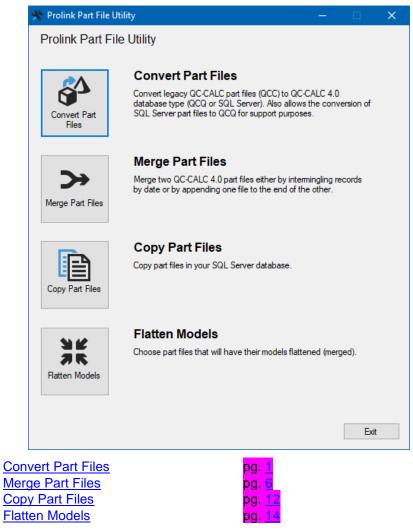
# 1. Introduction

This utility provides a few file maintenance options. **NOTE:** Any operations within this utility that will impact a SQL database will have a password challenge appear and processing will not proceed until that password information has been validated.



# 1.1 Convert Part Files

When moving from a previous version of QC-CALC, it is necessary to convert your existing .qcc files to a new database format. This application can also be used to convert part files already stored in a SQL Server database into QCQ files, or to store QCQ files in SQL Server.

# 1.1.1 Format

This screen is used to choose the existing data format (QCC files, QCQ files, or SQL Server) and the final format (QCC files are not allowed here).

🕀 QC-CALC 4.0 Data Conve	erter - QCC files > QCQ fil	es				×
	Format					
Format	Welcome to QC-CALC	24.0 Data Converter.				
Source	Please select the data	a conversion type and fol	low the steps of this v	wizard.		
Destination						
Settings						
Process	Convert From	QCC files	$\sim$			
1100000	Convert To	QCQ files	$\sim$			
		Format         Welcome to QC-CALC 4.0 Data Converter.         Please select the data conversion type and follow the steps of this wizard.         Convert From				
	nat       Welcome to QC-CALC 4.0 Data Converter.         rce       Please select the data conversion type and follow the steps of this wizard.         ination       ngs         ress       Convert From         QCC files          Convert To       QCQ files					
	Format         Welcome to QC-CALC 4.0 Data Converter.         Please select the data conversion type and follow the steps of this wizard.         Convert From       QCC files         Convert To       QCQ files					
					zard.	
	Format       Welcome to QC-CALC 4.0 Data Converter.         Source       Please select the data conversion type and follow the steps of this wizard.         Destination       Convert From         Settings       Convert From         Process       Convert To					

# 1.1.2 Source

#### QCC or QCQ Files

This screen allows you to dynamically, or specifically, choose QCC or QCQ files to convert.

Format	Use the options below to specify the qcc files	you want to convert.
Source		
Destination	Folder: C:\Prolink\QC-CALC 3.4\Data\ Oynamically check all files	
ettings		Exclude TryOut Files
Process	Exclude Gage R&R Files	Exclude ~nDims Files
	Available Find 057-10179-00 AA2 RDS All Char 1313_016.qcc 1544 + 133 no balls flash.Qcc 155636.Qcc 1812_cell_3.Qcc 1911_cell_3.Qcc 24296303-OP30-IPA All Characte 25_1_DE.mfp.25.qcc 382184-002 Vice MFP.qcc 500-03-70-3_hspection.qcc	

### Folder

Choose the location of the files to be converted.

#### Dynamically check all files

With this option, all files within the Folder specified at the top of the screen that pass the checkable criteria in this area will be converted.

#### Include Subfolders

When this option is checked, any subfolders will also be checked for QCC/QCQ files.

#### Exclude TryOut Files

When this option is checked, any QCC/QCQ files with \_TryOut at the end of the name will not be converted.

#### **Exclude Gage R&R Files**

When this option is checked, any QCC/QCQ files with \_GRR at the end of the name will not be converted.

#### Exclude ~nDims Files

When this option is checked, any QCC/QCQ files with ~nDims (where n is the number of dimensions inside the file) at the end of the name will not be converted.

#### Choose a specific list of files

With this option, a list of files within the Folder specified at the top of the screen will be shown on the left. Move any files to convert to the list on the right.

#### SQL Server Part Files

This screen allows you to select part files from your SQL Server database. Enter your

database information and click the **Load Part Files** button to start. Use the Automatical and subtropy the part files to convert from the **Available** column to the **Selected** column. Use the **Find** box to filter down to the part files that match. Click on a part file in the **Available** list and the full file name along with the **Location** and **Category** information will be displayed at the bottom.

	Source		
Format	Enter the location on need create a new	of the Sql Server database. Click the Create Database button if v database.	you
Source	Server:	La\SQLExpress	
Destination	Database:	qc_calc	
Process	User ID:	QCCAdmin	
	Password:	•••••	
		Use Windows Authentication	
		Load Part Files	
	Available Find m9	Selected	
	M924607A-002	October 2013_test Conticals Top View Control of View Control o	
	Name: M930366 Location: Los An Category: Custom		

# 1.1.3 Destination

#### **QCQ** Files

This screen allows you to set the **Root folder** to store the new QCQ files. If your QCC files were stored in subfolders, this folder structure will be duplicated within the Root folder you specify.

