TESTWISE SOFTWARE GUIDE

TestWise 2019 Onwards*

Universal Tester Software

*Features shown depend on TestWise version

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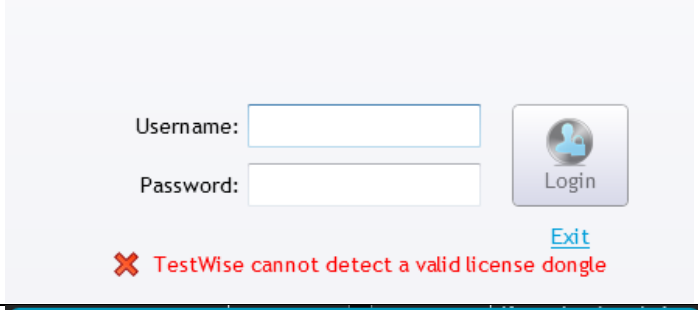
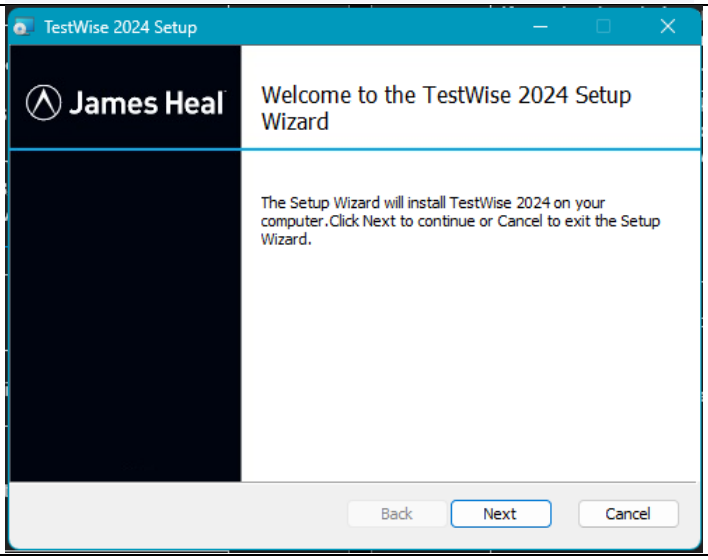
1. Installation of TestWise Software

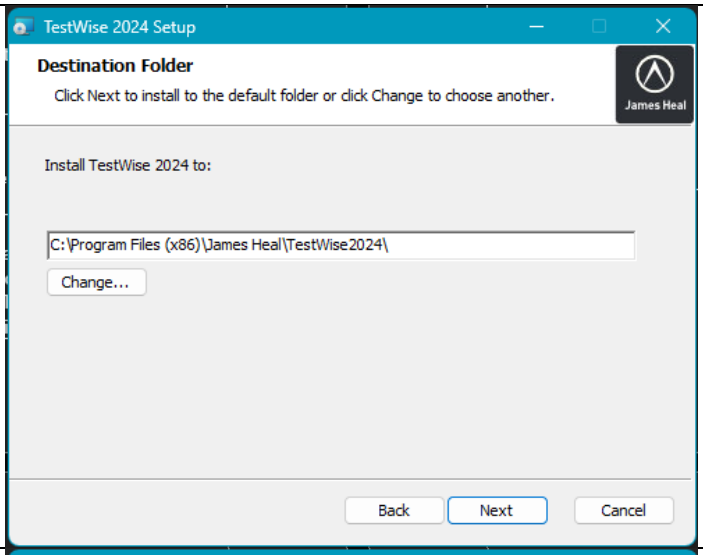
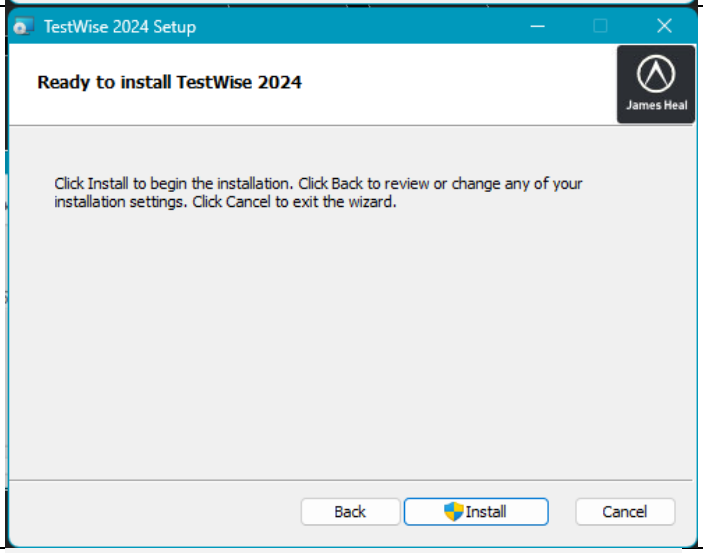
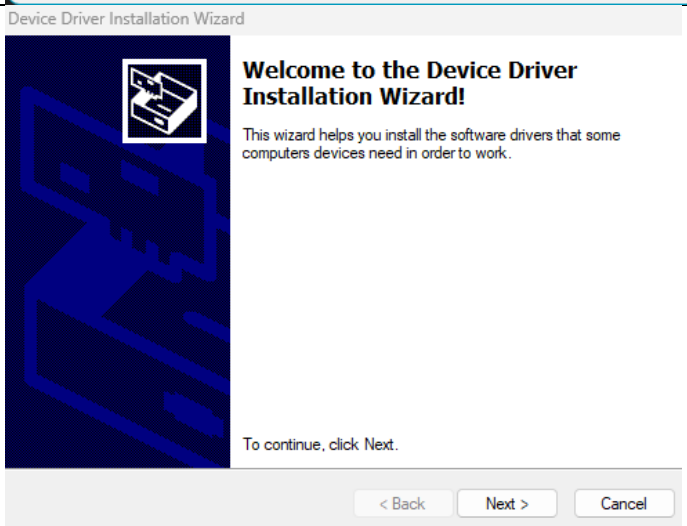
1.1. Recommended Specification for PC and Printer

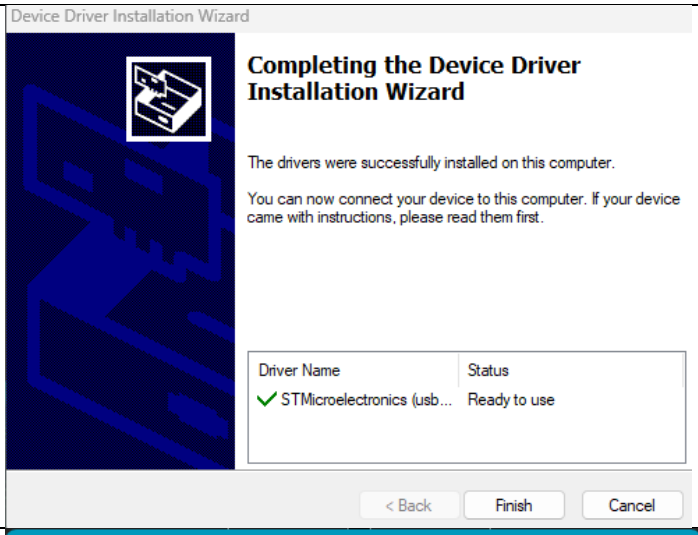
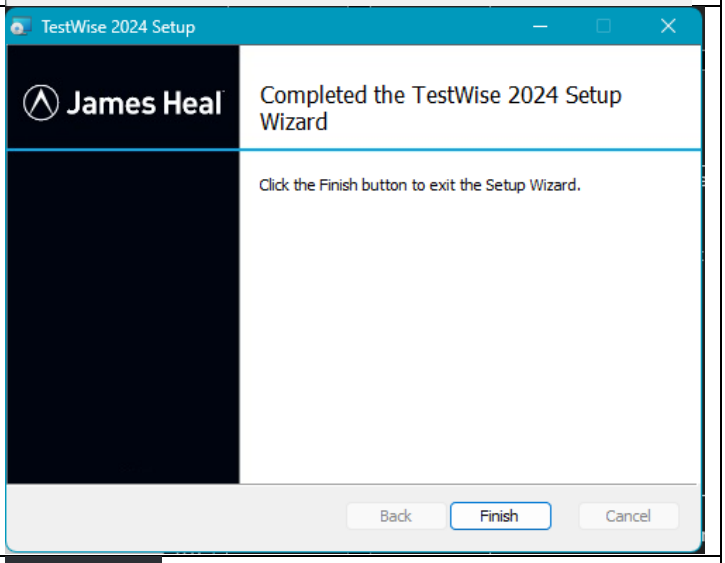
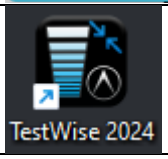
Computer	Personal Computer (PC) or Laptop The use of Apple Macs running Windows in a Virtual Machine is not supported.
Processor	As specified or required by the Windows operating system. (Use the "recommended" specification).
RAM (Memory)	As specified or required by the Windows operating system. (Use the "recommended" specification).
Operating System	Windows ®11, Windows®10, Windows® 8/8.1. Compatible with 32-bit or 64-bit OS where applicable. The Microsoft dotNET Framework must be installed – dotNet is part of Windows 11, 10 and 8/8.1, TestWise will advise if required. Visit http://microsoft.com/net/downloads
Graphics Card	Basic/ Onboard Graphics
Monitor	Minimum resolution of 1024x768 pixels.
Hard Drive	250 GB (2 GB equates to about 1 year's testing for a typical Laboratory, without archiving).
Ports	At least 2 free USB 2.0. One for communications cable, one for licensing dongle and one for the hand controller (optional)
Printer	Any Windows compatible printer can be used. Colour printer recommended but not required. PDF generation is available within TestWise, an additional "PDF printer" is not required.
Internet	Broadband – Optional but required to take advantage of the James Heal Online Support Package.
James Heal have made every effort to ensure TestWise is compatible with the above specification. The company cannot however accept responsibility for any additional or resident software which may compromise the operation of the PC or TestWise software.	

1.2. Installation of TestWise using Licensed Dongle

The TestWise year will be relevant to the machine or software license purchased.

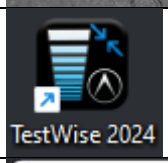
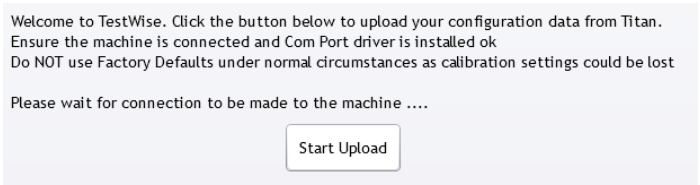
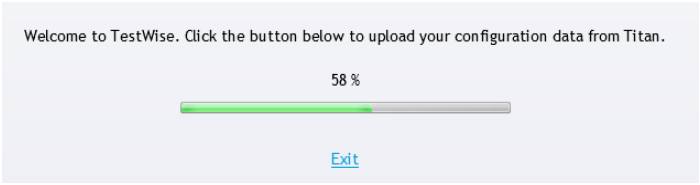
1. Insert TestWise Licensed Dongle into the PC used to run the Titan. Keep the dongle inserted when running the machine or the Titan will not run.	
2. TestWise will check for a valid dongle. If it is not detected, this message will be shown.	
3. The setup will run and dialogue boxes will appear. Click **Next** to continue.	

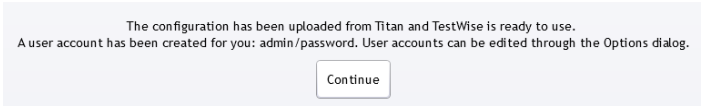
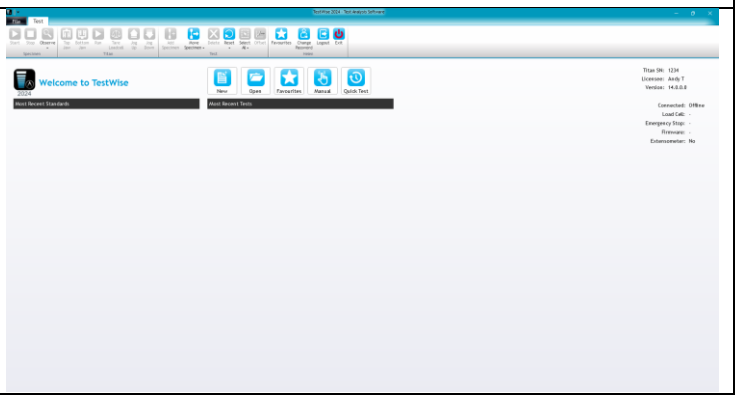
4. We recommend installing TestWise to the default location. This is shown in the image. Click **Next** to continue.	
5. The setup procedure is ready to install. Click **Install** to continue.	
6. During the installation, another installer will appear to install the communications driver. Follow the instructions for the driver to be installed. Click **Next** to continue.	

7. Once complete, the screen will appear. Click **Finish** to finish the driver installation and close the window.	
8. TestWise has now completed installation. Click **Finish** to complete installation and close the setup.	
9. The TestWise icon will now appear on your desktop.	

1.3. Installation of Load Cells and Jaw Schemes

Before using the Titan and TestWise together, you must configure TestWise with the Load Cell and Jaw Schemes data. This is only completed once as part of the initial installation.

1. Electrical power is connected and switched on. The blue Licensing Dongle is inserted. USB cable from Titan machine to PC is connected.	 
2. Double click on the TestWise icon on your desktop.	
3. While the application loads, the screen will be displayed.	
4. This is the first run screen. Once the procedure is completed it will not be shown again. Click the **Start Upload** button to begin the upload of configuration data from Titan to PC.	
5. The upload of loadcell calibration data and jaw scheme data commences. This usually takes less than 10 seconds.	

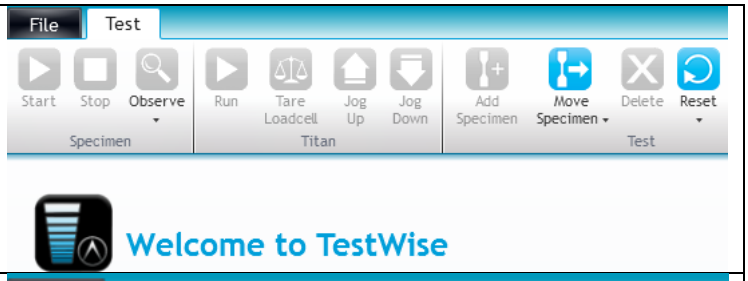
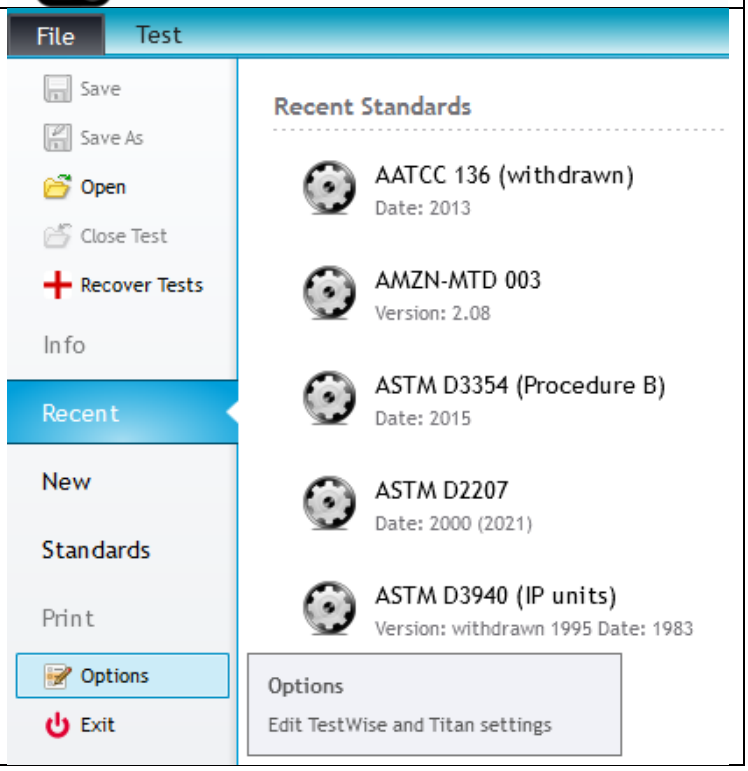
6. Setting up a new user is detailed in Section 2 User Management. Click the **Continue** button to begin using TestWise.	
8. TestWise main screen will then be displayed.	

