog, overrides for the Labels and Reports listed here can be entered for a specific Equipment Type.
- **Meta Tab:** Shows a READ-ONLY log of who created the record and when, as well as who updated the record and when. This tab is populated automatically for security purposes and is not editable.
<table>
<thead>
<tr>
<th>Equipment ID</th>
<th>Model</th>
<th>Description</th>
<th>Cal Last</th>
<th>Cal Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAMPLE-005</td>
<td>CRG-101</td>
<td>Cylindrical Ring Gage</td>
<td>04/13/2019</td>
<td>04/13/2020</td>
</tr>
<tr>
<td>SAMPLE-059</td>
<td>HG66</td>
<td>Height Gage</td>
<td>03/12/2019</td>
<td>03/12/2020</td>
</tr>
<tr>
<td>SAMPLE-283</td>
<td>CDM-32321</td>
<td>OD Micrometer</td>
<td>10/12/2019</td>
<td>10/12/2019</td>
</tr>
<tr>
<td>SAMPLE-143</td>
<td>SM-4556</td>
<td>Scissor Micrometer</td>
<td>11/03/2019</td>
<td>11/03/2019</td>
</tr>
</tbody>
</table>

Last Updated: 26 June 2019
Part Numbers

Manage Part Numbers Related to Equipment

Part Numbers are specific to each piece of equipment and the Part Numbers grid keeps them organized within Calibration Control (our Calibration Management Software). Find this grid in the Data Grids tab of the ribbon menu.

<table>
<thead>
<tr>
<th>Part Num</th>
<th>Part Name</th>
<th>Description</th>
<th>Std Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>PN-001</td>
<td>PT_P3000</td>
<td>PC Connectable Label Maker for PC and MAC</td>
<td>62</td>
</tr>
<tr>
<td>PN-002</td>
<td>PT_1230PC</td>
<td>PC-Connectable Label Maker</td>
<td>30</td>
</tr>
<tr>
<td>PN-003</td>
<td>PT_9700PC</td>
<td>Desktop Bar Code Printer</td>
<td>310</td>
</tr>
<tr>
<td>PN-004</td>
<td>PT_9800PCN</td>
<td>Desktop Bar Code Network Printer</td>
<td>389</td>
</tr>
<tr>
<td>PN-005</td>
<td>PT_750W</td>
<td>Wireless Label Maker</td>
<td>106</td>
</tr>
<tr>
<td>WT-001</td>
<td>Warranty 9700</td>
<td>Server &amp; Repair Warranty</td>
<td>0</td>
</tr>
<tr>
<td>WT-002</td>
<td>Warranty 9800</td>
<td>Service &amp; Repair Warranty</td>
<td>0</td>
</tr>
</tbody>
</table>

Edit Part Number Dialog

Use the General tab to organize all information related to part numbers.

- **Part Number**: Unique number assigned to the part record.
- **Part Name**: The name of the part record.
- **Description**: A physical description of the part.
- **Category**: The category that a part is assigned to.
- **Standard Cost**: The standard cost of the part.
- **List Price**: The listing price of the part.
- **Discontinued**: If the part has been discontinued, select the appropriate date.
- **Taxable and Active Checkboxes**: Check the corresponding box if a part is taxable or active. Leave the boxes unchecked if it is not.
- **Notes**: Add any notes related to the part number.
Part Number Sources

The Sources tab provides a list of the top 3 suppliers that your company uses to purchase specific parts and their specific part numbers. It also includes a drop-down to choose their manufacturer.

**Note:** Designate a ‘Supplier’ by navigating to the Companies grid, opening a record, and clicking on the [Email/Phones/People/Types] tab. Once there, within the Company Types panel grid click on the [Link] icon and select the "Supplier" status.
Equipment & Calibrations

This tab contains panel grids used to link Equipment and Calibrations to a Part Number record. Use the buttons at the bottom of the dialog to link, edit, and unlink records. Click and drag on the middle gray bar to resize the panel grids.

Work Orders

Create and manage work orders related to a part number. Click the green [+] icon to add a new Work Order record. Within this new dialog, add information related to a part number's 'Requestor', 'Department', 'Location', which account it's linked to, which category it's in, the priority level, and a space for a description. Link equipment to the work order if necessary.
Other Tabs

- **Custom**: Visit the [Change Field Names](#) help topic to learn how to customize this tab for your company’s needs.
- **Meta**: This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it.

**Last Updated**: 8 July 2019
Part Categories

Create Part Category Codes to Assign to Parts

Open the Part Category grid by clicking on its icon in the Data Grids tab of the ribbon menu. Double-click in the gray area to create a new record or right-click and select 'New Record'. Type out a short category code (usually an acronym) and then a short description of the part. Check the Active checkbox if this part category is active, and check the Taxable checkbox if this part is taxable.

![Part Category Grid](image)

Other Tabs

- **Custom Fields**: Custom fields are available for adding Characters, Dates, Numbers, and Check boxes. Visit the Change Field Names help topic to learn how to edit these fields.
- **Meta**: This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it, including the dates and times these occurred.

Assign a Part Category to Part Number Record

Within the General tab of the Edit Part Number dialog, select the Part Category from the 'Category' drop-down menu.

![Edit Part Number Dialog](image)

**Last Updated**: 8 July 2019
People Grid

Find the People grid in the Data Grids tab of the ribbon menu. Use the Edit Person dialog in Calibration Control (our Calibration Management Software) to edit all information related to the People you interact with for your company and link them to other records using the panel grids.

Person Dialog

Add information to a Person record:

- **Salutation/First Name/Last Name:** First and Last Name of the Person, Salutation when applicable. These are the only required fields for a new Person record.
- **Display Name:** Auto-filled by First and Last Name fields.
- **Title:** The Person's job title, if available.
- **Department:** The Department the Person is currently assigned to in their Company.
- **Location:** Use this drop-down when applicable.
- **Status:** The Person's status within the company they work for.
- **ID Number:** The Person's unique company ID, if applicable.
- **Is Active:** Select whether or not the Person has an active account in your records.
- **Primary and Alternate Addresses:** The Person's address(es), if applicable.
- **Notes:** A blank space for notes related to the Person record.
Grids Dialog

- **Email Addresses:** Add or link an Email address to a person record.
- **Phone Numbers:** Add or link phone and Fax numbers to a person record.
- **Companies:** Add or link a person record to an existing company record.
- **Attachments:** Add or link attachments to a person record.
Other Tabs

- **Notes Tab:** Add and link Notes to a Person record.
- **Custom Fields Tab:** Custom fields are available for adding Characters, Dates, Numbers, and Check boxes. Visit the Change Field Names help topic to learn how to edit these fields.
- **Meta Tab:** This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it, including the dates and times these occurred.

**Last Updated:** 8 July 2019
Documents Dialog

Procedure Steps Are Now Known as Documents

Easily link company calibration procedures (i.e., documents) and related equipment in Calibration Control (our Calibration Management Software). Find the Documents icon under the Data Grids tab of the ribbon menu.

![Documents Icon](image)

Edit Document Dialog

Double-click on a Procedure record to open and edit it. The Edit Document dialog contains 4 tabs:

- **Document**: Add information related to the document including its number, title, active status, type, class, subject, document URL, and a space for notes. Click on any of the grey shaded boxes to add a new field for that drop-down.
- **Equipment/Calibrations Panel Grids**: Use the provided panel grids for adding and linking equipment and calibrations to a document record. These panel grids can be filtered and sorted using the Filter Row at the top of each grid.
- **Custom Tab**: Visit the Change Field Names help topic to learn how to customize this tab for your company’s needs.
- **Meta Tab**: This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it.
Link Procedure Documents to Equipment Records

- **From the Documents Grid**: Within the Grids tab of the Document dialog click on the 'chain link' icon to link a specific piece of equipment to that procedure document.

- **From the Equipment Grid**: Within the Grids tab of the Edit Equipment ID dialog click on the 'chain link' icon within the Documents panel grid.
Link an existing Procedure or Equipment ID by highlighting its row and clicking the [Select] button.

Last Updated: 25 June 2019
Email Addresses

Organize email addresses related to Companies and People within Calibration Control (our Calibration Management Software).

Email Address Dialog

Add a new email address by clicking in the gray area of the grid, or right-click for the context menu and select [New Record]. Enter the email address and select the 'Type' (i.e. personal, work, or other). Check boxes are available for selections of 'Primary', 'Opted Out', and 'Invalid' which display as green checkmarks in the grid.
Companies Tab

Use the Companies panel grid to link email address records to a specific Company. Use the icons at the bottom of the panel grid to add, link, edit, or break a link (i.e. remove a linked record without deleting it from the database).

People Tab

Use the People panel grid to link email address records to a specific Person. Alternatively, double-clicking in the gray area of the panel grid will open a New Person dialog, and clicking on an existing record will open the Edit Person dialog.
Other Tabs

- **Custom Tab**: Custom fields are available for adding Characters, Dates, Numbers, and Check boxes. Visit the Change Field Names help topic to learn how to edit these fields.
- **Meta Tab**: This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it; including the dates and times these occurred.

**Last Updated**: 25 June 2019
Phone Numbers

Organize phone numbers related to Companies and People within Calibration Control (our Calibration Management Software).

Phone Number Dialog

Add a new phone number by double-clicking in the gray area of the grid, or right click for the context menu and select [New Record]. Enter the phone number with area code in the desired format and then select the number type from the drop-down menu (i.e., Office, Main, Fax). Check boxes are provided to designate the phone number as 'Primary', 'Opted Out', or 'Invalid'.

Companies Tab

Use the Companies panel grid to add and link Companies to a specific phone number record. Double-click in the gray area within the panel grid to add a new Account record, or double-click on an existing record to edit.
People Tab

Use the People panel grid to add and link People to a specific phone number record. Double-click in the gray area within the panel grid to add a new Person record, or double-click on an existing record to edit.

- Other Tabs
- **Custom Tab:** Custom fields are available for adding Characters, Dates, Numbers, and Check boxes. Visit the Change Field Names help topic to learn how to edit these fields.
- **Meta Tab:** This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it; including the dates and times these occurred.

Last Updated: 8 July 2019
Notes

Create a note within an existing record to organize extra information. Changes such as an asset transfer, asset issue, asset receive, check out, and status change are also recorded as note records.

Notes Grid

Access the Notes grid by clicking on the notepad icon in the Data Grids tab of the ribbon menu.

Notes Dialog

Use the Notes dialog to organize information related to the Note and its relationship to Equipment, Companies, and People. This dialog also includes a Custom and Meta tab.
Easily keep track of all the equipment records associated with a specific Note by linking them using the panel grid in the Equipment tab. From within the 'Edit Equipment' dialog (in the Equipment grid), add a new Note to a record and it will automatically be available in the Notes grid.

In the Companies tab, add or link Companies to a Note record. When a Note is added to a Company record it will be available in the Notes grid.
Add and link People to a Note record using the People tab of the Notes dialog. When a Note is added to a Person record it will show up in the Notes grid.

Other Tabs

- **Custom Tab**: Custom fields are available for adding Characters, Dates, Numbers, and Check boxes. Visit the Change Field Names help topic to learn how to edit these fields.
- **Meta Tab**: This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it; including the dates and times these occurred.

**Last Updated**: 27 June 2019
Company Types

Edit Company Type Codes

Although any number of Company Type codes can be created, there are five Types important to Calibration Control (our Calibration Management Software). These five Types identify which of the categories created will show up as choices in the Site, Manufacturer, and Calibration Service Provider, Client, or Supplier combo boxes (drop downs).

Display the Company Types grid by clicking Company Types in the Common Data tab of the ribbon menu.

Company Types Grid

The Company Type screen can be filtered just like the other Calibration Control grids. Change the name of any field to continue using words that make sense to your organization. The Default settings are shown below.

Company Types Dialog

Double-click on Type Name to change the name and to choose whether that Type is a Site, Manufacturer, Calibration Service Provider, Client, or Supplier.
Last Updated: 25 June 2019
Size and Range in Calibration Control

Edit the Size and Range Combo Values of Equipment

Add, edit, or delete the selectable values for the "Size/Range" field for Equipment in Calibration Control (our Calibration Management Software). Using these standardized values for size and range provide for more consistent data entry and Equipment searches.

Menu

Find the Size and Range values within the Codes grid, which is located in the Data Grids tab of the ribbon menu.

![Codes Grid Example]

Dialog

Use the Size/Range dialog to edit all information related to the different sizes and ranges of equipment that will appear under the Size/Range combo box in Calibration Control Equipment Records. This dialog includes custom fields and Meta data.
Last Updated: 9 July 2019
Measurement Units

Understanding and Using Measurement Units

Several Measurement Units are already part of Calibration Control (our Calibration Management Software), but only those units not marked as hidden are shown in the combo box while creating or editing a Calibration Event. Any of the existing Measurement Units can be edited or new Units can be added. Find these units in the Codes grid located in the Data Grids tab of the ribbon menu.

Double-click on any of the existing Measurement Unit records to edit or in the gray area to create a new record. Hide or show Measurement Units by checking or unchecking the [Is Hidden] checkbox.
Last Updated: 26 June 2019
Application Codes

All of the simple codes (used in drop downs and other locations) are kept in a single Codes grid for easy reference and update. To edit a Code record, click on the Codes icon within the Data Grids tab of the ribbon menu.

By default the Codes grid is itemized for ease of use; click on a [+] icon from the left side to expand each category and double-click on a record to edit it.

