

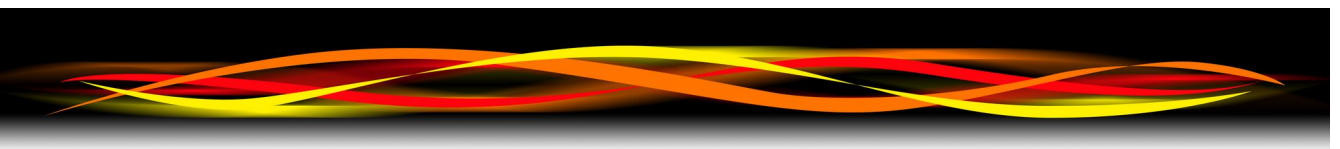
Newflow

P587

OmniBuss

User

Manual





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MMXXII

Spreadsheet Source Data

ACME Mobile Calibration 2022.ods - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Window Help

Liberation Sans 10 B I U A % 0.0 0.00 0.00

A6 fx Σ = 2

	A	B	C	D	E	F	G
3	Title	Prover Type (SVP, BALL)	Prover Tag Name	Prover Manufacturer	Prover Model	Prover Serial number	Last Waterdraw date
4	Tag Name		FCSVPRVtagname	FCSVPRVmaker	FCSVPRVmodel	FCSVPRVserno	FCSVPRVwaterdrawdate
6	2	Small Volume	SVP002	FMD	FMD077	4321/FGT56	14/02/2019
7	3	Small Volume	SVP003	FMD	FMD777	1111/FGT56	3 rd Jan 2018
8	4	Small Volume	CalSVP123	Calibron	CLB200/45	CLB2-555D	2018-07-25
9	5	Small Volume	CalSVP124	Calibron	CLB300/12	CLB3-666E	Dec 22 2020
10	6	Small Volume	CalSVP125	Calibron	CLL444B	CLB4-777F	Dec 21 2020
11	7	Bi-Directional	ME_555-TAG1	Meter Engineers	CLL555B	CLB4-888F	Dec 20 2019
12	8	Bi-Directional	ME_666-TAG2	Meter Engineers	CLL666B	CLB4-999F	Dec 19 2018
13	9	Small Volume	MOBMOB-Test	Atalier	TL98-Encoder	TON1	6 th Jan 2022
14	10	Small Volume	AMR_SN002	Cotton Co	3452345	534523	19/01/21

Sheet 1 of 2 Default English (UK) Average: 2; Sum: 2 140%

OmniBuss Screenshot

OmniBus - v0.5.0.11 Registered to ACME CALIBRATION SERVICES

File Network Licence

Prover Selection [SVP001] Meter Selection [EPP210/045] Device Selection Tag Details

Prover Selection 1/10 Filter ANY FIELD contains

Index	Prover Type (SVP, BALL)	Prover Tag Name	Prover Manufacturer	Prover Model	Prover Serial number	Last Waterdraw	Prover Base Vo
1	Small Volume	SVP001	FMD	FMD007	1234/FGT56	Dec 22 2020	5.011
2	Small Volume	SVP002	FMD	FMD077	4321/FGT56	14/02/2019	21.234
3	Small Volume	SVP003	FMD	FMD777	1111/FGT56	3rd Jan 2018	41.998
4	Small Volume	CalSVP123	Calibron	CLB200/45	CLB2-555D	2018-07-25	2.222
5	Small Volume	CalSVP124	Calibron	CLB300/12	CLB3-666E	Dec 22 2020	98.765
6	Small Volume	CalSVP125	Calibron	CLL444B	CLB4-777F	Dec 21 2020	55.555
7	Bi-Directional	ME_555-TAG1	Meter Engineers	CLL555B	CLB4-888F	Dec 20 2019	333.333
8	Bi-Directional	ME_666-TAG2	Meter Engineers	CLL666B	CLB4-999F	Dec 19 2018	444.444
9	Small Volume	MOBMOB-Test	Atalier	TL98-Encoder	TON1	6th Jan 2022	999.888
10	Small Volume	AMR_SN002	Cotton Co	3452345	534523	19/01/21	12345

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1 Introduction

OmniBuss is a highly versatile Windows program which can be used to pre-load constants or settings into a NANO.

The OmniBuss program needs to be registered in order to be able to import the Provers or Customers files, but it can be demonstrated using default Provers and Customers data.

The source information can be maintained in a spreadsheet, for ease of management. Any spreadsheet can be used, Libreoffice is ideal, but Excel is also suitable.

The sheet data has to be exported in a tab separated values format with a .tsv , .csv or a .txt extension.

File editing is NOT provided in OmniBuss, the data can be viewed and transmitted to the Prover Computer, but any changes to the information must be done to the source files.

The source information can be imported from spreadsheets using a tab separated values format with a .tsv , .csv or a .txt extension.

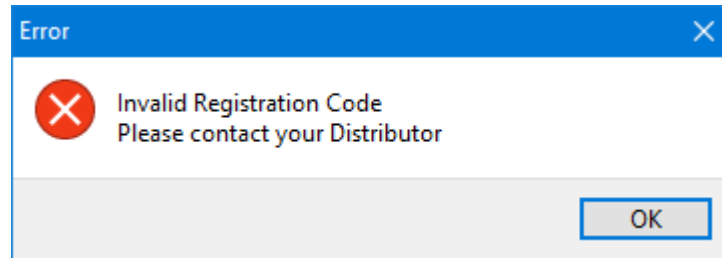
The OmniBuss program builds a SQLite .db3 database, and this database can be directly modified, if the user has sufficient SQLite database knowledge, contact your distributor for more information.

2 Installation of OmniBuss

The OmniBuss program is a single executable program that does not require any DLL's or other additional Microsoft files to operate, so does not require an installer. The file can be placed in any folder or directory, including the desktop, a USB memory stick or a network drive.

If you have purchased a pre-authorized version of OmniBuss, it will also be supplied with a config.ini file, which must be located in the same folder or directory.

When OmniBuss is first launched, it will check to see if there is a valid config.ini file in the same folder or directory. If the file is not found, it will generate a default config.ini file and display the message shown below.

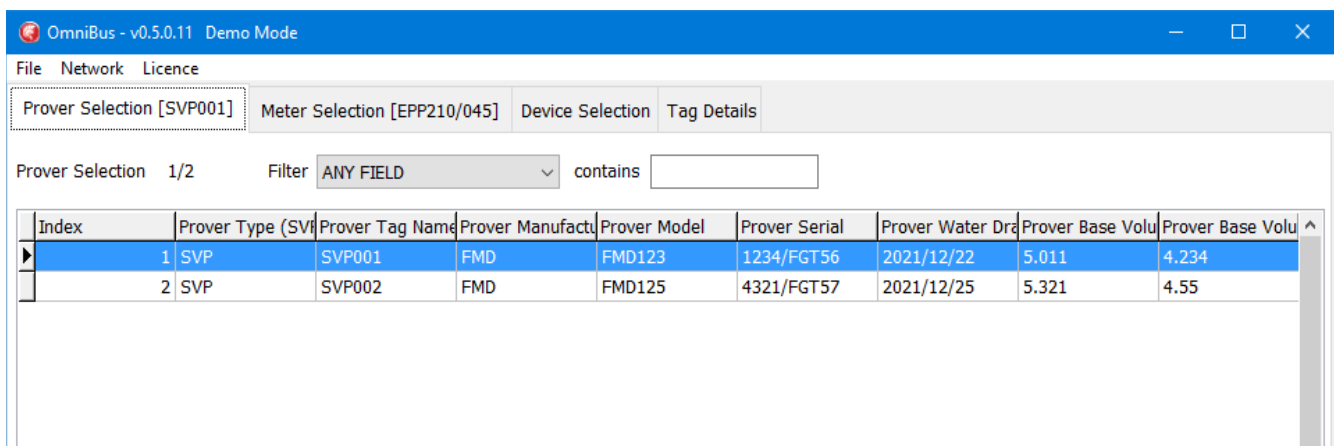


If a valid config.ini file is found, an initial OmniBuss.db3 database file will also be created in the same folder or directory and the main OmniBuss window will be opened as shown below.