×	QC-CALC 4.0 Data Conve	rter - SQL Server > QI	CQ files	—		×
	Format	Destination Enter the destinat	ion root folder for QCQ files.			
	Source					
	Destination	Root folder	C:\Users\Public\Prolink\QC-CALC 4.0\Data			
	Process					
			<< <u>B</u> ack <u>N</u> ext >>		<u>C</u> ancel	

#### **SQL Server Part Files**

This screen allows you select the SQL Server database to store the converted part files. Enter your database information and click the **Test Connection** button if your database already exists. Use the **Create Database** button if your database does not yet exist.

👋 QC-CALC 4.0 Dat	a Converter - QCC files > SQL Serv	ver .	—	estination Enter the location of the SQL Server database. Click the Create Database button if you
Format			eate Database button if <u>;</u>	you
Destination	Server:	(local)\SQLExpress		
Settings Process				
Flocess		•••••		
	Create Datab Database Ven	sion Expected: 1.8.27	ction	
		Destination         Enter the location of the SQL Server database. Click the Create Database button if you need create a new database.         Server:       (local)\SQLExpress         Database:       qc_calc         User ID:       QCCAdmin         Password:       •••••••••         Use Windows Authentication         Create Database       Test Connection         Database Version Expected:       1.8.27         Database Version Found:       1.8.27	ancel	

## 1.1.4 Settings

This screen has a few settings that are required for the conversion process to happen. It only appears for QCC file conversions.

℀	QC-CALC 4.0 Data Converter	QCC files > SQ	L Server —		×
Γ		Additional Setting	S		
	Format	Location	Boston		
	Source		Use categories		
	Destination	Category	Customers > Misc. Customers		
	Settings				
		Assignable Cau	se File		
	Process	File Location:	C:\Prolink\QC-CALC 3.4\AssignableCauses.dat		
		Corrective Acti	on File		
		File Location:	C:\Prolink\QC-CALC 3.4\CorrectiveActions.dat		
		Example: C:\F C:\Program Fil This is used fo location of the	utomatic Exports to SPC Office Buddy 4.0 Program Files (x86)\Prolink\SPC Office Buddy 4.0\SpcOfficeBuddy.exe es (x86)\Prolink\SPC Office Buddy 4.0\SpcOfficeBuddy.exe r any Automatic Exports to the SPC Office Buddy Export Type. SPC Office Buddy EXE file is the location on the computer whe I-Time collects the data and triggers the export.	 The	
			<< <u>B</u> ack <u>N</u> ext >>	<u>C</u> ancel	

#### Location

*SQL Server Only* - The Location is a free form text field that can be used for describing the location/origin of the part files.

#### Assignable Cause/Corrective Action files

The location of the Cause and Action files is necessary when converting your data from QCC files to 4.1. In QCC files, a number that pointed to a value within the .dat files was stored within the database instead of the text of the Cause/Action being stored. This means the correct .dat file for the QCC files is required to bring the Cause/Action values over in the new database correctly.

#### Location for Automatic Exports to SPC Office Buddy 4.1

This setting is only necessary if any of your files have been set up to automatically export to an **Excel Job** within SPC Office Buddy. The location for the corresponding 4.1 SPC Office Buddy needs to be entered in this area.

## 1.1.5 Process

Click the **Start Conversion** button to start the processing of the files. As the files are processed, the **Log:** area at the top of the screen will update to show you the processing that is happening.

👋 QC-CALC 4.0 Data Converter	- QCC files > SQL Server	– 🗆 X
Format	Process Log:	Clear
Source	Conversion started 2/8/2022 3:39:59 PM Gathering files to convert Number of files to convert: 3	
Destination	File: 155636 (ID: -1)	
Settings	Status: Success Records Attempted: 1 Records Copied: 1	
Process	Total Time (seconds): 0.3052496	
	File: 1842A_BE-00 Garland (ID: -1) Status: Success Records Attempted: 1 Records Copied: 1 Total Time (seconds): 0.3602783	
	Conversion finished 2/8/2022 3:40:01 PM File: 1911_cell_3 (ID: 1) Status: Success Records Attempted: 2 Records Copied: 2 Total Time (seconds): 1.2520692	
	Files done = 3 total = 3	
	Items done = 100 total = 100	
	Debug Mode	Start Conversion
	<< <u>B</u> ack	Next >> Exit

#### Debug Mode

A Prolink support person may ask you to check this box if you have run into problems converting files.

# 1.2 Merge Part Files

There are times when a new part file is created by accident and the data from the newly created file needs to be merged into the main file. This tool was created to help with this process. **NOTE:** It is highly recommended that the **Copy Part Files** option is used to make a copy of the destination file before proceeding.

Merge Part Files	-
Weige Part Hilds	
	appended or intermingled by measure date.
Merge Style	
Process	
	merge is only matching characteristics by position and not by characteristic label. This is done by design. All labels, nominals, and tolerances from the source part file will be used in the destination file
	<< Previous Next >> Qose

# 1.2.1 Source File

The part file that you want to merge into another part file is the one that you enter here. This file will still exist after the merging has finished. **NOTE:** The Labels, Nominals, and Tolerances from this file will be used in the final part file when the merge process is finished.

#### Part File Type

This area allows you to select the type of part file to merge. The options are **QCQ File** or **SQL Server**.

