



ProCAB QC Measurement Software

ProCAB QC User Manual

Release 3.1.4

Accurate Technology

Aug 19, 2025

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Introduction

ProCAB QC is an application designed for use with the Accurate Technology Inc. ProTable-CAB measuring system.

The purpose of the system is to provide a method of importing customer orders to be produced and measured for dimensional quality. The software will automatically attempt to identify a part at time of measurement, recording the actual measurements for the part and associate the measurement data with the corresponding line item. The software can optionally print a self-adhesive label from an attached label printer to track parts at time of measure. This label may contain the measured dimensional data, part identification, order ID, line number data and time/date of measurement and other user definable information. Upon completion of measurement of all parts in the order, the software can generate a packing slip showing customer ship and bill information along with line item specifications including measurement results for each part. The application also generates a CSV file for the order containing all part measurement information. This CSV data can then be later imported by a spreadsheet or database program for quality control tracking or other purposes.

Key Features Include:

- Production data imported via .CSV file in single, multi, and batch order collections.
- Multiple user definable data mapping templates for both single and multi-order file formats.
- Software can parse existing business model CSV files based on mapping templates. Import files do not require special formatting. Extra data fields may be included for operators, hidden until report generation, passed to the final output, or ignored completely.
- No limits placed on the number of orders, or items in an order
- Parts can be measured in any sequence.
- Parts can be measured manually (not using the measuring table), if enabled.
- Line items are automatically marked as complete when the measurements meet the desired quantity.
- Orders are marked as complete when all line items have been completed.
- Incomplete orders can be processed as complete allowing for back-ordered parts if option enabled.
- User definable packing slips can be printed containing the customer ship and bill information plus part measurement information.
- Completed order data is written to a CSV file when an order is complete.
- Application data is automatically saved when operations complete.
- Tolerance allowed in measured parts can be configured per-template.

- Production data can be imported in either inches or millimeters per-template.
- Production measurement data can be imported in either decimal or fractional inches or a mixture of the two.
- Displayed measurement position data can be switched between inches and millimeters on the fly.
- Measurement precision is definable for both inches and millimeters.
- Software can recognize if one or more line items have the same measurement specifications (Part Ambiguity).
- The system can be configured to accept out of tolerance parts with user interaction.
- Line item part quantity required, width and height can be optionally modified after file import.
- Rejected part labels can be printed when using the optional label printer and automatically include nominal height and width information.
- Incomplete Order Report can be generated to indicate missing or out of tolerance parts that need to be reproduced to complete the order.
- Primary table measurement axes can be swapped via system option setting.
- Part label printing can be defined and enabled via individual .CSV template.
- Pack list printing can be defined and enabled via individual .CSV template.
- System parameter settings can be exported and imported for backup and migration to newer versions of ProCAB QC.
- Two user definable line item fields and one user definable order field have been added to allow the storage of additional information.
- Pack list can be printed directly after order completion or can be viewed via “Print Preview” based on option configuration.
- Tool Bar that provides buttons to access most used functionality.
- Supports optional DEPTH axis measurements to test parts in all three dimensions.
- Depth axis measurement capability can be determined per-order.
- Defect labels can be printed even if part is out of tolerance.
- Optional angle measurement support. Systems equipped with optional angle measurement capabilities can measure the angle of origin corner, test for tolerance, and record with part data. Angle tolerances are programmable by template.
- Optional Out Of Square (OOS) metric, calculated from height and angle. Tolerance on OOS can be set in order files, this data is written to order data and is available in reports.
- Optional “User Message” field can open a pop-up user message dialog box is presented to the operator when a part is measured and identified. This allows important information to be passed

to the user on a per line item basis. The user must click the OK button on the dialog box to continue.

- Orders can be searched for keywords, and sorted by ascending/descending alpha-numeric order.
- Optional logins and tracking of operators.
- Generated pack lists can now be saved to a PDF and automatically emailed.

New in Version 3.1

- Upgrade to .NET9
- Allow checking parts with 1, 2, and 4 corner checks
- Change CSV output format to use normalized form (legacy output mode is still available)
- Add regex filter column to CSV templates
- Skip empty lines during CSV imports
- Conditionally color the reported error in Part Ambiguity based on whether the measurement is within tolerance
- Show distinct messages for angle and out-of-square errors
- Correct verbiage for symmetric tolerances
- Added audio cues to some dialogs
- Display OOS in absolute value
- Allow for skipping the OOS check
- Fixed a bug that could prevent a successful connection with ProRF receivers
- Fixed a bug that could prevent part labels from printing

Changes in 3.1.4

- Fixed order deletion not being reflected in the orders list
- Fixed measured parts being recorded with incorrect width/height when measured rotated and no part ambiguity.

Changes in 3.1.3

- Added per-column sorting for line items view

New in Version 3.0

- Upgrade to .NET8 LTS
- System data moved into a local database, reducing the risk of corruption and speeding up the application on large data sets.
- Optimized build for modern x64 machines.
- Full under-the-hood overhaul of many systems, improving performance and squashing bugs.
- Overhaul of the UI toolkit, allowing for better resizing and placement of windows.
- Update all TabIndex properties in UI, improving accessibility.
- Allow for fully user defined, renameable fields.
- Added search for the orders list.
- Enhanced ProRF connection and paring routines.
- Rework template generator.
- Rework import templates.
- Added support for quoted fields to CSV importer.

Changes in 3.0.8

- Fixed recording of rotated parts errors
- Updated third party libraries

Changes in 3.0.7

- Made Units selection apply immediately
- Updated multiple third party libraries

Changes in 3.0.6

- Added support for ProRF V3
- Reworked part ambiguity solving
- Fixed a bug in the line item editor that prevented changes from being saved
- Updates to Microsoft libraries

Changes in 3.0.5

- Fixed bug related to the reprint label toolbox button causing an unhandled exception.
- Fixed bug related to generating incomplete order reports causing an unhandled exception.

Changes in 3.0.4

- Fixed bug related to the report editor not getting preview data

Changes in 3.0.3

- Updated Microsoft toolchain
- Fixed bug related to recording out of square in inches
- Fixed the printer used by the label printing functionality

Changes in 3.0.2

- Updated Microsoft libraries
- Fixed bug related to importing with simplified order templates

Changes in 3.0.1

- Timed pop-up dialogs now have customizable durations.
- When a part is measured, jump the line item list to include it in view.
- Fix receiver validation bug.
- Software now saves immediately after deleting a measurement.
- Updates included for DevExpress report generator.

Glossary

CSV File

A text file that uses commas to delimit fields of data that can be parsed or separated into groups. This type of data file can be created or imported by spreadsheet applications and database systems. The ProCAB QC software uses this type of file to import production information and export completed order information.

Line Item

The fundamental description of the part to be created and measured. Minimally, a line item includes the part's nominal width and height dimension, a description (i.e. part number or textual description) and the quantity of part instances (copies) required to fulfill the line item. Optionally, a line item may also include nominal thickness, material, style, a comment and two user definable data fields. These optional fields are not used directly by the system but may be useful to the operator during the measurement process.

Order

A collection of one or more line items that are typically associated with a single customer. In addition to the line items, the order may contain customer shipping and billing information. The customer information is used for packing list generation and writing completed order data files.

Single Order Production Data File

A CSV file that contains production information for a single order. Typically, this type of file has a header section that defines the customer information followed by one or more lines of data with each line representing information for a single line item. This type of file and its structure is described in detail in Single Order File.

Multi Order Production Data File

A CSV file that contains production information for one or more orders. Typically, this type of file contains multiple lines of data with each line representing a single line item. In this file format, EVERY line item contains references to an associated order number/ID and customer information. This type of file and its structure is described in detail in Multi Order File.

CSV Mapping Template

ProCAB QC uses templates to determine what fields of data are to be used from a production data file. The system supports two independent groups of templates, one for single order data files and one for multi-order data files. The user initially configures one or both of these groups of templates depending on which type of file is being used in the customer's production. Once properly configured, production data files can be read by the system and parsed into line items and orders. Mapping Templates are described in detail in Field Mapping Using Templates.

Part Measurement

When an individual part is measured on the ProTable-CAB, a part measurement is created which contains the measured width and height plus a time/date stamp. The part measurement is then compared to each line item in the order. If a match is found within tolerance, the measurement is stored with that line item and the part quantity measured for that line item is

incremented by one.

Completed Order CSV File

When the required quantities for all line items have been met, the order is complete. The order data which contains all line items and their associated parts measurements plus any defined customer information is stored to a separate CSV which is named by the Order ID. This data can then be later imported by a spreadsheet or database system for production or quality control statistics.

Packing List

ProCAB QC can optionally print a user defined packing list that has the same information that is stored to the completed order file. This can be used as part of the shipping documentation to the customer if desired. The documentation can also be exported to a variety of formats including PDF, bitmap, CSV, etc. The list can also be emailed directly from the application if the host computer has an email tool installed. This additional capability requires that the Print Preview option be used.

Part Labels

Using an optional label printer, ProCAB QC can be configured to print a user defined self-adhesive label for application to the measured part. The label may contain the measured height and width, in-spec/fail, order ID, line item number, part ID, time/date of measurement or other user defined information.

Quick Start Install Guide

This section can be used as an overview for ProCAB QC Installation and Setup. It summarizes the steps required to install and configure the application. For more details regarding individual topics, review the associated topic sections of this manual.

Item denoted in **RED** are already completed when you purchase the ProTable-CAB measuring system with the integrated industrial computer.

1. **Install ProCAB QC on the target PC.**
2. **Install the provided ProRF wireless receiver driver software on the target PC.**
3. Install and configure any printer drivers for label and report printers.
4. Connect the ProRF wireless receiver to the target PC via a USB cable.
5. Launch ProCAB QC
6. **Activate ProCAB QC.** During the provided 15 day evaluation period, ProCAB QC can be used without activation.
7. Configure the system
 1. Click on the Configuration menu item and select “Log In”.

2. Enter the default password of 1234.
3. Press OK (Check Mark).
4. Click on the Interface Hardware tab.
5. Click the drop-down arrow button on the Port Setting field.
6. Select the serial port ID that is being used by the ProRF receiver. See *Interface Hardware Installation* (page 11) for details on determining what port ID to use.
7. Click the Auto Configure button to begin the automated configuration of the ProScale Encoder transmitters. Follow the instructions provided.
8. Click on the Axis Parameters tab to set the datum preset and the scaling factor if necessary. This must be completed for both Width and Height axes, and optionally Depth and/or Angle if equipped.
9. Click the OK button to save the changes, move the carriages to verify that the measurements from each are being displayed by the system.
10. If the position of an axis is displaying in an opposite direction from desired, open the Options dialog, choose the Axis Parameter tab and change the encoder direction to the opposite setting.
11. Click the System Settings tab.
12. Choose the desired type of CSV Import Template Style depending on which type is used by your company.