Codes List

- Account Types
- Attachment Categories
- Department Types
- Document Classes
- Document Types
- Email Types
- Locations
- Measurement Unit Types
- Measurement Units
- Note Types
- Phone Types
Adding a New Code

Right click in the Codes grid to bring up a new Add Code dialog. Within the Code dialog are Code, Custom, and Meta tabs.

- **Code** refers to the specific item in the drop down menu.
- **Code Short** refers to the acronym chosen for the code.
- **Group** refers to the drop down menu category that it belongs to.
- The **Sequence** number refers to the order this code will appear in the drop down menu.
- The checkbox “Is Active” allows you to show or hide a code.
- The Locations codes have a **Sub Location** option to allow you to add a custom sub location. To do this, just create a new record and choose the option for "Location Types" under the Group drop-down menu. Now save the record and it will become an option for Sub Location.
Custom Tab

Custom fields are available for adding Characters, Dates, Numbers, and Check boxes. Visit the Change Field Names help topic to learn how to edit these fields.

![Custom Tab](image)

Meta Tab

This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it; including the dates and times these occurred.

![Meta Tab](image)

Reload Data Tables

After entering new Module Codes, navigate to the Utilities tab and click on the [Reload Data Tables] button to make them visible.
Reload Complete

Data Tables Successfully Reloaded

Last Updated: 25 June 2019
Model Numbers

Keep Track of Equipment Model Numbers

Model Numbers are specific to each piece of equipment and the Model Numbers grid keeps them organized within Calibration Control (our Calibration Management Software). Find this grid in the Data Grids tab of the ribbon menu. The Model Numbers’ dialog can also be accessed within the "Edit Equipment" dialog by clicking on the [Model] button in the Equipment tab.

Model Number Dialog

Double click on a selected record to edit it or double-click within the gray area to create a new record.

Within the dialog, specify the model number, model description, and notes. Add information like Manufacturer, Equipment Type, Measurement Template, Procedure Group, and its Size/Range using the drop down menus. Check or uncheck the [Active] box to show if it is in use or not.
Uncertainty Tab
Add or link an uncertainty study to a model number record.

Overrides Tab
Use the Overrides tab to choose a different equipment label or equipment report. Click on a blue hyperlink and select the desired file name then click [Open]. Remove an override by clicking on its corresponding red [X]. Examples of all the labels can be found in the "Labels" section of our Help Topics page.
Custom Tab

The Custom tab allows you to create unique fields that pertain to your company. Edit these using the "Edit Form Labels" feature under the Admin tab of the Program Options dialog. Select the dialog to be edited (i.e., "ModelNumber") from the drop down menu and create your custom content by editing the Control Text. Make sure to click the [Close] button in order to save changes.

Meta Tab

This is a READ-ONLY information tab used as a reference to view which user created the record and which user was the last to edit it, including the dates and times these occurred.
Last Updated: 26 June 2019
Best Label Printers for Ape Software

Which label printers will work with Ape’s Software?

Calibration Control is compatible with the **PC-connectable Brother P-touch label printers**.

**Brother P-touch Label Printers**

The printer we recommend most is the PT-P900W (replacement to the PT-9700PT), which is a high volume desktop unit intended for industrial environments. The PT-P900W will print up to 32mm (1.26 inch) width tape. If the PT-P900W is too expensive, maybe the portable PT-P700 would be a better starting choice. The PT-P700 uses label tape up to 24mm (1 inch) in width. Otherwise, either printer will work with Ape Software applications.

You can find the PT-P900W and the PT-P700 at Amazon.com and many other online retailers.

**TZe Label Tape**

Fortunately, all of the P-touch label printers use the same label tape (model number starts with TZe). This tape is resistant to temperature, UV, scratching, and spills.

Here are some of the common sizes along with their Amazon links:

- 6 mm (1/4 inch) Black on White (TZe211)
- 9 mm (3/8 inch) Black on White (TZe221)
- 12 mm (1/2 inch) Black on White (2 pack - TZe2312PK)
- 18 mm (3/4 inch) Black on White (TZe241)
- 24 mm (1 inch) Black on White (TZe251)
- 36 mm (1 1/2 inch) Black on White (TZe261)

**Extra Adhesive Label Tape**

Brother also sells label tape with extra adhesive for high-use environments or extra smooth surfaces. Before choosing the extra adhesive, we suggest trying the normal adhesive formula first (above labels) because the additional adhesive can gum up label printers faster than the normal level of adhesive.

- 6 mm (1/4 inch) Black on White (TZeS211)
- 9 mm (3/8 inch) Black on White (TZeS221)
- 12 mm (1/2 inch) Black on White (TZeS231)
- 18 mm (3/4 inch) Black on White (TZeS241)

Speaking of gumming up your label printer, here are a couple of links to B&H Photo for Cleaning Tape:

- 36 mm (1 1/2 inch) Good for PT-P900W
• 18 mm (3/4 inch) Good for PT-P700

Last Updated: 26 June 2019
Free Label Editing Software and Drivers

Free Brother Printer Drivers and Label Editing Software

Ape Software uses Brother P-touch label printers for the highest quality laminated thermal transfer label printing.

Use the following quick links to find the drivers and software from the Brother support site.

Printer Drivers

- Download the PT-9800PCN Printer Drivers
- Download the PT-9700PC Printer Drivers
- Download PT-2430PC Printer Drivers
- Download PT-P700 Printer Drivers
- Download PT-P900W Printer Drivers

P-touch Editor - Label Editing Software

Download the Brother P-touch Editor for editing the labels that come with Calibration Control or creating your own.

Last Updated: 16 July 2019
Labels Quick Start Video & Instructions

Printing Labels in Calibration Control

Use this video and the instructions below to get started with printing labels in Calibration Control (our Calibration Management Software).

Sample Labels

Check out the sample labels for Calibration, Asset, and CNR (Calibration Not Required). They are a good resource for determining which labels to use.

Important Points

Keep in mind when printing labels with Calibration Control:

1. **Brother Label Printers:** Calibration Control will only print labels using one of the Brother P-touch (PT) label printers. Click on the link to view a list of compatible models.

2. **Printer Drivers:** The printer drivers MUST BE INSTALLED in order to use a label printer with Calibration Control, these drivers are accessible with the CD included with the label printer (or downloaded from Brother). Follow the instructions before plugging in and turning on the printer.

3. **Label Files:** Calibration Control uses label layout files (*.lbx) which can be accessed by clicking on the File tab at the top left corner of Calibration Control and selecting [Open Files Folder]. The label files must reside in the Labels folder for Calibration Control to find them. Watch the video on Calibration Control folders to understand the folder layout.

4. **Label File Number Prefixes:** The 150+ label files that come with Calibration Control begin with the millimeter prefixes of 12 (1/2 inch), 18 (3/4 inch), or 24 (1 inch) to identify the width of label tape required.

5. **Set Default Labels:** Use the Options dialog to set the default labels for Calibration Due, Asset, and Cal Not Required. Be sure to select labels with the same width as the tape in your P-touch printer.

6. **Print a Label:** Open an equipment record and click the [Asset Tag] button in the bottom-right corner of the dialog.

_Last Updated:_ 26 June 2019
Sample Due Cal Labels

Below are the sample Calibration Due (Due Cal) Label templates included in Calibration Control (our Calibration Management Software). These labels can be edited and additional labels can be created as needed.

The number at the beginning of each label file refers to the width or height of the label tape (in Millimeters) as it is presented below. The number at the end of the label is its sequence number in the file's folder.

Not to Scale

```
<table>
<thead>
<tr>
<th>COMPANY NAME</th>
<th>Date: 10/10/2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gsd1-fr604-983</td>
<td>By: George Richards</td>
</tr>
<tr>
<td>Due: 10/10/2022</td>
<td></td>
</tr>
</tbody>
</table>
```

12-DueCal-01

```
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Gsd1-fr604-983</td>
<td>By: George Richards</td>
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<tr>
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<td></td>
</tr>
</tbody>
</table>
```

12-DueCal-02

```
<table>
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<tr>
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<th>COMPANY NAME</th>
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</thead>
<tbody>
<tr>
<td>By: George Richards</td>
<td>CALIBRATED</td>
<td>Due: 10/10/2022</td>
</tr>
</tbody>
</table>
```

12-DueCal-03

```
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</thead>
<tbody>
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<td>By: George Richards</td>
</tr>
<tr>
<td>Due: 10/10/2022</td>
<td></td>
</tr>
</tbody>
</table>
```

12-DueCal-04

```
<table>
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<th>COMPANY NAME</th>
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</tr>
</thead>
<tbody>
<tr>
<td>By: George Richards</td>
<td>CALIBRATED</td>
<td>Due: 10/10/2022</td>
</tr>
</tbody>
</table>
```

12-DueCal-05
24-DueCal-10

24-DueCal-11

24-DueCal-12

24-DueCal-13

24-DueCal-14
Sample Asset Labels

Below are the sample Asset Label templates included in Calibration Control (our Calibration Management Software). These labels can be edited and additional labels can be created as needed.

The number at the beginning of each label file refers to the width or height of the label tape (in Millimeters) as it is presented below. The number at the end of the label is its sequence number in the file's folder.
12-Asset-05

12-Asset-06

12-Asset-07

12-Asset-08

12-Asset-09

12-Asset-10
Calibration Not Required Labels

Below are the sample Calibration Not Required (CNR) Label templates included in Calibration Control (our Calibration Management Software). These labels can be edited and additional labels can be created as needed.

The number at the beginning of each label file refers to the width or height of the label tape (in Millimeters) as it is presented below. The number at the end of the label is its sequence number in the file's folder.

12-CNR-01

12-CNR-02

12-CNR-03

12-CNR-04
24-CNR-08

24-CNR-09

24-CNR-10

24-CNR-11

24-CNR-12
Access All the Label Fields

Understanding Labels Fields in Calibration Control

Understand and follow these guidelines to get the most out of printing labels with Calibration Control (our Calibration Management Software).

1. **Label Basics:** Watch the label quick start video to cover the basics of label printing.
2. **Folder Basics:** Watch the video on understanding the Calibration Control folders.
3. **Label Naming Rules:** All 'asset' labels must have the word **asset** in the label name, 'calibration' labels must have **duecal** and 'calibration not required' labels must have **CNR**. These words (asset, duecal, & CNR) allow Calibration Control to identify the type of label.
4. **P-touch Editor:** The P-touch editor software that comes with P-touch printers (or download from Brother) is required to edit the 150+ labels that come with Calibration Control or to create custom labels.
5. **Label Fields Available:** All of the label fields below are available for custom **calibration labels** and **asset labels**.
6. **Using Label Fields:** Access the label fields below by using the **P-touch Editor** to change the **Object Name** of text or barcode objects of a given label.
7. **Sample Labels:** Check out the sample labels for Calibration, Asset, and **CNR** (Calibration Not Required). They are a good resource for choosing which labels you want to use.

Equipment Label Fields

- AlternateID
- CalibrationDue
- CalibrationLast
- CertificateNumber
- CheckedOutBy
- CheckOutDate
- CurrentUserFirstName
- CurrentUserLastName
- CurrentUserFullName
- CurrentUserName
- Custodian
- Department
- DepartmentCode
- EquipmentCalCo
- EquipmentCost
- EquipmentID
- EquipmentTypeCode **
- EquipmentStatus
- EquipmentStatusCode
- Frequency
**The EquipmentTypeCode field is a combination of the Equipment Type Code and the Equipment ID. Therefore, if the Type Code is VF and the Equipment ID is 0423, the EquipmentTypeCode would be VF-0423.**
• SampledBy
• SampleDescription
• SampleID
• SampleName
• SampleSize
• SampleUnit
• TrackingNumber0
• TrackingNumber1
• TypeCode
• TypeDescription
• Character0-4
• Number0-4
• Date0-4
• Boolean0-4
• RecordCreated
• CreatedBy
• RecordUpdated
• UpdatedBy

Lot Label Fields

• LotID
• Received
• ReceivedBy
• Supplier
• IsActive
• Character0-9
• Number0-9
• Date0-9
• Boolean0-9
• RecordCreated
• CreatedBy
• RecordUpdated
• UpdatedBy
• PartNumber
• PartName
• PartDescription
• PartCatCode
• PartCatDescription
• PartStandardCost
• PartListPrice
• Manufacturer
• ReceiptInspectionRequired
• ReceiptInspectionQuarantine

Last Updated: 26 June 2019
Chain Printing Labels

Quick Start Video
Watch this video to get a quick start in understanding how to save label tape by using the chain printing function in Calibration Control, our Calibration Management Software.

How to Chain Print Labels to save Label Tape
There are two ways to print labels using the Brother label printers and each utilizes a small portion of blank label tape used as a "grab-tab" to help peel away the label from its backing. The first method by default prints them individually with a small piece of "grab-tab" left on the end of each scored piece. The second, using this method, prints and scores them all in a row with one piece of "grab-tab" at the beginning of the strip.

Individually Printed Labels
By default, labels are printed individually with a small "grab-tab" at the front of each:

![Individually Printed Labels Image]

Chain Printed Labels
From the File tab at the far left of the ribbon menu, choose the 'Options' button and navigate to the 'Labels' tab. At the bottom of the dialog there is a 'Chain Printing (not for all models)' checkbox. Check this box to enable chain printing. Uncheck the box in order to go back to printing them individually.
The chain printed labels will look like this:

![Image of chain printed labels]

Last Updated: 26 June 2019
Displaying Charts

Quick Start Video
Watch a quick video to learn about the Chart feature in Calibration Control (our Calibration Management Software).