QCQ File

*	Merge Part Files			—		×
ſ	···· Welcome	Choose Source File				
	- Source File	Choose the source part fi	le that will be merged into the destination part fil	Ð.		
	- Destination File	Part File Type	QCQ File $\checkmark$			
	- Merge Style	QCQ File	C:\Users\Public\Prolink\QC-CALC 4.1\Data\	Sample.Qo	p:	
	Process					

#### QCQ File

Choose the part file that will be merged into the main file here.

#### SQL Server

Enter all the typical server information for the database and click the **Test Connection** button to make sure it is all correct.

💸 Merge Part Files			—		×
Welcome	Choose Source File Choose the source p	part file that will be merged into the destination part file.			
Welcome       Choose Source File         Source File       Choose the source part file that will be merged into the source part file that will be merged into the source file         Destination File       Part File Type       SQL Server         Merge Style       QC-CALC Real-Time 4.1 (C-\Program Files (x86))Pr         Process       Connection Information         Server       @ccal/\SQLExpress         Database       qc_calc         User ID       QCCAdmin         Password					
	QC-CALC Real-Time	e 4.1 (C:\Program Files (x86)\Prolin ~			
	Connection Infor	mation			
	Server	(local)\SQLExpress			
	Database	qc_calc			
	User ID	QCCAdmin			
	Password				
		Use Windows Authentication			
		Test Connection			
	Advanced				_
	Database Version Fo	ound:			
	Choose Part File	My Part 3 RevB			
	<< Previous	<u>l</u> ext >>		Clos	e

#### **Choose Part File**

Choose the part file that will be merged into the main part file here.

# **1.2.2 Destination File**

On this screen you will choose the part file to receive the data from the Source File. This is the main file, and the Source File will be merged INTO this file.

#### QCQ File

Choose the part file to receive the data in the QCQ File area.

🔆 Merge Part Files		- 🗆 X	
Welcome Source File <b>Destination File</b>	Choose Destination File Choose the destinatio Part File Type	n part file into which the data will be merged.	
- Merge Style	Currently selected Sor	urce file is: Sample.Qcq	
Process	QCQ File	C:\Users\Public\Prolink\QC-CALC 4.1\Data\Sample.Qcq	

#### SQL Server

Enter all the typical server information for the database and click the **Test Connection** button to make sure it is all correct. You can use the **Copy from source** link to copy all of

the SQL Server settings from the previous screen if needed. Use the \_\_\_\_\_ button to choose the Part File to receive the data.

Merge Part Files		—		
	Choose Destination	File		
Welcome	Choose the destina	ation part file into which the data will be merged.		
Source File				
Destination Dis	Part File Type	SQL Server  V Copy from source		
Destination File	Discovered Cor	madiana		
Merge Style				
Welcome Source File <b>Destination File</b> Merge Style Process	QC-CALC Real-Ti	me 4.1 (C:\Program Files (x86)\Prolin $\sim$		
100035	Cop	by Connection Info Below		
	Connection Info	omation		
	Server	(local)\SQLExpress		
	Database	qc_calc		
	User ID	QCCAdmin		
	Password			
		Use Windows Authentication		
		Test Connection		
	Advanced			
	navancea			_
	Database Version	Expected:		
	Database Version	Found:		
			_	_
	Choose Part File	My Part 3		•
	<< Previous	Next >>	Close	_
	<< rievious	INCM //	Close	

# 1.2.3 Merge Style

Merge Style allows you to choose how the part files should be merged. See below for an explanation of the options.

Merge Part Files	-		×
··· Welcome ··· Source File	Merge Style Choose one of the merge styles below by selecting a button. Then click Next.		
··· Destination File ··· <b>Merge Style</b> ··· Process	Append Records Append Records Append	nds	
	Sort By Date Sort By Date Sort By Date		
	<< <u>P</u> revious <u>N</u> ext >>	Close	

#### **Append Records**

The **Append Records** option appends what you are merging. For example, the part files shown below are about to be appended. The part file on the left is the destination file and the right one is the source file.