The Banner shows the program name and version number (v0.5.0.11 in this case) and states who the software is licensed to. If it is not currently licensed, then it will state **Demo Mode** as in the example shown below.

The top row of menu selections are File, Network and Licence.

Below these pull down menus, there are four tabs showing Prover Selection [xxxx], Meter Selection [yyyy], Device Selection and Tag Details. These menus are full explained later in the manual

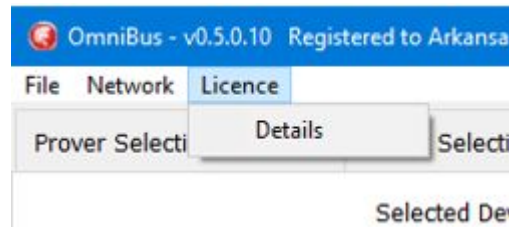


3 Licensing the OmniBuss program

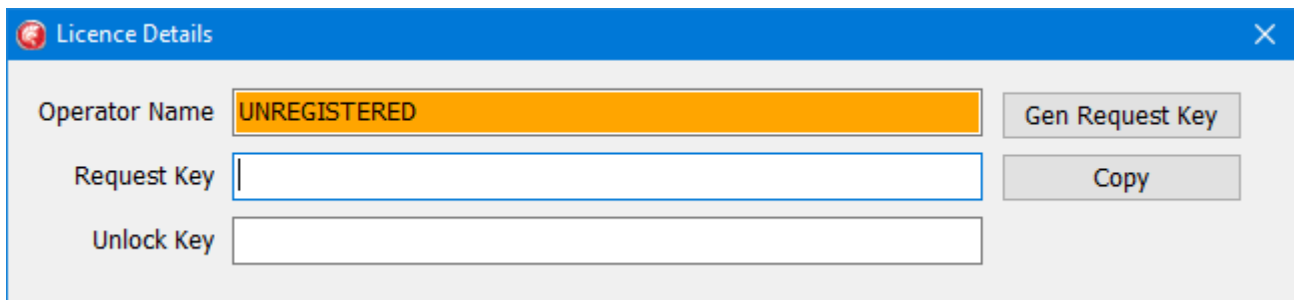
OmniBuss can be run without being licensed in order to demonstrate the functionality, however you will not be able to import the Prover or Meters information, and only use the demo data included, however this will allow the process to be tested.

If OmniBuss has been purchased, your distributor will also send a config.ini file, which must be located in the same folder or directory as the OmniBuss.exe file.

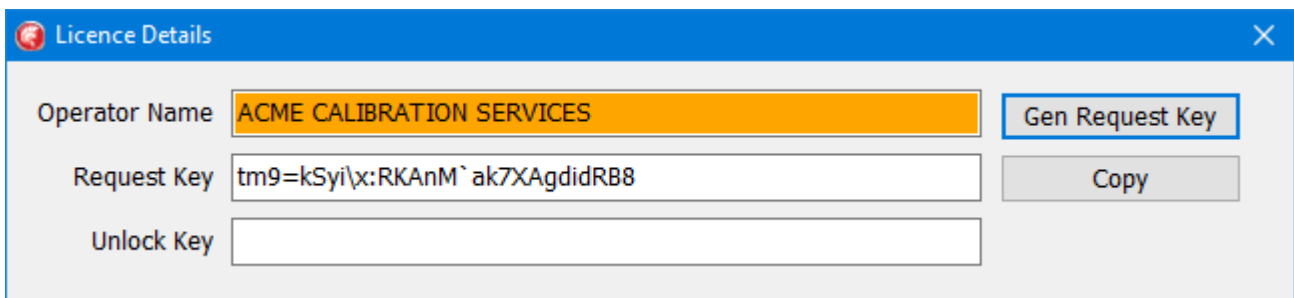
Alternatively, click on License in the menu bar, and then click on details.



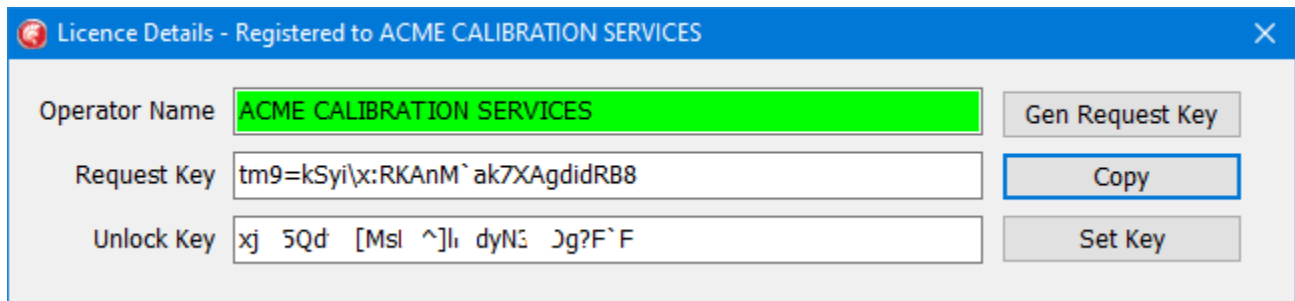
This will open the license details dialog box



To request a license, fill in the name that you want to appear on the prover reports and the top banner of the OmniBuss program, in the orange box shown above, and click Gen(erate) Request Key. This will fill in the Request Key field, and copy the contents into the clipboard, so it can be pasted into an email.



Send the Request Key to your distributor, and they will return the Unlock Key.



The image shows a software window titled "Licence Details - Registered to ACME CALIBRATION SERVICES". It contains three text input fields and three buttons. The "Operator Name" field is highlighted in green and contains the text "ACME CALIBRATION SERVICES". The "Request Key" field contains the text "tm9=kSyi\|x:RKAnM` ak7XAgdidRB8". The "Unlock Key" field contains the text "xj 5Qd [Msl ^]l dyN 3g?F`F". To the right of the "Operator Name" field is a button labeled "Gen Request Key". To the right of the "Request Key" field is a button labeled "Copy". To the right of the "Unlock Key" field is a button labeled "Set Key".