Use Pie, Column, and Bar Charts to Visualize Your Data
Display the Charts grid by clicking on the Charts icon in the Calibration tab of the ribbon menu.

Chart Data Tables
Use the Data Table combo box to select what information is shown in the Chart.

Customize a Chart by editing the default Title and by changing the settings for Chart Type, Color Model, and Legend position. Use the Data Table combo box to choose which department information is used.
Saving and Printing Charts

Right-click the Chart screen to Save (several formats) or Print the Chart. ‘Save as PNG – Transparent Background’ is recommended for use in reports and presentations with backgrounds other than white.
3D Charts

Change the viewing angle on 3D Chart Types by holding down [Alt] and then clicking and dragging the mouse to the best angle. Zoom in and out of the Chart by rolling the mouse roller back and forth while keeping the [Alt] button pressed.

‘Min Others Pie Slice’ (for pie charts only)

Use ‘Min Others Pie Slice’ to group very small percentages into an ‘Other’ category. This helps to declutter the pie chart when there are too many slices.
Last Updated: 25 June 2019
Due Cal Calendars

Quick Start Video

Watch this video to get a quick start in understanding the Calendar for Calibration Due in Calibration Control (our Calibration Management Software), our Calibration Management Software.

Visualize Due Cal Equipment in Calendars

Display a Calendar of Equipment Calibration Due dates by clicking the Calendar icon in the Calibration tab of the ribbon menu.

Toggle between Month, Week, or Day views using the tabs at the top of the Calendar screen.

Click on specific dates in the Calendar to view which tools are due to be calibrated on that date. The ‘Equipment Due Cal’ label automatically displays how many tools are due for calibration on that date. Click in the default label to customize.

Quickly view Equipment Due for Calibration dates in different months by clicking through the months in the upper left-hand Calendar screen and clicking the desired month, week, or day. The current day is highlighted in a red box while the day selected is shown in orange. The bold dates are ones with at least 1 equipment that will be due for calibration.

Adjust the number of weeks visible in the Calendar screen by clicking up or down in the ‘Visible Weeks’ box (Month view only).
Printing Calendars

Print a 5-Week, 1-Week, or 1-Day Calendar by viewing dates you want to be printed in the Calendar screen and clicking [Print].

Customize printing Paper Size and Source, Orientation, and Margins by clicking on [File], then [Page Setup...].
Last Updated: 24 June 2019
Print Reports

Printing the Standard Reports is Easy

Click on the [Print] icon in the Calibration tab of the ribbon menu of Calibration Control (our Calibration Management Software), then select which report to print. If the report requires additional information (i.e., parameters, due date, or other filters) to print, enter the required parameter and then click the [Submit] button to generate the report.

Ape software also offers a Report Designer to modify any of the existing reports or to create custom reports.

Last Updated: 9 July 2019
Calibration Due Report

Quick Start Video

Watch the video below to learn how to print the default Calibration Due Report or to change which report is set as default within Calibration Control (our Calibration Management Software).

Quick Access to the Due Cal Report

Print the Calibration Due Report by selecting the Due Cal Report option from the Calibration tab or from the context menu within the Equipment grid under Print options.

The following Due By dialog will appear.

If a date range is required, click on the [PRINT] button in the Calibration tab of the ribbon menu to find the Calibration Due Date Range report. The Date Range report (file name CalibrationDueDateRange.rpx) can also be set as the default report. The range dates are set by default to the first date of the current month and the last date of the current month. See the Program Options help topic instructions on how to change the default report.

Note: The default versions of these Due Cal reports do not include equipment with non-calibration Frequency codes, like 'Cal Not Required'. Also, equipment with Status Codes marked as Hidden will not be displayed.
Due Cal: Print Preview

Here is a sample Calibration Due Report ready to print.

<table>
<thead>
<tr>
<th>Equipment ID</th>
<th>Model</th>
<th>Description</th>
<th>Serial</th>
<th>Status</th>
<th>Last Cal</th>
<th>Next Cal</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAMPLE-010</td>
<td>05-8386</td>
<td>Pin Set</td>
<td>1030</td>
<td>Active</td>
<td>02/2015</td>
<td>02/2016</td>
<td>Quality Assurance</td>
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<tr>
<td>SAMPLE-011</td>
<td>05-8386</td>
<td>Pin Set</td>
<td>1234</td>
<td>Active</td>
<td>02/2015</td>
<td>02/2016</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>SAMPLE-012</td>
<td>05-8386</td>
<td>Pin Set</td>
<td>5678</td>
<td>Active</td>
<td>02/2015</td>
<td>02/2016</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>SAMPLE-015</td>
<td>05-8386</td>
<td>Pin Set</td>
<td>9012</td>
<td>Active</td>
<td>02/2015</td>
<td>02/2016</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>SAMPLE-017</td>
<td>CRH-424</td>
<td>CRH-424</td>
<td>ABCD</td>
<td>Active</td>
<td>02/2015</td>
<td>02/2016</td>
<td>Inspection</td>
</tr>
<tr>
<td>SAMPLE-019</td>
<td>800-011</td>
<td>800-011</td>
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<td>Active</td>
<td>11/12/2015</td>
<td>11/12/2016</td>
<td>Inspection</td>
</tr>
<tr>
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<td>Inspection</td>
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<td>11/12/2016</td>
<td>Inspection</td>
</tr>
<tr>
<td>SAMPLE-026</td>
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<tr>
<td>SAMPLE-027</td>
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<tr>
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<tr>
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<tr>
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<td>Inspection</td>
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<td>11/12/2015</td>
<td>11/12/2016</td>
<td>Inspection</td>
</tr>
</tbody>
</table>

Last Updated: 24 June 2019
Calibration Worksheets

Record Calibration Data While Away from a Computer

Calibration Worksheets are a convenient way to record Calibration Event data without being near a computer. The Worksheets in Calibration Control (our Calibration Management Software) have the proper measurements pre-determined to make calibration data easier to record. The Worksheets are easily configured for the needs of the organization.

When printing a Calibration Worksheet:

- If the Equipment has a Calibration Template attached to it, the Worksheet will replicate the Template structure on the Worksheet so all the technician needs to do is fill in the blanks.
- If no Calibration Template is attached to the Equipment, Calibration Control will use the measurement structure from the most recent calibration of the Equipment.
- If neither a Template nor past calibration exists, Calibration Control will print a blank Worksheet with several lines for recording measurement data.

Right-click for the Context menu to print.
The worksheet will look like this in the print preview. Notice that some of the fields are already filled-in with information from the record:
The blank worksheet looks like this when neither a Template nor past calibration exists. All of the fields are blank to accommodate necessary information.
# Calibration Worksheet

**Equipment Information**

- **Equipment ID:** SAMPLE-333
- **Site:** Transcat
- **Description:**
- **Department:** Quality Assurance
- **Model No.:**
- **Location:** Cabinet
- **Manufacturer:** East Coast Cal
- **Custodian:** Penelope Penn
- **Size / Range:** 0-1"
- **Technician:**
- **Serial No.:**
- **Status:** Active

**Calibration Summary**

- **Calibrated:**
- **Frequency:** Yearly
- **Temp:**
- **Humidity:**
- **As Found:**
- **Result:**
- **Next Cal:** 06/14/2019
- **Remarks:**

**Tolerance Type**

<table>
<thead>
<tr>
<th>Tolerance Type</th>
<th>Units</th>
<th>As Found</th>
<th>Result</th>
<th>Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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**Notes:**

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**Last Updated:** 25 June 2019
Create a Custom Report

Create Custom Reports Using Report Designer

To create a custom report from scratch, Calibration Control (our Calibration Management Software) uses a database language called SQL (pronounced 'sequel'). We use SQL SELECT statements to tell the database what fields and records from what tables and in what order we want our data displayed. Therefore, as a prerequisite to this help topic, read the SQL SELECT statement help topic first.

Create a Custom Report

To begin, let’s assume we want to create a new Calibration Due Report for all of the equipment due before the end of next month. Select the ‘Report Designer’ icon from the Tools tab of the ribbon menu. This is a blank slate to drag fields into whatever location desired in the report ‘Detail’. To use one of Ape Software's default reports, click [Open] and choose one of the available [.rpx] files.
Define Report Data Source

If you click on the [Edit Data Source...] link in the bottom-right corner of the Report Designer a blank Report Data Source dialog will appear. The Connection String field defines the connection to the database being used. The Query field defines the fields and records needed from a specific table and in a defined order.

Connection String - Choosing the Provider

The easiest way to change the connection string is to select the Connection String icon from the Utilities Tab. This will show the same connection string the Ape application is using to connect to the database. Click the [Copy to Clipboard & Close] button and paste the result into the Connection String field of the Report Data Source dialog.
Otherwise, build the connection string by clicking the [Build] button to the right of the Connection String text box and the Data Link Properties will be shown. Click on the Provider table if it is not already displayed. Assuming you want to connect to an Access database (i.e., apecal.mdb), select the ‘Microsoft Office 12.0 . . .’ provider and click the [Next] button. If connecting to an instance of SQL Server, select the SQL Server OLE DB Provider.

If this does not work, ask your database administrator (DBA) for assistance in choosing the correct provider.

![Data Link Properties](image)

**Connection String - Setting the Connection**

Continuing the assumption that you need to connect to the apecal.mdb file, paste the path to the apecal.mdb file in the Data Source field. With help on finding your database, read the *Locating Database File* help topic. The entire path will look something like this:

C:\Users\Public\Documents\Ape Software\Calibration Control\apecal.mdb

After entering the path to the database, click the [Test Connection] button and a ‘Test connection succeeded’ response should show. If the connection is unsuccessful, repeat the above steps until it is.
Writing a SQL Select Statement

When the SQL SELECT statement has been created, it will look something like the following picture. Note that the Calibration Due field is set to a specific filter of less than 6/18/2019. This date is called a parameter (report variable), which can be changed with every printing. See the help topic on Report Parameters to learn how to add Parameters to SQL statements.
Adding Fields, Labels, and Report Info

In the image at the top of this page, I performed the following actions to create the Calibration Due report:

1. Dragged the bound fields (e.g., Equipment ID, Model & Description) from the right side of the page (Fields - Bound tree) to their current location in the Detail band and resized them to fit their contents.
2. Selected the Date fields and edited their properties (bottom-right corner of screen) so that the OutputFormat = 'M/d/yyyy'.
3. Dragged Label objects from the left side of the screen to locations above each field in the page header, resized them to fit their corresponding fields, bolded, and underlined them. The page title (Calibration Due Report) was created the same way.
4. Report Info objects were dragged from the left side of the screen to the left and right side of the footers. I clicked on each object and changed their properties (bottom-right) to . . .
   - Set the Format String property of the date/time field to '{RunDateTime:M/d/yyyy}'
   - Set the Format String property of the page number field to 'Page {PageNumber} of {PageCount}'
   - Clicked the right-align button (top of page) for the page number field.
5. Other minor tasks involving bolding, underlining, aligning, and positioning were made to make the report look the way I wanted it to look.
6. Other minor tasks involving bolding, underlining, aligning, and positioning were made to make the report look the way I wanted it to look.
Menu Settings

Assuming the custom report is stored in the Ape application Reports folder, the default file name of the new report in the report menu will be the file name. Override the file name displayed by entering a preferred name in the User Data field of the report properties. Also, to place the new report under the first or second node of the report tree, place a 1 or 2 before the other text in the User Data field. For example, entering ‘1 My New Report’ in the User Data field will place the name ‘My New Report’ under the first node.

Preview and save the Report Layout

Preview the report by clicking the 'Preview' tab at the bottom of the Report Designer window. Save the report layout by selecting the [Save] button at the top of the Report Designer Window.

Choose a save file location and name your report ‘my due cal report’. The file location defaults to the Report folder under the Files Folder (select Open Files Folder from the File drop down menu) for the Ape application to find it.

Last Updated: 25 June 2019
Report Parameters

Pass Data to SQL Statements at Run Time

Use Report Parameters in Calibration Control (our Calibration Management Software) to pass information to the report's SQL string at run time. A Parameter dialog will then prompt the user for the required input when generating reports.

The general syntax for a report parameter is:

<%ParameterName|PromptString|DefaultValue|Type%>

Where:

- **Parameter Name**: Must be a unique Parameter name not used for any other parameter or field in the report.
- **Prompt String**: The text displayed in the Parameter dialog asking for input (e.g., Calibration Due By:)
- **Default Value**: The default value of the Parameter.
- **Type**: The Parameter type code of the parameter (see below).

Parameter Type Codes

- **AS**: String
- **AD**: Date
- **AB**: Boolean
- **AI**: Integer
- **ADB**: Double
- **AC**: Combobox (i.e., drop-down lists)

The following is an SQL statement that uses a 'hard coded' date, which means the SQL statement must be edited each time the default date needs to change.

```sql
SELECT *
FROM   qryEquipmentMaster
WHERE  CalibrationDue < #2018-10-15#
```

Conversely, the following sample shows the same SQL statement using a Parameter, which allows users to enter a date value at run time.

```sql
SELECT *
FROM   qryEquipmentMaster
```
WHERE CalibrationDue < #<%CalibrationDue|Due Date:||AD%>#

**Date Default Values**

When using the AD (Date) Parameter Type code, several options are available for the Default Value:

- **Specific Date**: Exact date with the syntax of #YYYY-MM-DD# for MS Access or 'YYYY-MM-DD' for MS SQL Server.
- **Number of Days**: Positive or negative integer (counting number) indicating the number days added (or subtracted) from the current date.
- **BOM**: Beginning of current month.
- **EOM**: End of current month.
- **BONM**: Beginning of next month.
- **EONM**: End of next month.
- **BOPM**: Beginning of previous month.
- **EOPM**: End of previous month.