	QC-C/	ALC SPC (4.1.8) - [	DB: qc_calc]				-	□ ×		QC-CALC	C SPC (4.1.8) - [I	DB: qc_calc]				- 0
<u>F</u> ile	<u>E</u> dit	<u>V</u> iew <u>G</u> roup	Report Tools	Administrati	ve Tools <u>W</u>	indow <u>H</u> elp			<u>F</u> ile	<u>E</u> dit <u>V</u>	iew <u>G</u> roup	<u>Report</u> Tools	<u>A</u> dministrati	ve Tools <u>W</u>	indow <u>H</u> elp	
2			<u>d = 1</u>	-		ی 🖪 🔝			2	1	<u>е × н с</u>	1 B B= 7	-		🤌 🔟 🔟 🔤	D
	My Pa	rt 3						^		My Part 3	3_RevB					
Sub	group	Size: 1							Sub	group Siz	e: 1					
All (	Charao	teristics In Contr	ol Characteristics	Out Of Spec 0	Characteristics	s Out Of Control Ch	aracteristics		All (	Character	istics In Contro	l Characteristics	Out Of Spec O	haracteristics	Out Of Control Ch	aracteristics
	Rec	ord (1) Feature 1	(2) Feature 2	(3) Feature 3	(1) Lot No	(1) Operator	Date/Time	Fai		Record	(1) Feature 1	(2) Feature 2	(3) Feature 3	(1) Lot No	(1) Operator	Date/Time
12	001	2 1.0754	1.6225	2.7814	10976	Laura	6/8/2023 3:12:43 F	PM 0	1	0001	1.3178	1.9189	3.2289	10976	Bruce	6/8/2023 3:39:41 PM
13	001	3 1.0277	2.2090	2.7731	10976	Laura	6/8/2023 3:12:43 F	PM 0	2	0002	0.8503	2.0739	2.9113	10976	Bruce	6/8/2023 3:39:41 PM
14	001	4 1.1924	2.0341	3.2048	10976	Laura	6/8/2023 3:12:43 F	PM 0	3	0003	0.9377	1.9872	3.0719	10976	Bruce	6/8/2023 3:39:41 PM
15	001	5 0.8036	1.8133	3.0292	10976	Laura	6/8/2023 3:12:44 F	PM 0	4	0004	0.9394	2.1335	2.9608	10976	Bruce	6/8/2023 3:39:42 PM
16	001	6 0.8128	2.0376	3.0804	10976	Laura	6/8/2023 3:12:44 F	PM 0	5	0005	0.9146	2.0129	3.0670	10976	Bruce	6/8/2023 3:39:42 PM
17	001	7 1.1201	1.8602	2.9952	10976	Laura	6/8/2023 3:12:44 F	PM 0	6	0006	0.9087	2.0331	3.1716	10976	Bruce	6/8/2023 3:39:42 PM
18	001	8 0.9201	1.7806	2.8178	10976	Laura	6/8/2023 3:12:44 F	PM 0	7	0007	1.1916	1.9627	3.1984	10976	Bruce	6/8/2023 3:39:42 PM
19	001	9 0.7630	2.1790	3.2046	10976	Laura	6/8/2023 3:12:44 F	PM 0	8	0008	0.9950	1.9551	2.9555	10976	Bruce	6/8/2023 3:39:42 PM
20	002	0 1.3554	2.0325	2.9813	10976	Laura	6/8/2023 3:12:45 F	PM 0	9	0009	1.1618	2.1554	2.9010	10976	Bruce	6/8/2023 3:39:42 PM
21	002	1 1.2689	2.1321	2.9099	10976	Laura	6/8/2023 3:12:45 F	PM 0	10	0010	0.9233	1.7495	2.7408	10976	Bruce	6/8/2023 3:39:43 PM
22	002	2 1.1317	1.3584	2.7464	10976	Laura	6/8/2023 3:12:45 F	PM 1	11	0011	1.1227	1.7885	3.0812	10976	Bruce	6/8/2023 3:39:43 PM
23	002	3 1.0856	2.2505	3.0019	10976	Laura	6/8/2023 3:12:45 F	PM 0	12	0012	1.1367	1.9907	3.1848	10976	Bruce	6/8/2023 3:39:43 PM
24	002	4 0.9709	1.9045	2.7082	10976	Laura	6/8/2023 3:12:46 F	PM 0	13	0013	1.2099	1.7883	2.9336	10976	Bruce	6/8/2023 3:39:43 PM
25	002	5 1.0773	1.8903	3.2560	10976	Laura	6/8/2023 3:12:46 F	PM 0	14	0014	1.1675	2.0611	2.6765	10976	Bruce	6/8/2023 3:39:43 PM
26	002	6 0.8349	1.9110	2.9887	10976	Laura	6/8/2023 3:12:46 F	PM 0	15	0015	0.8611	2.1332	3.0848	10976	Bruce	6/8/2023 3:39:44 PM
27	002	7 1.1546	1.8123	2.9131	10976	Laura	6/8/2023 3:12:46 F	PM 0 ¥	16	0016	1.3624	2.2134	2.7236	10976	Bruce	6/8/2023 3:39:44 PM
<								>	<							

The destination file will be shown at the beginning of the merged part file and the source file will be shown at the end when they are appended. As highlighted in the picture, the time the parts were inspected will not change how the parts are listed.