See *Order Templates* (page 31) and either *Single Order Template* (page 28) or *Multiple Order Template* (page 30) for more information about order templates.
 1. Single Order type is used when a production CSV file contains only a single order. If you intend to use batch orders, set up for the single order type.
 2. Multi-Order type is used when a production CSV file contains multiple orders.
13. Click the Edit Template button to access the template list.
14. Select the Default template and click the Edit Template button. See section titled CSV Template Concepts for details on the CSV templates and the template editor. The default templates are already configured for the included CSV files.
15. Click the OK button to close the CSV template editor.
16. Click the OK button to save the parameters and close the Options dialog.
8. Attempt to import a CSV file by clicking the File/Import Order File menu item.
 1. A file open dialog will be displayed.
 2. Navigate to the location where your CSV import files are located and click on the selected file.

3. The application will attempt to read and parse the data within the file based on the definitions within the associated CSV template.
4. If the CSV file has parsing errors, an error box will be displayed showing the error log.
5. The log will contain debugging data that can be used to identify where the errors occurred.
6. If the file was loaded without parsing errors, a message box will be displayed showing the import was successful.
7. **IMPORTANT:** Although a file was imported without parsing errors, it is necessary to verify that the correct data was imported into the correct fields.
9. After one or more orders have been imported into the system, a list of orders is displayed in the Orders window of the application. Clicking on an order ID will update the line item listing relating to that order.
10. Verify that the data is correct for the appropriate fields. Open the full item details by double clicking a line item and selecting “View Full Line Item.”
11. If customer data fields were defined in the CSV template, click on the Bill To Info and Ship To Info tabs to display the respective customer data. If all the data for the order is correct, the template definition is also correct.

Quick Start Measurement Guide

This section describes the general use of ProCAB QC by an operator. It summarizes the steps required to use the basic functions of the application. For more details regarding individual topics, review the associated topic sections of this manual.

This section assumes that ProCAB QC has been successfully installed, configured, and CSV template(s) have been defined correctly.

1. Import orders using the “Import Order File” toolbox icon or the import options in the “File” menu. Imported orders will appear by name in the “Orders/Jobs” list on the right of the application.
2. Select an order from the list to make it active. The active order will become highlighted, and the Line Items list, Bill to Info, and Ship to Info will be filled with the order’s data.

Orders are sorted by alpha-numeric order. The sort direction can be inverted, or the orders can be sorted by proximity to a search using the inputs above the list.

3. To record a measurement, place the part from the order on the ProTable-CAB, with the bottom and left sides of the part against the horizontal and vertical fences. Move the width and height gantries against the top and right side of the part to measure the part’s height and width. The width and height measurements are shown in real-time on the application’s display.

With the gantries against the part, press the “Measure” button on the touchscreen. The system will capture the measurement and attempt to locate a matching line item in the order. The comparison searches against the defined nominal height and width measurements from the line items, enforcing the tolerances defined in the import template. The results of the comparison will be one of the following:

- Exactly one match is found within tolerance for the measured part in the line items.

The system will momentarily display a dialog box that indicates which line item’s quantity was updated. If the matched line item has not met the required quantity, the line item will now be highlighted yellow. If the matched line item has met the required quantity, the line item will now be green.

- Multiple Matches are found within tolerance for the measured part in the line items.

This is referred to as “part ambiguity” and results when two or more line items have the same, or overlapping, nominal dimensions. This may occur where two dimensionally equal line items, but call for parts made of different materials. In this scenario, the system will report the part ambiguity and require the operator to interact with the system to identify the part.

A dialog will be displayed for the operator providing all “visible” fields on each line item, including user defined fields if defined. The operator must then choose the correct line item in the sequence, or fail the part. The measurement is then applied to the selected line item.

- No Matches Found.

If no line items match the measured part within tolerance, the system will find no line item matches. This would occur if the part was improperly manufactured, improperly measured, or if the nominal dimensions of the line item was recorded incorrectly in the import CSV. By default, the system will indicate that there are no matching line items in the order and the measurement is discarded.

The system can be configured to allow out of tolerance parts to be accepted using operator interaction, similar to the part ambiguity path. If enabled, the system will provide a list of all line items in the order to the operator showing additional line item detail if available. The operator must choose which line item matches the measured part. If the operator chooses a line item to match to the part under test, the measurement is assigned to that line item. The measurement is then stored as Out of Tolerance.

4. When a line item is complete, the line for that line item turns green signifying that the quantity measured has been met. Optionally, the system can be configured such that the completed line item disappears from the order. Thus, when all line items are complete, there are no line items visible and the order is then complete.
5. The application can be configured to support an optional label printer. If enabled and connected, the label printer will print a label as each part is successfully measured. Self-adhesive labels can then be applied directly to the part for identification.

6. When all line items for a particular order are completed, the order is considered complete. Optionally, the user can force an order to be processed as complete (if enabled). This would typically be used to complete an order with incomplete line items processed as a back order.

The order is removed from the order list and the order data is saved as a CSV data file. This file contains all of the original order data imported from the import CSV file, and the measured part data for each line item.

The system can optionally print a pack list containing any of the same information. This pack list can be printed, emailed or exported in various file formats.

7. The operator imports/selects the next order from the Orders list to continue the measurement process.

NOTES:

- Changes to order data are saved automatically, and all data is restored when the application is loaded.
- Orders can be removed from the Orders list without completion, if that capability is enabled.
- Some fields of the Line Item can be modified by the operator, if that capability is enabled.
- Orders do not have to be completed in any sequence.
- Measurements can be made for various orders out of sequence.
- The operator can partially complete one order, switch to another order as parts become available, and switch back to the first order for completion.

Interface Hardware Installation

ProCAB QC uses the Accurate Technology ProRF series of wireless measuring devices.

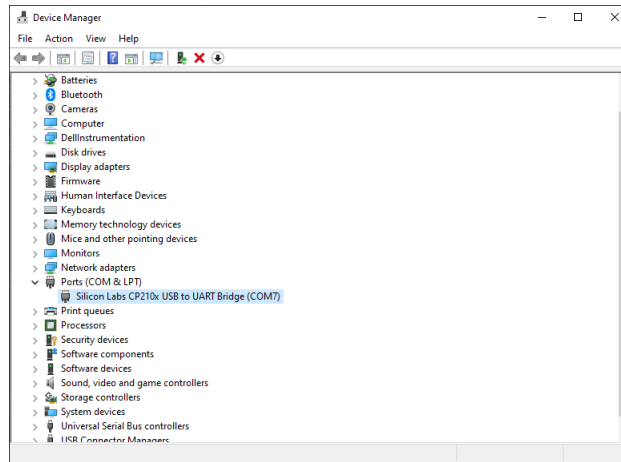
The following section describes the required one-time hardware configuration for these devices. If you have received your ProTable-CAB from Accurate Technology, this setup has been done for you.

The ProRF receiver has both USB and Serial communications, USB requires a Windows driver, while Serial requires 9v external power. USB communications are preferred. If Serial communications must be used, please refer to page 8 of the ProRF user's manual.

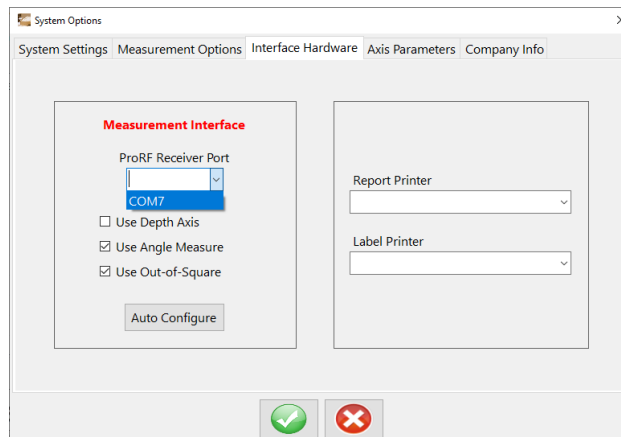
The setup procedure is as follows:

1. Install the supplied USB drivers on the target PC.
2. Connect the ProRF to the computer.
3. From the Windows Start button, open the Control Panel.
4. Open the Windows Device Manager.

5. Under the the Ports (COM & LPT) listing, find the entry Silicon Labs CP210x USB to UART Bridge
6. Take note of the associated COM port, ie COM7.



7. Open ProCAB QC and open the configuration dialog. Login if necessary, the default password is 1234.
8. Go to the Interface Hardware tab
9. Select the COM port from the ProRF Receiver Port dropdown.



10. Enable the Angle, Out-of-Square, and/or Depth Axis, as appropriate.

Angle and Depth gauges are options with the ProTable-CAB system, only enable these options if you have the corresponding hardware. Out-of-Square is a measure calculated using the angle axis, only enable this when Angle is also enabled.

11. Click the Auto Configure button to start the automatic configuration routine. You will need to take the top off of the transmitter devices to expose the Learn button, and press these when prompted by the software.

Software Installation

ProCAB QC can be installed by the installation file, ProCAB QC 3.0 Installer.msi.

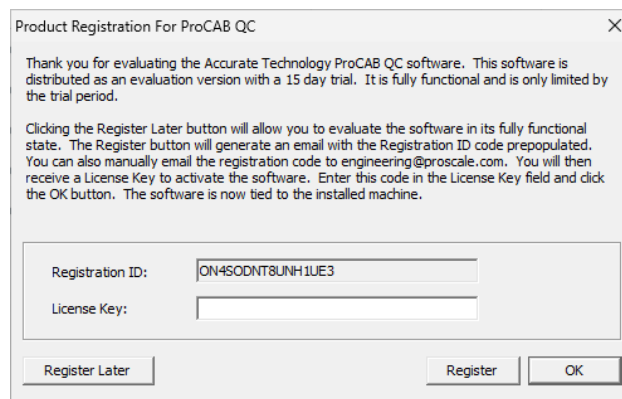
All software dependencies, aside from Windows itself, are included in the installer.

1. The installer can be downloaded from ProScale.com¹, requested via email, be provided pre-installed with the ProTable-CAB computer system.
2. Double-click the installer to run the installation wizard.
3. Click through the installation wizard, be sure to read the notice.
4. Once installed, ProCAB QC can be started from the icon on the desktop or the item in the start menu.
5. Activate ProCAB QC on the Evaluation Screen. 15 days of evaluation are provided with installation, after which activation is necessary.

Evaluation Screen

ProCAB QC is distributed initially as a full featured evaluation release. The program is fully operational for a period of 15 days from initial installation. The user can purchase the software at any time during the trial period. After the trial period has expired, the application will not function until activated.

When the application is launched in evaluation mode, the screen shown below is displayed:



Product Registration For ProCAB QC

Thank you for evaluating the Accurate Technology ProCAB QC software. This software is distributed as an evaluation version with a 15 day trial. It is fully functional and is only limited by the trial period.