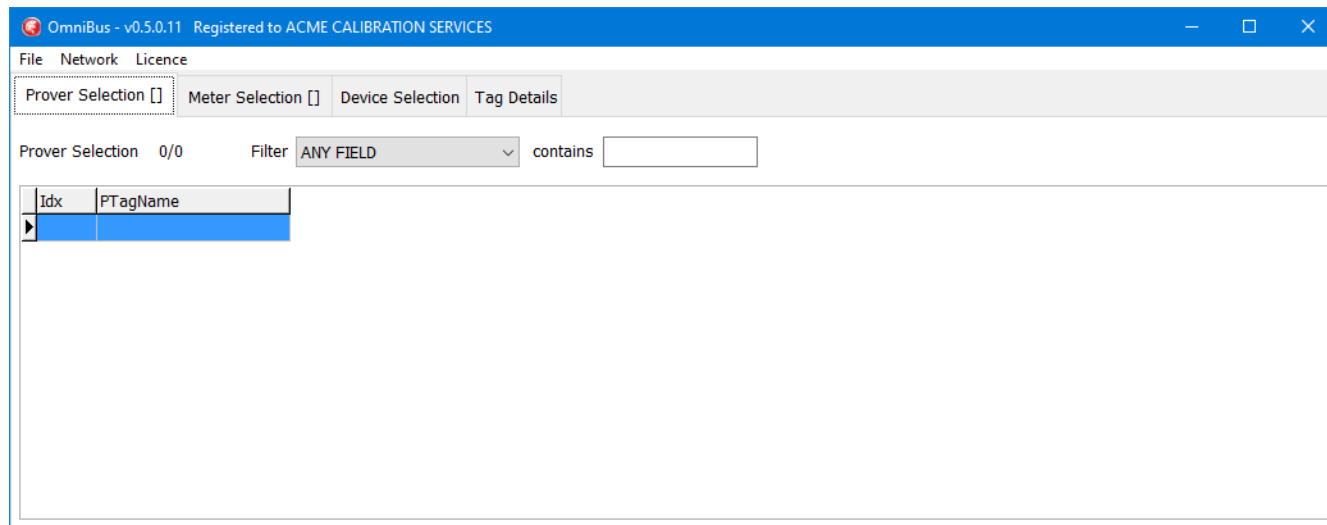
Operator Name	ACME CALIBRATION SERVICES	Gen Request Key
Request Key	tm9=kSyi\ x:RKAnM` ak7XAgdidRB8	Copy
Unlock Key	xj 5Qd [Msl ^]l dyN 3g?F`F	Set Key

Paste the Unlock Key into the lower entry box and if valid, the Operator Name field will change to a green background and Set Key button will appear. Clicking the Set Key will save the licensing details in the config.ini file.

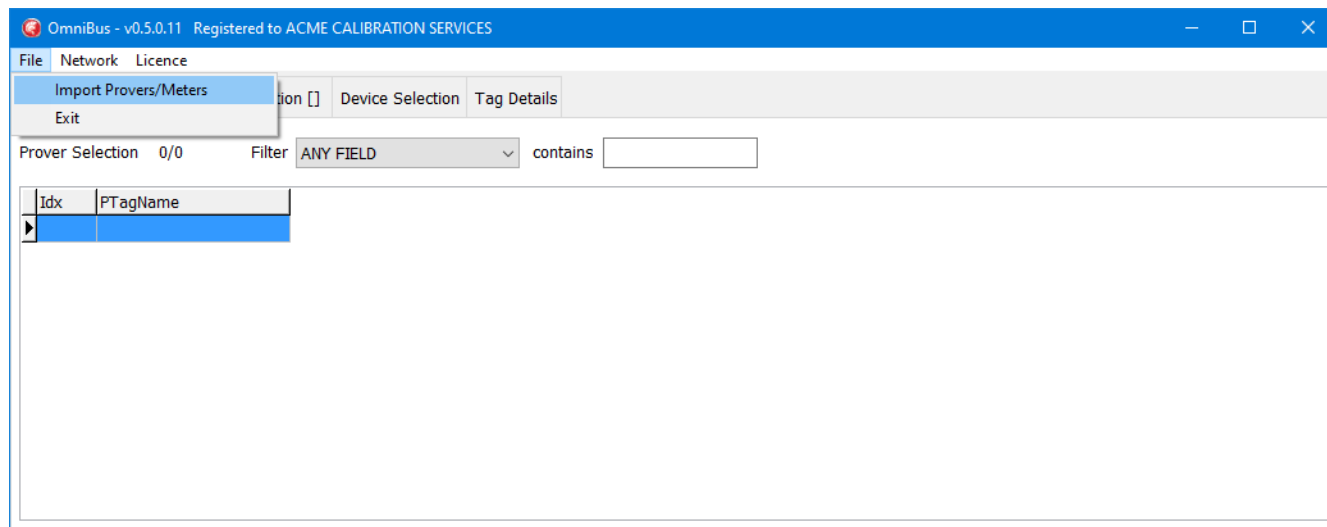
4 Loading Information into OmniBuss

Double click the OmniBuss executable file to launch the program.

The screenshot below shows OmniBuss after it has been registered. The demo mode Provers and Meters shown in demo mode are removed, but no no “real” data has been imported

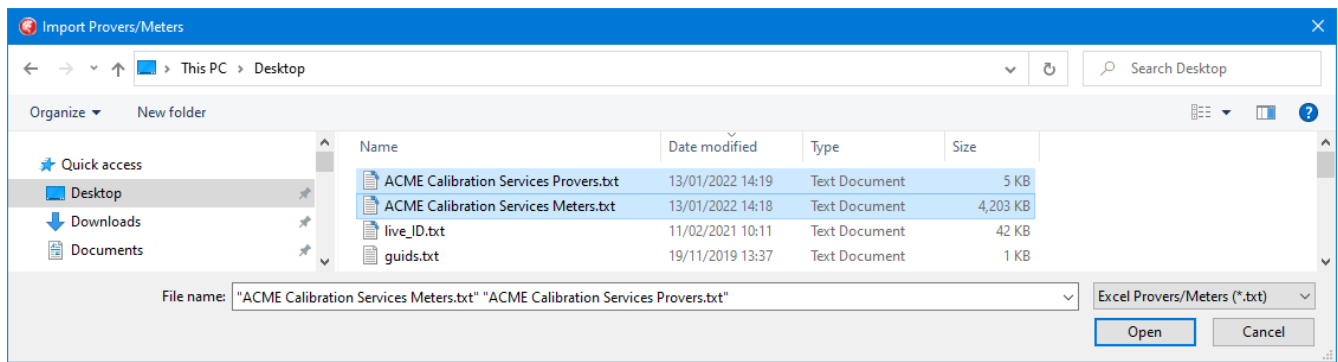


To import data, click on File on the menu bar, and then select Import Provers/Meter from the choice show.

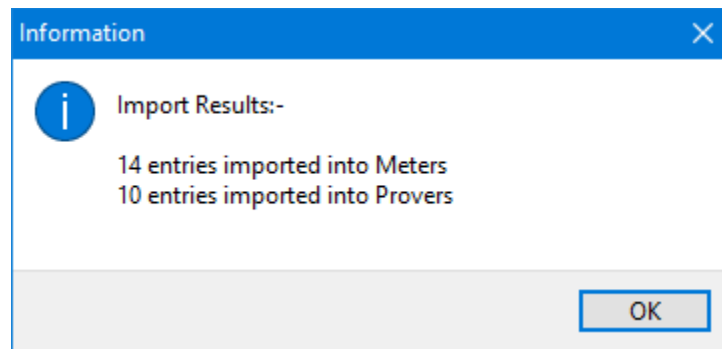


Clicking on Import Provers/Meter will open the standard windows explorer window, and you can now select the tabulated data for the provers and the meters.

NOTE: You need to select the appropriate import type. We recommend that from Excel you export as a Tab Delimited Text File (*.txt) and from all other spreadsheets, such as LibreOffice, select *.csv

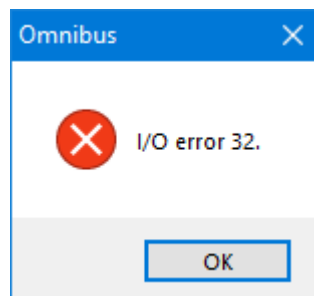


You can select both the Prover information file and the Meters information file at the same time (using the control – Ctrl key, and then click the Open button.



The dialog lists the number of Meters and Provers imported.