<b>.</b> c	C-CALC	SPC (4.1.8) - [[	)B: qc_calc]				— C	⊐ ×
le	<u>E</u> dit <u>V</u> i	ew <u>G</u> roup	<u>R</u> eport <u>T</u> ools	<u>A</u> dministrati	ve Tools <u>W</u>	indow <u>H</u> elp		
	al este	alviile				» 🔟 🔤 🔤		
						🎤 💷 🔟 🖉		
- 1	My Part 3							
_	· ·							
Subg	group Size	:1						
All C	haracteri	stics In Contro	Characteristics	Out Of Spec 0	haracteristics	Out Of Control C	haracteristics	
	Record	(1) Feature 1	(2) Feature 2	(3) Feature 3	(1) Lot No	(1) Operator	Date/Time	Fai
38	0038	0.4863	1.9704	2.8157	10976	Laura	6/8/2023 3:12:52 PM	1
39	0039	1.1203	2.0064	2.9755	10976	Laura	6/8/2023 3:12:52 PM	0
40	0040	0.9638	2.0491	2.8937	10976	Laura	6/8/2023 3:12:52 PM	0
41	0041	0.8206	2.0621	2.9867	10976	Laura	6/8/2023 3:12:52 PM	0
42	0042	1.0521	2.1749	2.6950	10976	Laura	6/8/2023 3:12:52 PM	0
43	0043	1.0302	1.9004	3.0536	10976	Laura	6/8/2023 3:12:52 PM	0
44	0044	1.2263	1.9446	3.1221	10976	Laura	6/8/2023 3:12:53 PM	0
45	0045	1.0327	2.1826	2.9823	10976	Laura	6/8/2023 3:12:53 PM	0
46	0046	1.3178	1.9189	3.2289	10976	Bruce	6/8/2023 3:39:41 PM	0
47	0047	0.8503	2.0739	2.9113	10976	Bruce	6/8/2023 3:39:41 PM	0
48	0048	0.9377	1.9872	3.0719	10976	Bruce	6/8/2023 3:39:41 PM	0
49	0049	0.9394	2.1335	2.9608	10976	Bruce	6/8/2023 3:39:42 PM	0
50	0050	0.9146	2.0129	3.0670	10976	Bruce	6/8/2023 3:39:42 PM	0
51	0051	0.9087	2.0331	3.1716	10976	Bruce	6/8/2023 3:39:42 PM	0
52	0052	1.1916	1.9627	3.1984	10976	Bruce	6/8/2023 3:39:42 PM	0
53	0053	0.9950	1.9551	2.9555	10976	Bruce	6/8/2023 3:39:42 PM	0

#### Sort By Date

The **Sort By Date** option will organize the merged part file in order of the time that the parts were inspected. For example, the part files shown below are about to be sorted by date. The part file on the left is the destination file and the right one is the source file.

QC-CALC	SPC (4.1.8) - [[	DB: qc_calc]				-		×		QC-CALC	SPC (4.1.8) - [[	)B: qc_calc]				-		×
<u>File Edit V</u>	ew <u>G</u> roup	<u>Report</u> Tools	Administrati	ve Tools <u>W</u>	indow <u>H</u> elp				<u>F</u> ile	<u>E</u> dit <u>V</u>	iew <u>G</u> roup	<u>R</u> eport <u>T</u> ools	Administrati	ve Tools <u>W</u>	indow <u>H</u> elp			
<b>2</b> 11 <b>b</b>	8 × N G	) <u>-</u>			🗕 📠 🔲 ዾ				🛋 i		8 × N C	<u>        7</u>			🗕 🔟 🔟 🖉			
📴 My Part 4								^		My Part 4	.RevB							^
Subgroup Size	:1								Sub	group Size	x 1							
All Characteri	stics In Contro	l Characteristics	Out Of Spec C	haracteristics	Out Of Control Cl	naracteristics		_	All	Characteri	stics In Contro	Characteristics	Out Of Spec C	haracteristics	Out Of Control C	haracteristics		
Record	(1) Feature 1	(2) Feature 2			(1) Operator	Date/Time	Fails				(1) Feature 1	(2) Feature 2	(3) Feature 3	(1) Lot No	(1) Operator	Date/Time	Fails	
1 0001	1.1430	1.9199	2.9179	10457	Bruce	6/9/2023 10:15:40 AM	0		1	0001	1.2155	2.1792	3.1001	10457	Laura	6/9/2023 10:16:26 AM	0	
2 0002	1.0944	2.1310	2.9486	10457	Bruce	6/9/2023 10:15:41 AM	0		2	0002	0.8756	1.8467	2.9750	10457	Laura	6/9/2023 10:16:26 AM	0	
3 0003	1.1233	2.2165	3.0575	10457	Bruce	6/9/2023 10:15:41 AM	0		3	0003	1.0979	2.1687	2.9820	10457	Laura	6/9/2023 10:16:26 AM	0	
4 0004	1.0621	2.2190	2.9805	10457	Bruce	6/9/2023 10:15:41 AM	0		4	0004	1.0400	2.0982	3.0279	10457	Laura	6/9/2023 10:16:26 AM	0	
5 0005	0.9318	2.1506	3.2428	10457	Bruce	6/9/2023 10:15:41 AM	0		5	0005	1.2949	1.5692	3.0719	10457	Laura	6/9/2023 10:16:27 AM	0	
6 0006	0.7468	2.0598	2.8833	10457	Bruce	6/9/2023 10:15:41 AM	0		6	0006	0.9735	2.0426	2.9533	10457	Laura	6/9/2023 10:16:27 AM	0	
7 0007	1.1090	2.0498	3.0294	10457	Bruce	6/9/2023 10:15:42 AM	0		7	0007	1.0160	2.2104	2.8968	10457	Laura	6/9/2023 10:16:27 AM	0	
8 0008	0.9079	2.0636	3.0662	10457	Bruce	6/9/2023 10:15:42 AM	0		8	8000	1.0353	1.9833	3.1046	10457	Laura	6/9/2023 10:16:27 AM	0	
9 0009	1.2729	1.8713	3.1580	10457	Bruce	6/9/2023 10:15:42 AM	0		9	0009	1.0787	2.0296	3.0040	10457	Laura	6/9/2023 10:16:27 AM	0	
10 0010	1.3166	2.1890	2.9803	10457	Bruce	6/9/2023 10:15:42 AM	0		10	0010	1.4442	1.8875	2.4536	10457	Laura	6/9/2023 10:16:27 AM	1	
11 0011	0.9782	2.0458	2.9430	10457	Bruce	6/9/2023 10:15:42 AM	0		11	0011	0.9692	1.9475	2.8870	10457	Laura	6/9/2023 10:16:28 AM	0	
12 0012	1.2903	1.9185	3.1515	10457	Bruce	6/9/2023 10:15:43 AM	0		12	0012	1.0351	1.9063	2.7621	10457	Laura	6/9/2023 10:16:28 AM	0	
13 0013	1.0252	1.9476	2.7422	10457	Bruce	6/9/2023 10:15:43 AM	0		13	0013	0.9693	1.8757	2.9847	10457	Laura	6/9/2023 10:16:28 AM	0	
14 0014	1.0030	1.9519	2.4427	10457	Bruce	6/9/2023 10:15:43 AM	1		14	0014	0.9923	2.1170	3.0069	10457	Laura	6/9/2023 10:16:28 AM	0	
15 0015	0.7848	1.9569	3.4009	10457	Bruce	6/9/2023 10:15:43 AM	0		15	0015	1.0877	1.7644	3.0377	10457	Laura	6/9/2023 10:16:28 AM	0	
16 0016	0.7087	1.9237	3.0195	10457	Bruce	6/9/2023 10:15:44 AM	0		16	0016	0.9705	2.0936	3.0668	10457	Laura	6/9/2023 10:16:28 AM	0	
17 0017	0 9783	2 1679	3 1488	10457	Bruce	6/9/2023 10:15:44 AM	0	~	17	0017	1 2489	1 9318	3 0640	10457	Laura	6/9/2023 10:16:29 AM	0	- ×
<								>	<									> .::