Clicking the Register Later button will allow you to evaluate the software in its fully functional state. The Register button will generate an email with the Registration ID code prepopulated. You can also manually email the registration code to engineering@proscale.com. You will then receive a License Key to activate the software. Enter this code in the License Key field and click the OK button. The software is now tied to the installed machine.

Registration ID: ON4SODNT8UNH1UE3

License Key:

Register Later Register OK

The form provides the following information/options:

- The option to register the application after purchase by clicking “Register”.
- Continuation of the evaluation period by clicking “Register Later”.
- Entry for a License Key that unlocks the application on the installed computer.

¹ <https://www.proscale.com/procab-qc-measurement-software/>

To run the program in evaluation mode, click on the “Register Later” button.

Purchasing the Software To purchase the software and register it for permanent operation on a specific PC, complete the following:

1. Contact Accurate Technology, Inc. to purchase the software at +1-800-233-0580 (Toll free in the U.S.), at +1-828-654-7920, or by email at sales@proscale.com. We accept Visa, MasterCard, American Express and Discover.
2. After the payment has been completed, launch the program and the demo screen is provided as shown below.
3. If you have a dedicated email tool such as Outlook installed on your PC, click the Register button. This will cause a pre-populated email to be generated with the Registration ID already in the body of the email. If you do not use an email client, such as in the case of web based email, copy the registration code from the Registration ID field <Ctrl-C> and paste it into a composed email in your browser. Email the ID to engineering@proscale.com.
4. We will email you back a license key code with 1 business day. Copy the provided Key code into the License Key field. Click the OK button. If valid, the program is now unlocked and will launch immediately after activation.

Note: The software is now licensed to the specific machine on which it was installed. You will not be able to install the application permanently on another machine unless you complete either of the following:

- Purchase an additional copy of the software for use on another machine.
 - Transfer the license to another machine, deactivating the software from the original machine. For more information on license transferring, see [Here in the Appendix](#) (page 42)
-

Main User Screen

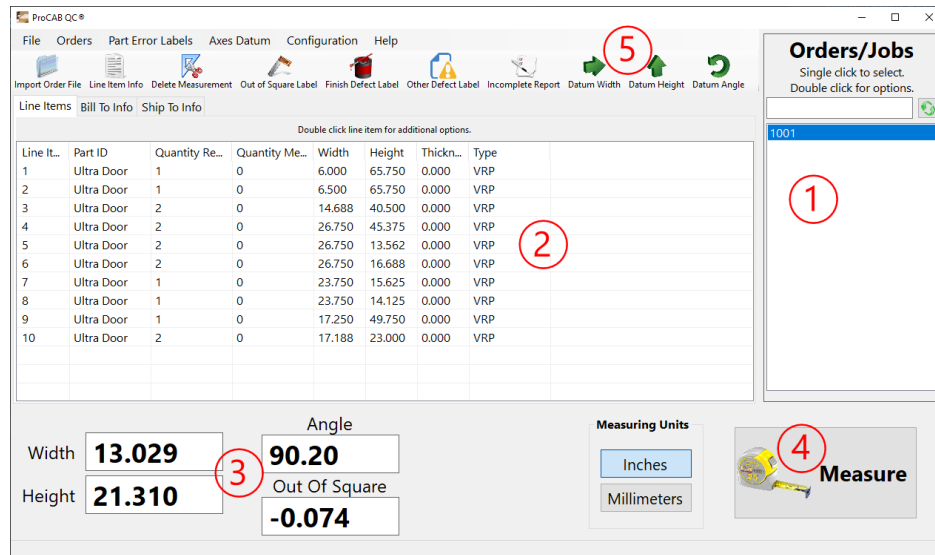
1. The Orders List

This area displays all of the orders currently loaded in the system. Orders can be selected with a click. The selected order is highlighted in the list, and the order details fill the Detail View (2). When measurements and other events occur, these will apply to the selected order.

2. The Order Detail View

This area displays details relating to the currently selected order. The area is divided into three sub-areas via a tabbed view.

- Line Items



A list of line items that form the body of the order. Each line item relates to a part definition that is to be produced.

The fields of the line items displayed can be changed using the import template. These fields can include:

- Line Number

- Part ID

Can be a descriptive name, part number or other identifier

- Nominal Width, Height and Thickness dimensions

- Quantity Required

- Quantity Measured

- User Message

A message that, if configured, gets displayed to the operator when a part is measured.

- User Defined

Up to 18 freeform fields. It is recommended to add details about the parts to user defined fields, like material, finish, or the post-measure location. If fields are included for other outputs, like a database id to encode in a barcode, it is recommended that these be hidden.

- Bill To Info

Customer Bill To data that can be imported from the CSV file if present and defined.

- Ship To Info

Customer Ship To data that can be imported from the CSV file if present and defined.

3. Measuring position

The current measuring position. As the gantries move, the displayed position updates in real time with the current measurement. If attached and configured, the angle and depth gages are displayed in real time here too.

4. Measure Button

Clicking or pressing (with touchscreen monitor) on this button activates the measurement process. A part is placed on the table against the fixed stops. The moving stops must be positioned against the top and right side of the part. The Measure button is then activated. The system searches the line items of the selected order to locate a match.

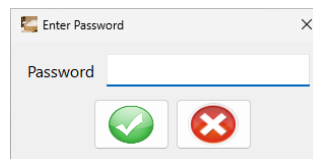
5. Tool Bar

Provides buttons to quickly access the most commonly used functionality of the ProCAB-QC software.

System Configuration

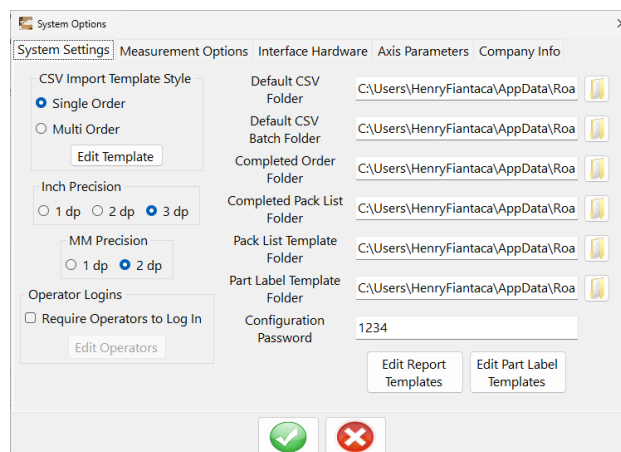
Prior to use, ProCAB QC requires some configuration.

To enter the system configuration menu, click on the Configuration/Login menu item. A password dialog will be presented. Enter the system password and press the enter key or click OK.



The default password is 1234. It is strongly recommended to change the password and keep records of the system password.

The application will display the System Options dialog.



System options are divided into groups using a tabbed display. The tabs are:

System Settings

General settings for the system including import template configuration, default directory settings and precision/accuracy configuration.

Measurement Option

These settings cover operations relating to measurement functions.

Interface Hardware

This tab is used to configure the measuring system hardware interface and the system printers.

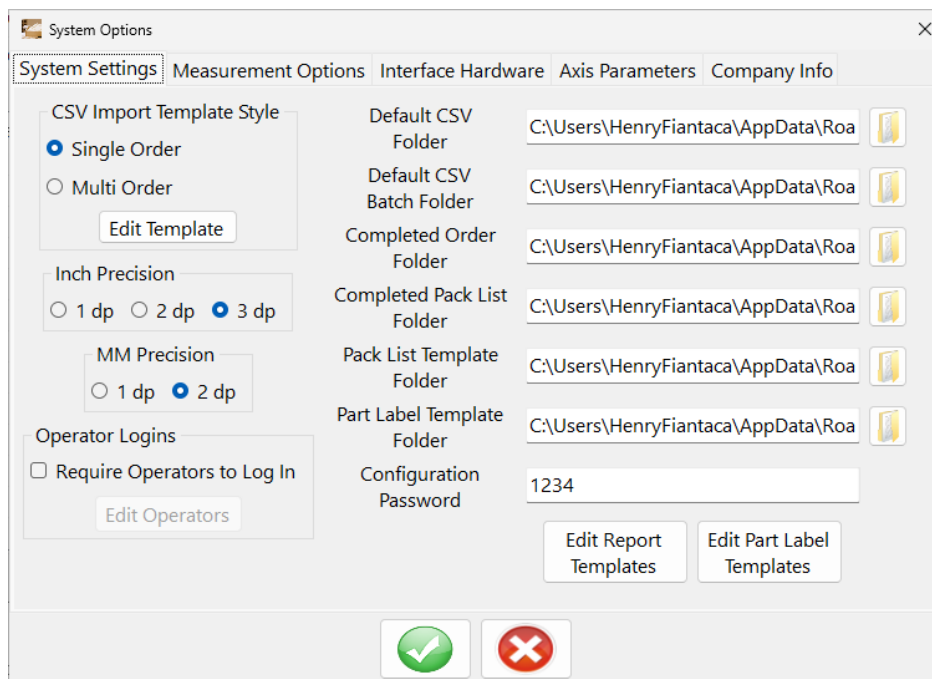
Axis Parameters

This section is used to configure aspects of the width and height measurement axes.

Company Info

YOUR company information to be printed on the packing list upon order completion if enabled.

System Settings



CSV Import Template Style

Selects the type of CSV file to be imported by the system. The system can import Single Order type files or Multi Order type files. This configuration is covered in additional detail in the section CSV Template Concepts. To edit the selected style of CSV templates, click the Edit Template button.

Default CSV Folder

The default path to CSV production data files to be imported. The path can be entered manually

or click the folder button next to the field to browse to the target folder location.

Default CSV Batch Folder

Since Single Order CSV files have only a single order per file, loading individual order files by hand can be tedious if many orders are required to be loaded. An alternative is to use a Batch Order file. This file is a simple text file that contains a list of Single Order CSV file names. This list can be created with a simple text editor such as notepad. This entry is the default path to CSV batch files. The path can be entered manually or click the folder button next to the field to browse to the target folder location.

Completed Order Folder

The default path to the folder that contains completed orders. After all of the line items of an order are completed, the order and all of its part measurements are saved to a CSV file located in this directory. The path can be entered manually or click the folder button next to the field to browse to the target folder location.

Completed Pack List Folder

The default path to the folder that contains completed pack lists. After all the line items of an order are completed, the order pack list is generated and a copy is exported as a PDF file in this directory. The path can be entered manually or click the folder button next to the field to browse to the target folder location.

Pack List Template Folder

The default path to the folder that contains Pack List printing templates. Pack list printing format is now user defined by printing templates. If desired, the CSV production order data can contain the name of the pack list printing template to be used. All pack list printing templates should be stored in this directory.