If when the Open button is clicked, the I/O Error dialog is shown, the file you have selected is probably still open in another application, such as the spreadsheet program. Once the other program has been closed, repeat the import process.



5 Pre-Loading a MicroCube Prover Computer

Once OmniBuss has been registered, and the Provers and Meters information loaded, the program is ready to go.

The initial view will show the Prover information loaded. Click on the line containing the Prover to be used, and the whole line will show a blue background, and the name in the Prover Selection Tab will show the Prover Tag Name, CalSVP123 in the example shown below.

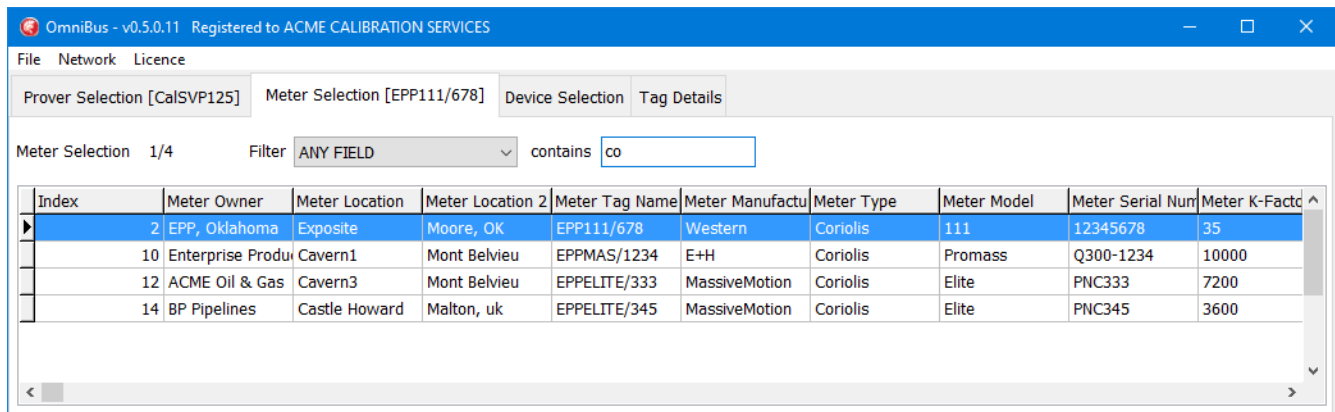
Index	Prover Type (SVP, BALL)	Prover Tag Name	Prover Manufacturer	Prover Model	Prover Serial number	Last Waterdraw	Prover Base Volume	Prover Base Volu
1	Small Volume	SVP001	FMD	FMD007	1234/FGT56	Dec 22 2020	5.011	4.123
2	Small Volume	SVP002	FMD	FMD077	4321/FGT56	14/02/2019	21.234	15.345
3	Small Volume	SVP003	FMD	FMD777	1111/FGT56	3rd Jan 2018	41.998	33.3333
4	Small Volume	CalSVP123	Calibron	CLB200/45	CLB2-555D	2018-07-25	2.222	1.987
5	Small Volume	CalSVP124	Calibron	CLB300/12	CLB3-666E	Dec 22 2020	98.765	89.7654
6	Small Volume	CalSVP125	Calibron	CLL444B	CLB4-777F	Dec 21 2020	55.555	54.321
7	Bi-Directional	ME_555-TAG1	Meter Engineers	CLL555B	CLB4-888F	Dec 20 2019	333.333	321.9876
8	Bi-Directional	ME_666-TAG2	Meter Engineers	CLL666B	CLB4-999F	Dec 19 2018	444.444	432.1098
9	Small Volume	MOB Test	Atalier	TL98-Encoder	TON1	6th Jan 2022	999.888	888.777
10	Small Volume	ZOOM Test	Cotton Co	3452345	534523	Dec 21 2021	12345	23456

Now click on the Meter Selection tab. And again, click on the line containing the meter to be proved.

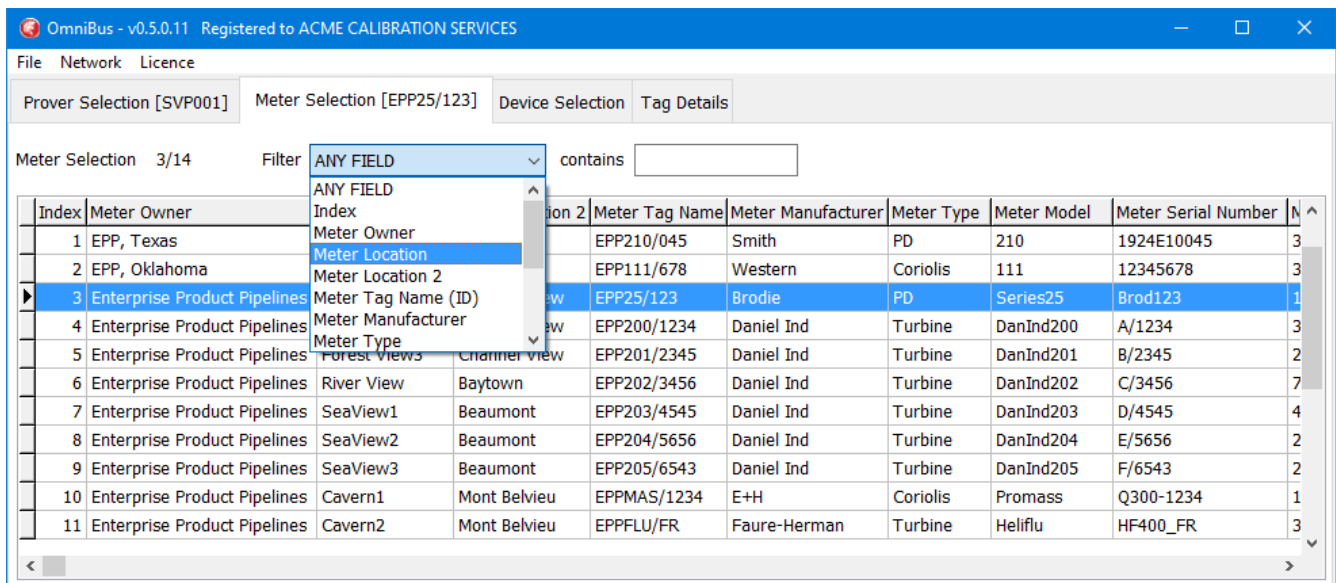
Index	Meter Owner	Meter Location	Meter Location 2	Meter Tag Name	Meter Manufacturer	Meter Type	Meter Model	Meter Serial Number	Meter Serial Number
1	EPP, Texas	Flow Lab	Passadena	EPP210/045	Smith	PD	210	1924E10045	3
2	EPP, Oklahoma	Exopite	Moore, OK	EPP111/678	Western	Coriolis	111	12345678	3
3	Enterprise Product Pipelines	Forest View1	Channel View	EPP25/123	Brodie	PD	Series25	8rod123	1
4	Enterprise Product Pipelines	Forest View2	Channel View	EPP200/1234	Daniel Ind	Turbine	DanInd200	A/1234	3
5	Enterprise Product Pipelines	Forest View3	Channel View	EPP201/2345	Daniel Ind	Turbine	DanInd201	B/2345	2
6	Enterprise Product Pipelines	River View	Baytown	EPP202/3456	Daniel Ind	Turbine	DanInd202	C/3456	7
7	Enterprise Product Pipelines	SeaView1	Beaumont	EPP203/4545	Daniel Ind	Turbine	DanInd203	D/4545	4
8	Enterprise Product Pipelines	SeaView2	Beaumont	EPP204/5656	Daniel Ind	Turbine	DanInd204	E/5656	2
9	Enterprise Product Pipelines	SeaView3	Beaumont	EPP205/6543	Daniel Ind	Turbine	DanInd205	F/6543	2
10	Enterprise Product Pipelines	Cavern1	Mont Belvieu	EPPMAS/1234	E+H	Coriolis	Promass	Q300-1234	1
11	Enterprise Product Pipelines	Cavern2	Mont Belvieu	EPPFLU/FR	Faure-Herman	Turbine	Heliflu	HF400_FR	3

The Meter Selection tab now shows EPP25/123, confirming the Meter information.