When the part files are merged, they are sorted by what time the parts were inspected as shown in the example. The data is mixed unlike how it would be if it were appended.

e [	<u>E</u> dit <u>V</u> ie	w <u>G</u> roup <u>R</u>	eport <u>T</u> ools	<u>A</u> dministrativ	e Tools <u>W</u> i	ndow <u>H</u> elp		
前		<u>а × н Га</u>	🔒 🕨 💎			🎽 🔟 🕅 🔤		
M	ly Part 4							
ubgr	oup Size:	1						
	naracteris	tice I to Control	Characteristics	Out Of Same Ch		Out Of Control Ch	ava atoxiation ]	
	Record	(1) Feature 1	(2) Feature 2	(3) Feature 3	(1) Lot No	(1) Operator	Date/Time	Fails
205	0205	1.2562	2.1504	2.8770	10457	Laura	6/9/2023 11:09:55 AM	0
205	0205	1.1549	1,9001	2.8210	10457	Laura	6/9/2023 11:09:55 AM	0
200	0200	0.7654	1.6784	2.7293	10457	Laura	6/9/2023 11:10:01 AM	0
207	0207	1.2954	1.9157	3.0858	10457	Laura	6/9/2023 11:10:06 AM	0
208	0200	1.2954	1.9157	3.0858	10457	Laura	6/9/2023 11:10:06 AM	0
210	0203	0.7317	1.9165	2.9859	10457	Laura	6/9/2023 11:10:10 AM	0
210	0210	0.7817	2.1054	3.1587	10457	Bruce	6/9/2023 11:10:22 AM	0
212	0211	1.4472	2.1034	2.9476	10457	Bruce	6/9/2023 11:10:23 AM	0
212	0212	0.9230	1.9126	3.2348	10457	Laura	6/9/2023 11:10:33 AM	0
213	0213	0.9230	1.9126	3.2348	10457	Laura	6/9/2023 11:10:33 AM	0
214	0214	0.9250	2.1005	3.2947	10457	Laura	6/9/2023 11:10:33 AM	0
215	0215	1.1768	2.1005	3.2947	10457	Laura	6/9/2023 11:10:34 AM	0
		0.7452	2.1102	3.2256	10457		6/9/2023 11:10:34 AM	-
217	0217					Laura		0
218	0218	1.1768	2.1182	3.2256	10457	Laura	6/9/2023 11:10:34 AM	0
219			1.9569	3.3258	10457	Bruce	6/9/2023 11:10:46 AM	0

## 1.2.4 Process

The Process step is the final part of **Merge Part Files** where the part files will be merged. Click the **Process** button to start the processing of the files. As the files are processed, the **Status** area at the top of the screen will update to show you the processing that is happening.

🔆 Merge Part Files		—		×
Welcome	Process Merge			
Source File	Status			
- Destination File	Validating part files for merge Ready to merge Merging the following two part files: Source: My Part 3_RevB Destination: My Part 3			^
Process	Merge completed successfully.			
				~
	Debug Mode	[	Process	S
	<< <u>P</u> revious <u>N</u> ext >>		Clos	se

#### Status

The **Status** box shows the status of the merging. If there is an error, a message will appear in this section saying that there was an error, and the part files cannot be merged along with an explanation as to why. This means that you will have to go back and change either the source file or the destination file to correct the error.