Part Label Template Folder

The default path to the folder that contains Part Label printing templates. Part label printing format is now user defined by printing templates. If desired, the CSV production order data can contain the name of the part label printing template to be used. All part label printing templates should be stored in this directory.

Configuration Password

This is the password that is used to access the options dialog. The default password is 1234. It is recommended that this password be changed and documented.

Edit Report Templates

Pack list and incomplete order reports are now user defined using printing templates. To edit the default pack list, the incomplete order report or any other user created pack list, click on the Edit Report Templates button. See Configuring Printing Templates for details regarding report formatting.

Edit Part Label Templates

Part labels are now user defined using printing templates. To edit the default part label or any other user created part label, click on the Edit Part Label Templates button. See Configuring Printing Templates for details regarding report formatting.

Inch Precision

Defines the number of digits to the right of the decimal point that are to be displayed while in inch measurement mode.

MM Precision

Defines the number of digits to the right of the decimal point that are to be displayed while in millimeter measurement mode.

Operator Logins

Settings related to operator login requirements. See Operator Login for details about the Operator Login system.

- **Require Operators to Login** - Defines whether or not to require operators to log in before operating ProCAB QC.
- **Edit Operators** - Opens configuration dialog to add/delete operators, set operator PINs, and set the allowed standby time before logout.

Measurement Options

The screenshot shows the 'System Options' dialog box with the 'Measurement Options' tab selected. The dialog has five tabs: 'System Settings', 'Measurement Options', 'Interface Hardware', 'Axis Parameters', and 'Company Info'. The 'Measurement Options' tab contains two columns of settings. The left column includes checkboxes for 'Allow Out Of Tolerance Parts', 'Test Out of Square for Tolerance' (checked), 'Display Out of Square in Absolute Value' (checked), 'Allow Manual Measurement Entry', 'Delete Line Item from list when quantity reached', 'Allow Individual Order Deletion', 'Allow All Orders To Be Deleted', 'Allow Line Item Height Edit', 'Allow Line Item Width Edit', 'Allow Line Item Quantity Edit', 'Allow Incomplete Orders to be Processed', and 'Swap Width and Height Axes'. The right column includes checkboxes for 'Do Not Auto Save Order When Complete', 'Use Legacy CSV Order Output Format', 'Use North American Date Format (mm/dd/yy)' (checked), 'Show Order Complete Message' (checked), 'Test completed line items on new measurements', 'Part Measuring Style' (set to 'Single Corner' in a dropdown), 'Pop-Up Message Duration' (set to 'Normal' in a dropdown), 'Show User Message Dialog if data present' (checked), 'Print "Out Of Spec" label if no part match found', and 'Print Part Labels' (set to 'Never' in a dropdown). At the bottom of the dialog are two buttons: a green checkmark button and a red X button.

Allow Out Of Tolerance Parts

When checked, the system will provide the operator with a method of accepting a measured part that is outside the defined tolerances and associating it with one of the line items of the current order. See section Measuring Parts for an Order for details on measuring parts.

WARNING: It is not recommended to allow out of tolerance parts. If you have trouble with part acceptance, you should first verify your manufacturing process and/or increase acceptable tolerances.

Test Out Of Square for Tolerance

When checked, the system will test all parts for Out Of Square tolerance when Out of Square is enabled.

WARNING: It is not recommended to disable OOS tolerance checking. If you have trouble with part acceptance, you should first verify your manufacturing process and/or increase acceptable tolerances.

Display Out Of Square in Absolute value

When checked, the system will display the Out of Square metric in absolute value.

Manual Measurement Entry

When checked, allows the user to enter measurements manually via dialog box. This would be used if measuring a part that was larger than the capabilities of the ProTable-CAB. See Manual Measurement of Parts for details. Manually measured parts are recorded in the system and indicated on documentation as a manual measurement entry.

Delete Line Item from list when quantity reached

When checked, the line item is automatically removed from the line item list when the quantity of measured parts reaches the quantity required. When unchecked, the line item remains on the list when it is fulfilled, turning green to show that it has been completed.

Allow Individual Order Deletion

When checked, the user can delete individual orders from the order list by double clicking on the order ID and selecting Remove Order from the pop-up menu. When unchecked, individual orders cannot be deleted and must be completed to be removed from the list OR processed as Incomplete if enabled.

Allow All Orders To Be Deleted

When checked, this option allows the operator to delete all the orders in the order list at one time. This is completed from the Orders/Remove All Orders menu item.

Allow Line Item Height Edit

When checked, the user can edit the defined height dimension of a line item using the line item editor. NOTE: Once one or more parts have been measured for a line item, the height dimension for that line item CANNOT be modified even if this option is enabled.

Allow Line Item Width Edit

When checked, the user can edit the defined width dimension of a line item using the line item editor. NOTE: Once one or more parts have been measured for a line item, the width dimension for that line item CANNOT be modified even if this option is enabled.

Allow Line Item Quantity Edit

When checked, the user can edit the defined quantity required of a line item using the line item editor. NOTE: The quantity required cannot be set to a number lower than the current quantity of measured parts.

Allow Incomplete Orders to be Processed

When checked, allows an incomplete order to be processed as completed. Please Note: The order

data is written to the Completed Orders folder as normal but any incomplete line items will show part shortage quantities. If pack lists are used, a pack list will be printed as normal.

Swap Width and Height Axes

When unchecked, the width axis is the horizontal axis and the height axis is the vertical axis. When checked, the width axis is the vertical axis and the height axis is the horizontal axis. If the majority of your product is longer than it is wide, enabling this feature will allow the product to be placed 90 degrees rotated to allow for easier measurement. This feature will not interfere with the new auto part rotation measurement feature.

Do Not Auto Save Order When Complete

When checked, an order is not automatically processed as complete after the last line item is measured. This allows an order to remain on the active order list indefinitely and the user must manually process the order as complete by double clicking on the order ID in the Job List and select Process Order as Complete.

Use Legacy CSV Order Output Format

When checked, orders will be exported in the format used by versions of ProCAB QC 1.x-3.0. When unchecked, orders will be exported with the newer, normalized format.

Use North American Date Format

When checked, time and date stamps are in mm/dd/yyyy format. When unchecked, dates are in dd/mm/yyyy format.

Show Order Complete Message

When checked, the system will present a timed message that pops up to tell the operator that the order has been completed.

Test Completed Line Items on New Measurements

When unchecked, new measurements are only compared to line items that are not completed. When checked, completed line items are also compared during a measurement. This allows for “extra” parts to be recorded with a matching line item even though the quantity required has been met. Typically, this feature would normally not be used.

Part Measuring Style

The way parts are measured.

- Single Corner - The default, one measurement is made before sorting.
- Opposing Corners - Measure one corner, rotate the part 180°, then measure the opposite corner before sorting.
- Four Corners - Measure one corner, rotate 90°, measure the next corner, and repeat 3 times before sorting.

Pop-Up Message Duration

The duration pop-ups take before disappearing.

- Quick - Popups will disappear quickly.
- Normal - Popups will disappear after a normal delay.

- Slow - Popups will disappear after a slower delay.
- Molasses - Popups will disappear after a very slow delay.

Show User Message Dialog if data present

When checked, a User Message Dialog is presented after a part is measured if the associated User Message line item field for that part has been populated with a text message.

Print “Out Of Spec” label if no part match found

If enabled, automatically prints a label to be placed on the measured part to indicate that the part is out of accuracy tolerance. Note that this feature is only actionable when a label printer is connected and is enabled.

Print Part Labels

This option controls the printing of part labels. The available choices are:

- Never - Never prints a part label. Part label printing is disabled.
- Always - Always prints a part label using the default part label printing template.
- By Template - The label template defined by the order determines if a part label is to be printed, and which template will be used. If the Part Label Template cell/column is undefined (blank) in the order template, a part label is not printed. If the Part Label Template cell/column is defined in the order template, and the imported data refers to a valid template file, then a part label is printed using the custom template. If the Part Label Template file is invalid or left blank, the default part label template is used.

Print Pack List

These options control the printing of pack lists.

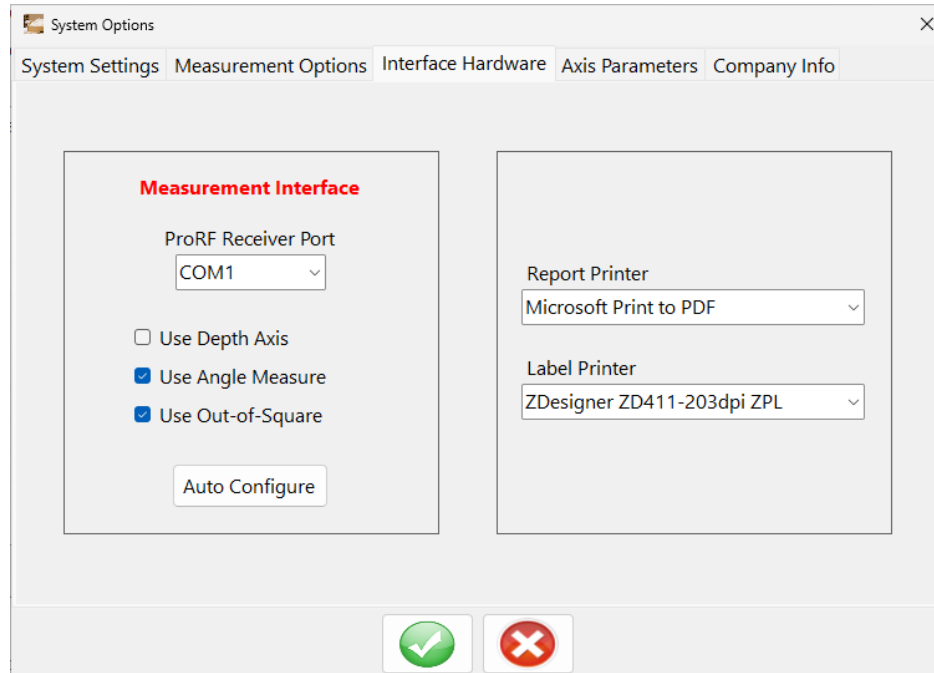
- Generate Pack Lists:
 - Never - Never generate a pack list. Pack list printing, exporting, and emailing is disabled.
 - Always - Always generate a pack list using the pack list template defined by the Order CSV, or the default pack list printing template.
 - **By Template -**
The label template defined by the order determines if a pack list is to be printed, and which template will be used. If the Pack List Template cell/column is undefined (blank) in the order template, a pack list is not printed. If the Pack List Template cell/column is defined in the order template, and the imported data refers to a valid template file, then a pack list is printed using the custom template. If the Pack List Template file is invalid or left blank, the default pack list template is used.
- Print, Whether or not to send the generated Pack List to the report printer.
- Export to PDF, Whether or not to export the Pack List to a PDF file located at the configured “Completed Pack List Folder”.