The following example uses the EOM Default Value code for the End of the Current Month:

```sql
SELECT *
FROM qryEquipmentMaster
WHERE CalibrationDue < #<%CalibrationDue|Due Date:EOM|AD%>#
```

**Combobox Parameter Type**

Using the AC (Combobox) data type requires the use of the DefaultValue Parameter field to configure the Combobox. Within DefaultValue exactly six sub-fields, each separated by a slash ('/'), are required. This also means that exactly 5 slashes must be present in the DefaultValue field.

The six sub-fields are:

1. **Table or SQL**: Table or SQL for the records used in the combobox.
2. **Value Member**: Field name for the value, usually an ID field.
3. **Display Member**: Field name for the text displayed in the combobox.
4. **Filter**: SQL filter phrase that limits the records displayed (e.g., "Active = -1") when using a Table name instead of a SQL statement
5. **Sort**: SQL sort phrase that places the list of choices in a specific order (e.g., "Name"). When left blank, the Display Member is the default sort field. This field is only valid when using a Table name instead of a SQL statement.
6. **Default Value**: One of the values within the list created by the Value Members field (e.g., 55ec4215-7f9b-4e9f-b583-56be9871b895 without apostrophes or quotes).

Although not all fields are REQUIRED (*), their places must be defined with slashes like in the following **DefaultValue** example. Note that there are still five slashes ('/') even when only three sub-fields are used.

tblPeople/PersonId/DisplayName///

**Last Updated**: 8 July 2019
Report Settings

Find and Change Settings of Custom Reports

In Calibration Control (our Calibration Management Software) within the 'Report Designer' grid (found in the Tools tab of the ribbon menu), find and modify the settings of custom reports. Adjust paper size, orientation, gutters, styles, fonts, and more.

Open Settings

Find most of the settings for the custom reports by double-clicking the Settings node in the top-right corner of the Report Designer.

Page Setup

Adjust the Margins and Gutter settings.
Printer Settings
Set paper size, orientation, and other page settings.

Styles
Define new or edit existing font styles.
Global

Modify the Report Designer settings for layout, units, maximum number of preview pages, and word-wrap in the Script Editor page.

![Report Settings dialog box]

Last Updated: 9 July 2019
Manually Update Default Reports

Manually Update the Default Reports Using a 2-Step Process

To find the Reports folder, click on the File tab in the top left corner of CC and select "Open Files Folder", then click on the Reports folder to find all of the default reports. When a report is customized, make sure to create a custom name for the file, adding "_custom" or "_yourcompanyname" works best. During version updates for CC, default reports may be updated and the custom reports will be overridden if the original file name is not changed.

<table>
<thead>
<tr>
<th>Name</th>
<th>Date modified</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backup</td>
<td>12/6/2018 1:48 PM</td>
<td>File folder</td>
</tr>
<tr>
<td>AllUserRolePermissions.rpx</td>
<td>11/14/2017 3:15 PM</td>
<td>RPX File</td>
</tr>
<tr>
<td>AsFound.rpx</td>
<td>6/23/2015 8:25 PM</td>
<td>RPX File</td>
</tr>
<tr>
<td>AsFoundSql.rpx</td>
<td>6/23/2015 8:25 PM</td>
<td>RPX File</td>
</tr>
<tr>
<td>CalibrationCertificate.rpx</td>
<td>2/12/2016 9:58 PM</td>
<td>RPX File</td>
</tr>
<tr>
<td>CalibrationCertificate_Sub.rpx</td>
<td>11/12/2015 4:24 PM</td>
<td>RPX File</td>
</tr>
<tr>
<td>CalibrationCertificateSimple.rpx</td>
<td>10/26/2015 6:06 PM</td>
<td>RPX File</td>
</tr>
<tr>
<td>CalibrationCertificateSql.rpx</td>
<td>2/12/2016 10:02 PM</td>
<td>RPX File</td>
</tr>
<tr>
<td>CalibrationDue_custom.rpx</td>
<td>11/13/2017 1:13 PM</td>
<td>RPX File</td>
</tr>
<tr>
<td>CalibrationDueCustodianFilter.rpx</td>
<td>4/19/2018 3:12 PM</td>
<td>RPX File</td>
</tr>
<tr>
<td>CalibrationDueDateRange.rpx</td>
<td>10/30/2015 3:44 PM</td>
<td>RPX File</td>
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<td>CalibrationDueDateRangeDeptFilter.rpx</td>
<td>3/6/2018 9:17 AM</td>
<td>RPX File</td>
</tr>
<tr>
<td>CalibrationDueDateRangeSiteFilter.rpx</td>
<td>11/15/2017 5:59 PM</td>
<td>RPX File</td>
</tr>
<tr>
<td>CalibrationDueDepartmentGroup.rpx</td>
<td>11/10/2017 5:35 PM</td>
<td>RPX File</td>
</tr>
</tbody>
</table>

Steps to Update Default Reports

1. Delete the Default reports in the Reports folder.
2. Restart Calibration Control.

If the customized reports do not have a new custom name then they will be overridden with the new version update. To accommodate for this, Ape creates a backup folder within the Reports Folder and moves all of the old reports into that folder. This means that if the custom reports you had in the main Files Folder are gone, first check the backup folder and rename them before replacing.

The Reports, Labels, and Emails folders all use this method to update default reports.

Last Updated: 26 June 2019
SQL SELECT Statement

Useful with Calibration Management Software Reports

SQL (pronounced sequel) stands for Structured Query Language. SQL is the basic language of most common databases, including MS Access and MS SQL Server, the two databases that Calibration Control can use. For the purpose of report writing, the part of the SQL language we need to focus on is the SELECT statement, which retrieves information from Calibration Control (our Calibration Management Software). Although SELECT statements are used by reports, web pages, on screen displays, and even when moving data between applications, we will need SQL primarily for reports.

A Primer on Tables

Before we get started, let's make sure we understand the source of our data when we use a SELECT statement. Within a database, information is stored in tables that look something like a spreadsheet with columns and rows. Unlike a spreadsheet, a table uses records (horizontal rows) and fields (vertical columns).

Imagine each record in the database as a photocopied standard form used for keeping track of test equipment and imagine that these forms are kept in a file. The file may have a hundred forms, each with information describing a specific piece of test equipment. Just like a table, these forms can be sorted in different orders and records can be scanned by a single field on each form; it just takes a bit longer with paper compared to a database table.

The Equipment Master View

Within Calibration Control, you will probably derive most of your reports from the qryEquipmentMaster view (also called a query) because it has most of the required fields for your test equipment records. The fields in the view will also be easier to read than their corresponding codes in the root table. Think of a view as a way to pre-package part of the SQL complexity that makes data easier to work with.

As an example, the contents of the tblEquipmentMaster table (where the data is actually stored) contain fields like ModelNumberID with meaningless numbers in the fields (see image below). On the other hand, look at the qryEquipmentMaster and you'll see the actual model numbers and descriptions that look familiar. This is because the view has SQL code in it that looks up and displays the meaning of the ModelID code so you don't need to.
The SQL SELECT Statement

There are four main parts of the SELECT statement that we need to cover:

- SELECT – *(IDs the fields from a table that will be included)*
- FROM – *(IDs the table where the fields come from)*
- WHERE – *(Defines the filter that includes only the records you want to include)*
- ORDER BY – *(Defines the sort order of the records)*

While the SELECT and FROM clauses are always required, only the WHERE and ORDER BY clauses need to be included when filtering and sorting. Otherwise, the results will include all records and in no particular order other than the physical order of the underlying table.

Here is an example of a common SQL statement used to return all the fields from the qryEquipmentMaster view:

```
SELECT *
FROM qryEquipmentMaster;
```

Pretty easy, right? Notice the asterisk (*)? The asterisk is a wildcard that includes all fields. With the relatively easy SELECT statements that we need in our Calibration Management Software, using the wildcard is usually the best bet because you don’t need to worry about forgetting a field when designing the report.
Now let’s assume that we want to filter and sort our results in the following example:

```sql
SELECT * 
FROM qryEquipmentMaster 
WHERE DepartmentCode = 'QA' 
ORDER BY Location;
```

You can even add multiple filters and multiple sorts with the following **MS Access**:

```sql
SELECT * 
FROM qryEquipmentMaster 
WHERE (DepartmentCode = 'QA') AND (CalibrationDue < #5/1/2018#) 
ORDER BY Location DESC, SerialNumber;
```

Note that the date value has number signs (#) around it rather than the single quotes of the text values? You need to use the # sign when using MS Access and the single quote (’) when using SQL Server. Although both databases use SQL Server, there are still slight differences.

Here’s the same code for **MS SQL Server**:

```sql
SELECT * 
FROM qryEquipmentMaster 
WHERE (DepartmentCode = 'QA') AND (CalibrationDue < '5/1/2018') 
ORDER BY Location DESC, SerialNumber;
```

The final example deals with filtering for numeric values and is compliant with both **MS Access** and **MS SQL Server**. Note that the value (1) uses neither the single quote (’) or the number sign (#)?

```sql
SELECT * 
FROM qryEquipmentMaster 
WHERE FrequencyUnits = 1;
```

You can learn more about the SQL SELECT statement through an Internet search or go directly to Microsoft for **SQL Server SELECT Statements** or **MS Access SELECT Statements**.

**Last Updated**: 10 July 2019
Program Options

Modify Application Settings

You can modify Calibration Control (our **Calibration Management Software**) program options by selecting **Options** from the Utilities tab of the ribbon menu or in the Files folder drop-down menu.

### General Tab

- **First Day of Week**: This setting determines the due date when calibrations are using the 'Week of' Frequency. For instance, if a tool has a calibration frequency of 'Week of' and a unit multiplier of three (i.e., every three weeks), Ape software will calculate the next calibration date by adding three weeks to the last calibration and then choosing the first day of that week (as determined by this setting).
- **Current or Next for 'Week/Month of' Due Dates**: This setting is used while calculating the calibration due date for the 'Week of' and 'Month of' frequencies. For example, if a tool has a 'Month of' frequency, a 12 unit multiplier (i.e., every 12 months), and the offset for the program is 'Next' (this setting), the Calibration Due Date is calculated by adding 12 months to the Last Calibration and then choosing the first day of the Next month.
- **Check for Program Updates**: Ape software can notify you of available updates on a Daily, Weekly, or Monthly cycle when the application is first opened. The default is daily.
- **Measurement System**: Use the drop-down to switch the default measurement system between U.S. (Imperial) and Metric. The default is U.S. (Imperial).
- **Company Name and Licensed to (User)**: Fields here are the same ones presented in the dialog where the product key was entered.
- **Equipment ID of Default Template**: New Equipment records can be created from a default template identified by the Equipment ID of that template. Therefore, this field identifies an existing Equipment record to be used as a template for new Equipment records.
- **Unique Alternate Equipment ID**: Determine whether Alternate Equipment ID’s should be unique or not, or be unique within a given Site. Be aware that Equipment ID’s should always be unique.
- **Language**: Select the language displayed. Changing the language requires a program restart.
- **Label Printer**: When multiple label printers are installed on a single computer, the printer used to print labels for Ape software may need to be specifically identified in this field.
- **Start Screen**: Designate which grid to have open whenever you start Calibration Control.
Label Date Masks and Number Mask Tabs

Refer to the Masks in Calibration Control help topic for an explanation of masks.

Default Labels Tab

- **Default Equipment Labels**: These settings determine which label templates are used by default when using the 'Print Label' button from the Equipment dialog. (Default label settings can be overridden for a specific Equipment, Type, or Model record.)
  - **Calibration Due**: Prints when the calibration frequency generates a due date and uses labels with the 'Due Cal' string in their file name.
  - **Asset**: File templates are identified as Asset labels by the 'Asset' string in the file name.
  - **Cal Not Required**: Prints in place of the Calibration Due label when the Calibration Frequency is 'Cal Not Required' and is identified as CNR label by the 'CNR' string in the file name.
  - **Next Use**: Print in place of the Calibration Due label when the Calibration Frequency is 'Next Use' and the labels are identified by a 'Next Use' string in their file name.
  - **System**: Prints with information relating to an Equipment System.

**Note**: The number at the beginning of the file name indicates the width of the label tape in millimeters. The number at the end of the file name indicates the sequence. Any custom labels should be given a unique sequence. All labels can be edited using the Brother P-touch Editor software that comes free with your Brother P-touch label printer. For a preview of all default label templates included in Ape Software, visit our Label Fields topic.
Default Reports Tab

- **Default Reports**: These settings determine which reports are used by default. While most reports can be previewed using the Reports Print Menu, the Cal Certificate includes specific data so that it can only be previewed through an Equipment record.
  - **Calibration Cert**: Template used when printing a Calibration Certificate.
  - **Due Cal Report**: Report template used when printing the Calibration Due Report.
  - **Cal Worksheet**: Calibration Worksheet that prints when the Equipment record has a Measurement Template or a previous Calibration Event.
  - **Blank Worksheet**: Calibration Worksheet that prints when the Equipment record has neither a Measurement Template nor a previous Calibration Event.
  - **Uncertainty**: Default report for the Measurement Uncertainty Budget.
  - **OOT Investigation**: Designates the Out-Of-Tolerance (OOT) Investigation worksheet used when Equipment received for calibration is found OOT.
  - **Custom Report**: Custom report for a single Equipment record, which can print from the context menu in the Equipment grid.