#### Debug Mode

A Prolink support person may ask you to check this box if you have run into problems merging files.

# **1.3 Copy Part Files**

### 1.3.1 Source File

This utility is used to copy part files from within SQL Server only. The regular Windows interface should be used to copy QCQ files. Enter all the typical server information for the database and click the **Test Connection** button to make sure it is all correct. Once that is

done use the <u> </u> button to choose the part file you wish to copy. If used, the **Location** and **Category** will be displayed.

🕀 Copy Part Files			—		×
Source File	Choose Source File Choose the source pa	art file that will be copied.			
Process	Server Database User ID Password	(local)\SQLExpress         qc_calc         QCCAdmin			
	Database Versio Database Versio Choose Part File Location	n Found: 1.8.27.0 155636 Boston			
	Category           Category           << Previous	Customers\Misc. Customers		<u>C</u> los	e

# **1.3.2 Destination**

This screen is used to choose where the copy of the part file will be made. Enter all the typical server information for the database and click the **Test Connection** button to make sure it is all correct. You can use the **Copy from source** link to copy all of the SQL Server settings from the previous screen if needed.

Source File	Choose Destination			
	Fill in the database infor	mation, new part file name, and optionally loc	ation and category.	
Destination	Copy from source			
Process	Server	(local)\SQLExpress		
	Database	qc_calc		
	User ID	QCCAdmin		
	Password	******		
		Use Windows Authentication		
		Encrypt Database Connection		
		Test Connection		
	Database Version B	Expected: 1.8.26		_
	Database Version F	Found: 1.8.27.0		
	Choose/Type Location	NewOne	<ul> <li>✓ (optional)</li> </ul>	)
	Choose Category	Customers > New One	(optional)	)
	New Part File Name	155636-new		

#### **Choose/Type Location**

You can choose to put the new part file into an existing **Location**, type a new file to create a new Location within the database, or leave this area blank to keep the part file out of any Location at all.

#### **Choose Category**

Use the <u>use</u> button to choose a **Category** for the new part file or leave this area blank to not use a Category at all.

#### **New Part File Name**

The previous part file name will be shown here automatically, but if you would like to rename the file in the process of making the copy this is where the new name would be entered.

# 1.3.3 Process

Click the **Process** button to start the processing of the files. The **Status** area at the top of the screen will update to show you the processing that is happening.

Copy Part Files		_	
··· Source File	Process Part File Copy		
··· Destination	Status		
- Process	Validating part file for copy Ready to copy Copying the following part file: Source: 155636 Destination Location: NewOne Destination Category: Customers > New One Destination Part File: 155636-new Copy completed successfully.		
			Process
	Debug Mode		
	<< <u>Previous</u> Next >>		Close

#### Status

The **Status** box shows the process of the copying. If there is an error, a message will appear in this section saying that and the part file cannot be copied along with an explanation as to why. This means that you will have to go back and change either the source file or the destination file to correct the error.

#### **Debug Mode**

A Prolink support person may ask you to check this box if you have run into problems copying files.

# **1.4 Flatten Models**

As part files are changed over time, behind the scenes models may be created to keep track of these changes. For example, if you change the nominal and tolerances for a specific characteristic a new model would be created, and the old data would be in the old model along with the old nominals and tolerances. The new model would mark the point where those values were changed, and all new data would be saved into that model. QC-CALC is not model aware, and you will just see the new nominal and tolerances applied to all data in the file, but if you use ERS you will see the different models over time.

It is possible to have models created that do not actually contain any data. If you changed the nominals or tolerances within a part file twice without collecting any data in the middle, then you would have 2 new models created, but only the last model would end up with data (as new data is collected). When QC-CALC, SPC Office Buddy, or ERS are gathering up data to run a report (for example) the data from the different models needs to be joined so the same characteristic is kept together. This process of gathering up the data will get slower and slower over time as more and more models are added to a part file.

The Flatten operation will use the information (Labels, nominals, tolerances, ...) from the latest model and bring all data forward into that model. At this point it will remove the old models and the speed for that file should be faster. **NOTE:** It is highly recommended that you use the **Copy Part Files** operation to make copies of any files you plan on flattening before doing anything else. It is always safer to have copies of part files before doing any operations like this.

## 1.4.1 Database

#### QCQ File

Choose the folder containing your QCQ files on the Database screen.

🔆 Flatten Models			×
Database	Choose Database Cor Choose the source of	nection database for the model flatten operation.	
Process	Part File Type	QCQ File $\vee$	
	QCQ Path	C:\Users\Public\Prolink\QC-CALC 4.0\Data\	

#### SQL Server

Enter all the typical server information for the database containing the part files to be flattened and click the **Test Connection** button to make sure it is all correct.

℀	Flatten Models					×
	•• <b>Database</b> •• Choose Part File	-Choose Database Conr Choose the source d		model flatten operation.		
	Process	Part File Type	SQL Sen			
		Server		QLExpress		
		Database	qc_calc			
		User ID Password	QCCAdm			
		rassword	Use V	Vindows Authentication		
			Encry	pt Database Connection		
			Tes	st Connection		
		Database Versio	on Expected:	1.8.27		
		Database Versio	on Found:	1.8.27.0		
		<< <u>P</u> revious	lext >>		Close	

# 1.4.2 Choose Part File

The **Choose Part File** section is where you choose the part files with the model that you will be flattening (or merging).