- Email to Customer, Whether or not to send the Pack List as an attached PDF file to the customer email address defined in the current order.
- Email SMTP, Opens a settings dialog to configure the SMTP settings for emailing a pack list to a customer.

Use Report Print Preview

If checked, pack list and incomplete order reports are initiated first in print preview mode. This allows the user to verify the report on the screen and optionally change the default settings such as the target printer or allow the report to be exported in a different format such as PDF prior to printing. If disabled, the report automatically prints to the default report printer defined in the Interface hardware tab.

Interface Hardware



The Measurement Interface is used to configure the ProScale measurement equipment. The system supports the ProRF Universal receiver, with ProRF Encoder Transmitters on each measuring gage.

Prior to operation, a driver must be installed on the PC to interface with the ProRF receiver's USB port. Download the installer from the ProCAB QC page on proscale.com. Follow the installation procedure. Once installed, connect the ProRF receiver to the computer via USB.

Click the Port Setting pull-down list to select the associated communications port for the ProRF receiver. The COM number to select will depend on the PC and other equipment already attached. To identify which COM selection to use, you can check under the Windows Device Manager usually located in the Control Panel under System. Expand the Ports (COM & LPT) tree and look for the device labeled ProScale ProRF Receiver. The associated COM port number will be next to the label.

Use Depth Axis

When checked, the depth axis functionality of the ProCAB-QC software is enabled. The optional Depth axis hardware must be installed for this functionality to be enabled.

Use Angle Measure

When checked, the angle gage functionality of the ProCAB-QC software is enabled. The optional angle hardware must be installed for this functionality to be enabled.

Use Out-of-Square

When checked, the calculation of the Out-of-Square functionality of the ProCAB-QC software is enabled. The Use Angle Measure option must be enabled for Out Of Square to function.

Auto Configure

This will bring up a configuration wizard that will automatically program the receiver and associate the transmitters with the receiver. This procedure requires the user to activate each transmitter's LEARN button when requested. This button is located inside the transmitter next to the channel switch as shown below.

After the configuration wizard has completed, the transmitters and receiver should be interfaced properly to the system.

Report Printer

This pull-down selection allows the user to configure the default printer to be used to print reports (pack lists and incomplete order reports). All available installed printers are displayed if selector is opened. Printers are installed via the standard Windows printer installation wizard. As such, printers can be connected to the local industrial computer that hosts ProCAB QC or on a network.

Label Printer

This pull-down selection allows the user to configure the default printer to be used to print labels. All available installed printers are displayed if selector is opened. Printers are installed via the standard Windows printer installation wizard. As such, printers can be connected to the local industrial computer that hosts ProCAB- QC or on a network. Note that the label printer is typically a specialized roll feed type thermal or ink printer specifically designed to print labels. ProCAB-QC does not support the printing of sheet feed type labels.

Axis Parameters

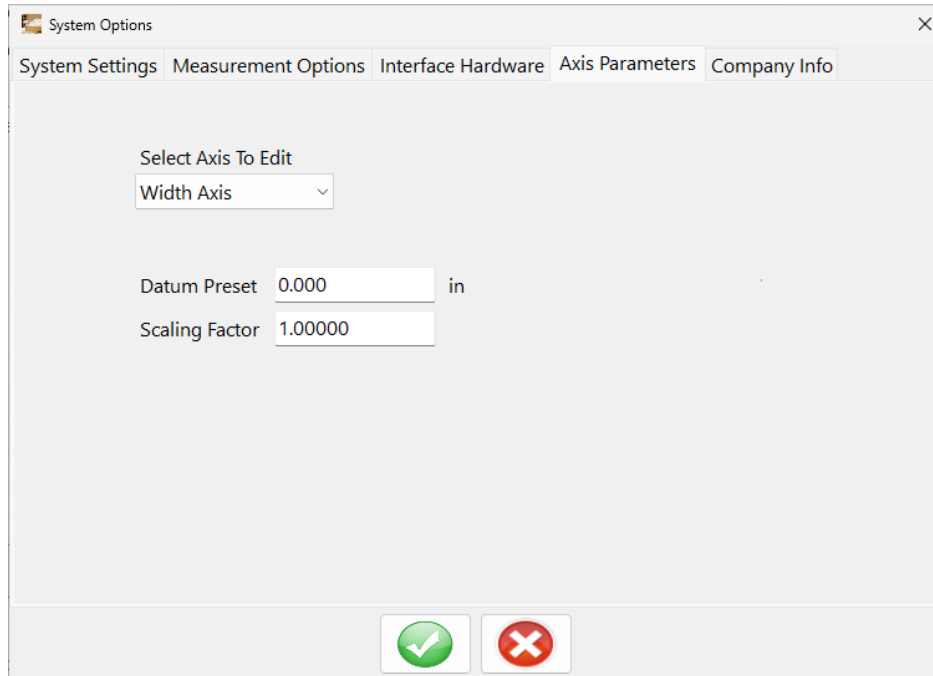
The Axis Parameters tab is used to configure and calibrate the measuring gages.

Datum Preset

The pre-defined position used to calibrate the axis when it is placed against the inside hard-stop of the ProTable-CAB. See Initiating Axes Datums for instructions on recalibrating the axes.

Scaling Factor

A multiplier that allows for measuring accuracy adjustment in the linear encoders.



Encoder Direction

Changes the sign of the reported position of the axis. To configure an axis, select the axis from the axis pull-down menu. Once selected, set the associated fields to the appropriate values.

Pivot Distance

For the angle gage only. The distance between the vertical fence pivot point and the ProScale encoder fence contact point. This distance has been empirically derived at the factory and should not be changed.

Company Information

The Company Info tab is used to configure ProCAB-QC with the user's company information. This data is used when generating a pack list to be printed on the form's header section.

As much or as little of the company information can be entered.

In addition, an image file of the company logo can be imported to be printed on the pack list header. This can be a JPG, PNG, BMP or other graphics files. The image will automatically be scaled to fit the area defined on the pack list. The path to the file can be entered manually or the user can click on the Folder icon to open a file open dialog. This can be used to navigate to the desired image file.

The screenshot shows the 'System Options' dialog box with the 'Company Info' tab selected. The dialog has a title bar with a close button (X). The tabs are 'System Settings', 'Measurement Options', 'Interface Hardware', 'Axis Parameters', and 'Company Info'. The 'Company Info' tab contains the following fields:

- Company Name: [Text Box]
- Address 1: [Text Box]
- Address 2: [Text Box]
- City: [Text Box]
- State/Province: [Text Box]
- Zip: [Text Box]
- Country: [Text Box]
- Phone: [Text Box]
- Website URL: [Text Box]
- Logo: [Image Box containing the 'Accurate TECHNOLOGY INC.' logo]
- Logo File Name: [Text Box containing 'C:\Users\HenryFiantaca\source\']

At the bottom of the dialog are two buttons: a green checkmark button and a red X button.

Operator Logins

When enabled, the Operator login system will require operators to log into ProCAB QC. An operator will have to log in with their name and PIN before using ProCAB QC, and is encouraged to log out when leaving the table.

The operator is then associated with each part they measure in the output CSV for later internal tracking. Employers can correlate operators with measured parts, when the measurements occur, the error of these parts, and/or how often parts get measured with a rotation.

When disabled, the associated operator will always be “Default”, and no action will be taken with inactivity.

Add

Adds a new operator to the list of operators. Will prompt for the new operator’s name and PIN.

Set PIN

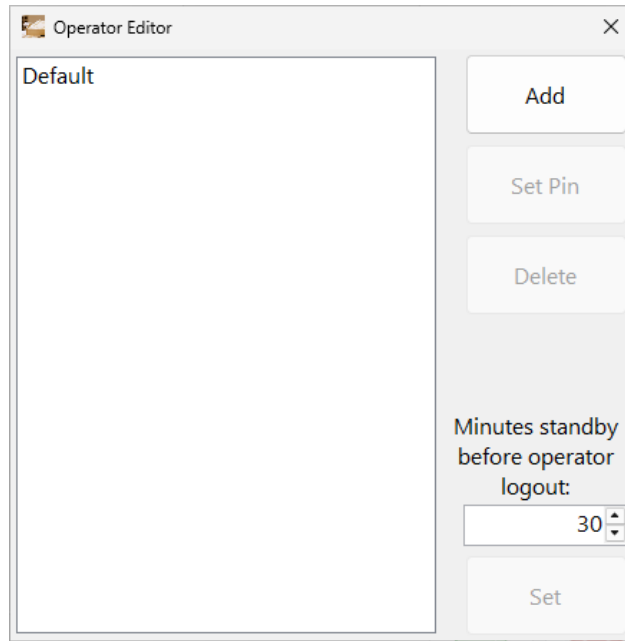
Resets the PIN for the selected operator. Can be used to replace a forgotten PIN. Will prompt for the new PIN.

Delete

Removed the selected operator from the list of operators. All existing measurements will still refer to the operator after deletion.

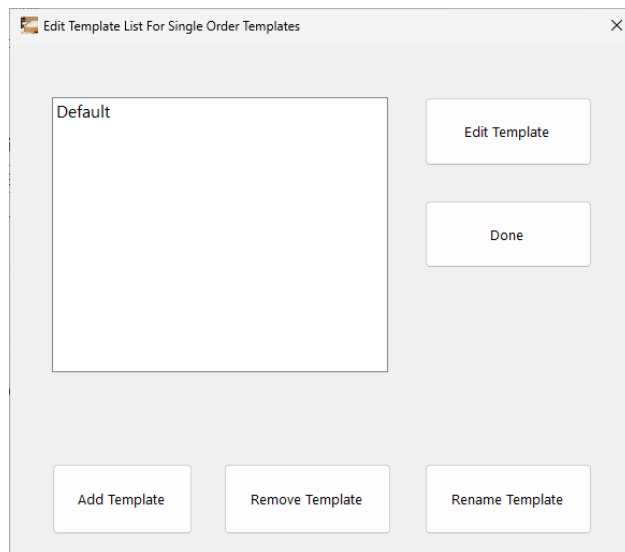
Minutes Standby:

The number of minutes before an operator is automatically logged out from inactivity. A value of 0 will prevent the inactivity logout from occurring. The Set button needs to be pressed to save this value.



CSV Order Templates

Template List



This dialog shows the list of templates configured for the currently selected style. Operations in this dialog include:

- Edit an existing template shown in the list.
- Add a new template to the list.
- Remove an existing template from the list.

- Rename an existing template.

Edit Template

Open the template editor dialog for the selected template. See the following sections for details about the template editor dialogs.

Add Template

Create a new template of the current style. You will be prompted for the name for the new template.

Additional templates may be desired to accommodate multiple CSV formats, to define different tolerances, or otherwise provide multiple import options.

Remove Template

Removes the selected template from the system. A warning message will be issued that the template is about to be deleted. Clicking Yes will permanently delete the template data from the system.