**Note**: All reports can be edited using Ape software's built-in Report Designer. Custom changes made to default templates should be renamed, (e.g. "CalibrationCertificate - COMPANY").
Default Folders Tab

- **Location of Files Folder**: The Files Folder contains the three important sub folders of Attachments, Labels, and Reports. While the Attachments folder is the location where Ape software stores the actual folders, the Labels and Reports folders store templates (how the labels and reports are printed).
  - It is important to move the Files Folder to a location where it will be backed up regularly and can be accessed by other users of the Ape software database. Jump to Folders help topic for more information.
- **Location of Auto Generated Website**: This is the location where the auto-generated Due Calibration website is created either by clicking on the ‘Publish Website’ icon in the Utilities tab of the ribbon menu or via the Auto Notify utility.
- **THUM Database**: The THUM (Temperature and Humidity USB Monitor) database is the location where the THUM device stores its data. If the device is used and the database exists, then Ape needs to know where this database is so temperature and humidity data can be added automatically to Calibration Event records.
Calibrations Tab

- **Status on Calibration Pass**: Set the Equipment record to [THIS Status] when saving a new Calibration Event that is Passed.
- **Status on Calibration Fail**: Set the Equipment record to [THIS Status] when saving a new Calibration Event that is Failed.
- **Received for Calibration Status**: When using the Status Change dialog, if [THIS Status] is set, three changes are made to the related Equipment dialog: (a) the Status is changed to [THIS Status], (b) the Received field is set to TODAY, and (c) a note record is created describing the event.
- **Reminder Lead Days**: The number of days to include in the Due Cal report and when Browsing Due Cal.
- **Manually Set Due Dates in Equipment Dialog**: Normally, the Calibration Due (Next Cal) is automatically calculated based on the Last Calibration and the Calibration Frequency. Therefore, checking this option for manual set will disable the automatic calculation.
- **Ask to Print OOT Worksheet When Received OOT**: With this option checked, the User who saves a Calibration Event with the Received Out-Of-Tolerance (OOT) condition will be asked if the OOT Worksheet should be printed. (Works with the next
• **Null Cal Received Date on Successful Cal:** (Usually used in conjunction with the above Received for Calibration Status feature) With this option checked, when a new Calibration is saved with a 'Passed' Status then the Received [for Calibration] field in the Equipment record is automatically nulled.

• **Use Last Calibration as Template if No Template Linked:** With this option checked, creating a new Calibration Event uses the most recent Calibration Event as the Measurement Template if no Template is otherwise linked for that Equipment.

Admin Options

• **Edit Form Labels:** Change the field names and other text related to dialogs. For example, you can change the Equipment ID field to be named Asset, and the Location can be changed to Work Center or whatever works best for your organization.

• **Add Missing/New Reference Records:** Adds any missing standard records in the reference tables that Ape software uses. If one or more records is accidently deleted from tables like Language (used for field names), Roles (defines Admin, Supervisor, etc.), or Permissions (which Roles are required for each Permission), then pressing this button will re-add all missing records.

• **Refresh All Reference Records:** Completely delete and refresh the contents of all
reference tables.

- **Feature Visibility:** Hide the features you do not use by changing the visibility settings for the ribbon menu, grid context menus, and dialog boxes.
- **Switch to Sample Database:** Switches to a sample database with sample populated fields. Useful when exploring new features.
- **Do Not Copy Default Labels, Reports, & Emails on Start:** By default, each time the Ape software starts it confirms that all the default Labels, Report, and Email templates are in the Files folder. If any file is missing, Ape replaces it. Checking THIS option prevents this feature.

Security Tab

- **Activate/Deactivate Sign-In Mode:** Enable or disable the User Authentication Mode (Sign-In Mode). At least one User must have Administrator privileges to Enable User Authentication and, by default, only an Administrator can disable Authentication.
- **Edit Permissions:** Change the Roles (e.g., Administrator, Supervisor, Technician, etc.) required for any Permission (e.g., adding an attachment, editing a Person record, adding a Calibration, etc.).
- **Password Security:** Edit User password strength, rules, and expiration times.
- **Sign In with Windows User Name:** For ease of use, use a Windows account to sign in to Calibration Control.
- **Only Current Users Can Check Out Equipment:** Prevents anyone but the current user from checking out Equipment.
• **Prevent Users From Saving Passwords on Client PCs:** When the Authentication mode (sign-in) is enabled and a User signs in, they are given the option of saving their User Name and Password for future automatic sign-ins. Checking THIS option prevents the ability to save their User Name and Password.

• **Require Re-Entry of Password When Signing In:** Requires users to enter their password twice in order to successfully sign in.

• **No Authentication for Auto-Notifications:** Allows email notifications to be sent without prompting the user sign-in authentication dialog.

### Disable Terminal Features for All Users

• **Disable Terminal Equipment Grid:** Prevents any user from seeing the main list of Equipment from the Terminal dialog.

• **Disable Check In/Out Dialog:** Prevents the use of the Check In/Out dialog when Terminal mode is activated.

• **Disable Status Change Dialog:** Prevents use of the Status Change dialog when Terminal mode is activated.

• **Disable Asset Transfer Dialog:** Either disable the Asset Transfer dialog completely or disable one or more of the fields that can be edited.

### Inactivity Exit

For security purposes, adjust how many minutes pass before Calibration Control prompts a user to sign-in again.
Email Tab

Use the fields in the Email tab to setup a connection to your company or personal email server. Ape software makes use of these settings in the Auto Notify feature that automatically sends Email notifications or messages to People identified in the application.

- **SMTP Server**: An SMTP server address usually looks something like SMTP.YOURDOMAIN.COM.
- **Email/Password**: This is the email address (or user name) and password of the email account Ape will be sending mail from.
- **Port**: Leave this at zero (0) unless you know it should be a different number.
- **Use Secure Connection**: If an SMTP server requires a secure connection, check this box.
- **Disable CSS in Emails**: The default Email templates use embedded cascading style sheets (CSS) to format text with colors, backgrounds, decorations, etc., especially in the table of Equipment. If the email services you send emails to blocks some CSS, like Gmail, check this box to get a list of some minimal coloring back into the Equipment grid.
- **Send Test Email to**: Solely for the purpose of testing your email settings, enter an email address to send a test message to.
The Four Folders of Ape Software Applications

Each of the folders (Data, Files, Settings, & Web) is accessible from the File drop-down menu in Calibration Control (our Calibration Management Software).

What They Do

The DATA Folder is the location where the access database (when using MS Access) resides. Visit the Move Database Folder help topic for steps on how to move the Data Folder to a new location.

The FILES Folder stores the Attachments folder and the Labels, Reports, and Emails template folders.

The SETTINGS Folder stores the program settings that Ape Software requires to function normally. This is the only File Folder that cannot be moved from its original location and every user must have read/write access.

The WEB Folder is the target location for publishing the reporting web pages.
Settings Folder

The Settings folder is the only folder that cannot be moved. The location of the Settings Folder is:

**Windows 7 & Higher:** C:\Users\Public\Documents\Ape Software\Calibration Control

Although all Folders share the same default location as the Settings folder when the software is first installed, the other three Folders can be moved to different locations on the computer or local network for sharing and backup purposes. The location of the Files folder can be configured in program Options.
Last Updated: 26 June 2019
Change Field Names

Change the Text of Field Labels

Rename any field of Calibration Control (our Calibration Management Software) dialogs or forms for better usability.

Edit Form Labels

From Options (located in the Utilities or File tabs) navigate to Admin and select the [Edit Form Labels] button.

From the Edit Forms Labels dialog (shown above), use the 'Select Dialog' drop-down to select which dialog screen to modify. In the example below, selecting Company will display all fields within the Company dialog.
Edit Fields and Labels

After finding the label to modify, manually edit the Control Text (what the field says), Updated By (who modified it), and Record Updated (when it was modified).

Change the 'Help Tip' field to edit the text shown while the cursor hovers over the control. (Note: Not all controls have the ability to display 'Help Tip' text, like column headers in data grids.)
Reset Changes

If a mistake is made, set all the values back to default by clicking the [Reset THIS Dialog to Default] for the single dialog displayed, or by clicking [Reset ALL Dialogs to Default] for all dialogs. Additionally, double-click on any single record and right-click to select the [Reset THIS Record] option.

Modifications of Form Labels are highlighted green to show the custom changes.

![Edit Forms Labels](image1.png)

Custom Fields

The Custom Tabs in dialogs are very useful. Rename these available fields with the same steps.

For example, here is the default Custom Fields tab in the PersonEdit dialog:
And after renaming the Custom fields, it could display as shown below:

Last Updated: 26 June 2019
THUM Temperature and Humidity Device

Automatically Record Temperature and Humidity

Calibration Control (our Calibration Management Software) is compatible with the Temperature and Humidity USB Monitor (THUM) sold by Practical Design Group. With a THUM device plugged in and set up on a computer, Ape can automatically retrieve temperature and humidity data for calibration events.

Setup

Follow these instructions to integrate the THUM with Calibration Control:

1. **Setup THUM**: Follow the setup instructions that arrive with the THUM device.
2. **Move THUM Database**: The default location of the THUM database (thum.mdb) is in the Program Files folder. This will only work if the signed in user has read/write access to the Program Files folder. Therefore, always move the database out of the Program Files folder to a location where everyone has read/write access, like the **CC Settings folder**.
   a. Move the THUM database by opening the THUM application and selecting ‘Show Options’ from the Options drop-down menu.
   b. Update the ‘Database location’ field to reflect the new location, like the **CC Settings folder**.
3. **Tell Ape Where THUM Is**: Open the Folders tab of the Options dialog in Calibration Control and click the Edit link in the ‘Location of THUM . . .' field. Navigate to the same location as above.
4. **Test Setup**: Test the setup by creating a new Calibration Event record (Calibrations tab of Equipment Edit dialog) and confirming that the Temp and Humidity fields are automatically populated.
Troubleshooting

- **Insufficient Permissions**: Attempt to start the THUM Monitor software and it reports that the current user has insufficient permissions to make changes. Resolve this by running the THUM monitor as an Administrator. Do this by right-clicking on the THUM icon and selecting "Run as Administrator".

- **THUM Service Will Not Start**: If the THUM service cannot be started from the THUM Monitor, one or more of the following steps should fix the problem. For a complete reset, follow each step:
  1. **Close THUM Monitor**: Resets the software.
  2. **Delete THUM Database**: Delete the "thum.mdb" file that the THUM Monitor is pointed to. Ensure this is not the database in the Program Files folders, which should not be used for live data. Deleting the database resets the database file to ensure no corruption and that (thum.mdb) is in the proper version format for the THUM service. Therefore, when opening the "thum.mdb" file with MS Access, do not allow Access to convert the "thum.mdb" file to a newer version of MS Access.
  3. **Reset THUM Device**: Ensure the electronic THUM device itself is reset by
unplugging it from the computer for at least 5 seconds and plugging it back in.

4. **Restart THUM Monitor:** Remember to start the THUM Monitor with Administrator Privileges, if necessary.

- **Still Need Help?** Contact us if the above steps do not work and we can do a screen share together.

**Last Updated:** 9 July 2019
Measurements in Metric or Imperial

Display Metric or Imperial as Default Measurement Units

Use the Options dialog to change the default measurement system to either Metric or Imperial (US) units in Calibration Control (our Calibration Management Software).

Find the 'Options' dialog in the File tab to the far left of the ribbon menu.

Within the 'General' tab of the Program Options dialog select either 'Metric' or 'US' as the default measurement system from the drop down menu.
Security Methods - How They Work

Database Security

When using a MS SQL Server database in Calibration Control (our Calibration Management Software), the built-in SQL Server and Windows authentication will keep the database protected. Otherwise, when using MS Access the database file (apecal.mdb) must use a database password. The default MS Access database files that come with Ape Software versions 7.2.5 and higher have password encryption by default. When upgrading from a previous version and using MS Access, make sure to manually set the password for the database.

Activating User-Authentication (Sign-In Mode)

Any user can activate User-Authentication mode after ensuring at least one active User has Admin privileges. Only a User with Admin privileges can deactivate User-Authentication.

What Can an Administrator Do?

Administrators have full access to all parts of the application that require any level of security. An Admin can create Users and change the privileges of any other User, including other Admins.

What Can't an Administrator Do?

Administrators cannot remove themselves from being an Admin while User-Authentication mode is activated; one Admin must remove the Admin privileges of another. This is a safety feature to ensure there is at least one Admin while the application is in User-Authentication mode.

Administrators and Passwords

When an Administrator creates or changes the password for any User other than themselves, that User will be required to change their password the next time they sign in. Use the Password Security Dialog page for help in implementing and adjusting Password Security methods.
Pre-Defined Roles

There are six pre-defined security roles, which are: Administrator, Super User, Supervisor, Technician, Production, and Layout. Although these Roles cannot be changed, Admins and Super Users can change which Role has access to which Permission.