Flatten Models		
- Database - <b>Choose Part File</b> - Process	Choose Part Files Choose the part files whose models you we to selected list.	ould like to flatten and move them from the available
FIUCESS	Available RAM X OFF RAM X TMP RAM X TMP X TMP RAM X TMP RAM X TMP X T	Selected CASE_0000 CASE_0000

## Available

The available section shows the part files that you gave the information for in the following section

## 1.4.3 Process

The Process step is the final part of **Flatten Models** area where the models will be flattened. Click the **Process** button to start the processing of the files. The **Status** area at the top of the screen will update to show you what is happening.

Process Status Starting Part File: CASE_0000 Models found: 54 Pre-processing finished. Ready to merge models. Starting Part File: CASE_0000	
Starting Part File: CASE_0000 Models found: 54	
Models found: 54	
Process	
Debug Mode	

#### Status

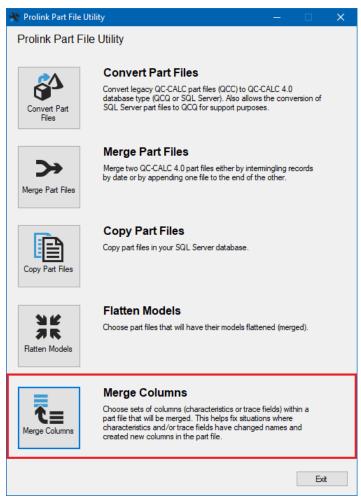
The **Status** box shows the process of the flattening. If there is an error, a message will appear in this section saying that there was an error and the model could not be flattened along with an explanation as to why.

#### **Debug Mode**

A Prolink support person may ask you to check this box if you have run into problems merging models.

# **1.5 Merge Columns**

When there is a change in the name of a characteristic or trace field, new columns will be created in the part file that will not have data from the prior name. Both names will exist in the same part file and the overlapping data will be turned into golden dots. This area merges these columns so that all of the data is in the new name and the old column is removed.



# 1.5.1 Source Database

This is where the part file that has the columns that will be merged is selected.

### QCQ

If the part file type is a QCQ file, select QCQ File in the **Part File Type** area. Input the QCQ part file path that you would like to use in the **QCQ File** by clicking the ... button or typing in the path.

👋 Merge Columns			-		×
Source Database	Source Database				
Merge Columns	Choose the source pa	art file that contains the columns to be merged.			
Heige Columns	Part File Type	QCQ File $\checkmark$			
	QCQ File	C:\Users\Public\Prolink\QC-CALC 4.1\Data\Sample.Qcq			
	dog nic		I		
	<< Previous	Next >>		Close	,

## SQL

If the part file is from SQL Server, select SQL Server in the **Part File Type** area.

Merge Columns			-	
ource Database	Source Database			
	Choose the source	part file that contains the columns to be merged.		
erge Columns	Part File Type	SQL Server $\sim$		
	Discovered Cor	nections		
	QC-CALC Real-Ti	e 4.1 (C:\Program Files (x86)\Prolin ~		
	Co	v Connection Info Below		
	Connection Info	mation		
	Server	(local)\SQLExpress		
	Database	qc_calc		
	User ID	QCCAdmin		
	Password	******		
		Use Windows Authentication		
		Test Connection		
		Test Connection		
	Advanced			
	Database Version	xpected: 1.8.38		
	Database Version			
	Database version	ound: 1.0.00.0		

#### **Discovered Connections**

In this area, other Prolink software are looked at in order to fill in the server information from them. This makes it so you do not have to fill in the SQL server information again if you plan to get data from the same server you are on another program.

#### **Connection Information**

This is where the SQL Server information is filled out for the server that has the part file that will be changed.

# 2. Merge Columns

Source Database	Merge Columns				
	Choose the par	rt file containing the c	olumns to be merged.		
Merge Columns					
	Part File	Allen's Test			
	Column Type	<b>a</b>			
	Column Type	Characteristics	~		
			Load Part File		
	the list of sets t		below to indicate the From and To pa	art of each set. Then select th	e arrow to add it to
	Merge From			Merge To	
	Mergerhom			Meige To	
	Search			Search	
	Hole X			Hole X	
	Hole Y Line Length			Hole Y Line Length	
	Overall Length	1		Line Length 0.5	
	Rim Length			Overall Length Rim Length	
				nin Lengur	
	Remove	Туре	Merge From	Merge	То
	Remove	Characteristic	Line Length	Line Length 0.5	
		_	Process		

This is where the part file will be selected and merged.

#### Part File

All of the part files from either the area specified in the **Source Database** are shown in the list from this area. Select the part file that has the column you wish to merge from the list.

#### Column Type

Changes to characteristics, text trace fields, and numeric trace fields all cause the creation of a new column. Here you can specify which of these should be merged.

#### Load Part File

Click this to load the part files in the file specified.

#### Merge From

Select the original name of the part file. This will be removed when the merge is completed.

#### Merge To

Select the new name of the part file. This will be the name of the column after the merge. Below shows the end result. The data that was split is merged into one column with the new name.