Deleting a template CANNOT be undone.

Rename Template

Renames the selected template. You will be prompted for the new name for the template.

Done

Closes the dialog.

Single Order Template

Template Name:

Order Columns	Col	Show	Width
Line Item ID	B	<input checked="" type="checkbox"/>	70
Part ID *	D	<input checked="" type="checkbox"/>	110
Quantity Required *	G	<input checked="" type="checkbox"/>	110
Width *	J	<input checked="" type="checkbox"/>	70
Height *	K	<input checked="" type="checkbox"/>	70

Order Header	Row	Column
Order Name	1	A
Pack List Template		
Part Label Template		
Test Thickness		
Billing Customer Name	2	B

Tolerances

	Plus	Minus
Width	0.794	Symmetric
Height	0.794	Symmetric
Thickness	0.794	Symmetric
Angle	0.500	Symmetric
Out of Square	0.794	Symmetric

Units

☒ Inches
☐ MM

Line Item Start Row:

Filter Column (Regex Pattern):

* Field is required

Cancel OK

This dialog allows you to edit a single order template.

Template Name

Displays the name of the current template, and allows renaming.

Order Header

Maps fields to the CSV header. This is used for order data that is not associated with any particular line item, like Order Name, customer data, or report templates. The mapping targets individual cells by row and column. See the Single Order Example.csv file provided with ProCAB QC for an example header format.

Order Columns

Maps fields to the CSV file data. This is used to create line items from the records of the CSV file. For every line after the header (starts with Line Item Start Row), this mapping will attempt to read the record.

Each field has a file column (Col), which is the column read from the CSV file. Each field additionally has a Show toggle and a Show Width, these define how the field is displayed on the main window.

Fields marked with an asterisk (*) are required. Required fields must have a defined column, and this column must have valid data in the CSV file.

Tolerances

Defines the allowable tolerances of measured parts, in width, height, thickness, angle, and out of square. Tolerance in the positive direction (too long) must be defined for all dimensions, while tolerance in the negative direction (too short) may be left empty to imply bilateral tolerances. Tolerances are stored in the selected Units, inches or millimeters.

Units

Defines the units used by the CSV import, inches or millimeters. A CSV file must only use one measuring unit. Decimal measurements (12.34) are supported in both units, and fractional measurements (12 3/4) are additionally supported in inches.

Line Item Start Row

Defines the row of the CSV file that line item records begin on. All rows above this line are assumed to be header, all rows at and below are assumed to be line item records.

Filter Column

Maps a CSV column to an inclusion filter. The first input defines the column from the CSV, and the second defines the Regular Expression to match against.

If the contents of the column matches the expression, the line item is added to the order. If the contents does not match, the line is discarded.

For example, if you only want to include items where column G have the contents “Finished Door”, set the template filter column to G and the template filter to “Finished Door”. All items with “Finished Door” will be accepted in the order, all other lines will be ignored

Multiple Order Template

Order Columns	Col	Show	Width
Order Name *	A		
Pack List Template			
Part Label Template			
Test Part Thickness			
Billing Customer Name			
Billing Address 1			
Billing Address 2			
Billing City			
Billing State			
Billing Zip			
Billing Country			

Tolerances

	Plus	Minus
Width	0.794	Symmetric
Height	0.794	Symmetric
Thickness	0.794	Symmetric
Angle	0.500	Symmetric
Out of Square	0.794	Symmetric

Units

☒ Inches
☐ MM

Line Item Start Row: 1

Filter Column (Regex Pattern):

* Field is required

Cancel OK

This dialog allows you to edit a multi order template.

Order Columns

Maps fields onto the columns of the CSV file.

Fields associated with the order, but no particular line item, are first. These order fields do not have options for Show or Width. Only the first instance of these fields is required, but conflicting instances are considered errors and will fail the import.

Line item fields have a Show toggle and width, which determines how the field is displayed on the main window.

Fields marked with an asterisk (*) are required. Required fields must have a defined column, and this column must have valid data in the CSV file.

Tolerances

Defines the allowable tolerances of measured parts, in width, height, thickness, angle, and out of square. Tolerance in the positive direction (too long) must be defined for all dimensions, while tolerance in the negative direction (too short) may be left empty to imply bilateral tolerances. Tolerances are stored in the selected Units, inches or millimeters.

Units

Defines the units used by the CSV import, inches or millimeters. A CSV file must only use one measuring unit. Decimal measurements (12.34) are supported in both units, and fractional measurements (12 3/4) are additionally supported in inches.

Line Item Start Row

Defines the row of the CSV file that line item records begin on. All rows above this line are assumed to be header, all rows at and below are assumed to be line item records.

Filter Column

Maps a CSV column to an inclusion filter. The first input defines the column from the CSV, and the second defines the Regular Expression to match against.

If the contents of the column matches the expression, the line item is added to the order. If the contents does not match, the line is discarded.

For example, if you only want to include items where column G have the contents “Finished Door”, set the template filter column to G and the template filter to “Finished Door”. All items with “Finished Door” will be accepted in the order, all other lines will be ignored

Order Templates

CSV Template Concepts

ProCAB QC imports orders in the form of CSV files. This format is easily exported from common spreadsheet, database, and process management softwares.

Technical notes:

- CSV files must be encoded as UTF-8, use standard (Unix or DOS) line endings, and be delimited by the ASCII comma. This is the default in Microsoft Excel.
- Non-delimiting commas must be escaped with a quoted field. This is the default in Microsoft Excel.
- Each line after the header must represent exactly one line item.
- Each line item must include at least Part ID, Quantity Required, Nominal Width, and Nominal Height.
- If the depth gage is used, each line item must include Nominal Thickness.
- If user messages are enabled, each line item may include a User Message.
- Each line item may include up to 18 custom fields. These fields are not used in ProCAB QC, but are stored and passed to the output file. Additionally, these fields can be used in generated reports and labels.

ProCAB QC supports two template “styles”. The template style used should depend on your business model and format of your production data.

Single Order Format

This style stores the data for exactly one order. An optional header can include order data, like the name, report and label templates, and customer information. Following the header is the list of line items, exactly one per line for the remainder of the file.

Table 1: Example single order format

A	B	C	D	E	F
Order ID				Report plate	Tem- plate
Billing tomer	Cus-	Billing dress	Ad-	Billing EMail	
Shipping tomer	Cus-	Shipping dress	Ad-	Shipping EMail	
Line Number	Part ID	Qty. Req	Width	Height	Custom Field
Line Number	Part ID	Qty. Req	Width	Height	Custom Field

Multi Order Format

This style contains the data for multiple orders. An optional header will be completely ignored by ProCAB QC. Each line item must refer to the order in which it belongs. Report templates, label templates, and customer data, if included, must be defined at least on the first line item in an order, conflicting data will result in an error and duplicate data will be ignored.

Table 2: Example multi order format

A	B	C	D	E	F	G
Order ID	Part ID	Qty. Req	Width	Height	Custom Field	Label Template
Order ID	Part ID	Qty. Req	Width	Height	Custom Field	Label Template
Order ID	Part ID	Qty. Req	Width	Height	Custom Field	Label Template

Field Mapping Using Templates

To accommodate the diversity of customer data formatting, ProCAB QC utilizes import templates to map data in from your CSV files. Multiple templates of both single- and multi-order style templates may be defined at once. Each template is independently configurable and provides a method to import order data when more than a single order file format structure exists.

As part of the initial configuration process, the user must choose which type of import file type to use, single or multi-order format. The administrator can use the initial Default template and then assign the associated data fields from the production file sample to the appropriate cell or column data in the template.

In some cases, the order data structure may be submitted or defined by the customer and may not be consistent from customer to customer. In this case, the administrator can define multiple templates, perhaps one for each customer. Each template can then be configured for the associated customer's order data file structure.

The template configuration process may be iterative, requiring several import attempts and template modifications prior to a successful data import. Once the template(s) have been configured, template modification should not be required unless the order data file structure changes.

The template configuration process is outlined as follows:

1. Open the configuration window using the Configuration menu item. Login if necessary, the default password is “1234”.
2. Select your desired Csv Import Template Style; Single Order or Multi Order.
3. Click the Edit Template button.
4. The Template List will be displayed. Templates can be created, renamed, and deleted.
5. Choose the Default template, another existing template, or create a new template.
6. Open the template editor by clicking the Edit Template button.

7. Fill out the column/cell entries as required. Note that only fields marked by an asterisk are required.

During this step, it may help to open an order file in Microsoft Excel as a reference.

8. Select the units used by your CSV files, millimeters or inches. The displayed units will be automatically converted if needed.
9. Define the upper and lower accuracy tolerances for the width and height measurements. Leaving the lower tolerances empty to use bilateral tolerances.
10. Save your changes and close the editor by clicking the OK button on the template editor, the Done button on the template list, and the check button on the configuration window.

When saving, validity checks will be performed on your template. Should these fail, you will be prompted with the data you need to correct. Once corrected, try to save again.

11. Open a CSV file to import by clicking File/Import Order File, and selecting the file to import. If more than one template has been created, the system will present a list of templates to choose from. The selected template is then used to parse the CSV file.

Note: If you have the CSV file open, you will have to close it before importing. This is due to the way Windows protects against file corruption.

- If ProCAB QC fails to import your order(s), a list of errors will be displayed.
- If ProCAB QC succeeds in importing your order(s), check over the imported data to ensure it is correct.

If errors are detected or if the imported data is not in the correct fields, reopen the template editor and correct any mistakes. You will likely need multiple attempts. If you are having persistent issues with configuring a template, contact customer service for assistance.

CSV Fields

Fields that can be imported by the CSV templates can be separated into order fields and line item fields. Order fields are non-item specific data about the order, like customer details and printing templates. Line item fields are item specific data, like nominal dimensions, required quantity, and user defined features.

In single order files, order fields are all in the header. In multi order files, order fields are included with the lines associated with the order.

Order Fields

Order Name

Name used to identify the order. The names of orders are presented to operators, used in generated file names, and can be searched.

Duplicates are NOT allowed, importing an order with the same name as an existing order will result in a conflict.

Pack List Template

Name for the template used in Pack List generation. When “By Template” generation is selected for pack lists, the presence of this field enables generation.

The name should NOT include the .repx file extension.

Part Label Template

Name for the template used in Part Label generation. When “By Template” generation is selected for part label, the presence of this field enables generation.

The name should NOT include the .repx file extension.

Test Thickness

Only used when a depth gage attachment is configured.

Enables testing of the thickness of parts in the order. “Yes” or “True” to enable thickness testing, “No”, “False”, or empty to disable.

Billing/Shipping Customer information

Metadata about the order.

This data is presented under the Billing Customer and Shipping Customer tabs on the main screen for operators. This data is also included in CSV output and can be printed on part labels and pack lists.

User defined

Metadata representing an arbitrary property about the order.