Hierarchy of Roles

A User with no Roles assigned can see, print, and export any information within the database. Each of the other Roles has the privileges of a User with no Role in addition to:

- **Administrator**: Can do anything that requires security.
  - **Super User**: Can do anything an Administrator can do except add or edit Users.
  - **Supervisor**: Same authority as Technician and Production, can also edit Technician Name and Status of calibration records, and can remove relationships between Equipment and Jobs.
    - **Technician**: Can create and edit equipment records. Cannot edit the Technician Name (added automatically) or the Status of calibration records.
    - **Production**: Can add Job records that record which equipment is used on which job. Cannot remove Job records.
  - **Layout**: Has the authority to make most application layout changes relating to the look and feel of the database.
Permissions

There are pre-defined Permissions for specific areas of the application that require a given level of security. Although each Permission has a default minimum Role, Administrators can change the Role of any of the Permissions.

Change Management (Audit Log)

All field and label changes are tracked in the 'Change Log' grid found in the Data Grids tab of the ribbon menu. It records time and date, user (if User-Authentication mode is activated), the screen where the changes were made, machine (computer) name, and the detail of the change. The change detail includes field names and before/after data.

Last Updated: 9 July 2019
Sign-In Mode (Enabling Authentication)

Set up and Turn on User Authentication

In Calibration Control (our Calibration Management Software), the process requires two general steps, which are (a) adding an Admin User and (b) clicking a button to turn on user authentication (signing in).

Creating an Admin User

Select the Users icon under the Utilities tab in the ribbon menu and create a new User record by double-clicking in the gray area or right-click for the context menu and choose [New Record].

General Tab

The only required fields are 'User Name' and 'Password'. When creating a password using this dialog, if the user is not signed in or is not editing their own user information, the password entered becomes temporary and the user (represented by the User record) must choose a different password the next time they sign in.

If a Person record already exists for this User, select that record in the Person field. By default, the Status is set to Active and must remain so for the user to have the ability to sign in.

The Language option has a drop-down menu where a user can specify which language they want their software to be in when they sign in. The language selection is unique to each user.

A Windows User name can be used instead of an Ape Software specific username and password in order to streamline the user experience and to cut down on password clutter. To use this feature, enable the Windows User option by checking the 'Sign In with Windows User Name' box in the Security tab of the Options dialog.
Roles/Security Tab

In the Roles/Security tab (see below), select the Administrator checkbox to assign Admin privileges for this User.
Activity Data Tab

None of the fields are editable in the Activity Data tab. This tab shows past modifications for better user accountability.
Turning On User Authentication

After creating at least one user with an Administrator role, open the Options dialog by selecting the Options icon in the Utilities tab of the ribbon menu and selecting the Security tab (see below).

Click the [Activate Sign-In Mode] button to enable authentication. Note: at least one active Admin must exist for this function to work.

Last Updated: 9 July 2019
Password Security

Using the Password Security Dialog

Find the Password Security dialog by clicking on 'Options' under the File tab to the far left of the ribbon menu. Within the Program Options dialog, click on the Security tab and select [Password Security].

Use the Password Security dialog to set expiration times, password strength, and naming rules. A default value of zero (0) means that a setting is not active.
Maximum Settings
Set the maximum limits for password usage:

- **Days Before Expiration**: Number of days before a User's Password expires and must be changed.
- **Unused Days Before Expiration**: Number of days a User can go without signing in before their Password expires and must be changed.
- **Invalid Password Attempts**: Number of times an incorrect Password can be entered for a given User before that User is locked out. Entering a correct Password for the same User sets the number of incorrect password attempts for that user back to zero (0).

Minimum Characters
Minimum Character password rules are enforced when a User creates a new password after signing in with a temporary password. The password assigned by an Administrator in a User dialog is temporary and is not subject to these rules.

- **Upper Case**: Minimum number of Upper Case characters required in a Password.
- **Lower Case**: Minimum number of Lower Case characters required in a Password.
- **Special (e.g., ~@#$%)**: Minimum number of Special Characters required in a Password.
- **Length**: Minimum character length required for a Password.

Check Settings
Additional safety settings for passwords.

- **Different From Temp**: When checked, Passwords cannot be the same as a Temporary Password set by an Administrator.
- **Cannot Contain User Names**: When checked, Passwords cannot contain the First,
Last, or User name of a registered User.

Reset Login by Admin

When a User is locked out due to invalid password attempts, an Administrator can reset the User Login information from the Roles/Security tab of the ‘Edit User’ dialog.

![Edit User dialog](image)

- **Roles**
  - [ ] **Administrator (can do anything)**
  - [ ] **Super User (edit anything but other users)**
    - [X] **Supervisor (can approve calibrations)**
    - [ ] **Technician (can create calibration records)**
    - [ ] **Production (can record jobs)**
    - [ ] **Layouts (can change layouts)**

  **Note:** All authenticated users have read access.

- **Security**
  - Failed Attempts: __0__
  - Locked Out: 03/18/2019
  - [ ] Is Locked Out

[Reset Login]

**Last Updated:** 8 June 2019
Database Password Encryption

Encrypting an MS Access Database with a Password

Part of the data security within Calibration Control (our Calibration Management Software) includes the password encryption of MS Access databases. This meets the standards of the FDA's 21 CFR Part 11 requirements.

The instructions for setting up a password on an MS Access database are different depending on the version of MS Access being used. Here is a search that should help you find those instructions: setting a password for an MS access database

If you do not have MS Access installed on your computer, send Ape a copy of your apecal.mdb database and the desired password. We will encrypt the database for you and send it back via email.

Last Updated: 25 June 2019
Change Permissions or Reset Roles

Change the Roles Required for Any Permission

First, find the Program Options dialog by clicking on the File icon in the top-left corner of Calibration Control (our Calibration Management Software) and clicking on Options, or find the Options icon in the Utilities tab of the ribbon menu. Next, navigate to the Security tab and click on [Edit Permissions].

Currently there are over 200 different Permissions and more are added with each new feature that requires access control. All Permissions can be viewed with the 'Name' combo box in the Permissions dialog (below). For example, the Permission 'AttachmentAdd' would represent the 'Permission to Add Attachments'. In the reference below, anyone with a Technician role or higher has Permission to Add Attachments.
Reset Options

There are also two reset options, one for the *current* Permission and one for *all* Permissions.

**Last Updated:** 8 July 2019
Audit Changes Made in Calibration Control

The Change Log grid shows a complete list of all the changes made within the program, including time, date, user, and technical information. Find this feature in the Data Grids tab of the ribbon menu.

Determine how many records are shown using the combo box on the left-hand side and search for a specific record using the search bar on the right-hand side. Filter options are the same as other grids, and can be found in the row under the column headers. Each column has a default search option of "Contains", and hover the cursor over the row to reveal a drop-down box and the clear filter button.

Columns of the Change Log Grid

- **Change Time**: Date and time that the change took place.
- **User**: When sign-in mode is enabled, this will show the name of the user who made the change.
- **Person**: The full name of the User profile who made the change.
- **Dialog**: The dialog box in which the change occurred.
- **Computer**: Which computer the change was made on.
- **Change Detail**: An auto-generated description of the change that was made in the database.

*Last Updated*: 25 June 2019
FDA 21 CFR Part 11 Compliance

FDA Software Compliance

Ape Software's calibration management software (Calibration Control) complies with FDA 21 CFR Part 11 Rule on electronic records and signatures by containing the following functionality:

Authentication at User Level

Calibration Control has the ability to individually authenticate each user for the purpose of audit trails and electronic signatures.

File Integrity

The default MS Access back-end database is secured through password encryption, which includes tamper detection. If an MS SQL Server is used as the back-end database, instead of MS Access, the necessary security features are already part of SQL Server.

Change Management (Audit Trails)

All user activities (e.g., record changes & calibrations) are automatically recorded in the Change Log to provide an audit trail.

Electronic Signatures

Re-entry of password required upon electronically signing (approving) Calibration Event (optional). Also, inherent in the Change Log, all user activity relating to equipment maintenance and calibration is recorded (electronically signed).

Password Strength

Ability to define the strength required for passwords including numbers of upper, lower, number, and special characters. Ability to define expiration intervals and other features.

Inactivity Settings

Ability to define the number of inactivity minutes in a usage session before the application times out and users are required to sign in again.
Sessions

See who is Using Calibration Control

See which users or machines (i.e., computers) are currently using or have used the software. Time and date stamps show when the software was used (start and end times) and also shows if the session was interrupted due to network problems. Find the Sessions grid in the Utilities tab of the ribbon menu.

Sessions Grid & Dialog

The Sessions grid shows a READ-ONLY log of sessions and displays the following fields:

- **Machine**: Shows the name of the machine (computer) the session was conducted from.
- **User**: Displays the name of the User (e.g., Admin) of the Session. A blank 'User Name' field indicates that the Session was conducted while User Authentication was disabled (i.e., Machine Authentication).
- **Person**: Displays the name of the person from the Person table record linked to the User record at the time of the Session. If this field is blank while the User Name field is not, it means that the User record was not linked to a Person record.
- **Session Start**: When the user signed in to the software.
- **Session End**: When the user signed out of the software. If this field is blank the session is still active or was interrupted (e.g., network interrupted). When the user for an interrupted session signs in again, the previous session with a blank 'Session End' field will automatically close (receive a date and time) and the 'Interrupted' checkbox will be ticked to indicate an ungraceful exit.
- **Interrupted**: This box is checked when the session was ended ungracefully (e.g., software not shut down normally or network interrupted).
- **Session Bumped checkbox**: Check this box to terminate a session for the selected user. This is helpful when the user count exceeds the software license agreement and is preventing registered users from using the software.
View All or Current Sessions

Toggle between viewing All or Current sessions by right-clicking in the grid for the context menu and selecting 'All Sessions' or 'Current Sessions'. Sort the sessions grid using the filter row to easily find the record you are looking for.

Last Updated: 9 July 2019
Machines Grid

Control Computer Access in the Machines Grid

The Machines grid shows a list of all the machines (computers) that connect to the Calibration Control database and the number of times they have connected. Find the Machines grid icon under the Utilities tab of the ribbon menu.

The Machines dialog contains a name field which is auto-populated by the software when a machine (i.e., computer) user is signed in, a space for notes to be added, and an 'Is Blocked' checkbox. The only fields that can change in the Edit dialog are the 'Is Blocked' checkbox and the Notes field. Only check the 'Is Blocked' checkbox if you need to remove a machine from the license count by blocking that machine from using the software.

The Meta Tab displays the meta-data pertaining to the selected record and IS A READ-ONLY INFORMATION tab showing the date and time the record was created, the user that created it (if they are signed in), as well as the most recent date and time the record was updated, and the machine that made the change (if no user is signed in).

Last Updated: 26 June 2019
Licensing and Authentication

Ape Software applications can be used in "Machine" or "User Authentication" modes. The default mode is Machine (no sign-in) although User Authentication (sign-in) can be enabled for additional security controls and more accurate change records (e.g., who changed what and when).

Users can only have one active session at a time.

**Machine Authentication (default)**

Machine Authentication means that User Authentication (sign-in mode) is not enabled. Therefore, the license count is managed by the names of the individual computers (i.e., machines) that connect to the database. This is the default method of authentication.

**User (Machine Perspective)**

When using Machine Authentication all users who connect to the database have full access, so everyone (each machine) is considered a user for the purposes of license use.

**Per Seat Licensing**

With a Per Seat license and User Authentication not enabled, the number of machines that connect to the database cannot exceed the license count.

For example, with a 2-user license no more than two unique machines can connect to the database.

**Concurrent (at the same time) Licensing**

With a Concurrent license, and User Authentication not enabled, the number of machines that connect to the database at the same time cannot exceed the license count.

For example, with a 2-user concurrent license, unlimited machines can connect to the database, but no more than two of them at one time.

**User Authentication**

User Authentication means that at least one User was created, at least one of those Users was given Administrator-level access, and User Authentication is enabled. In this scenario, license count is managed by the number of Users created within the software who have some level of write access within the software (e.g., Technician, Supervisor, or Administrator).
User (Authenticated)

When User Authentication is enabled only users that have any level of write access (i.e., have a role checked in their User record) count as a user for the purposes of license use.

Per Seat Licensing

With a Per Seat license, and User Authentication is enabled, the number of authenticated users that connect to the database cannot exceed the license count.

For example, with a 2-user license there should be no more than two authenticated users (listed in the "Users" grid) that have a role defined.

Concurrent (at the same time) Licensing

With a Concurrent license and when User Authentication is enabled, the number of authenticated users who connect to the database at the same time cannot exceed the license count.

For example, with a 2-user concurrent license any number of authenticated users can exist in the User Grid but no more than two of those users can connect at the same time.
Backup and Restore Database

Keep Data Safe by Regularly Backing Up

Backing up the Calibration Control (our Calibration Management Software) database on a weekly or even daily basis is a foolproof way to keep from losing data by accidental deletion or network/computer malfunction.

There are several solutions to keeping data safe while using MS Access, MS SQL Server, or even if the database is kept on the same computer.

Multiple Physical Locations Rule

Always ensure that the backup location is a different physical hard [disk] drive (HDD) location from the original file(s). The farther apart geographically those locations, the better.

Backup Options

When installing Ape software, the default location for the MS Access database file is on the same computer where the software is installed. See the help topic on finding your database to find the specific location. In this situation, if the HDD crashes then all data will be lost. Therefore, a good plan is to store the backup data on a data storage device separate from the computer (e.g., external HDD and/or cloud service).

If using the SQL Server version of Ape software, the location of the database (an MDF file) is controlled by the SQL Server and is incrementally backed up to an LDF file. Depending on the selected choices during installation or migration (from MS Access to MS SQL Server), the database could be on the same computer or it could be somewhere on one of the servers in the network.