If there are very many entries in either of the first two tabs, then the filter can be used to reduce the clutter, to make selection easier. In the example below, all fields are being checked for the entry “co” and this has found the word “Coriolis” in the meter Type column. Note if the Meter Location for example “Colorado”, then the search for a line containing “co” would also shown these



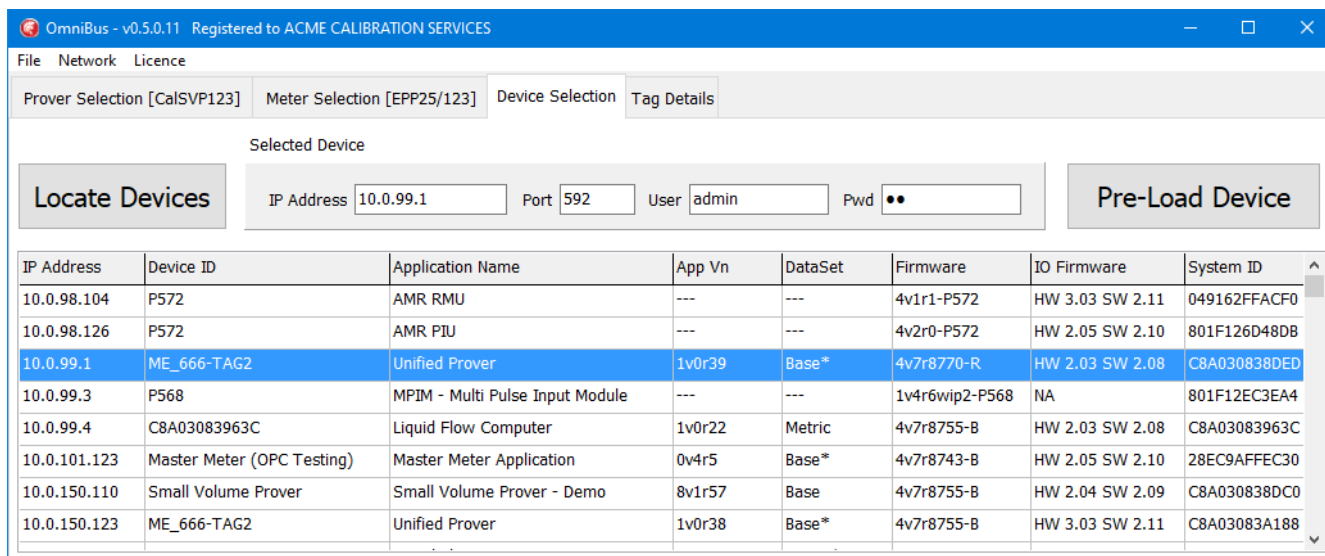
If a finer search is needed, then the filter can be applied to just one of the table headings. For example, if the Meter Location happened to contain the word “Colorado”, then the search for a line containing “co” would also shown these line as well as those with the word Coriolis. However if you click on the down arrow symbol in the filter box currently displaying ANY FIELD you can then filter by individual column only, by selecting the appropriate filed name.



Now that the Prover and Meter have been selected, this information needs to be transmitted to the prover computer. Click on the Device Selection tab, and this will show all devices on the network. In many instances, there will only be one device accessible, and this will be selected by default.

NOTE: If the network has not been used before, the network interface must be selected. Most desktop machines only have one network interface, however laptops almost always have at least two, a wired Ethernet and a Wi-Fi card. The appropriate interface needs to be selected, otherwise OmniBuss will report that No Units (Devices) have been detected - Check Network Settings.

See [Section 6. Network Settings](#) for further information on connecting to the network



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File Network Licence

Prover Selection [CalSVP123] Meter Selection [EPP25/123] Device Selection Tag Details

Selected Device

Locate Devices

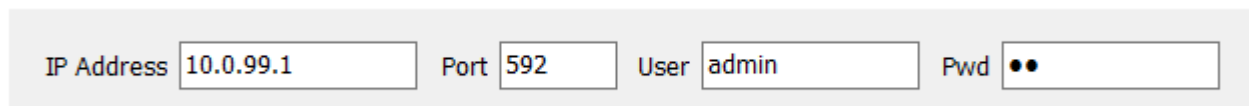
IP Address 10.0.99.1 Port 592 User admin Pwd ●●

Pre-Load Device

IP Address	Device ID	Application Name	App Vn	DataSet	Firmware	IO Firmware	System ID
10.0.98.104	P572	AMR RMU	---	---	4v1r1-P572	HW 3.03 SW 2.11	049162FFACF0
10.0.98.126	P572	AMR PIU	---	---	4v2r0-P572	HW 2.05 SW 2.10	801F126D48DB
10.0.99.1	ME_666-TAG2	Unified Prover	1v0r39	Base*	4v7r8770-R	HW 2.03 SW 2.08	C8A030838DED
10.0.99.3	P568	MPIM - Multi Pulse Input Module	---	---	1v4r6wip2-P568	NA	801F12EC3EA4
10.0.99.4	C8A03083963C	Liquid Flow Computer	1v0r22	Metric	4v7r8755-B	HW 2.03 SW 2.08	C8A03083963C
10.0.101.123	Master Meter (OPC Testing)	Master Meter Application	0v4r5	Base*	4v7r8743-B	HW 2.05 SW 2.10	28EC9AFFEC30
10.0.150.110	Small Volume Prover	Small Volume Prover - Demo	8v1r57	Base	4v7r8755-B	HW 2.04 SW 2.09	C8A030838DC0
10.0.150.123	ME_666-TAG2	Unified Prover	1v0r38	Base*	4v7r8755-B	HW 3.03 SW 2.11	C8A03083A188

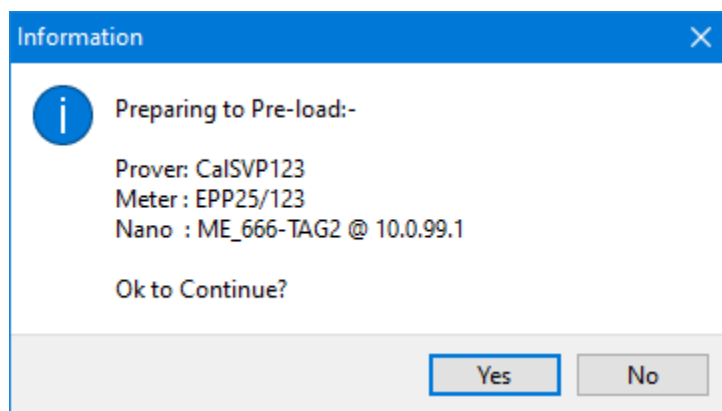
The Prover has been selected, the Meter has been selected and the Proving Computer Device has been selected. Note for the first time you connect to a device, you need to know the username (user) and password (Pwd) in order to load the data.

NOTE: The username and password are stored in an encrypted format by OmniBuss for all future operations. This information is entered in the fields shown below. The Port number should not need to be changed.