This data is also included in CSV output and can be printed on part labels and pack lists.

Line Item Fields

Line Item ID

Unique number associated with the line item.

Each order should have line items numbered 1 - n. If not provided, the ID will be generated automatically.

Part ID

Human readable name for the line item. Often part numbers or sales names are good choices.

Quantity Required

Number of parts that should match this line item.

The order is marked as complete when all line items are at the required quantity.

Width

The nominal width of parts matching this line item.

Height

The nominal height of parts matching this line item.

Thickness

The nominal thickness of parts matching this line item. Only used when a depth gage attachment is configured and “Test Thickness” on the order is positive.

User Message

The message shown to the operator upon measuring a part matching the line item.

Messages can include any arbitrary text, often used to inform an operator where to move a completed part (ie “Place on cart A”).

User Defined:

18 user defined fields are provided on line items.

These fields are useful for informing operators about parts being measured, like materials, colors, hinging, handling instructions, etc. Additionally, these fields are useful for printing data like barcodes and instructions for downstream processes.

These fields can refer to any arbitrary data, and seen by operators when marked as viable.

These fields are also included in CSV output and can be printed on part labels and pack lists.

Label and Report Printing

ProCAB QC has the ability to print labels and pack lists with system data and customized templates.

When enabled, part labels will be printed via the configured label printer automatically on measurement. Likewise, when enabled, pack lists will be printed via the configured report printer upon completion of an order. Pack lists can be printed, saved to a PDF, and/or sent via email to the receiving customer.

Enable printing under Measurement Options in the System Configuration, and set the printer devices under Interface Hardware. Once configured, the templates can be edited using the buttons in System Settings.

Some templates are special and are referred to internally by ProCAB QC. These templates must remain available and cannot be renamed.

- Default Pack List.repx

The default pack list template. This will be used when no custom template is defined in an order, or as a fallback.

- Incomplete Order Report.repx

The pack list template used when an order is processed as incomplete.

- Default Part Label.repx

The default part label template. This will be used when no custom template is defined in an order, or as a fallback.

- Finish defect label.repx

The part label template used when the “Finish Defect” button is pressed for a defect in the finish of the part. Defects are labeled with the measured dimensions at the table, and not enrolled as a completed part.

- Out of Tolerance defect label.repx

The part label template used when the part measured is out of tolerance in width, height, angle, or depth. Defects are labeled with the measured dimensions at the table, and not enrolled as a completed part.

- Out of Square defect label.repx

The part label template used when the “Out of Square Defect” button is pressed for an error in the squareness in the part. Defects are labeled with the measured dimensions at the table, and not enrolled as a completed part.

- Miscellaneous defect label.repx

The part label template used when the “Misc Defect” button is pressed for some other error in the part, for example a hinge pocket hasn’t been milled out. Defects are labeled with the

measured dimensions at the table, and not enrolled as a completed part.

Controlling Printing via CSV Templates

CSV orders are able to control printing functions for pack list and part labels. Using the Pack List and Part Label mapping in the csv template, a CSV file can define the printing template file for use. When the “By Template” mode is used in the Measurement Options, the presence or absence of these fields determines whether printing occurs in this order.

Printing of labels and pack list can be defined as one of the following; See *Measurement Options* (page 19) for more information.

- Never

Never print. This option disables the printing feature entirely.

- Always

Always print. This will use the template selected in the order data, falling back to the default template if it's not defined.

- By Template

Print only for orders that define the print template. To use the default template, the name of the default template must still be defined.

To define the print templates, open the order template editor and define the cell/column for the label and/or report print templates. Then in that cell/column of your order CSV, include the file name of the print template *without* the *.repx* file extension.

The requirement to map the print template by the order template allows operators to determine whether an order should print by which order template is used for import. Two otherwise identical order templates can be named “Order printing” and “Order no printing”, where the printing template defined the print templates.

- Prompt Operator

Ask the operator whether to print a pack list. This will use the template selected in the order data, falling back to the default template if it's not defined.

Printing Template Editor

The editor is third party software, a more complete manual from the authors of this tool can be found on their website here: <https://devexpress.github.io/dotnet-eud/reporting-for-desktop/articles/report-designer/report-designer-for-winforms.html>

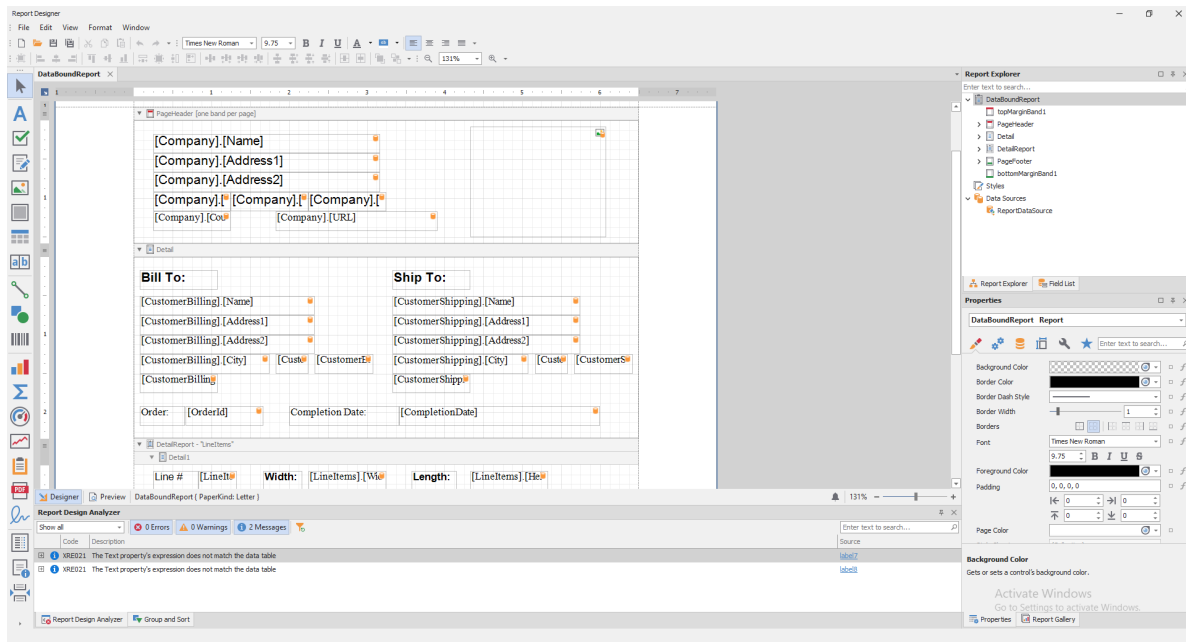
To open the template editor, open the System Settings and click the button to Edit Report Templates or Edit Part Label Templates. The first launch of the template editor may take a couple minutes, please be patient.

Sample data is preloaded into the template editor, so you can test your templates with the print preview option.

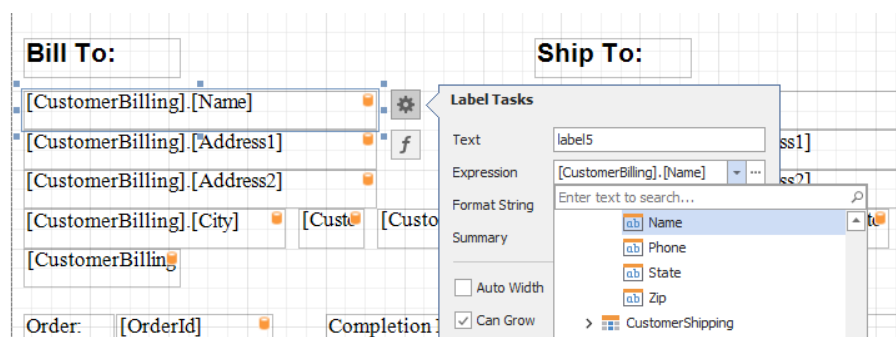
The print template editor may allow you to add additional data sources, this is recommended against. ProCAB QC may not have the capacity to fulfill these sources in the field, required libraries may be absent causing undefined behavior, or future updates to ProCAB QC may break any associations made by the editor.

Once the report editor has opened, open the template you would like to edit and be sure to save over the template file you intended to edit. ProCAB QC can use any number of templates, so long as the file name matches what's defined in the order.

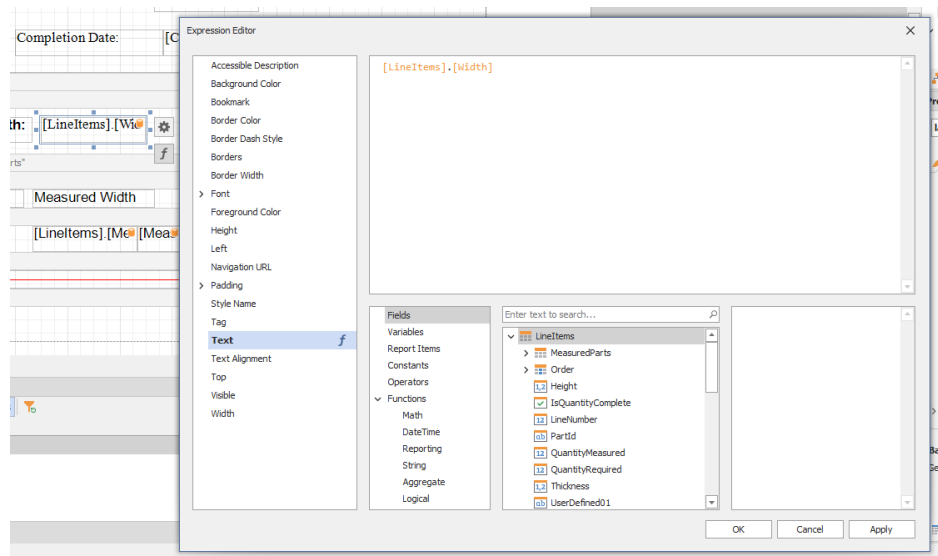
Quick Editor Guide



The template editor uses bands to combine the list-based data of an order. Each order has a list of line items, and each line item has a list of measured parts. Each band has the bindings filled with data, bands for lists repeat for each item.



To change the data bound to a label, select the label, properties, then set the Expression to the field you want.



For more complex bindings (string manipulation, math, etc), use the Expression Editor. This acts a lot like functions for cells in Microsoft Excel.

To include symbolic data like barcodes or QR Codes, use the barcode tool in the left toolbar to insert an element, and bind the expression to some data.

Symbology

The format for the data to be encoded to. The default Code 128 is very compatible but not very dense. Other symbologies can be used to encode the data, as not all symbologies support features like lowercase letters, unicode, or some special characters.

Symbology can also set the type of symbol, QR Code GS1 sets the symbol to be a QR Code instead of a barcode. Many 1 and 2 dimensional symbols can be used in this way.