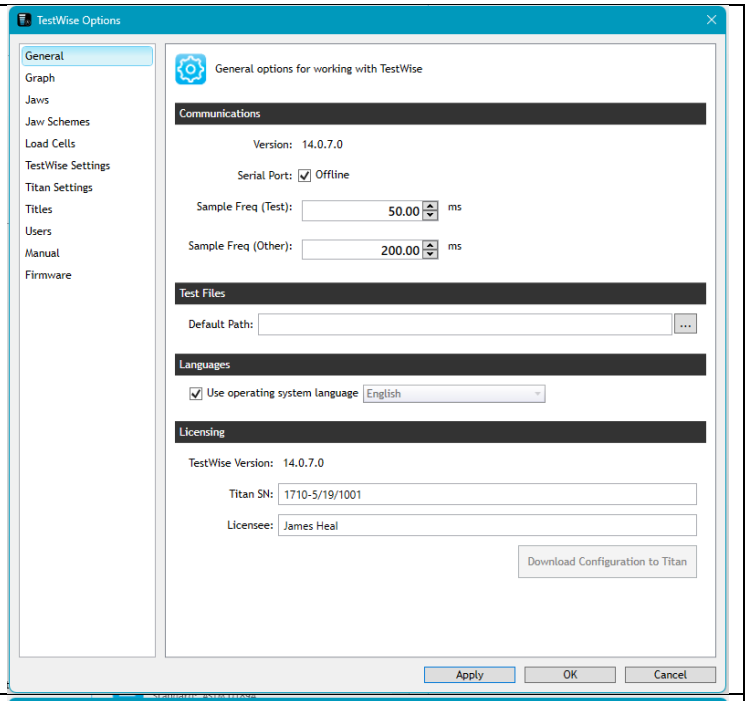
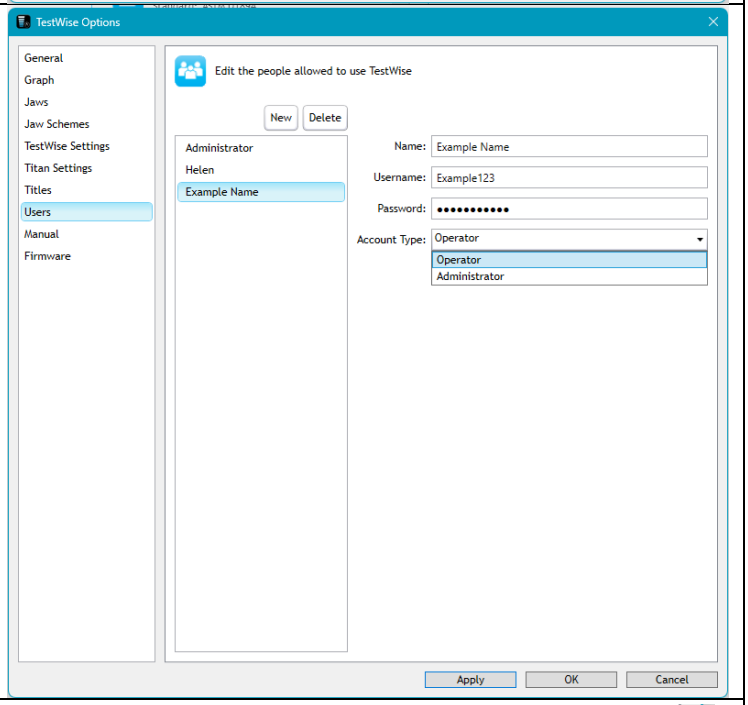
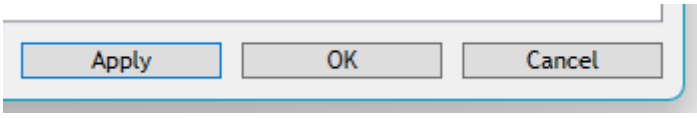
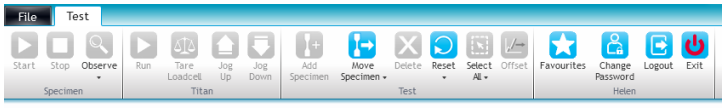
2. User Management

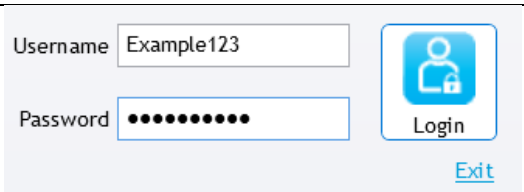
TestWise creates a new user called “Admin” using a password of “password”.

We recommend you add at least one more user with Administrator level and one user with Operator level.

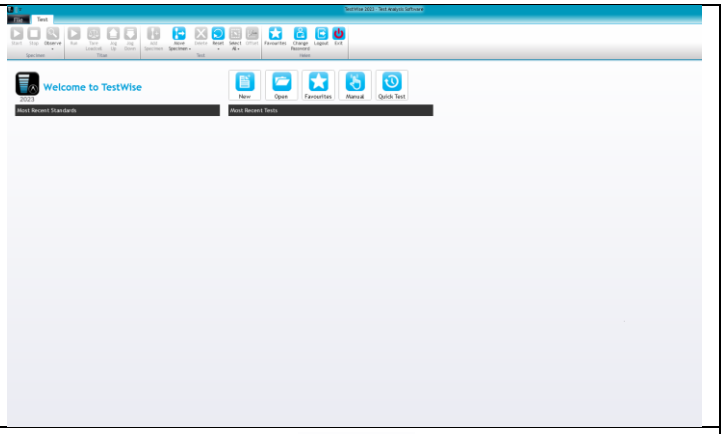
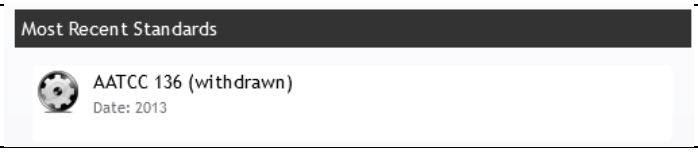
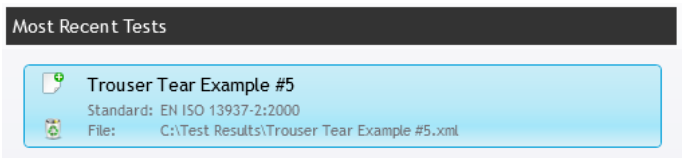
Administrator level users can make changes to the TestWise system and create tests.
Operator level users can make tests, including saving, printing and retrieval.

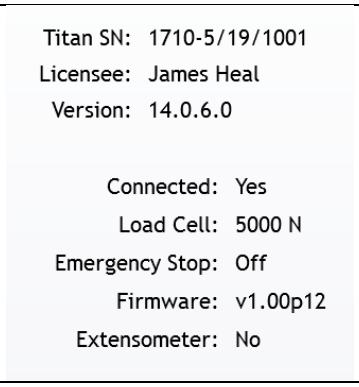
1. From the welcome screen go to File in the top left of the screen.	
2. Click on the File button and go to the Options button. Options	

3. TestWise Options screen will open	
4. In the left-hand pane click on Users.  Click the New button to add a new user.  Type the name of the user, their username and password they will use to log in. Choose the account type based on which privileges the user is to have (Administrator or User).	
5. Click on the Apply button and then OK which will also close the Options pane.	
6. Click on the Test tab at the top of the screen to return to the main screen. Select Logout. 	

7. Login using the new details set up.	

3. TestWise Start Screen

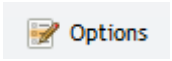
1. The main menu page has the most used icons on the front page.	
2. Select New to go to the Standards Library to start a new test.	
3. Click Open to view previous test results.	
4. Favourites shows the list of standards which are selected as favourites (if applicable).	
5. The Manual button displays a screen to control the Titan manually outside of the standards.	
6. Quick Access allows manual running of the machine with more functions than the Manual button.	
7. Most Recent Standards are the last most recently used standards.	
8. Most Recent Tests shows the last results and the location they are saved. Click on the link to open the test. Click on the new test button to create a test based on this test.  Click on the recycle button to remove from the most recent	

list. This does not delete the test. 	
9. The top right section shows the Titan serial number and the TestWise version which will need to be referred to if you need technical support.	

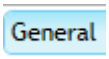
4. TestWise Options and Customisation

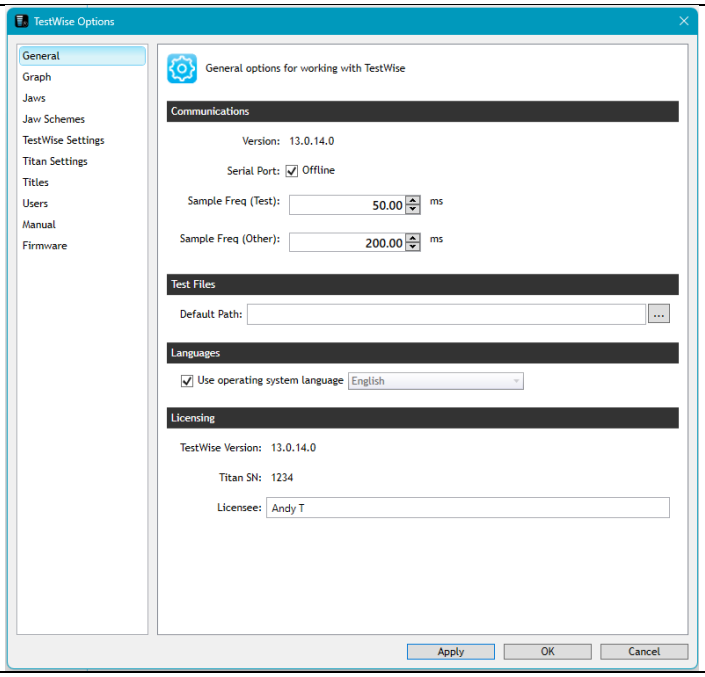
Some options are available to make the use of TestWise easier. These are optional changes and there are default settings if no changes are required.

1. Click on the File tab in the top lefthand side of the main screen.
Click on the Options button.



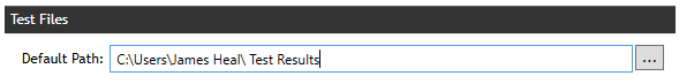
The TestWise Options screen will appear with the General tab selected.





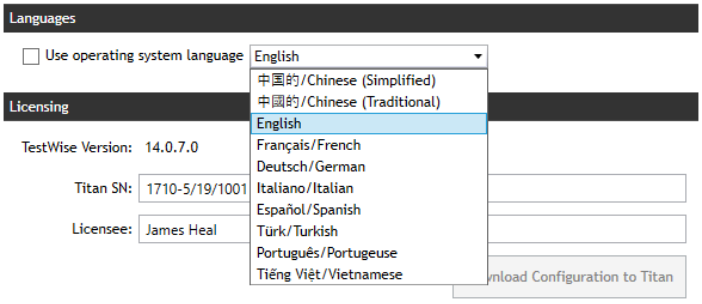
2. To save test results into a specific folder click the browse button.

Click **Apply** when finished.



3. Change the language by selecting from the dropdown box or tick the Use operating system language box.

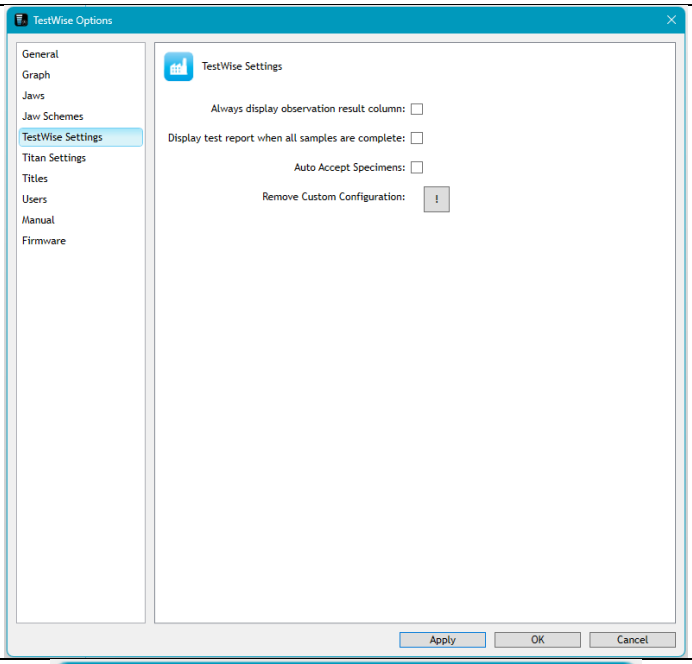
Click **Apply** to save the changes. Close the software and reopen for all language changes to be made.



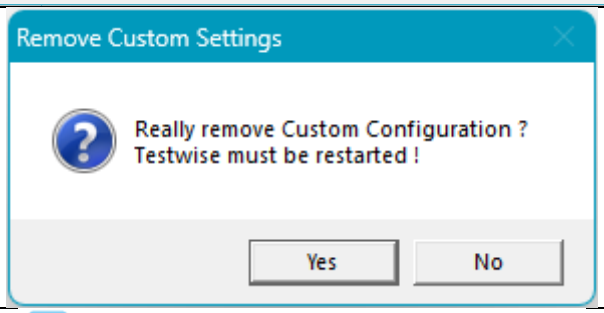
4. TestWise Settings tab has some options to make reporting quicker.

If observations are always to be included in the report.

To skip the test report/ results and go straight to the graph.



5. If you click on the Remove Custom Configuration file will delete any settings for this user so a warning appears to check this is to be deleted.

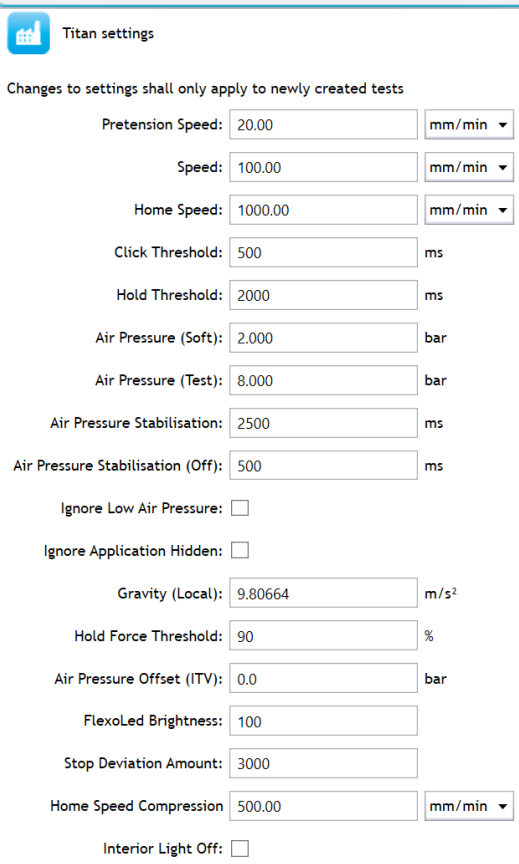


6. In the tab Titan Settings, there are various parameters which can be changed.

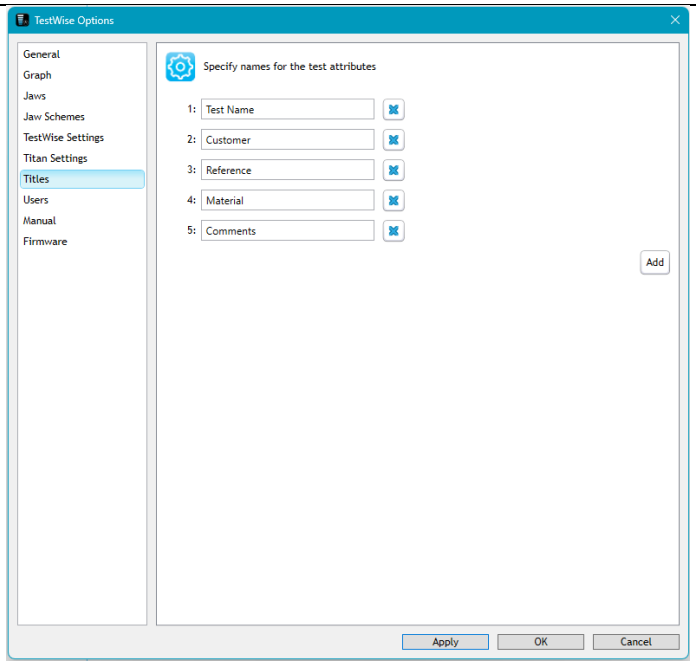
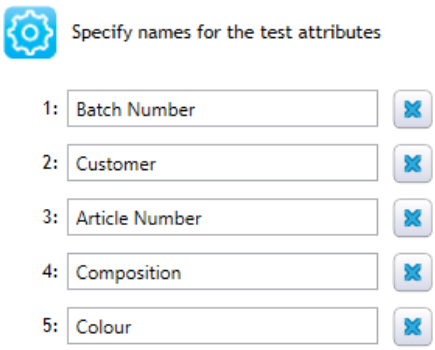
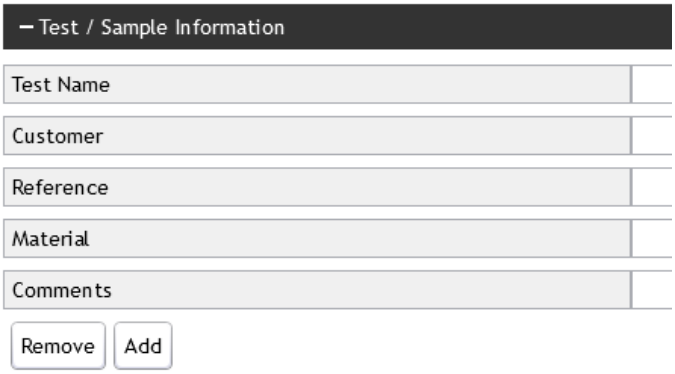
An explanation of each field is shown below.