IP Address 10.0.99.1 Port 592 User admin Pwd ●●

To pre-Load the proving computer, click the **Pre-Load Device** button. A dialog box will pop up to confirm the Prover, Meter and Device selection.



Information

Preparing to Pre-load:-

Prover: CalSVP123
Meter: EPP25/123
Nano: ME_666-TAG2 @ 10.0.99.1

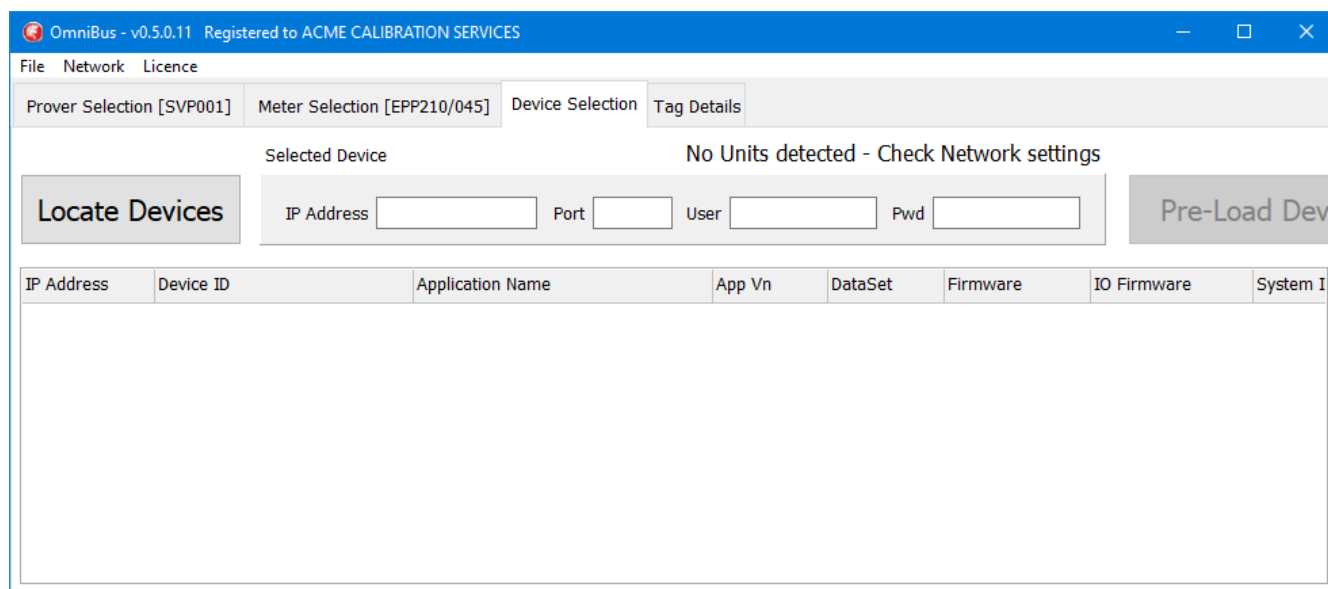
Ok to Continue?

Yes No

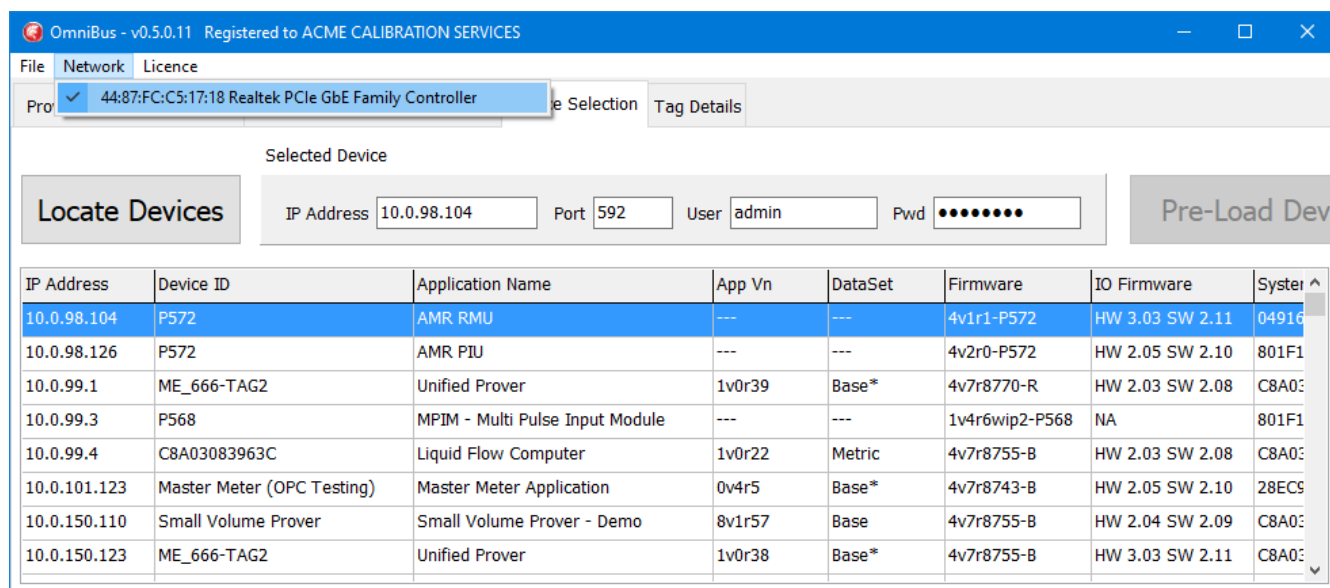
Click the Yes Button, and the data will be transferred. If any errors occur, they will be reported.

6 Network Settings

If no network has been detected, the screenshot below shows the Device Selection Tab



To select the appropriate network, click the “Network” text on the menu bar, and select the appropriate network controller. As soon as the network controller is selected, OmniBuss will look for available devices.



If there is only one device available, it will have already been selected. Right clicking on the line showing each device brings up a submenu, relating to the selected line.

NOTE: If the Network settings are changed whilst OmniBuss is running, simply close the program and re-open it.

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File Network Licence

Prover Selection [SVP001] Meter Selection [] Device Selection Tag Details

Selected Device

Locate Devices

IP Address 10.0.99.1 Port 592 User admin Pwd ●●

Pre-Load Dev

IP Address	Device ID	Application Name	App Vn	DataSet	Firmware	IO Firmware	System
10.0.98.104	P572	AMR RMU	---	---	4v1r1-P572	HW 3.03 SW 2.11	04916
10.0.98.126	P572	AMR PIU	---	---	4v2r0-P572	HW 2.05 SW 2.10	801F1
10.0.99.1	ME_666-TAG2	Unified Prover	1v0r39	Base*	4v7r8770-R	HW 2.03 SW 2.08	C8A03
10.0.99.3	P568	Input Module	---	---	1v4r6wip2-P568	NA	801F1
10.0.99.4	C8A03083963C	Router	1v0r22	Metric	4v7r8755-B	HW 2.03 SW 2.08	C8A03
10.0.101.123	Master Meter (OPC Testing)	Master Meter Application	0v4r5	Base*	4v7r8743-B	HW 2.05 SW 2.10	28EC9
10.0.150.110	Small Volume Prover	Small Volume Prover - Demo	8v1r57	Base	4v7r8755-B	HW 2.04 SW 2.09	C8A03
10.0.150.123	ME_666-TAG2	Unified Prover	1v0r38	Base*	4v7r8755-B	HW 3.03 SW 2.11	C8A03

Start Web Interface
Configure
Strobe Ident Lights

Choosing the “start Web Interface” option will launch the default web browser (Firefox recommended) and preset the IP address to the device selected.