Module/Auto Module

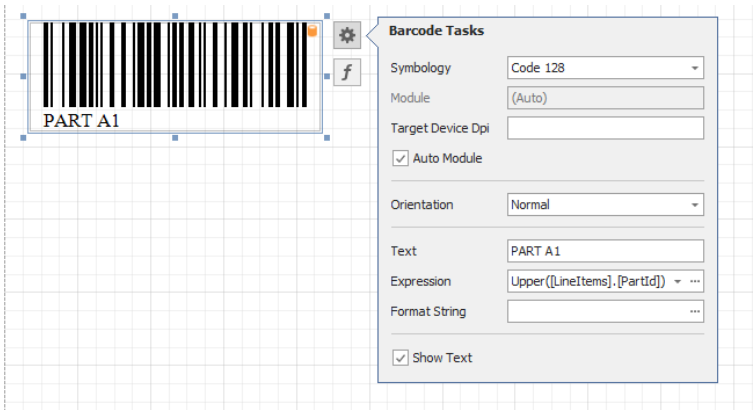
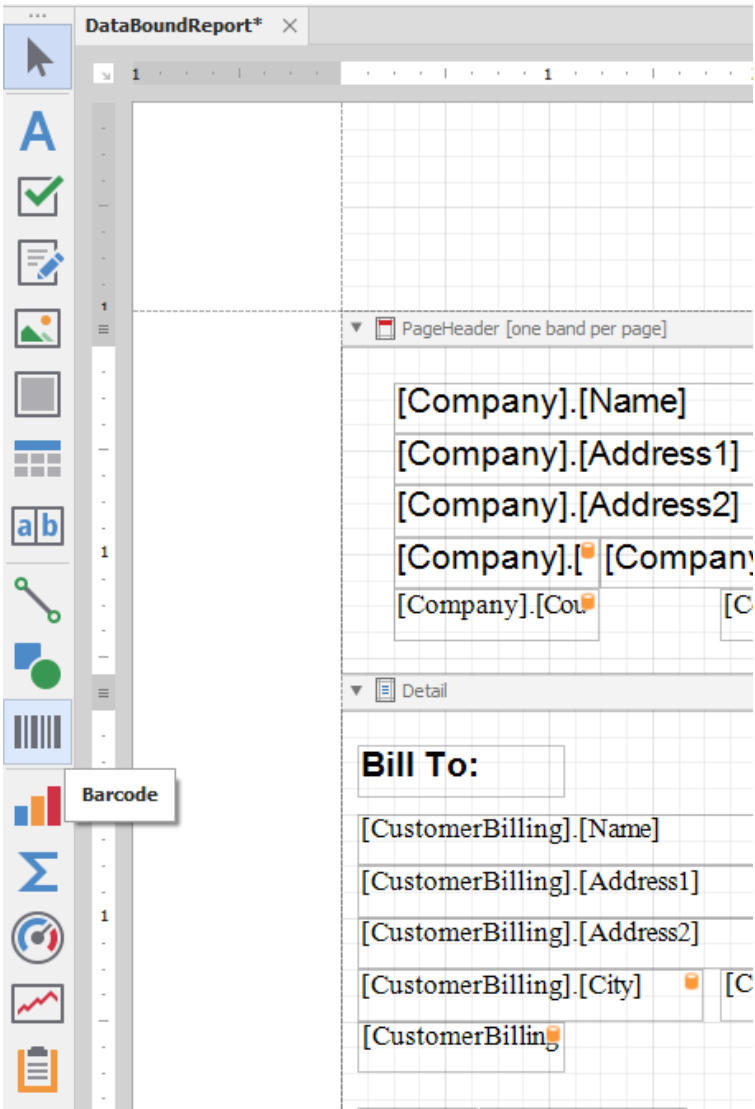
The module refers to the scale of the symbol. Larger modules mean larger symbols.

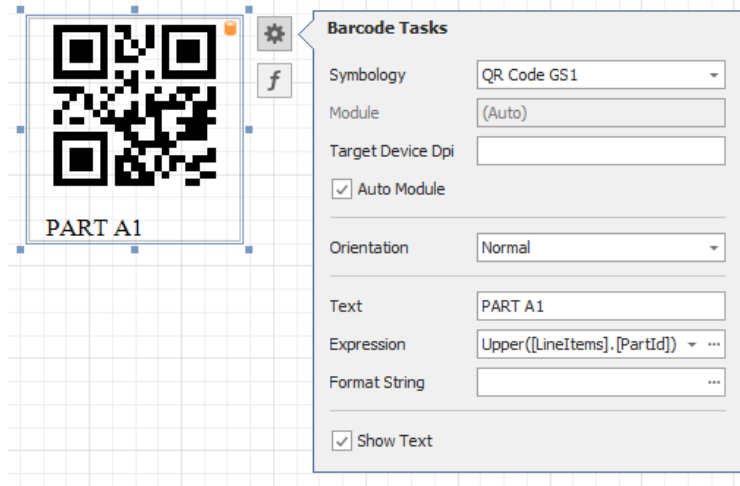
If the data in the bound field is always the same size, you can choose a good module size for your typesetting. Else, it is recommended to use Auto Module to automatically fit the symbol to the defined space.

Orientation

To place a barcode vertically instead of horizontally, set this to “Rotate to the Left” or “Rotate to the Right”.

If you have issues creating your preferred print templates, you can [Contact Us](#) (page 41) for help.





Contact Us

For technical support, contact us at

<mailto://customerservice@proscale.com>²

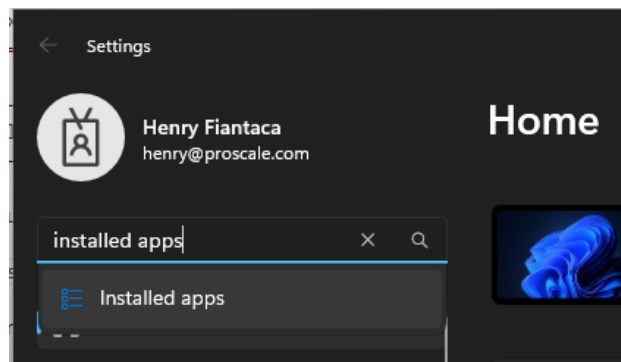
or

+1 828 654 7920 Monday-Friday 8:00AM to 5:00PM Eastern Time

Appendix

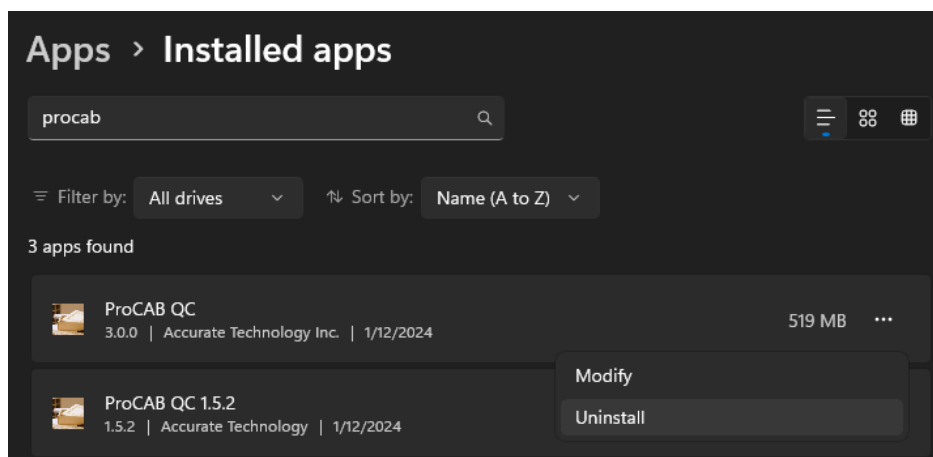
Uninstalling ProCAB QC

Before uninstalling, if you would like to transfer your license to another machine, follow the instructions in *Transfer ProCAB QC License to Another Machine* (page 42).



To uninstall ProCAB QC, go to the machine's Settings and search for "Installed Apps"

² //customerservice@proscale.com

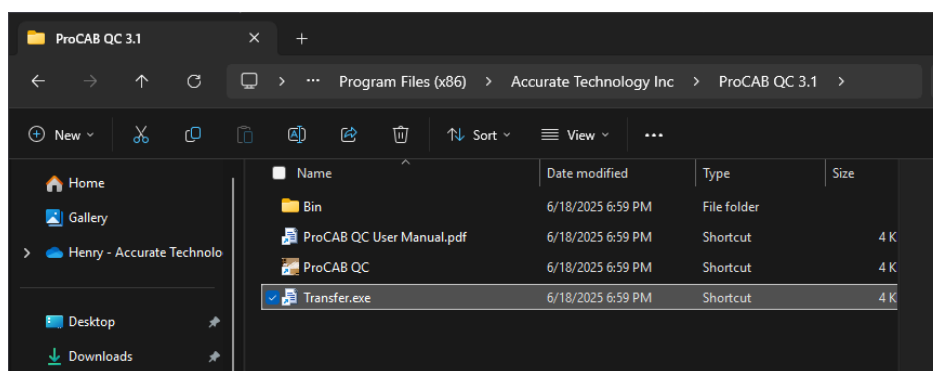


Search for ProCAB QC. Click the kebab next to ProCAB QC, then “Uninstall”. Confirm the uninstallation.

There are some files left in %APPDATA%\Accurate Technology Inc\ProCAB QC, you can delete these files *only* if you want to destroy all data associated with ProCAB QC. Deleting these files will delete your configuration, settings, templates, in-process orders, and completed orders.

Transfer ProCAB QC License to Another Machine

Install ProCAB QC (page 13) on the new machine and take note of the registration ID.



Using the file explorer, navigate to the ProCAB QC install directory at C:\Program Files (x86)\Accurate Technology Inc\ProCAB QC 3.1. Launch the Transfer.exe utility.

Put the registration ID of the new machine into the transfer tool and click “Transfer Out”. This will provide an license key for the new machine *and* deactivate this machine.

Record the license key! Once this dialog closes, the key cannot be regenerated. Use the license key on the new machine to activate.

To keep your data on the new machine, copy the contents of %APPDATA%\Accurate Technology Inc\ProCAB QC to the new machine. Some domain servers already do this.

The screenshot shows a dialog box titled "*** OLD SITE *** Transfer Out License >>". It contains two paragraphs of instructions: "To transfer out the license of the program, enter the Registration ID from the new site and click the Transfer Out button. You will receive a License Key for the new site." and "You may use the Import button to import the Registration ID from a file. Use the Export button to save the License Key to a file." Below the text are two input fields: "Registration ID:" and "License Key:". To the right of the "Registration ID:" field is a button labeled "<< Import". To the right of the "License Key:" field is a button labeled "Export >>". At the bottom right of the dialog are two buttons: "Transfer Out" and "Close".

If necessary, copy/remap any folders configured on the old machine.