Click **Apply** once any changes have been made.

** These fields can only be visible and edited by an Engineer.

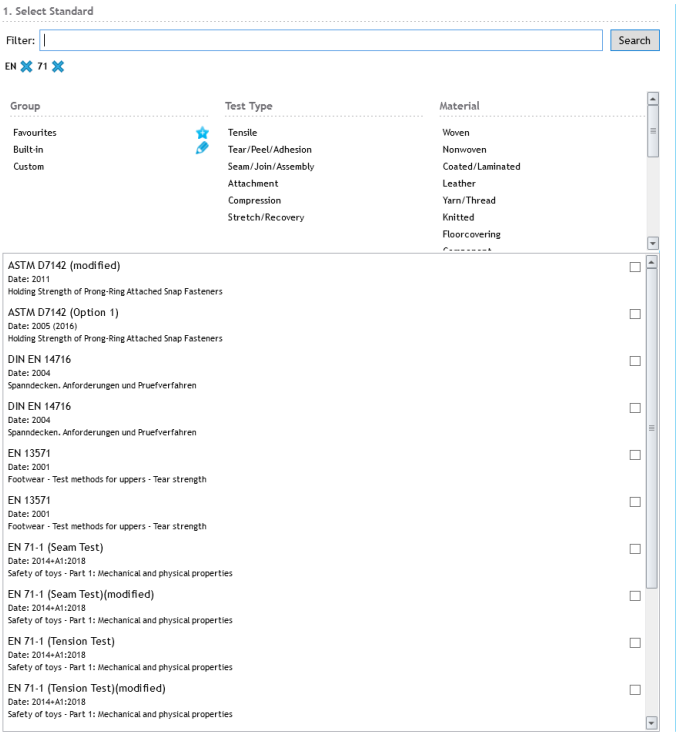
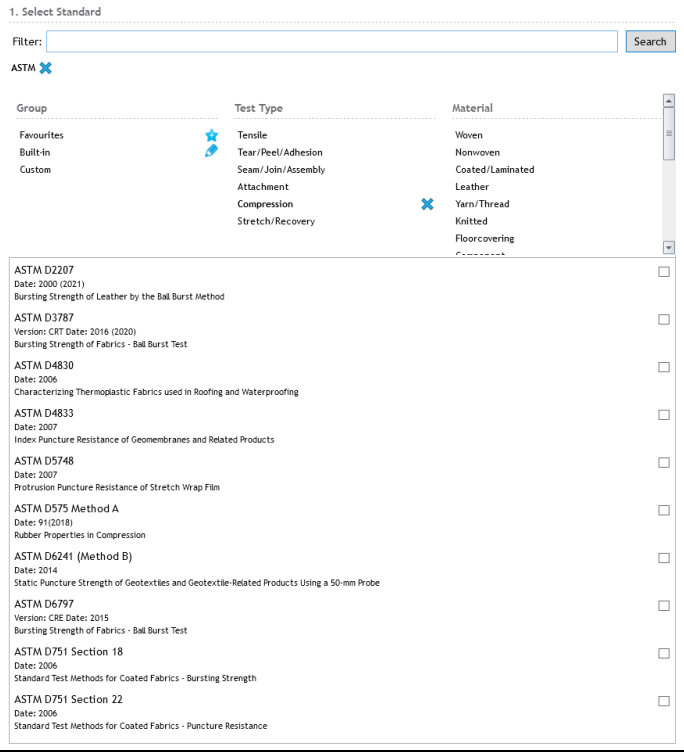


Pretension Speed: **	Set the default pretension speed where it's required by the standard
Speed: **	Rarely used. The standard determines the test speed(s)
Home Speed: **	The speed which the machine travels to its upper home position
Click Threshold:	The maximum time between pressing and releasing the button/footswitch for it to be recognised as a "click"
Hold Threshold:	The minimum time between pressing and releasing the button/footswitch for it to be recognised as hold (ie undo last operation)
Air Pressure (Soft):	"Soft close" pressure used when jaws are closed initially
Air Pressure (Test):	The higher pressure used to clamp the specimen during test (once the jaws have closed)
Air Pressure Stabilisation:	The length of time before the system will indicate low air pressure
Air Pressure Stabilisation (Off):	The length of time before the system will indicate air pressure has not been turned off
Ignore Low Air Pressure:	Prevents the system warning about low or variable air pressure
Ignore Application Hidden:	Normally the software requires focus to continue moving the machine. If focus is lost (by switching to another application) then normal behaviour is to STOP the machine. This option prevents the machine from stopping if you switch applications. WARNING! machine operation could become erratic if this option is checked and the TestWise window loses focus
Gravity (Local):	Adjust this value to your local gravity value. It will alter the conversion from Newtons to KGF
Hold Force Threshold:	A force percentage option for older systems which used this value to begin adjusting the machine ready to hold the material at a set force.
Air Pressure Offset (ITV):	Can be used on some systems to apply a small offset to the air pressure control valve to reduce noise
FlexoLed Brightness:	0 to 100% brightness of the machine's LED strip(s)
Stop Deviation Amount:	The amount of movement pulses that can be seen before a movement error occurs when there should not be any movement

Home Speed Compression **	Can be used to reduce the speed at which the machine moves back to load position during test
Interior Light Off:	If a fully guard is fitted, this option allows the interior light to remain off when the door is closed
6. Titles tab shows fields which are used in the Test Report. These fields are used to describe the sample/ specimen/ comments. They can be changed by typing over the existing fields. Delete a field. Add a field. Add	
7. Some additional examples of fields are shown here.	
8. Once a standard has been selected from the main screen, the fields above appear in the right-hand pane 'Test/ Sample Information'. Each field can be edited from this screen if changes are required. These changes will be saved in the test data file. Click in the grey box to rename the field title, click the white box to enter field values.	

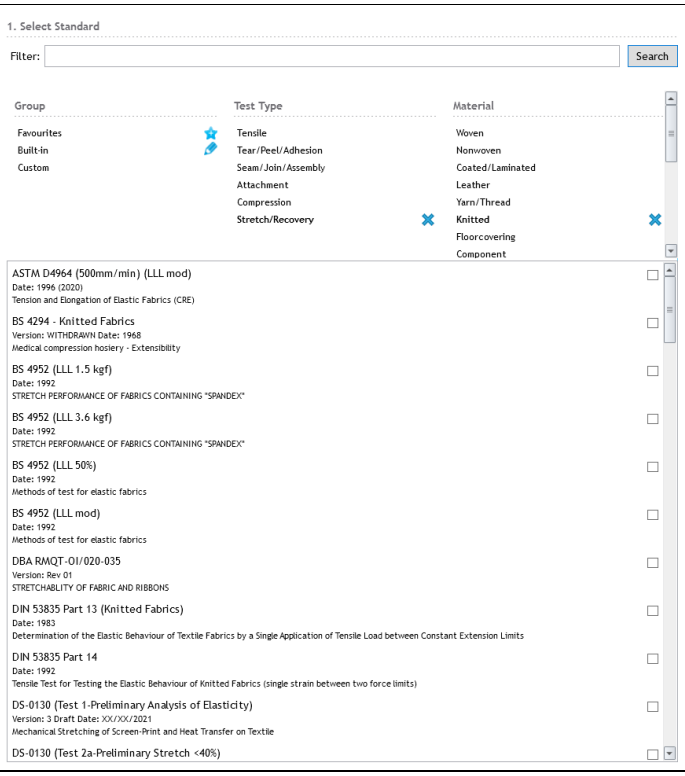
5. Standards List Main Screen

5.1. Filtering/ Searching Standards

1. Typing into the Search bar will look through all the standards. For example – type EN 71 into the search bar and press the Search button. This will find all standards with EN and 71 in the reference.	
2. Type into the Search bar and select a Test Type and/ or a Material will filter by the search and by test. For example – type ASTM into the search bar and press the search button. Then select Compression from the Test Type.	

3. Clicking a category from Test Type and Material will find all standards which are from both categories.

For example – click Stretch/ Recovery from the Test Type and from Material select Knitted.



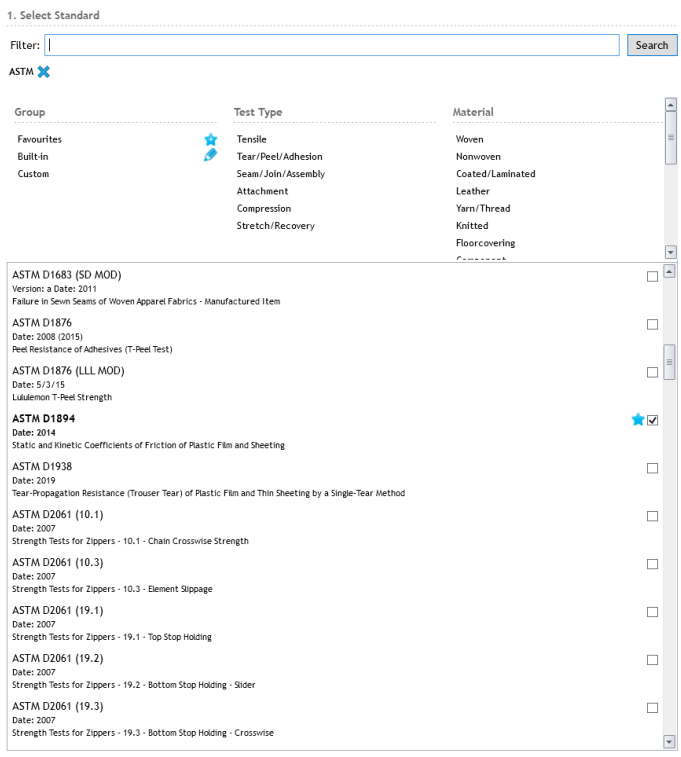
5.2. Favourite Standards

5.2.1. Favourites List

1. Favourite standards can be added to each individual user's account.
This allows each user to quickly find standards which will be regularly used.

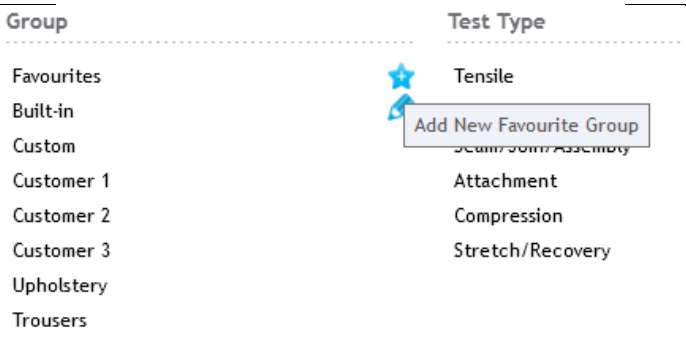
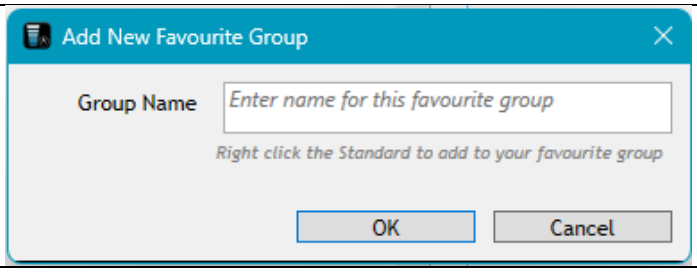
To add a standard, filter through the list and tick the box at the end.

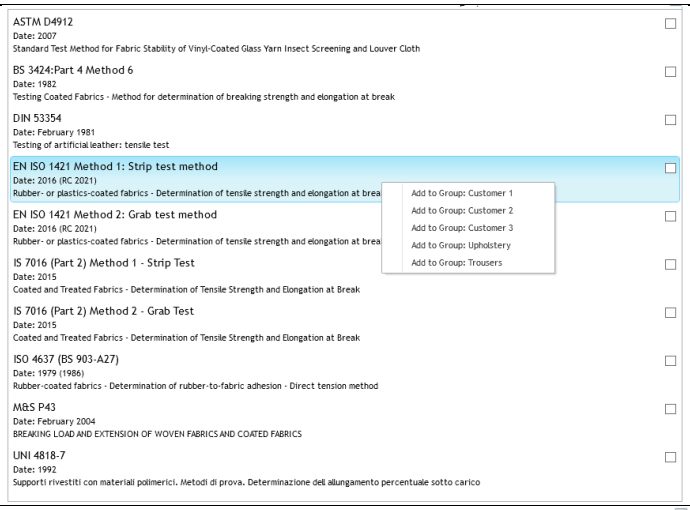
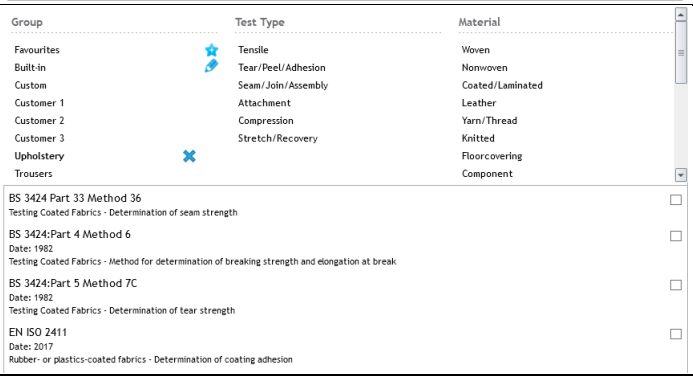
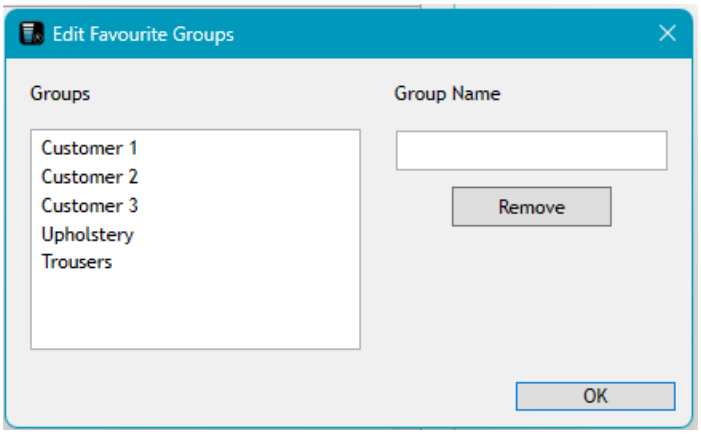
Favourites are always shown in bold and a star.



2. To show only Favourite standards, click on the Favourites button under the Group filter.	
3. To remove standards uncheck the tick box previous checked.	

5.2.2. Favourite Groups

1. Favourite standards can be added to Groups to make it easier to find sets of standards which fall under the same type. For example, by customer name or by tests regularly carried out together.	
2. To create a new group, click on the star next to Favourites.	
3. A dialogue box will appear. Type the name of the group in the box and click on the OK button. The group will now appear in the list under Group.	

4. To add a standard to the group, search for the relevant standard, right click it and then select the destination group it is to be added to.	
5. To show only the standards in the Favourites Group, click on the name. This will appear in bold in the list and only the relevant standards are displayed.	
6. To edit the name of the Group or to delete it, click on the Pencil icon and select the group name. To change the name of the Group, select from the list and change in the box before pressing OK. To delete the group select the group from the list and press the Remove button.	

6. Jaw Schemes

Jaws are the accessories used on a Titan, these can be Grips, Jaws or Fixtures depending on the test. They are used to hold the test specimen during the test and are fixed to the Titan.