Clicking the “Strobe Ident Lights” will cause the selected device to flash the ident light so that the unit can be physically identified.

Clicking the “Configure” option will open a network configuration dialog box.

Configure Machine - ME_666-TAG2

Ethernet Interface 1

☐ DHCP

IP Address: 10 . 0 . 99 . 1

Netmask: 255 . 255 . 0 . 0

Gateway: 10 . 0 . 0 . 1

Ethernet Interface 2

IP Address: 10 . 250 . 250 . 250

Netmask: 255 . 255 . 255 . 0

Unit

Comment: MOB's Test Unit 1233456

Enter Admin Password to Allow Changes to be Made:

Ok Cancel

7 Managing the Source Information

OmniBuss imports data in tab delimited format. There needs to be two files, one for the Provers information and one for the Meters information.

We recommend that the file name contains the word Provers or Meters for convenience.

	A	B	C	D	E	
1	Provers					
2	Field	Type	PtagName	Manufacturer	Model	Serial
3	Title	Prover Type (SVP, BALL)	Prover Tag Name	Prover Manufacturer	Prover Model	Prover Se
4	TagName		FCSVPRVtagname	FCSVPRVmaker	FCSVPRVmo	FCSVPRV
5	1	Small Volume	SVP001	FMD	FMD007	1234/FGT
6	2	Small Volume	SVP002	FMD	FMD077	4321/FGT
7	3	Small Volume	SVP003	FMD	FMD777	1111/FGT
8	4	Small Volume	CalSVP123	Calibron	CLB200/45	CLB2-555
9	5	Small Volume	CalSVP124	Calibron	CLB300/12	CLB3-666
10	6	Small Volume	CalSVP125	Calibron	CLL444B	CLB4-777
11	7	Bi-Directional	ME_555-TAG1	Meter Engineers	CLL555B	CLB4-888
12	8	Bi-Directional	ME_666-TAG2	Meter Engineers	CLL666B	CLB4-999

The top row must have the word Provers or Meters in the first cell.

The second row contains the names used to construct the SQLite DataBase, and should not be edited.

The third row contains the names of the fields, which are displayed in OmniBuss.

The fourth row contains the XML TagNames that are used to connect to the MicroCube Prover Computer, and again should not be changed.

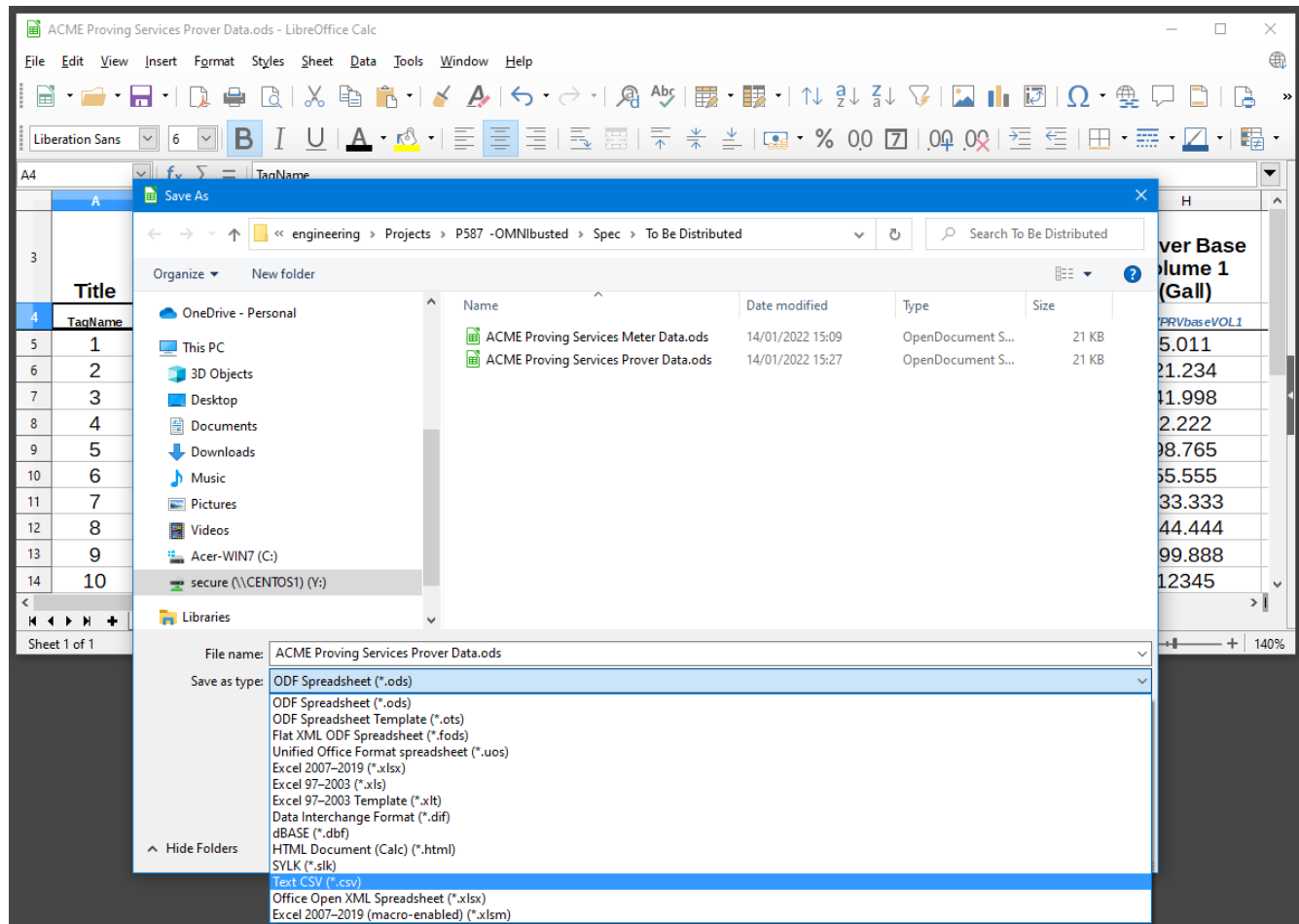
The fifth and subsequent lines contain the user information.

The tab separated value files can be generated or edited in a variety of different ways, but using a spreadsheet program is a simple solution.

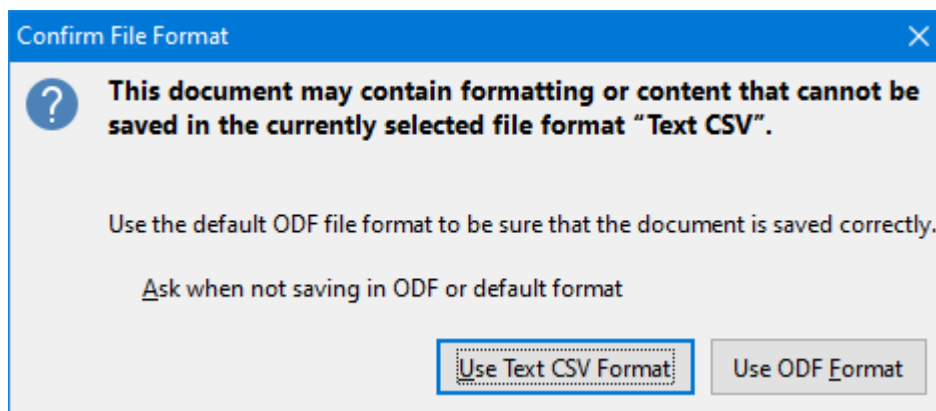
We have provide templates in both .ods format for LibreOffice, OpenOffice and many other open standards compliant spreadsheet programs as well as a .xlsx for use with Excel.