Whether using Access or SQL Server, there are two primary backup options:

1. Use your own backup routine to back up the database and other important files to a remote location. The remote location is an external storage device (e.g., HDD or key) or a network location other than the current computer.
2. Use the following backup routine to safeguard data.

MS Access Backup Utility

Use the Ape software database backup utility to create backup copies of the database. Find the [Backup Database] and [Restore Database] icons in the Utilities tab of the ribbon menu.

To use, select a file name for the backup; something like a date code and 'calibration_backup' work well. Next, select the location or file path to back up to and then click the [Backup] button. Remember to choose an HDD location other than the HDD where the live database is stored.
A success message is displayed if the backup operation was successful.

Restoring a Database

**Warning:** Restoring a database completely overwrites the current data. Make a dated backup of the current database contents before restoring a previous version of the database.

1. First, close all open screens.
2. From within Ape software, click the Restore Database option in the Utilities tab.
3. Click [Browse] from within the Restore Database dialog to navigate and select the backed up database ready to be restored.
4. Click the [Restore] button. Pay attention to the warning dialogs.
5. When finished, click the [Close] button on the Restore Database dialog.
If any data screens have been left open, refresh or close and reopen to see the restored data.

**Last Updated:** 24 June 2019
Locating Database File (MS Access)

Find the Database and Configuration Files

By default, the apecal.mdb database is stored in the Settings Folder unless the database was moved to another location, like a network folder. The default Data & Settings Folders is different for different versions of Calibration Control (our Calibration Management Software) and different operation systems. Refer to the Folders Help Topic for an overview of the ones used by Ape Database Software.

Method 1 - Version 5.5 and Higher

This is the best method to find the database if the application can be opened.

The easiest way to find the Data Folder in versions 5.5 and higher is to select the Open Data Folder Option from the File dropdown menu.

Otherwise, the default Data Folder is located at:

C:\Users\Public\Documents\Ape Software\Calibration Control

Method 2 - Version 8.0 and Higher

This is the best method to find the database if the application cannot be opened.

Versions 8.0.4 and higher automatically create a Connection Log file (connectionlog_.csv) found in the Settings Folder (see section above). The Connection Log can be read with a spreadsheet program, like MS Excel. This file logs each of the connections to the database (e.g., path). A blank path statement in the connection log means
that the database was located in the default location (i.e., Settings Folder).

Method 3 - General Config File

If the apecal.mdb file is not located in the folders described above, the path to the database can be found inside the general.config file located in the Settings folder. After finding the general.config file, open it either by double-clicking or using a common text editor like Notepad.

```
<?xml version="1.0" encoding="utf-8"?>
<configuration>
  <global>
    <!-- Configuration settings go here -->
  </global>
</configuration>
```

Last Updated: 26 June 2019
Inspector Initials Conversion Utility

Convert Old Inspector Initials to Person Record

In the Calibrations dialog the 'Inspector Initials' text field was replaced by a Technician combo box, which is now a People field. You can convert old Inspector Initials records to fit the Technician field using the Inspector Initials utility.

Menu

Display the Inspector Initials screen by clicking Inspector Initials in the Utilities tab of the ribbon menu.

Grid

The Inspector Initials screen can be filtered just like the other Calibration Control screens. Right-click in the Inspector Initials screen to view the Record options popup menu.
Convert

Use the Update Inspector Initials dialog to convert all the old names (Inspector Initials) to an existing Person record. Once converted, the people identified by the old Inspector Initials will be visible again in the historical Calibration records.

Last Updated: 26 June 2019
Simple Troubleshooting

Fix Most Setup or Configuration Problems

Most configuration or setup problems encountered while using Calibration Control (our Calibration Management Software) can be resolved or isolated using the following steps.

1. **Version:** Confirm that the most current version is installed: Download Ape Software.
2. **Reset 1:** Try a level-one reset by clicking the [Restore Defaults] button at the bottom left corner of the Options dialog.

   ![Program Options](image)

3. **Reset 2:** Try a level-two reset by closing Ape Software and deleting these files in the Settings folder: 'general.config' file and 'layout' folder. The Settings Folder is at:
   - In Win Vista/7 = C:\Users\Public\Documents\Ape Software\Calibration Control
   - In Win XP = C:\Documents and Settings\All Users\Documents\Ape Software\Calibration Control

   **Note:** The database location is defined in the general.config file. Therefore, if the general.config file is deleted, but an 'apecal.mdb' file is still in the Settings Folder, which
is the default location for the Data Folder, then the application will automatically connect to that database (i.e., apecal.mdb). If the apecal.mdb file does not exist in the Settings folder, the [Choose Database Format] dialog will appear. Follow the prompts of the dialog to re-connect to the database.

4. Isolate Access Database: Assuming none of the above measures resolve the problem, this step will help identify if there is a problem with the database.
   a. Open the Data folder from the File menu and then close Calibration Control. Unless its location has been changed, the Data folder is the same location as the Settings folder (above).
   b. Rename the 'apecal.mdb' file to something else like '_apecal.mdb'. This will make Ape recreate a new default database in the Data folder.
   c. Restart Ape and when the dialog below appears, select the [MS Access] button to create a new calibration database.
   d. If the problem is resolved in the sample database, then zip your '_apecal.mdb' file (your database) and the 'errorlog.html' and email these files to service@apesoftware.com. Be sure to describe what you are experiencing.
   e. If the problem continues to occur with the sample database, contact Ape Software for assistance.
Problem Steps Recorder

If using an edition of Windows 7 or higher, use the built-in Problem Steps Recorder to record the steps you are taking to reproduce the error. Contact Ape Software at service@apesoftware.com with the following information, or as much of it as possible:

- a. Description of what you are doing that leads to the issue you are trying to communicate. Be as straight-forward/literal/simple as possible.
- b. Problem Steps Record File (see above), if possible (file has an *.mht extension)
- c. The 'errorlog.html' file from the Settings folder
- d. The 'general.config' file from the Settings folder
- e. The 'apecal.mdb' file from the Data folder
- f. Zip the above files into a single file/folder if you know how

Last Updated: 9 July 2019
Find Lost Records in Equipment Grid

Troubleshooting Missing Records

The two most common things that make it look like some or all of your records are missing in Calibration Control (our Calibration Management Software) are (a) un-cleared filters in the filter row or (b) records with hidden status codes.

Clearing the Filter Row

The row at the top of the grid that looks blank is actually a filter row. Learn more about the filter row by checking out the filter row help topic. A single column can be cleared by clicking on the clear filter button (funnel with a line through it) within that column. Clear all of the filters in the row by clicking on the far left clear filter button.

NOTE: If the phrase 'FILTERED Records' is displayed in the grid header, then not all of the fields have been cleared.
Showing Hidden Records

Some of the records may be hidden because they are assigned a status code with a ‘Hide these records in the Browse Table’ attribute set to true. Learn more about hiding and showing records with certain Status Codes by reading the Hiding Equipment Records by Status Code help topic. Just right-click in the Browse Grid and toggle the Show Hidden Records option.

Last Updated: 26 June 2019
Troubleshooting Duplicate Key Values

In MS Access or Calibration Control (when using MS Access) sometimes attempting to create a new record results in an 'Insert Unsuccessful' error message because the key value already exists in the database.

There are three possible causes for this error. In order of likelihood, the possibilities are:

Possibility 1: Record Exists and Is Hidden

This possibility applies to Equipment records only. There might be a record with the same Equipment ID that has already been created in the database, but is 'hidden' from the main grid view. First, make sure all of the Equipment records are being displayed by right-clicking in the Equipment grid for the context menu and ensuring the 'All Equipment - Show Hidden' option is selected. Then use the filter row at the top of the grid to search for the record and change its Serial Number.
Possibility 2: Record Exists and Is Filtered Out

It is possible that a filter exists and is hiding a record with the same key value that you are trying to use. Enable the filter row by right-clicking in the grid for the context menu and checking the Filter Row option. Then click on the filter icon to the far left of the filter row which clears ALL of the enabled filters.
Possibility 3: MS Access Auto Number Error

The third possibility relates to the AutoNumber field in an MS Access table losing count of which number is next. For example, the AutoNumber field value for each row in a table with 100 records (none ever deleted) will be 1 through 100. So when record 101 is added the AutoNumber field should add the number 101.

The problem occurs when the AutoNumber field chooses a number that already exists (e.g., 95) thereby prompting the 'Insert Unsuccessful' error. AutoNumber fields always have a 'No Duplicate' setting. Additionally, this problem only seems to occur when the AutoNumber field is not the Primary Key, as demonstrated in the following image:

Although Calibration Control users have only reported this problem when creating new Equipment records (one table), there are five tables in 7.x versions and earlier of Calibration Control that are susceptible. These tables are:

- tblEquipmentMaster (Equipment Records)
- tblDepartmentCodes (Departments)
- tblJobEquipment (Jobs Related to Equipment)
- tblLocationCodes (Locations)
- tblStatusCodes (Status Codes)

To solve this problem, contact Ape Software and we will fix it for you at no charge. Otherwise,
close Calibration Control and use MS Access to open the suspect table in Design Mode and move the Primary Key to the AutoNumber table.

If you cannot move the primary key, you may need to delete associated relationships first. Do this by closing the table in question and opening the Relationships tool in the MS Access Database Tools menu (2007 and higher). After the relationships are displayed, ensure all relationships are visible by clicking the All Relationships button in the menu. Delete any relationships that link to the AutoNumber field of the table in question and then retry the previous step.

For additional information on this MS problem, take a look at Garry Robinson's post for The AutoNumber "goes crazy" fix.

**Last Updated:** 26 June 2019
Lost or Invalid Product Key / Lost All Records

Troubleshoot an Invalid Product Key or Lost Records

In Calibration Control (our Calibration Management Software), if it looks like some records are lost or that a product key is absent or no longer valid, the most common scenario is that there are multiple databases on your computer and you are currently connected to a new blank database. Therefore, the solution is to redirect Ape software back to the master database.

How It Happens

Network Database: The database has been moved to a common network location for multiple users, safety, security, and/or ease of backup.

Database Not Available: When launching Calibration Control, the software attempts to connect to the network database, but the network is down, paths are remapped, or permissions are changed. When the following dialog is prompted, you might quickly hit the [Enter] key to get past it, thereby unknowingly creating a new blank database in the default location on your computer's (C:) drive.

How to Fix It

Follow the instructions under the 'Add Additional Users' section of the Creating a Multi-User Environment help topic.
Related Help Topics

- Locating a Database File (MS Access)
- Creating a Multi-User Environment

Last Updated: 8 July 2019
Troubleshoot Calibration Control Not Working

Why Did Calibration Control Stop Working?

There are a few reasons why Calibration Control would stop working. Use these troubleshooting tips to resolve the problem. If these steps do not work, give us a call to set up a screen share.

Missing Database Drivers

The most common problem that would cause CC to stop working is that the database drivers are not up to date or were deleted by another program. Download the most current MS drivers here, and see if that resolves the issue. The reason the software may work for a while and then stop is that sometimes the installation of other versions of MS Office will remove these drivers and they will need to be re-installed.

Missing .NET Drivers

If installing the database drivers does not work, try installing the .NET drivers.

Server is waiting for a Response

The server might require a response relating to the database locking file (*.ldb). See if there are any messages on your server that need to be dismissed.

It's Something Else

If installing the drivers does not work, send us an email and attach the following files from this folder (C:\Users\Public\Documents\Ape Software\Calibration Control) on your computer:

- connectionlog*.csv
- errorlog*.html
- general.config

If you can, zip up a copy of your database and add it to these files.

Last Updated: 10 July 2019
Troubleshoot Database Location

Why Am I Seeing the "Choose Database Type" Dialog?

When Calibration Control starts up, it looks in the Settings Folder to find the "general.config" file which tells CC where the database is located. If that file is missing, has been moved, or has been renamed CC prompts the "Choose Database Format" dialog. To navigate to the misplaced database, choose the "BROWSE to Existing Database" option and click [Continue].

In order to browse to the existing database you must first know where the database has been moved to. This is a question that Ape Software does not know, but once the existing database has been located by you then the Calibration Control software will remember the current location.

Last Known Location of Database

When the location of the database is unknown, check the Connection Log which is located in the Settings Folder [C:\Users\Public\Documents\Ape Software\Calibration Control].
Within the Connection Log Excel document, locate the most recent date and its database path will show a network location of where the database used to be. This may give some insight into where the new database location would be.

To reset Calibration Control to factory default, delete the "general.config" file and restart Calibration Control.

Last Updated: 10 July 2019
No Label File Error

Label File Could Not Be Loaded

When attempting to print a label in Calibration Control (our Calibration Management Software), the following dialog will display when (a) there is a problem with the label drivers, (b) printer, or (c) the label file is missing.

![No Label File Error](image)

This situation most often occurs after a change in computer settings, such as (a) new computers, (b) wiping hard drives and reinstalling the OS, (c) cleaning after a virus, and (d) installing or uninstalling other software.

The main issue is that the printer drivers are not reinstalled or not installed properly, as was previously accomplished.

Label Printer Drivers

Download and install the Brother label printer drivers for your model. When using a label printer connected to the network (rather than a computer) or a label printer is connected to another computer, you will need to manually add the label printer to the Windows Devices and Printers.

P-touch Editor Software

If you can see your label printer enabled in the Windows Devices and Printers but are still unable to print labels, try installing the free Brother P-touch Editor Software.