6.1. Setting up a New Jaw

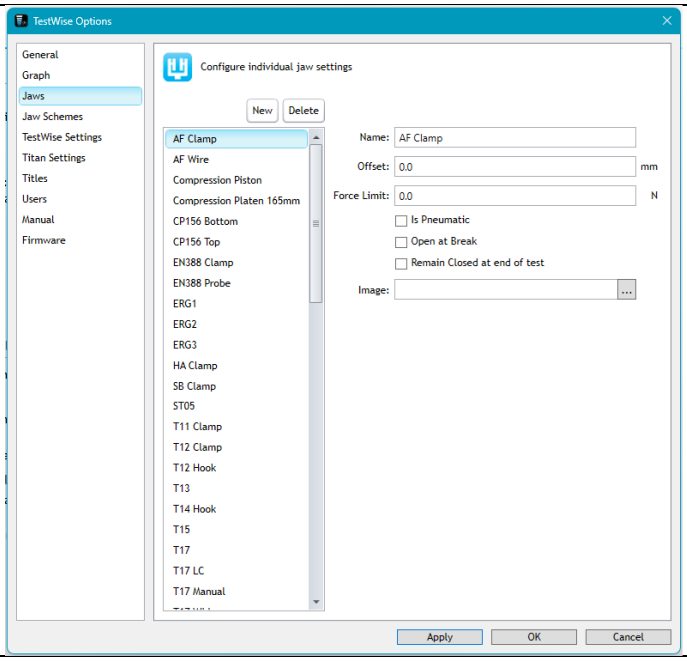
Each Jaw offered by James Heal for use on the Titan is configured in TestWise and ready to use. Jaws may need to be added manually if they are purchased after the initial machine installation. If the Jaw is not configured in TestWise, follow the instructions below to configure it to the Titan.

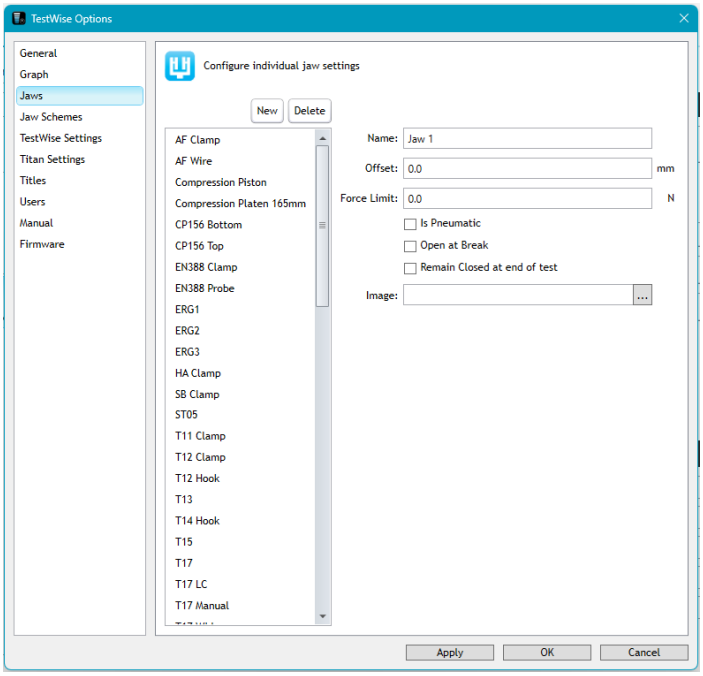
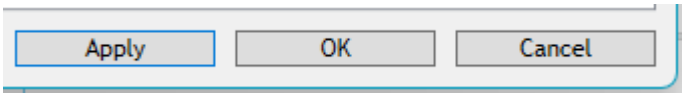
NB It will be useful to make a note of any settings you have changed.

If possible, make a backup of the folder which holds the settings:

C:\Users\YOUR.USERNAME\AppData\Local\James Heal\TestWise202X\System

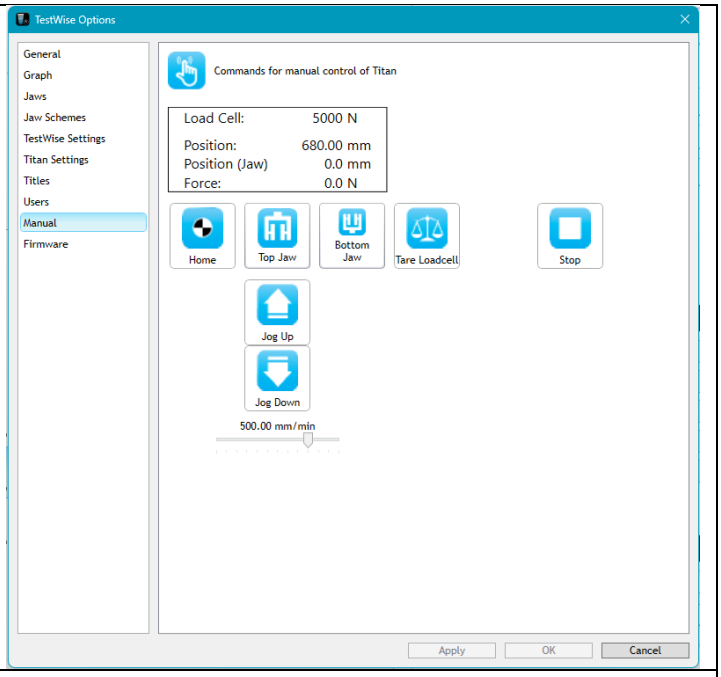
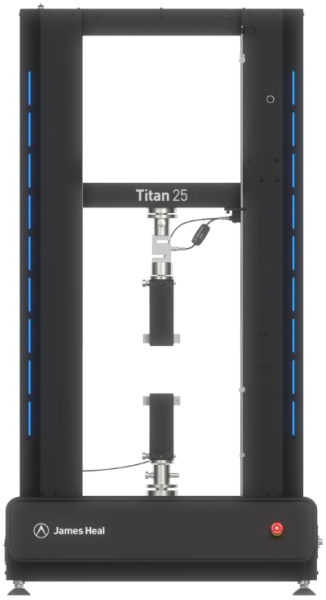
James Heal Engineers can also program the machine hardware with new settings related to jaws, schemes and loadcells. In the event of PC failure or replacement, settings can be restored from the machine itself.

1. From the Main Menu, click File, Options and Jaws. A list of all the available Jaws with their configuration details will be displayed.	

2. Click on the New button to display a blank form.  Type a name for the new Jaw. • Offset – See section 6.3 • Force Limit – Max force • Is Pneumatic – Uses pneumatics to open/ close • Open at Break – Jaw open when specimen breaks* • Remain Closed at end of test – Specimen is held after test ends • Image – Upload image of Jaw *If Jaw is pneumatic	
3. Once all the details are complete, click the Apply and then the OK button to complete setting up the Jaw.	

6.2. Setting up a New Jaw Scheme

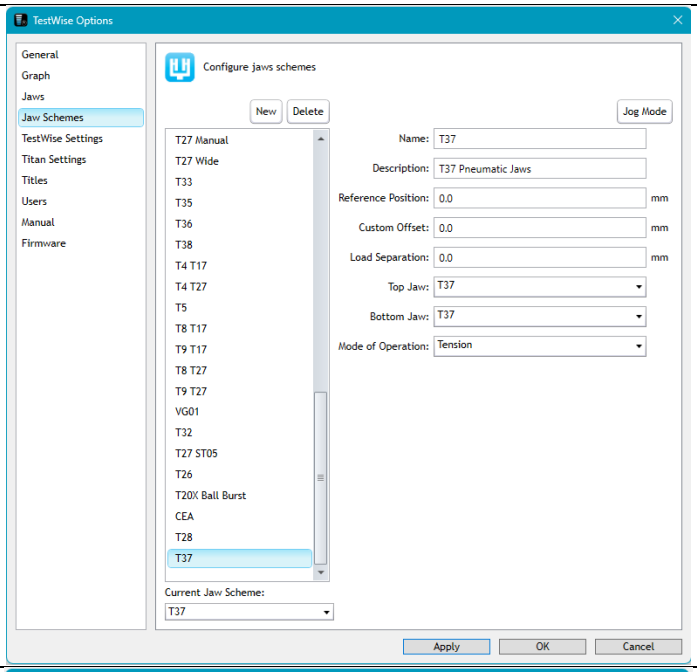
One Jaw can be combined with a different Jaw to enable a wider range of tests (Top and Bottom Jaw may be different). These combinations are setup in Jaw Schemes.
Jaw Schemes will be available on TestWise for all Jaws purchased with the instrument. Any new Jaws purchased, or bespoke configurations of Jaws will require a new Jaw Scheme to be setup.

1. The instrument needs to be in the Home position to start setting up the Jaws. If they are not already in the Home position, click on File, Options and then Manual. Press the Home button to set the machine to the Home position. 	
2. Using the Jog Up and Jog Down buttons, move the cross-head of the machine until it is in a suitable position to fit the new Jaws. 	

3. In the same screen, click Jaw Schemes in the left of the window.
This will display all of the current Jaw Schemes.

Click on the New button to create a new scheme.

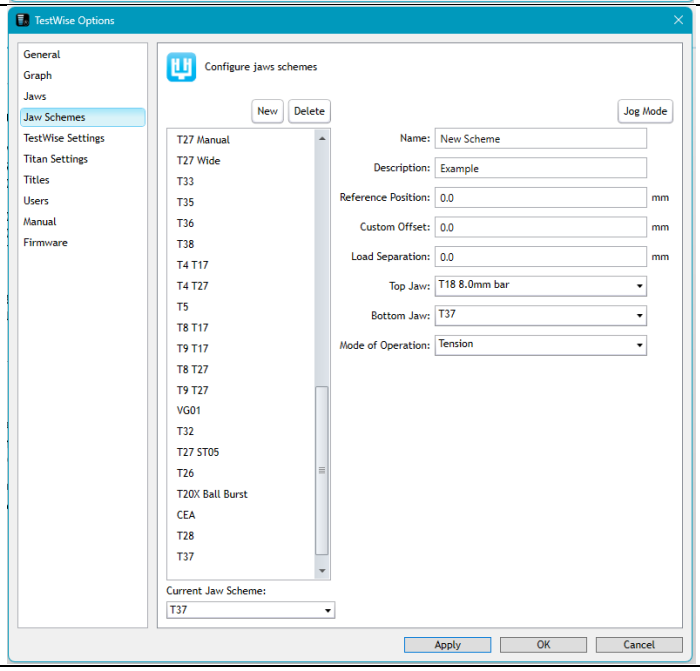
New



4. Type a name for the new Jaw Scheme and a more detailed Description to help remember the reason for the scheme.

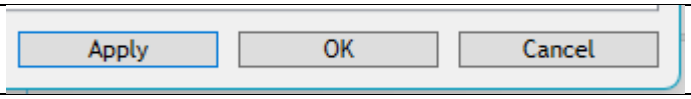
Select the Top Jaw and Bottom Jaw accessory from the list.

If the Jaw is not available, follow the steps in section 6.1.



5. Reference Position, Custom Offset and Load Seperation details will be covered in section 6.3. Input these values into the box.

Select the mode of operation – Tension or Compression. This determines which direction the top Jaw moves, up or down the machine. Tension – up, Compression – down.

6. Click on the Apply button and then OK.	

6.3. Jaw and Jaw Scheme Settings

6.1.1. Jaw and Jaw Scheme Offset

A Jaw may require an Offset value which is where the fabric is not held at the edge of the Jaw during the test.

1. The image shown is a Line Contact jaw, the fabric is held halfway down the jaw face. The measurement from the edge of the jaw to the middle of the jaw is the Offset Value.	
2. It may be easier to include the Offset value in the Jaw Scheme, especially if the top and bottom Jaw are different. The Custom Offset in the Jaw Scheme tab is measured in the same way as the jaw, but doubled for the total distance.	

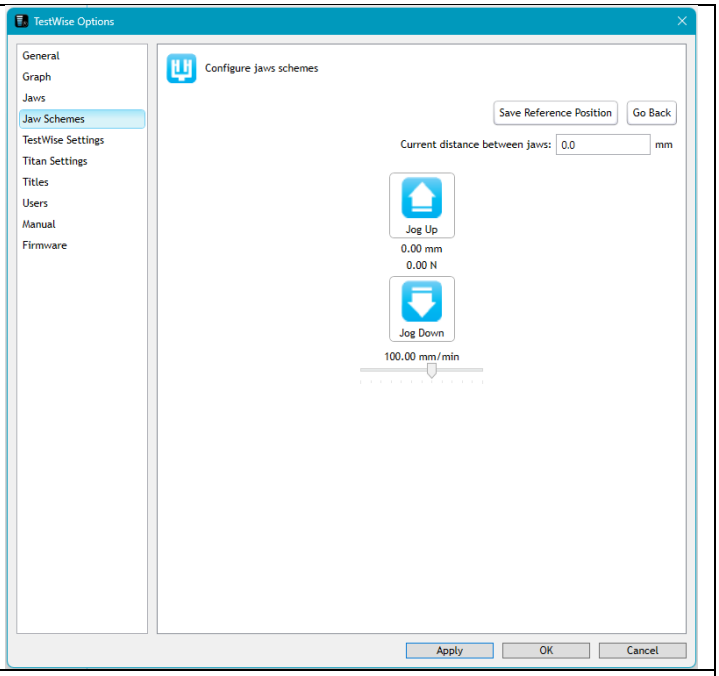
6.3.2. Jaw Scheme Reference Position

The Reference Position is the point where the top and bottom Jaw touch together, but do not produce a force on the Load Cell.

1. To set the Reference Position from the Jaw Scheme tab, click the Jog Mode button.

Jog Mode

Use the slider to select a suitable speed – for example, 100mm/min.

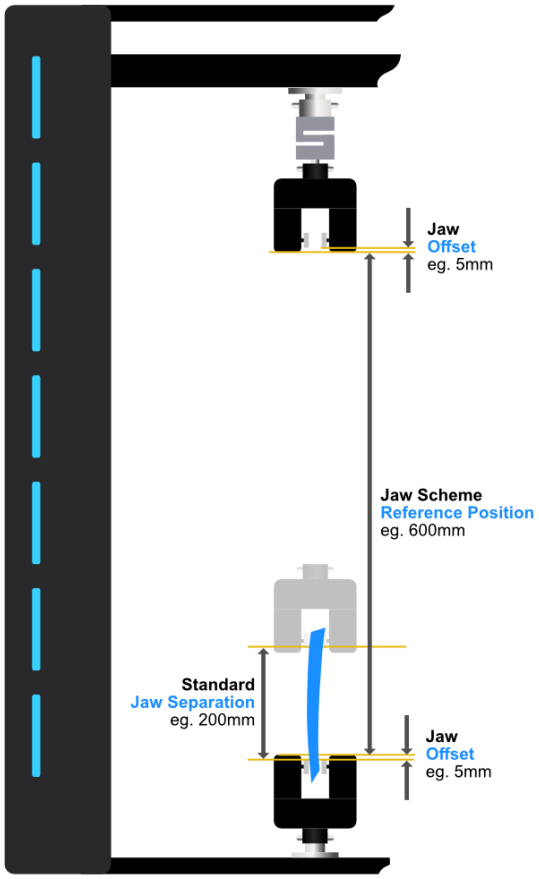


2. Use the Jog Up or Jog Down button to move the top Jaw until it touches the bottom Jaw.
Once the Jaw is touching, click the Save Reference Position button, then the Go Back button.

Save Reference Position Go Back

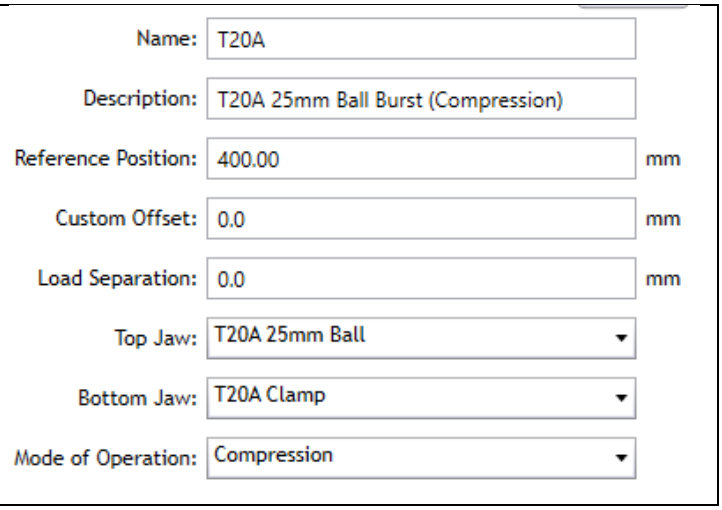
3. The Reference Position has been saved.

To finish, click Apply and then OK.



6.3.3. Load Separation

This is mostly used in Compression. When a Compression test ends, the platens may be too close together or dangerous to remove the specimen or the tooling. The Load Separation is used to move the platens away from each other to easily remove/ add the specimen and prevent any crushing hazard.

1. Type a figure in mm into the Load Separation box. In the example it is 250mm which means the machine will return to the Load position and then continue to move up a further 250mm.	

6.3.4. Recommended Jaw Scheme

1. Once a New test has been selected, the Required Setup Information is shown. If the Jaw Scheme selected is not the recommended one for this test, a recommondation will be shown. **Note:** Only a small number of tests have a recommended jaw scheme as there is often more than one.	