7.1 Exporting the Information from LibreOffice

LibreOffice is an open source spreadsheet program that runs on Linux, Apple Macs and Windows computers. It is entirely free to use, and there are no licenses to manage. The interfaces are clear, and it is not changed as the whims of fashions change.



To export from LibreOffice, Click File on the menu bar and click on Save As from the options displayed. The message shown below will be displayed. Choice the Use Text CSV Format option

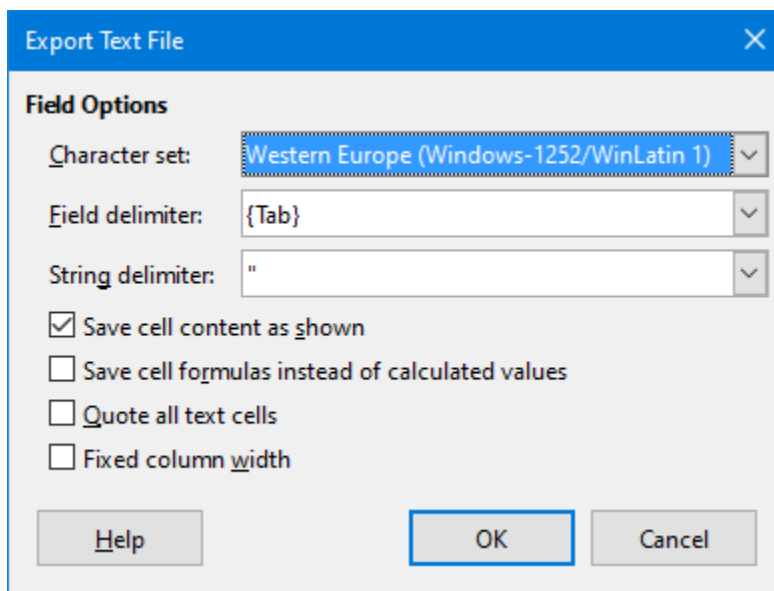


Once you have confirmed the data type, a second dialog box will open to set the export parameters.

Select a Western Character Setting

The Field delimiter should be a TAB or a Comma character.

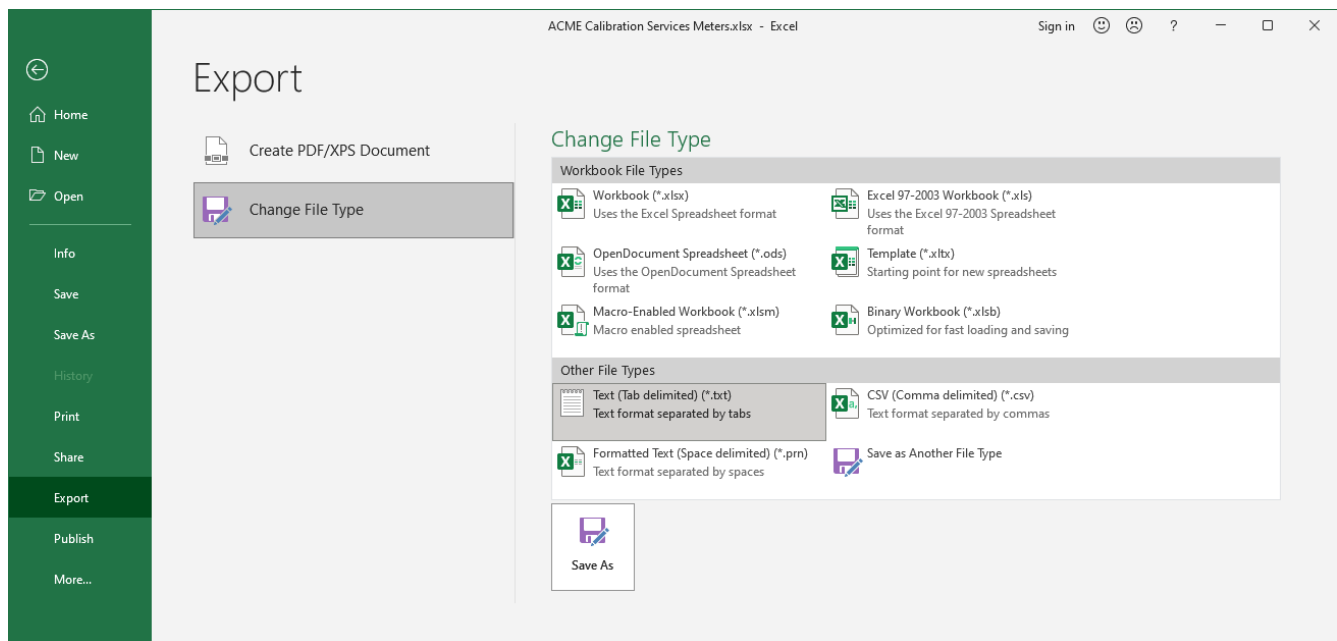
The String delimiter must be double quote character (")



7.2 Exporting the Information from Excel

	A	B	C	D	E	F	G
3	Title	Prover Type (SVP, BALL)	Prover Tag Name	Prover Manufacturer	Prover Model	Prover Serial number	Last Waterdraw date
4	Tag Name		FCSVPRVtagname	FCSVPRVmaker	FCSVPRVmodel	FCSVPRVSERNO	FCSVPRVwaterdrawdate
8	4	Small Volume	CalSVP123	Calibron	CLB200/45	CLB2-555D	2018-07-25
9	5	Small Volume	CalSVP124	Calibron	CLB300/12	CLB3-666E	Dec 22 2020
10	6	Small Volume	CalSVP125	Calibron	CLL444B	CLB4-777F	Dec 21 2020
11	7	Bi-Directional	ME_555-TAG1	Meter Engineers	CLL555B	CLB4-888F	Dec 20 2019
12	8	Bi-Directional	ME_666-TAG2	Meter Engineers	CLL666B	CLB4-999F	Dec 19 2018
13	9	Small Volume	MOB Test	Atalier	TL98-Encoder	TON1	6th Jan 2022

Go to the File menu and select export. Then choose the Text (Tab delimited) (*.txt) option



and save the file as a text file.

8 Debug Information

The Tag Details tab is only used if there is a mismatch between the pre-loaded data and the Proving Computer application, and is not required in normal operation.

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File Network Licence

Prover Selection [CalSVP123] Meter Selection [EPP25/123] Device Selection Tag Details

Tags: 30 Key Set Ok Not Verified Error Not Accessed ☒ ReadWrite Only

Idx	TagName	Value	Units	Access	Size	Raw	Table
1	FCKVDunit	kg/m3		ReadWrite			kg/m3,SG,°API,lbs /US Gallon,
2	FCSVMTRSERNO	Brod123		ReadWrite	32		
3	FCSVMTRId	Meter1		ReadWrite	32		
4	FCSVMTRmaker	Brodie		ReadWrite	32		
5	FCSVMTRmodel	Series25		ReadWrite	32		
6	FCSVMTRowner	Enterprise Product Pipelines		ReadWrite	32		
7	FCSVMTRsitelocation	Channel View		ReadWrite	32		
8	FCSVMTRsitereference	Forest View1		ReadWrite	32		
9	FCSVMTRtagname	EPP25/123		ReadWrite	32		
10	FCSVPRVINTDIAM	5	in	ReadWrite		0x4010FDF38645A1CB	

END OF OmniBuss USER MANUAL