If this still does not resolve the problem, contact Ape Software for assistance.

Last Updated: 27 June 2019
Troubleshoot SQL Server Connection

For Use with Ape Software Databases

**WARNING:** Ape Software applications can only connect to databases created by and specifically for the given Ape Software application. Blank databases, databases created by non-Ape professionals, and modified Ape Software databases will not connect or not connect properly. Also, SQL Server databases created by migrating an existing MS Access database will also not work and often have severe functional issues sometimes not immediately visible.

Universal Data Link (UDL) File

Use a UDL file to create a direct connection to a SQL Server database with as few other variables as possible, like connecting through other software. This helps to simplify and focus the troubleshooting process on the most likely failure points (e.g., SQL Server configuration or network permissions).

A UDL file is simply a text file with a .udl extension. Therefore, creating a UDL file is as simple as creating a new text file and changing its extension to UDL.

Create a UDL File

Create a UDL file by (1) right-clicking in a folder or desktop, (2) selecting 'New', (3) selecting 'Text Document', and then (4) creating a text file with a .udl extension (e.g., MyTestFile.udl).
Note: If a warning appears related to making the file unusable by changing its extensions, ignore the warning.

Data Link Properties

Double-click on the new UDL file and the following Data Link Properties dialog appears.

Provider Tab

Select the appropriate SQL Server Provider.
Connection

In the Connection tab . . .

1. Enter the fully qualified SQL Server name.
2. Select the authentication method (i.e., Windows or {1st choice} or SQL Server {2nd choice}) and enter the appropriate user name and password, if SQL authentication is used.
3. Select the database. By default, this is apecal but must match whatever name is actually used on the SQL Server.
4. Click the [Test Connection] button.
If the above test fails, then work with your organization's Database Administrator (DBA) to resolve the connection before attempting to use the Ape Software application. If using SQL Server authentication, the **User Security** section of the *Add Ape Database to SQL Server* help topic is often useful.

Otherwise, if the above process leads to a 'Test connection succeeded' dialog and the Ape Software application cannot connect to the SQL Server, contact Ape Software to continue troubleshooting the connection.

**Last Updated:** 9 July 2019
SMTP Test Procedure

Introduction

If you are having difficulty getting the Test Email Settings to work, this test procedure will determine whether or not you have access to your SMTP server and help to identify the problem.

Network firewalls or antivirus software sometimes block email traffic preventing you from accessing the mail server, which is required in order for the Auto Notification utility to function.

This procedure should only be used if you are getting a system error or timeout message.

If you are getting an authentication error, the problem is probably due to an invalid username/password or unknown source.
Procedure

Verify Domain:

To begin, open a Command Prompt Window. Click on the Start menu from your computer's desktop and type “CMD” in the run or search box. In Windows 10, right click on the Window (start) icon and click "Command Prompt".

Then type in “nslookup” and insert your SMTP server address, like the example below for Gmail:
After pressing "Enter" you should see a result similar to the one below. This will verify that your SMTP server address is valid.

Adding TELNET:

Once you have verified the domain, we can try to connect to the SMTP server. This requires the use of TELNET.

You will probably need to add TELNET since this function is not available by default.

To add this feature, open up your Control Panel and select “Programs and Features”. In Windows 10, click on the Start button then click on the gear icon to get to settings. In the search bar type “turn Windows features on or off”. Within the Windows Features dialog, check the box next to "Telnet Client" and click OK to save the change.
Connect to SMTP server:

Now go back to the Command Prompt window and type the following:

telnet "SMTP server address" "port"

If you are able to connect, you should see a result similar to the one below:
If the result says "Connect Failed", you do not have a connection to your SMTP server using that port.

Reasons for this include:

- The email server is not functioning
- The traffic is being blocked by network security

**Last Updated:** 9 July 2019
Update Access Database to Current Version

Fixing Access Database If Update Has Frozen

This help topic pertains only to installations of Calibration Control (our Calibration Management Software) that use MS Access as their database (vs. MS SQL Server). This topic is also especially applicable to large database updates like version 7.3 and 8.0.

After installing a new version of the MS Access Database (apecal.mdb), it may require an update. Ape Software will usually update the database automatically when running a new version of the software for the first time.

In some situations (e.g., database on remote server of slow network, slow client computer, and/or very large database), the update process will proceed slowly and may appear to have frozen. In situations where it appears to have frozen, the best action is to leave it alone (do not cancel) because it is most likely that only the update dialog has frozen although the update process continues.

If an update is stopped before finishing completely, do the following:

1. Ensure you are familiar with the folders used by MS Access.
2. Open the Data folder and rename the apecal.mdb database (e.g., old-apecal.mdb).
3. In the Data folder (same folder) find the most recent file that looks similar to 'apecal-
auto-backup-634863253638932672.dbk'. This is an auto backup of the database, which was the first step in the attempted backup process.

4. If the database is not already on the local computer (your PC), copy the .dbk file to the Settings folder (on your computer) and rename it to apecal.mdb.

5. Restart Ape and allow it to begin the update process again. This time, even if the progress dialog freezes, do not cancel.

6. Assuming all previous steps complete successfully, move the database back to its network location (if applicable).

If the steps above do not work, place the .dbk file (non-upgraded database) in a zip file and email it to Ape so we can convert the database for you. For large zip files, and if you know how, place the zip file on a file server and send the link to Ape instead of the file.

Last Updated: 25 June 2019
Update a SQL Server Database

Update an Ape Software SQL Server Database

Use these instructions to update the database structure of a Calibration Control (our Calibration Management Software) database installed on a SQL Server 2008 R2 or higher.

Before beginning, open SQL Server Management Studio and sign in to a SQL Server with enough permissions to create and update databases and their objects (e.g., system admin). Otherwise, your IT Group may need to perform the update.

All of the SQL files needed to update the database reside in the SQL Tools folder under the CC program folder located at Program Files\Ape Software\Calibration Control.

Before attempting to update an apecal database protect your database with a backup by right-clicking on the database, selecting Tasks, and then selecting Back Up and following the dialog instructions.
Determine the current database structure version by selecting records from the `dbo.tblDBVersion_DO_NOT_EDIT` table. There should only be one record.

If you do not have a StructureVersion field in the file name, use the following table as a guide to interpret the `dbo.tblDBVersion` table and how to choose the appropriate `sql_update` SQL file to begin with:

### DB Version Interpretation

<table>
<thead>
<tr>
<th>Indication</th>
<th>Database Version</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>dbo.tblDBVersion_DO_NOT_EDIT</code> table does not exist</td>
<td>1</td>
</tr>
<tr>
<td>Rev = 1.1, 7.0, 7.0.1, etc.</td>
<td>Rev = Version</td>
</tr>
<tr>
<td>Rev = DoNotEdit</td>
<td>Use StructureVersion field</td>
</tr>
<tr>
<td>StructureVersion = 15</td>
<td>15</td>
</tr>
</tbody>
</table>
Apply the sql_update SQL files in their sort order beginning with the version indicated by the DbVersion table (above). For example, if the Rev field of your database equals 7.0.1, then begin with file sql_update_04 (pgm ver 7.0.1 to 7.2.0).sql (update from 7.0.1 to 7.2.0). If the DatabaseVersion equals 24, then begin with sql_update_10 (db ver 24 to 30).sql (file 10).

List of Updates

**SQL Update Script File**

sql_update_01 (pgm ver 1 to 1.1).sql (read as version 1.0 to 1.1)

sql_update_02 (pgm ver 1.1 to 7.0).sql (same as above)

sql_update_03 (pgm ver 7.0 to 7.0.1).sql

sql_update_04 (pgm ver 7.0.1 to 7.2.0).sql

sql_update_05 (pgm ver 7.2.0 to 7.2.2).sql

sql_update_06 (pgm ver 7.2.2 to 7.2.5).sql

sql_update_07 (pgm ver 7.2.5 to 7.2.5.8).sql

sql_update_08 (pgm ver 7.2.5.8 to db ver 15).sql (read as program version 7.2.5.8 to database version 15 {new system})

sql_update_09 (db ver 15 to 24).sql (read as database version 15 to 24)

sql_update_10 (db ver 24 to 30).sql

sql_update_11 (db ver 30 to 31).sql

sql_update_12 (db ver 31 to 38).sql

sql_update_13 (db ver 38 to 39).sql

sql_update_14 (db ver 39 to 40).sql

sql_update_15 (db ver 40 to 41).sql

sql_update_16 (db ver 41 to 42).sql

sql_update_17 (db ver 42 to 43).sql

sql_update_18 (db ver 43 to 46).sql
SQL Update Script File

sql_update_19 (db ver 46 to 51).sql
sql_update_20 (db ver 51 to 64).sql
sql_update_21 (db ver 64 to 66).sql

Open each file with SQL Server Management Studio and click the [! Execute] button to apply the changes until you finish with the final SQL file. **Note:** Ensure that none of the text in the SQL file is highlighted when the [! Execute] button is pressed because this will run only the highlighted text.

If you need help, contact Ape and we can setup a screen share and do this together.

**Last Updated:** 12 July 2018
Downgrading a Database

Return a Database to the Previous Version

Sometimes after a new version of Calibration Control (our Calibration Management Software) is deployed a decision is made to return to a previous version. Unfortunately, many Ape updates include changes to the database which cannot be uninstalled as easily as the software. This is why a manual database backup is strongly encouraged before updating the MS SQL Server database or before updating the MS Access database.

Restore an Access Database

1. Understand the Folders used by Ape.
2. Open the Data folder and rename the apecal.mdb (e.g., higher-version-apecal.mdb).
3. In the same folder, rename the most recent database backup file from apecal-auto-backup-[long number].dbk to apecal.mdb.
4. Install the previous version of Ape or download and install one of the older Ape versions that your product key works with.
5. Restart the previous version of Ape to confirm that the database works.

Restore a SQL Server Database

Use the same instructions in the Installing SQL Server help topic – Restore (1st Method), but choose the file that was backed up as part of the update process.

Last Updated: 25 June 2019
Import Data from Version 4

Make the V4 Import Button Visible

Navigate to the Options dialog in Calibration Control (our Calibration Management Software) either from the File menu or Utilities tab in the ribbon menu. Within the Admin tab, click on the [Feature Visibility] button which opens the 'Hide Checked Features' dialog. Click on the App Utilities tab and uncheck the 'Import Group' box. The 'Version 4 Data' should be unchecked automatically.

Restart Calibration Control to make the 'Version 4 Import' button visible.

Import Data

Begin the import process by selecting 'Version 4 Data' from the Utilities tab of the ribbon menu.

Source Directory

Click the [Browse] button and navigate to the Access file you need to import and then click [Next].
Transfer Data

Note that if you try to import records from the source database to the current database and the record already exists, the import process will ignore those records. For instance, if one of the equipment records has an ID of ‘121’ and your current database has a MasterID of ‘121’, then record 121 will be ignored. Therefore, correct ID discrepancies before transferring data.

Last Updated: 26 June 2019
Upgrading from 5.4 to Current Version

Instructions for Upgrading from a Previous Calibration Control

Follow these instructions to ensure a clean migration from a previous version of Calibration Control (our Calibration Management Software) 5.x to the most current version. Unlike 5.4 and earlier, 5.5 and later store program, data, and settings files using a method compliant with Windows Vista and 7 in addition to XP.

Step 1: Backup Your Data

Be safe and backup your data just in case something goes wrong. See the help page on backing up a database file before continuing with this help topic.

Step 2: Uninstall Previous Versions

Although the current version should automatically uninstall previous versions, uninstalling the current version first will ensure this is true. The data file (apecal.mdb) or data stored on SQL Server will not be affected.

Step 3: New Product Key

You will need a new product key but the current version will be fully functional for the 30-day trial period.

Step 4: Download and Install

Whether you have a new product key or not, you can still download the newest version of Calibration Control (sign-in required) and it will remain fully functional for 30 days. Be sure to follow the instructions on the download page relating to the Microsoft prerequisites. The current version will not erase any of your data but it should uninstall the previous version automatically.

Step 5: Using Your Existing Database

The current version can import the 4.x data and upgrade the 5.x database to the current structure. Move the current database to a new location or tell Calibration Control where the current data resides (e.g., network server).

If maintaining the database file in a central location, like a network server, or when using a SQL Server, start Calibration Control and follow the prompts for connecting to the existing database. Otherwise, Calibration Control should be able to find the previous databases. If it
cannot, it will prompt the [Choose Database Type] dialog.

If Calibration Control needs help finding the database, find the current database file (apecal.mdb) and move it to the new default data folder in one of these two locations, depending on your operating system:

- Windows XP C:\Documents and Settings\All Users\Documents\Ape Software\Calibration Control\n- Windows Vista and 7 C:\Users\Public\Documents\Ape Software\Calibration Control\n
Start Calibration Control and it should find the database.

Final Step: Removing Extra Files

After the new copy of Calibration Control is up and running, you may want to clean up your hard drive by removing any remaining settings files left behind by the previous versions. Find these files in one or both of the following folders:

- In Windows XP systems, Calibration Control stored the program, settings, and data files all in the same folder located at: C:\Program Files\Ape Software\CCV5. You can delete this folder and everything in it after moving your apecal.mdb database file.
- In Windows Vista and 7 systems, Calibration Control stored the program files in the same folder as the XP systems (above) but stored the settings and data files in the folder identified in our Locate Your Database help topic. You can delete this folder and everything in it after moving your apecal.mdb database file.

Last Updated: 10 July 2019