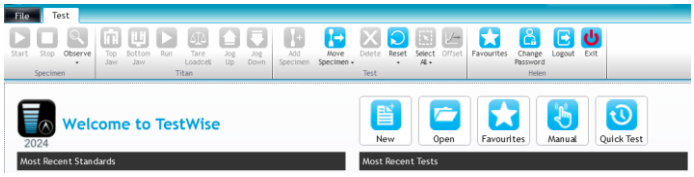
7. Carrying out a Test using TestWise

For a QuickStart Guide to carrying out a test see our Titan Operators Guide. This section will outline how to carry out a test and all the features TestWise offers throughout.
Please note that TestWise must be the active window on the computer during testing for the result to be logged.

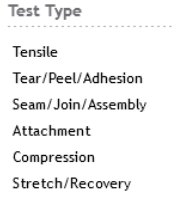
7.1. Test Setup Procedure

<table>
<tr>
<td>1. Login to TestWise.

Click the New button to start a test.

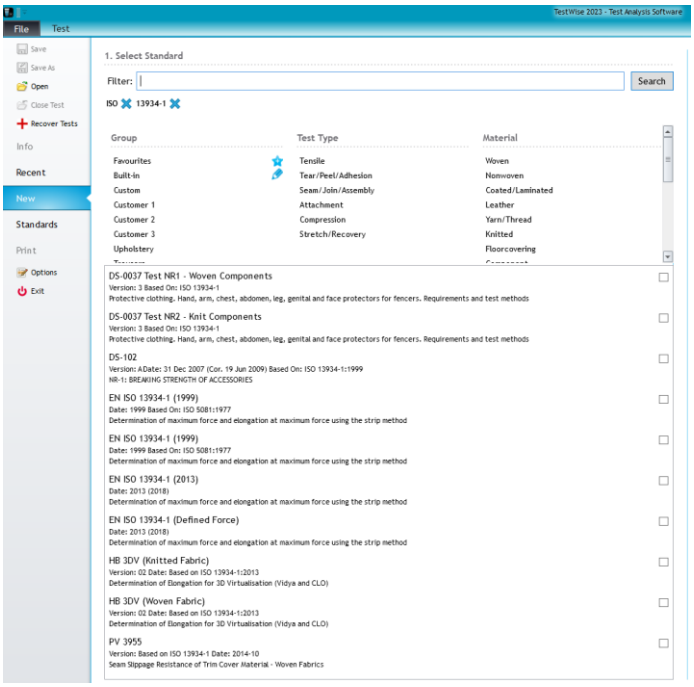
 
</td>
<td> 
</td>
</tr>
<tr>
<td>2. Select the required Standard.

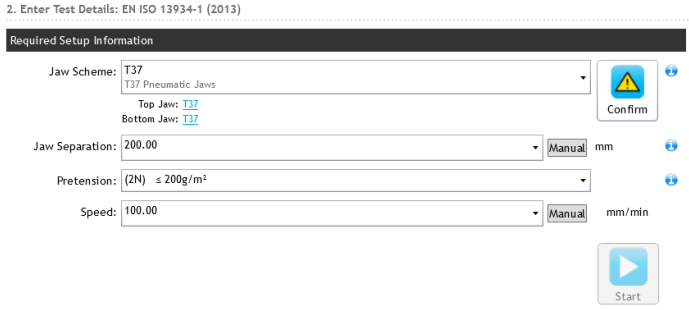
Use the search filters to locate the Standard you require.

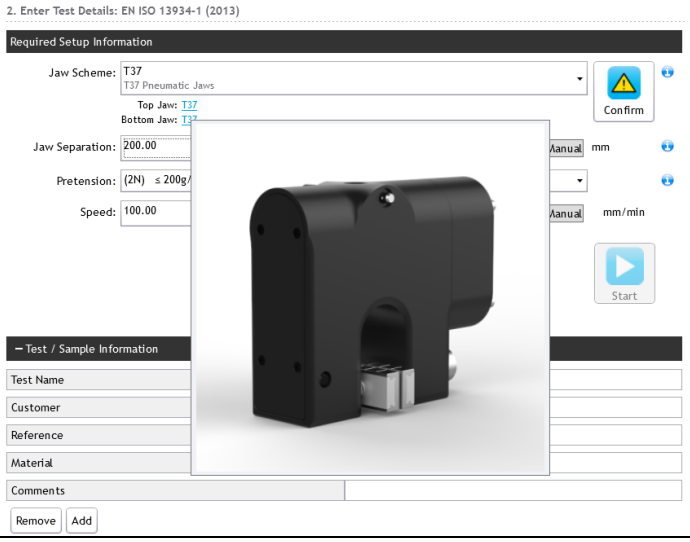
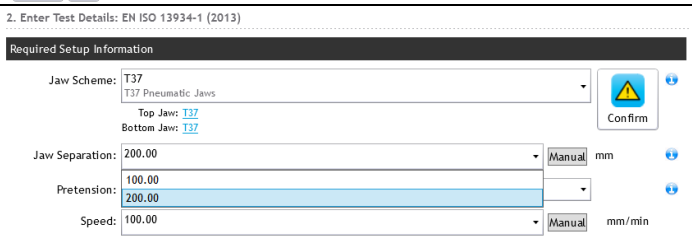
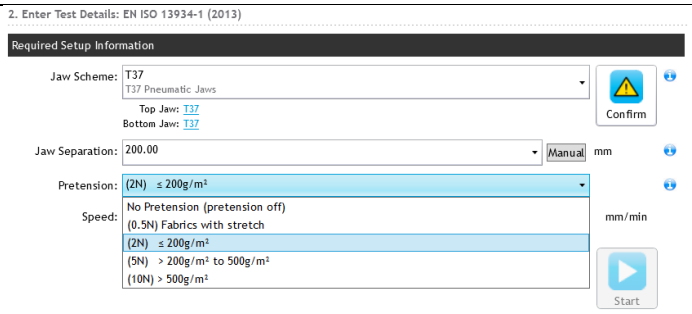
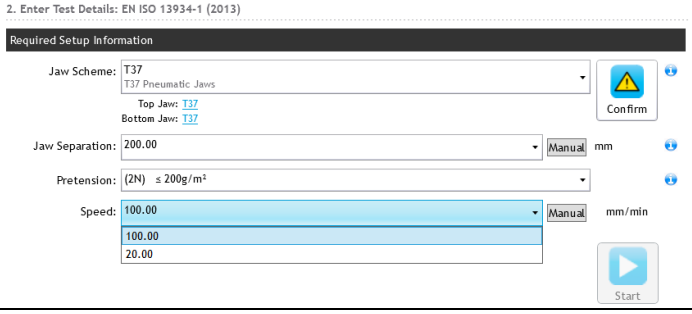
 

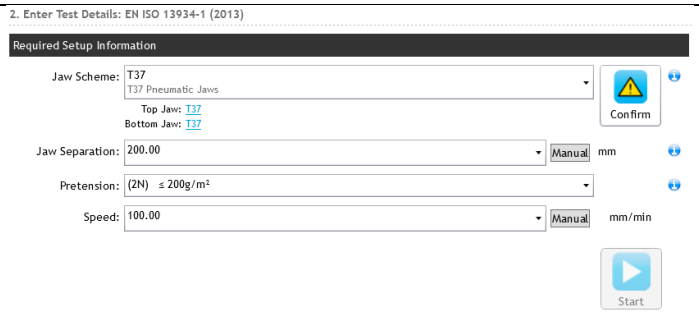
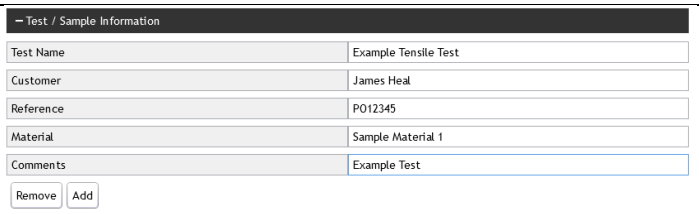
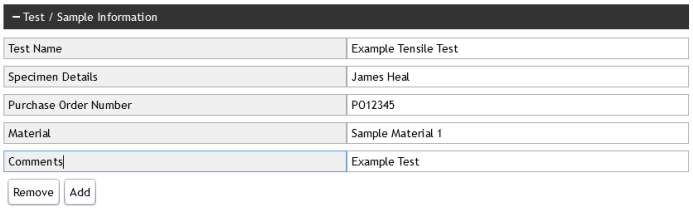
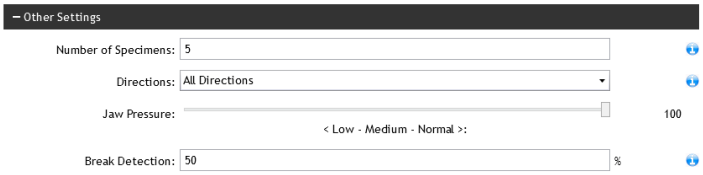
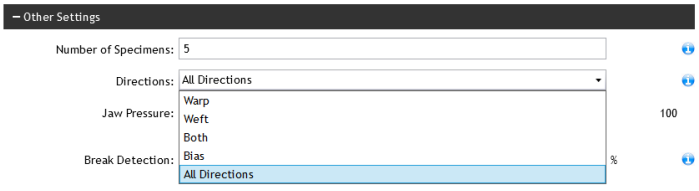
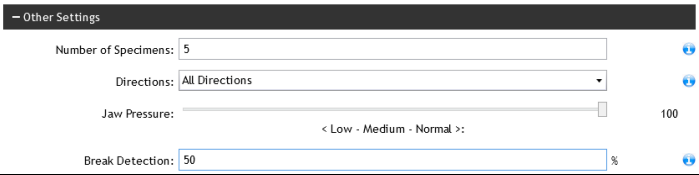
Or type the Standard you require into the Filter box.

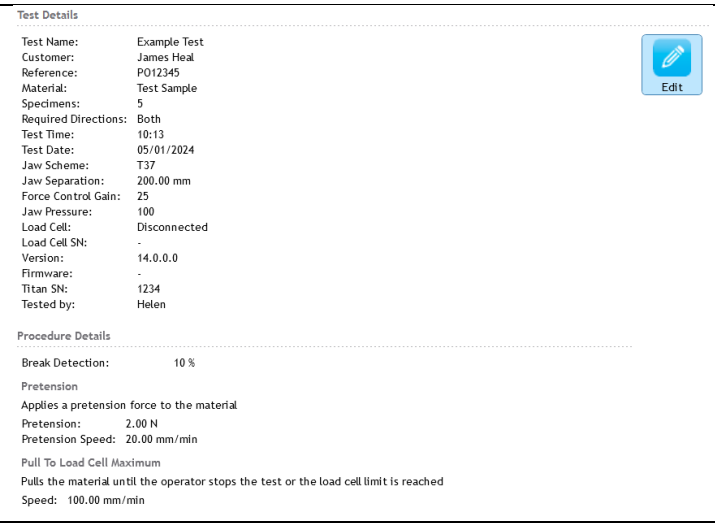
 

In this example, we will select EN ISO 13934-1 with a 200mm Jaw Separation.</td>
<td> 
</td>
</tr>
<tr>
<td>3. Select a suitable Jaw Scheme, in this case T37.

IMPORTANT – Select the Jaw Scheme fitted to the machine. If they do not match the Jaw Separation will be incorrect and damage could occur to the instrument.</td>
<td> 
</td>
</tr>
</table>

Click the Confirm button to enable the instrument to start. 	
4. Hovering the mouse pointer over the blue T37 will display an image of the grip you have selected. The image will stay on the screen for 5 seconds.	
5. Jaw Separation can be changed using the dropdown box. Default setting is 200mm. 100mm is used for elastic/ stretchy fabrics.	
6. If required, select the required Pretension (preload) force, determined by the weight/ mass of the fabric.	
7. The speed of the instrument can be changed. In this specific test the common default is 100mm/min however, stiff test specimens require a slower speed of 20mm/min.	

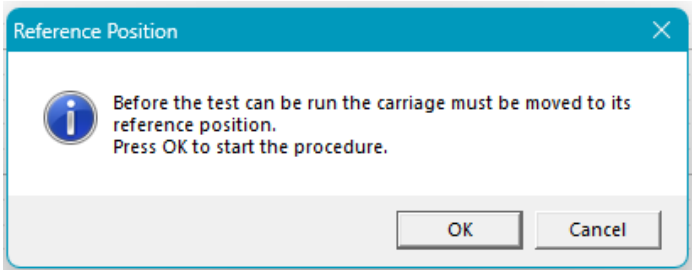
8. If the value is not available from the dropdown box, a custom value can be typed by pressing the Manual button. Manual	
9. Enter details which describe the sample. This information will be stored with the test results and printed on the test report.	
10. Each of the titles in the left pane can be changed to custom names. Use the Remove or Add buttons to add or remove a field not required on the test report.	
11. The bottom section is Other Settings which are specific to the test method selected. Number of Specimens is a box to type any value for the number of tests to complete in a specific direction.	
12. Directions to be tested in can be selected from the dropdown box. These will be included during the test and on the test report.	
13. The amount of pressure the jaw places on the fabric can be selected – 1 to 100% of air pressure. This helps reduce damage on finer fabrics or help grip stronger materials.	
14. Break Detection is used	

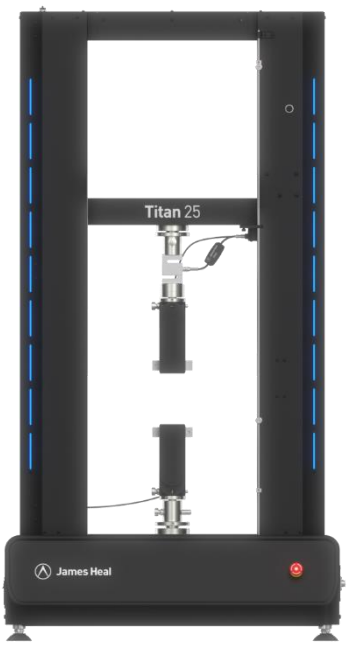
11. The fields above can be left blank and populated at any time via File > Info > Edit. After making any changes click the Apply button	

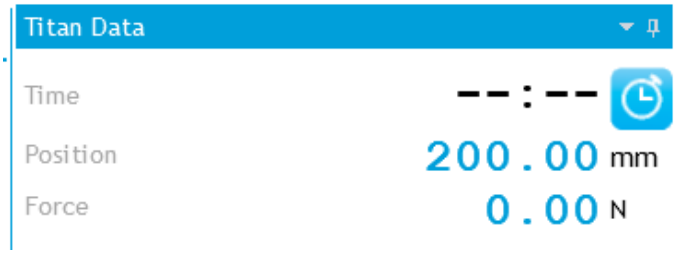
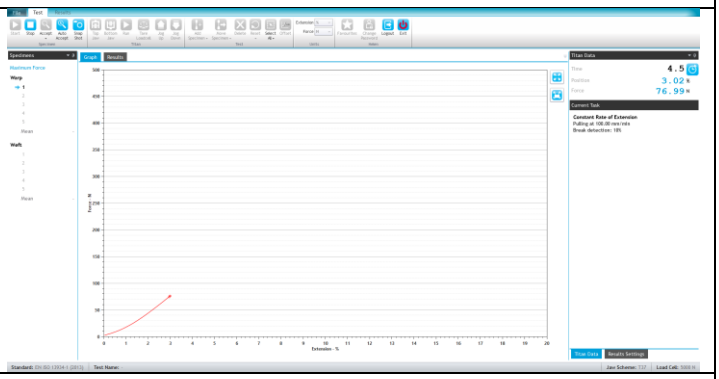
The Titan will now be set up ready for the specimen to be inserted before testing.

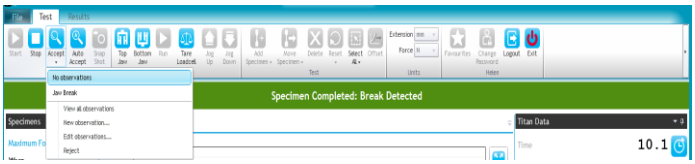
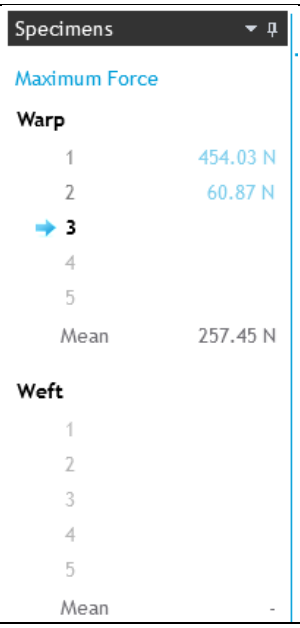
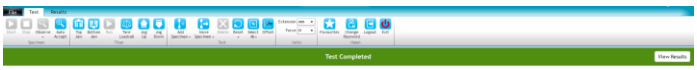
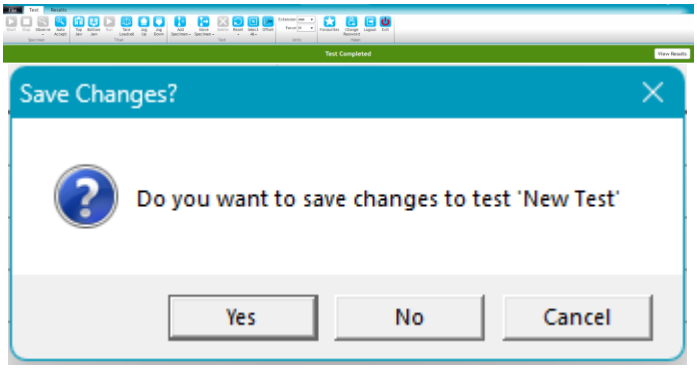
7.2. Carrying out a Test

Follow pages 34 to 35 of the Operators Guide to attach the correct Load Cell and Grips to the Titan before proceeding.

1. If the Titan has been turned off, a message will appear to move the Titan to the Reference Position setup. Click the OK button to continue. OK Note: the new Titan instruments will not go to the Home position when turned off and on.	

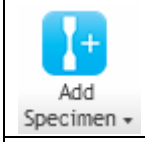
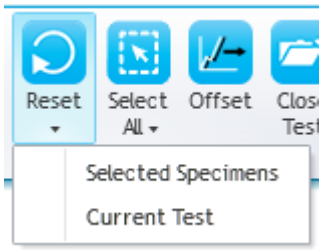
2. The same setup will now return to the test position, in this example, 200mm apart.	
3. Press the Start button to initialise the test.	
4. Place the specimen into the jaws and close. In this example, place the fabric into the top jaw and close, then without tensioning place into the bottom jaw and close. Ensure the test specimen is placed centrally both horizontally and vertically to achieve consistent results.	
5. Pneumatic Jaws (T37) can be opened or closed by: - • Clicking Top Jaw and Bottom Jaw on screen • Pressing F3/F2 on keyboard	

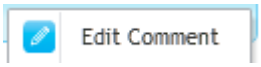
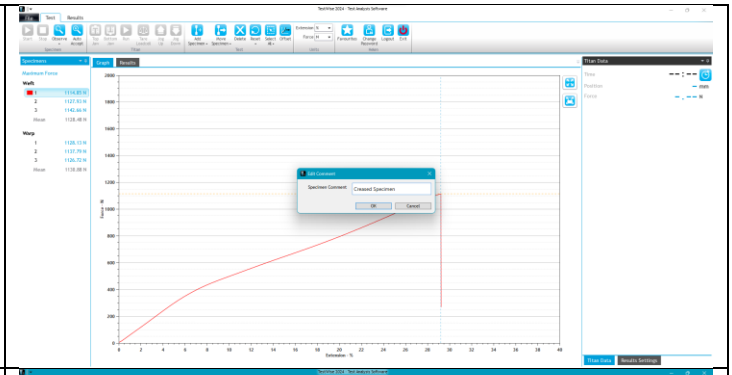
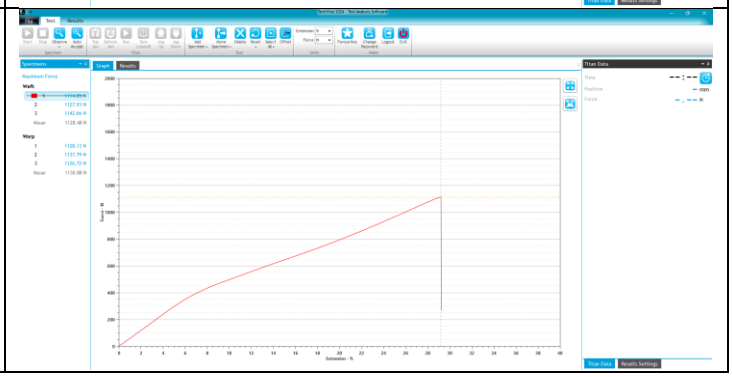
• Pressing Titan Start Button once (where available) • Pressing the Foot Pedal For use of other grip/ jaw combinations please see our Accessories Guide.	
6. Click Run or press F9 on the keyboard to start the test. For the full list of Function Keys, please see Page 60.	
7. Readings from the Titan can be seen in the right-hand pane under 'Titan Data'. This shows how long the test has been running, what distance the jaws are at and what force is on the Load Cell.	
8. The status of the machine will be shown under 'Current Task'. This includes instructions to setup the Titan or test specimen.	
9. A graph will be plotted as the test continues. If the graph goes off the scale, it will automatically rescale.	
10. Some test methods have Break Detection feature which means when the specimen breaks it is automatically detected. If pneumatic jaws are being used, they will usually open at the end of the test.	

11. The test result now needs to be confirmed with or without observations to move onto the next specimen. Click on the Accept button and then either No Observations or Jaw Break. Each test specimen can be accepted or rejected.	
12. Remove the fabric from the machine and repeat steps 3 to 11. As you test each fabric, the results will be shown in the left-hand pane. The headline result which is usually the primary measurement required by the standard is also shown for all directions being tested.	
8. When all specimens have been tested a green banner display “Test Completed”. To see all specimen results calculated together click the View Results button on the banner.	
9. The Close button will close the test report, select Yes to save any results, No to discard all test results or Cancel to go back to the previous screen. 	

7.3. Making Changes During a Test

Various features can be amended during a test including the number of specimens, the test details and break detection values. These features can also be used after the test has been completed.

1. To add another specimen to either direction or both, click the Add Specimen button and then the direction required. 	
2. If a specimen has been tested in the incorrect direction, but the result is correct, click the Move Specimen button to be able to change it to the direction it was tested in. 	
3. To delete a specimen from the test and the report click on the test and then the Delete button. This will remove this test from the test and the report.  **Note**: these changes cannot be undone.	
4. To remove the values and comments from a test, click on the specific tests to be reset and press the Reset button. This will not delete the specimen but will remove all details saved. **Note:** these changes cannot be undone.	

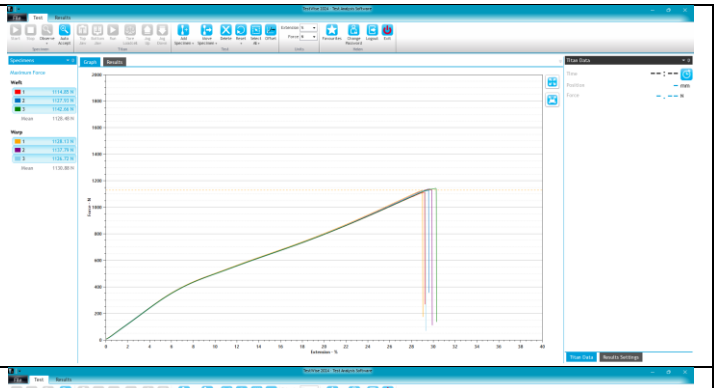
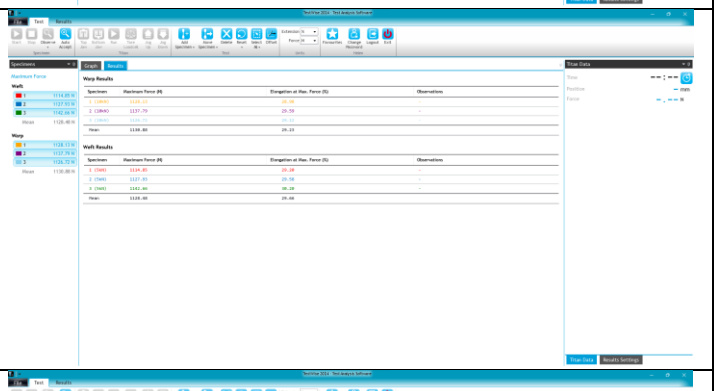
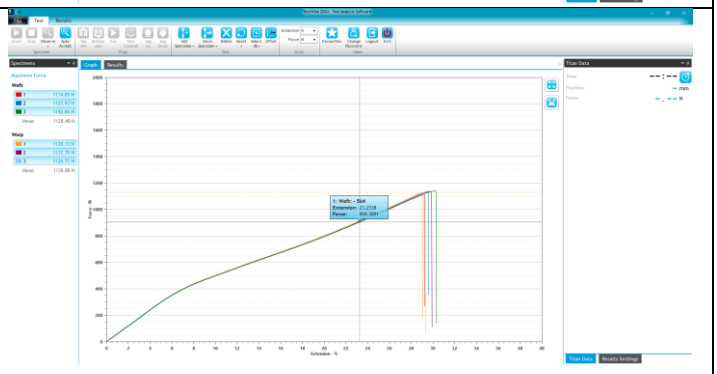
4. Comments can be added to a specimen by right clicking on the specimen and selecting Edit Comment.  This opens a box to type any comment into.	
5. Right clicking the specimen also allows for Excluding the specimen from the results. The specimen result is visible, with a strikethrough, but is not included in the calculations.  	

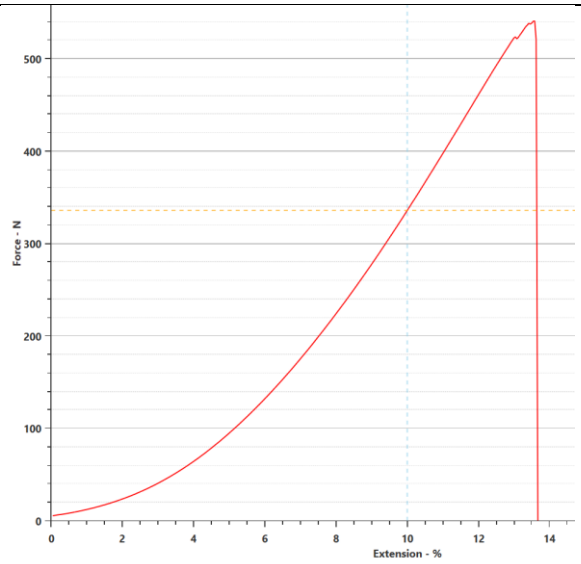
8. Results in TestWise

This section will show how to change the view of the Graphs and Results produced by TestWise and print the reports or export them to alternative software programs.

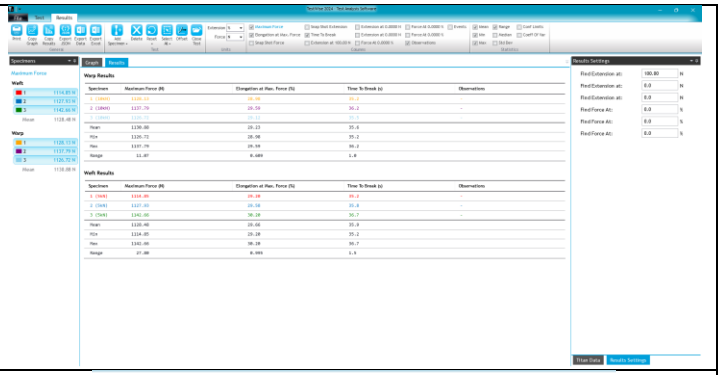
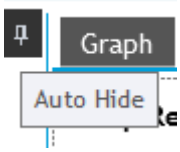
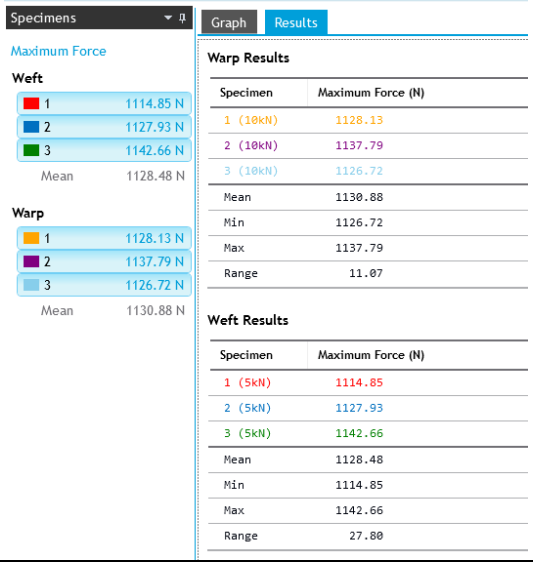
8.1. Viewing Results

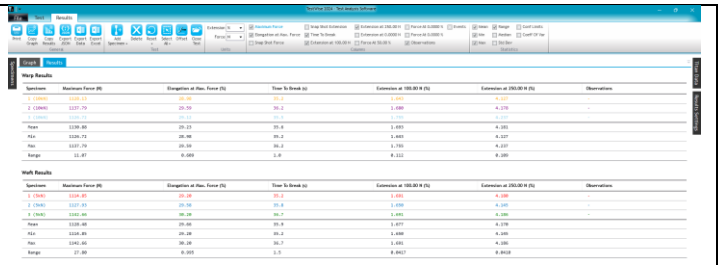
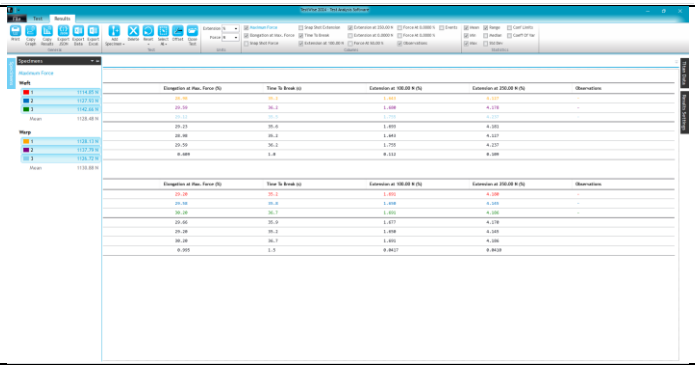
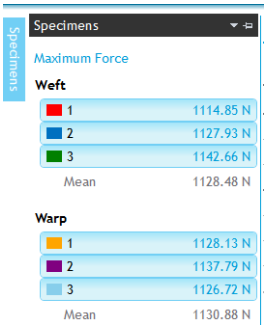
8.1.1. Graph Settings

1. Each specimen is assigned a colour on both the graph and the results tab. Ten colours can be defined, if there are more than ten specimens, the colours re-start from the beginning.	
2. Click on the Graph or the Results tab to change the view of the results in either Graph form or as a list of Results. 	
3. To view a specific value on the graph, click the mouse onto the graph and both the horizontal and vertical readings will be shown. Slide the mouse up and down the graph to take readings from different points on the graph.	

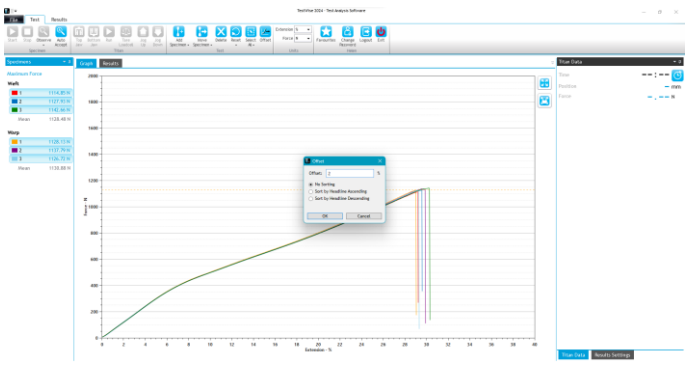
	 Eg, lines shows force intersection at 10% extension value

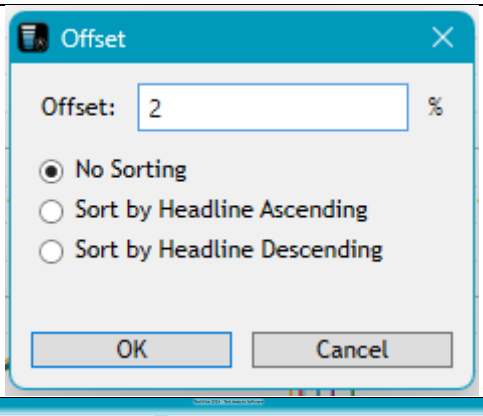
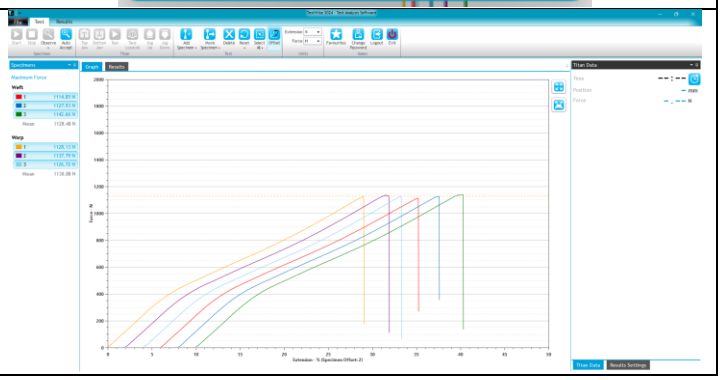
8.1.2. Screen Settings

1. The graph and results pages have two panes on either side of the machine displaying specimen and Titan information. To see data better, these panels can be hidden. This is especially useful when viewing a large quantity of data.	
2. In the right-hand corner of the panes is a pin icon which is the Auto Hide button to hide these panes from view. 	

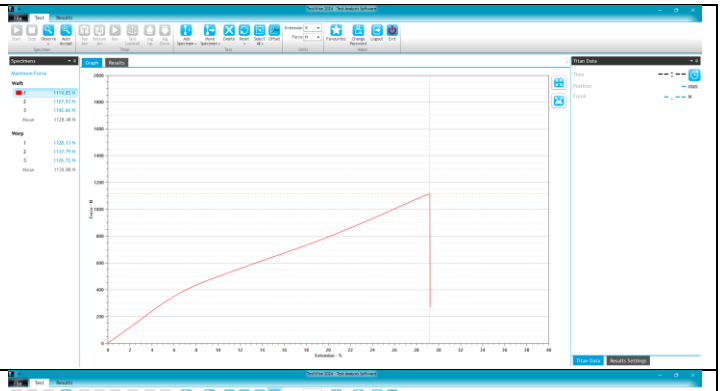
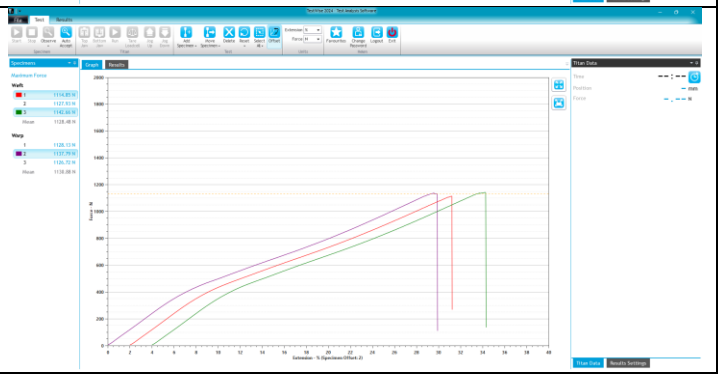
3. This will make the results page fill the whole of the screen.	
4. To view the specimen results, Titan data or results settings briefly, hover over the tab and this will display the pane.	
5. To pin the panes back onto the results screen, hover over the tab and click the pin icon again.  **Note:** The current layout is saved until changed again.	

8.1.3. Graph Offset

1. If the graphs are close together and difficult to see, the Offset button will move the graphs by a percentage/ distance, giving spacing between each graph. Click on the Offset button and input a value into the box.  	

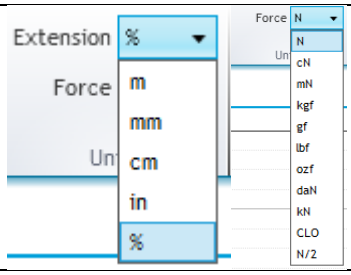
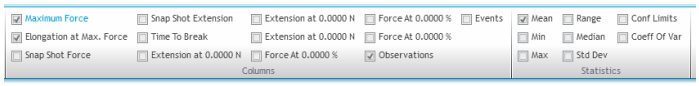
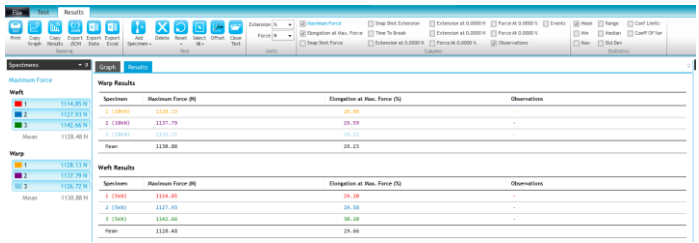
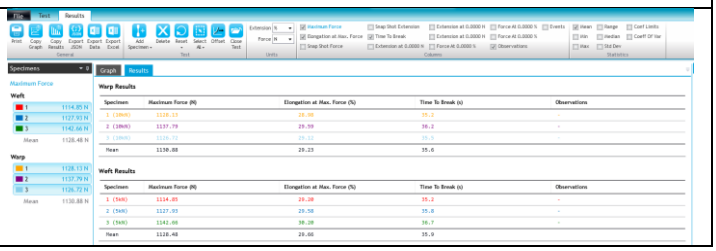
2. The graphs can be organised in ascending or descending order or remain in the order they were tested.	
3. The graphs will look like the image with a 2% offset. To cancel the offset, click the button again and it will move all the graphs back to their original position.	

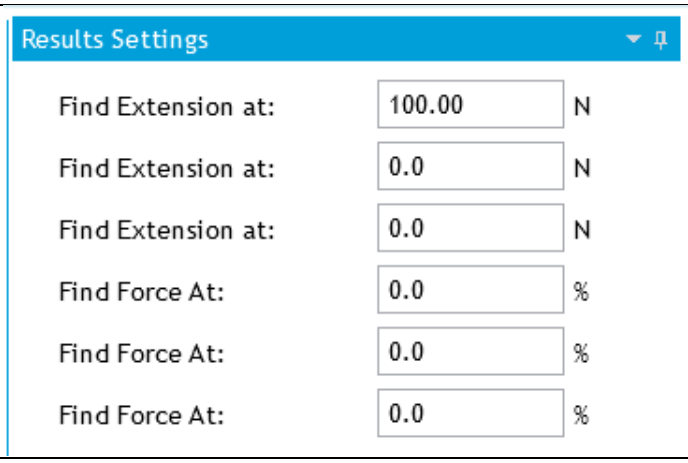
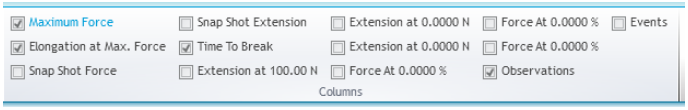
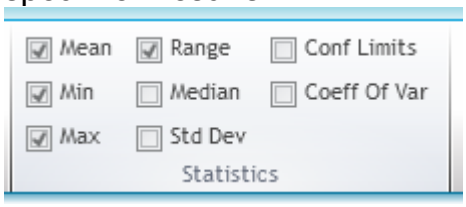
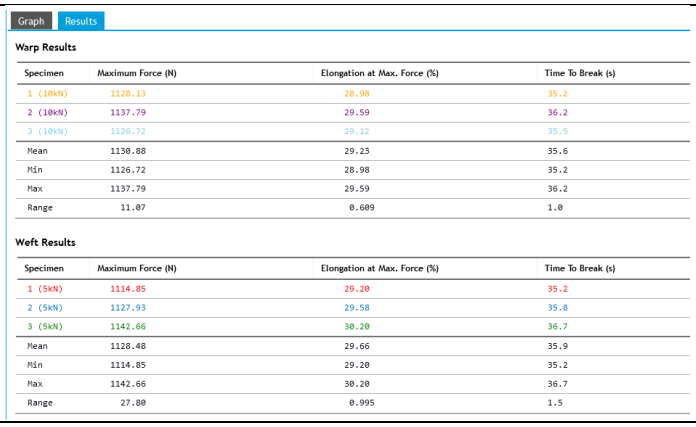
8.1.4. Viewing Specific Results

1. To view one specific test, click on the test in the left-hand pane. This will show the one graph on the Graph tab and the one result in the Results tab.	
2. To view a specific selection of results: - Hold the Control key and click on the selected specimens or Hold the Shift key and click on the first and last specimens required to view the range of test results.	

3. Click on the Select All button to view a specific selection of tests – None, Warp, Weft or All to select all directions.	

8.2. Changing Displayed Results

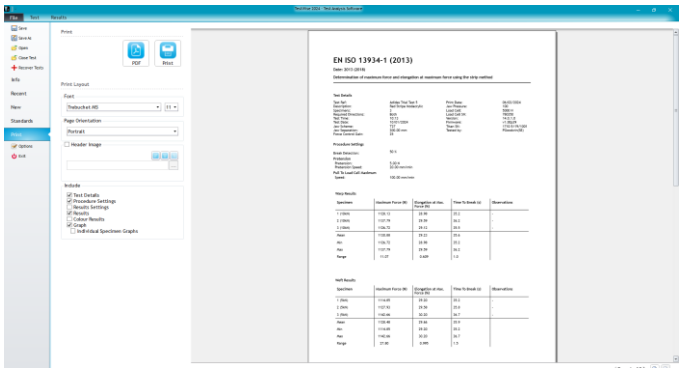
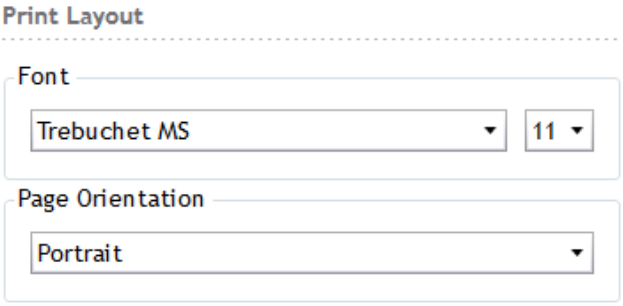
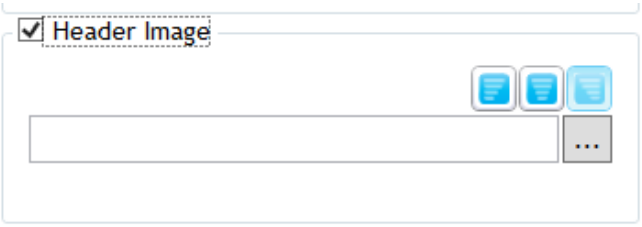
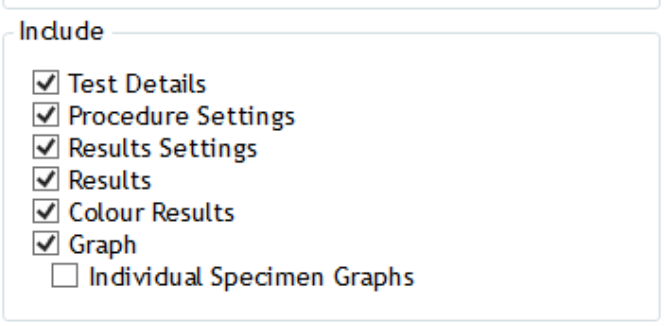
1. With the Test tab selected  click on the Extension button, or the Force button and select from the list of options available.	
2. With the Results tab selected  various parameters can be selected from the taskbar.	
3. To view any Observations which were made during the test, such as Jaw Break or Sewing Thread Break, tick the Observations button in the Columns section. 	
4. To view any other results in the columns, check the boxes as required and uncheck them to remove them from view.	

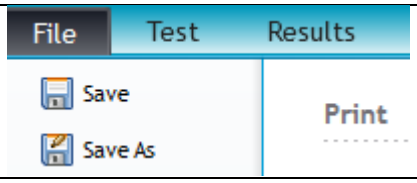
5. On the right-hand side of the results view is a pane called Results Settings. This can be used to view bespoke calculations. To view the results at a specific value, type the number into a box in this pane.	
6. This will now be visible in the Columns pane. Check the box to view the result. 	
7. To view additional Statistics, check the box un the pane and these results will be shown under the individual specimen results. 	

8.3. Test Report

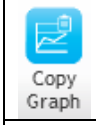
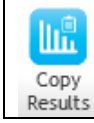
1. With the Results tab selected there are various options for viewing and exporting the results from TestWise.	

8.3.1. Print the Report

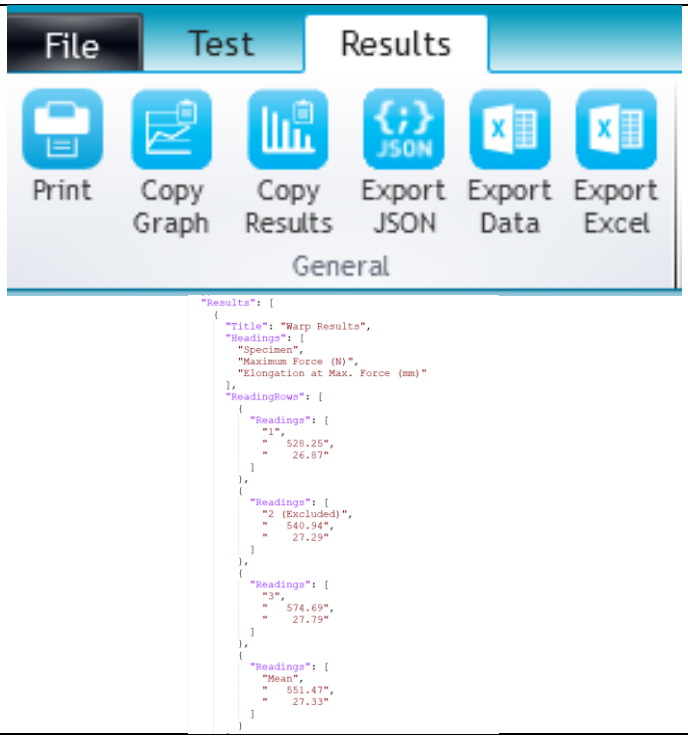
1. Click on the Print button to open another window with various options which can be selected to build the test report required. This page can also be accessed by clicking on File and Print. Any changes made will be saved for future reports.	
2. Print to PDF or Print to the default or any other printer are the two buttons at the top of the screen.	
3. The Font and the Page Orientation can be selected from the Print Layout section.	
4. To add an image to the report, check the Header Image button, click on the browse buttons  and select the image file from the relevant folder. The image can then be placed on the left, centre or right of the report.	
5. Any of the details can be changed in the report including Colour Results, print each Specimen Graph Individually or any of the test details.	

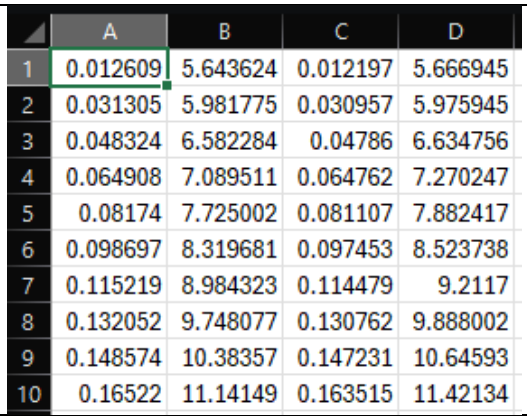
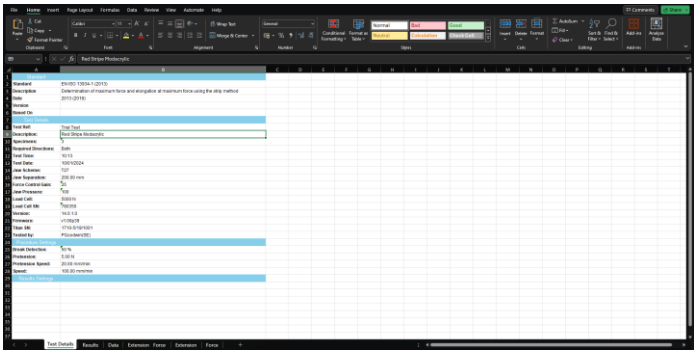
6. From the tab, there are options to save the report by Save or Save As.	

8.3.2. Copy the Graph or Results

1. To copy the Graph to the clipboard to be able to paste it into another click on the Copy Graph button. 	
2. To copy the Results onto the clipboard, click on the Copy Results button. This will allow for pasting the results into other software. 	

8.3.3. Exporting Results

1. To view the results in JavaScript, click on the Export JSON button. This will open the Default folder to save results.  Example JSON is shown in the image.	

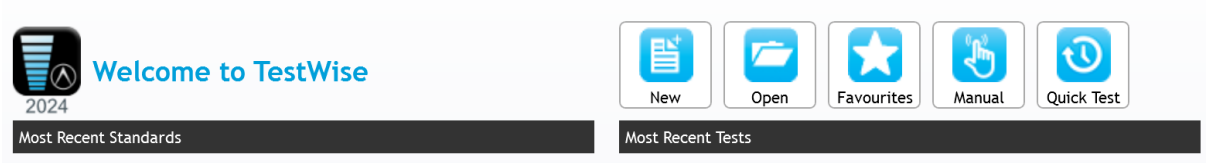
2. Export Data button can be clicked to save results as a CSV file. This saves the results to be opened in Excel as data values only without headers.  	
3. Saving data in Excel with all the test data, including the results and graph, click on the Export Excel button. This will save the results in individual tabs in Excel.  	

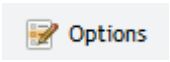
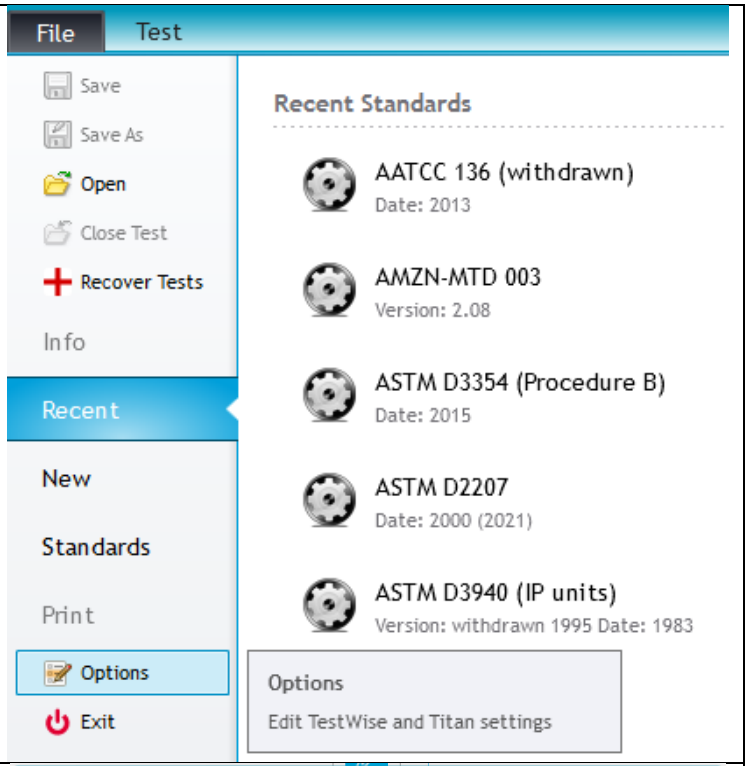
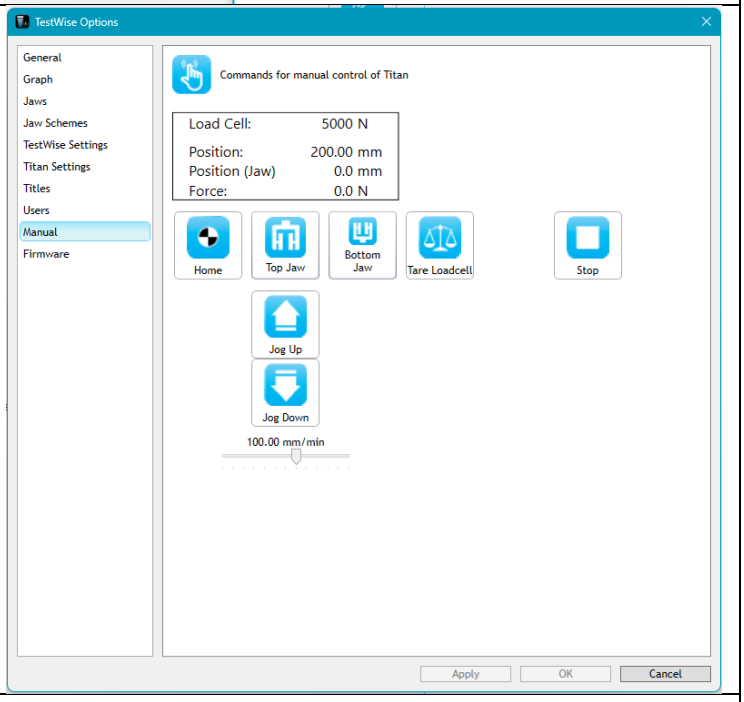
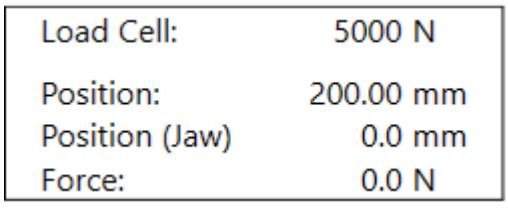
	A	B	C	D
1	0.012609	5.643624	0.012197	5.666945
2	0.031305	5.981775	0.030957	5.975945
3	0.048324	6.582284	0.04786	6.634756
4	0.064908	7.089511	0.064762	7.270247
5	0.08174	7.725002	0.081107	7.882417
6	0.098697	8.319681	0.097453	8.523738
7	0.115219	8.984323	0.114479	9.2117
8	0.132052	9.748077	0.130762	9.888002
9	0.148574	10.38357	0.147231	10.64593
10	0.16522	11.14149	0.163515	11.42134

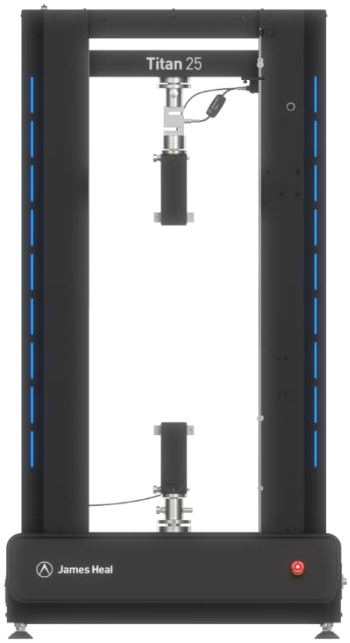
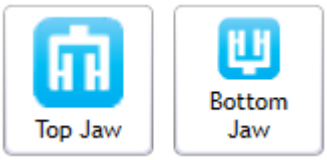
9. Manual Control

This option is used to control the Titan machine outside of standard operating procedures. It is not designed for performing tests but can be used to check settings on the instrument or override an action on the Titan.

Close any open tests and click the Manual button from the main screen:



1. Click on the File button and go to the Options button.  The options available will depend on Use level.	
2. In the TestWise Options box select the Manual button on the left.  	
3. The information in the box shows the current status of the instrument including which Load Cell is connected, where the machine is currently positioned and what force is on the machine.	

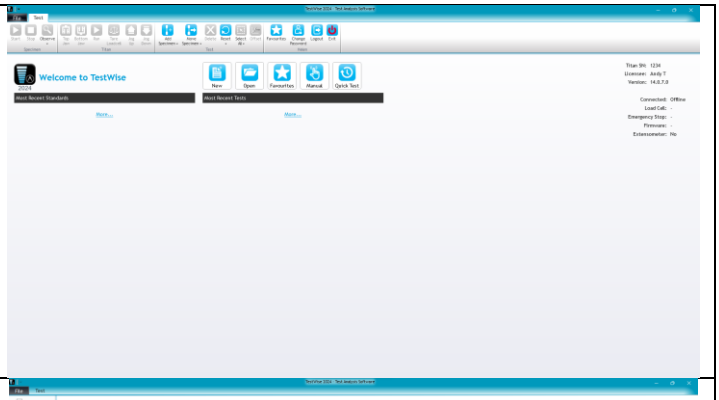
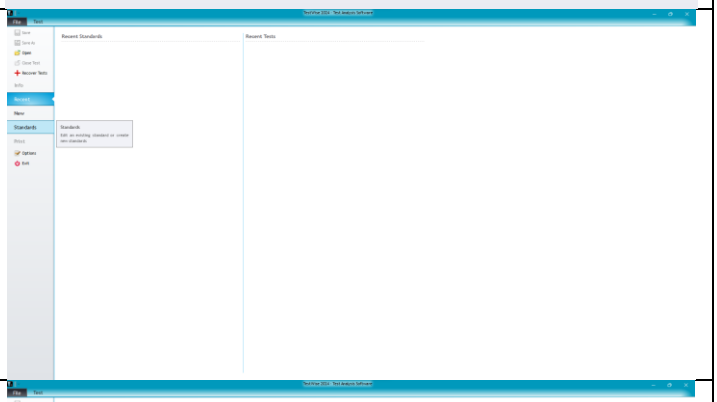
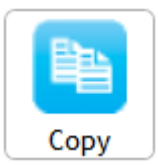
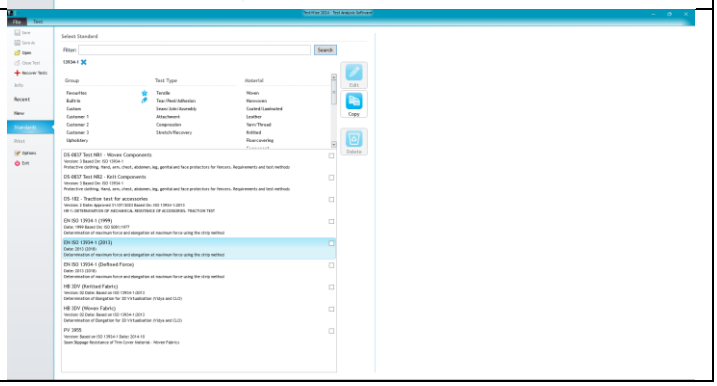
3. The Home button moves the cross-head and any accessories to the top of the machine. This allows the machine to find the Zero position to be able to measure distances correctly.  Note that newer Titan machines do not need to home everytime they are powered on. On these systems, if there is a fault with the battery-backed position system, then TestWise will ask you to home before running any tests.	
4. Sets the value of the Load Cell to zero. **Note:** Do not Tare the Loadcell while it has a load applied and ensure heavy grips are not attached to a small Loadcell as these could damage the Loadcell.	
5. Close the top and bottom jaw by using the Top Jaw and Bottom Jaw button. This can be used to check the function of grips.	
6. Use the Jog Up and Jog Down button to move the Load Cell and accessories to a specific place. The slider can be used to increase or decrease the speed of the instrument. The four arrow keys on a keyboard can also be used.	

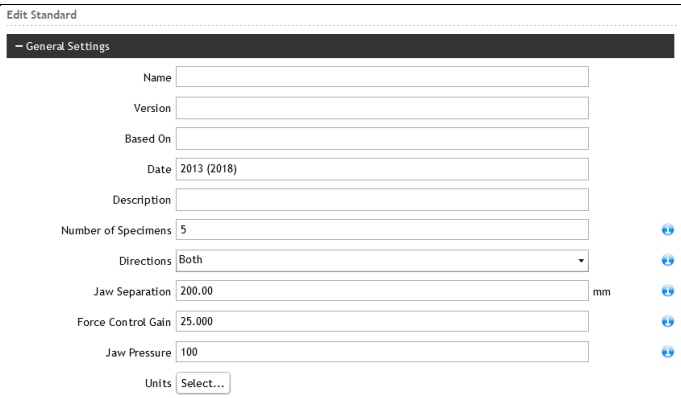
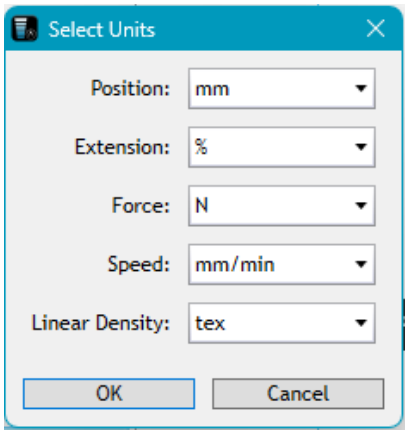
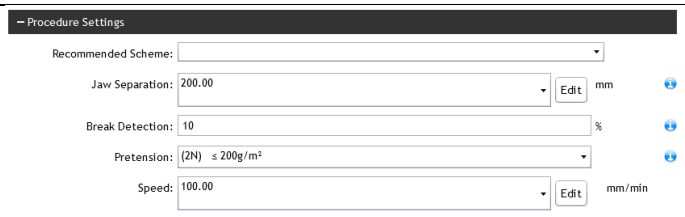
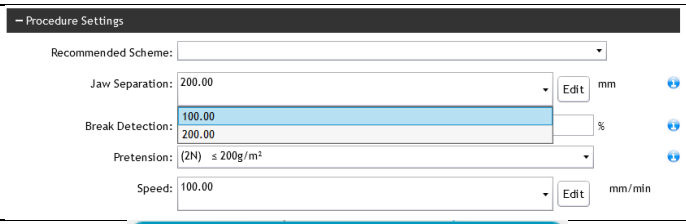
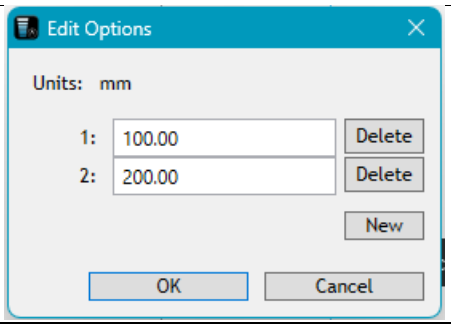
7. In Manual mode, this button will Stop the instrument from Homing if selected.	

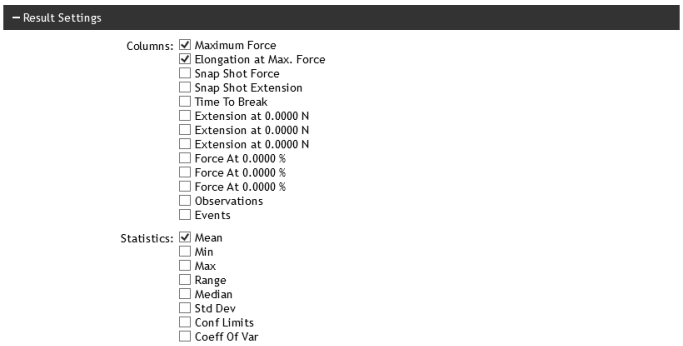
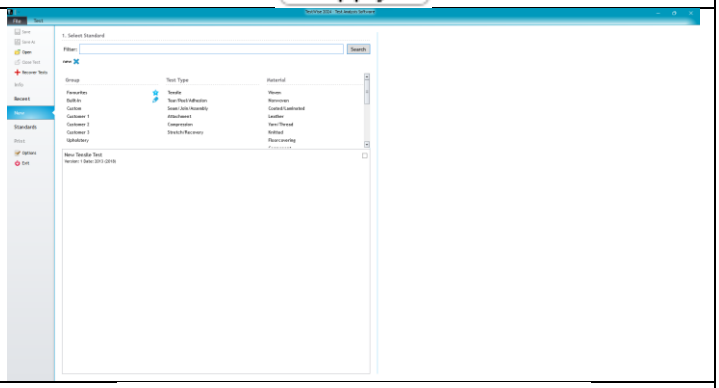
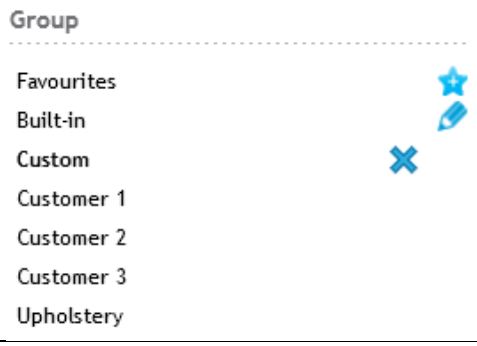
10. Standards Editor

TestWise allows a user to create a Custom Standard by copying an existing standard included in the software. By copying the standard, the test method can be edited but a new standard cannot be built from a blank template. It is therefore easier to copy a standard which is closest to the required standard – contact James Heal for help and advice where this is unknown.

A new custom tensile test method will be created in the following instructions.

1. Start TestWise and login with Administrator privileges.	
2. From the File menu, select Standards.	
3. Search for the Standard to use as a template. Click on the Standard from the list and click Copy. 	

4. Type the name of the Standard required and then change any parameters as required based on the test method required.	
5. To change the units of the machine, click on the Select button and change any of the parameters available. Linear density is only required on Yarn Tensile tests – if linear density is specified the results are expressed as tenacity. If no linear density is specified, the results are expressed directly as force.	
6. The test procedure can be edited; these will depend on the Standard originally selected.	
7. The dropdown boxes can be used to select pre-loaded measurements by TestWise.	
8. If a custom value is required, select the Edit button and type custom values into the boxes.	
9. Change which Results and Statistical data values are selected and displayed.	

	
10. Find Extension and Force can be included as a Default for the test method.	
11. Save all changes by clicking on the Apply button.	
12. The Standard is now available in the Library.	
13. Custom test methods can be found by clicking on the Custom button at the top of the screen. These standards are only available using the same Login on the same computer.	

11. Fault Finding, Troubleshooting and Repair

TestWise cannot detect a valid license dongle	The licensed dongle has been removed from the USB port. Insert the dongle back into the port. It may take up to 5 seconds to be detected by TestWise.
Licensee: Unlicensed	The Titan configuration has not been uploaded from the instrument. This can also occur if TestWise is re-installed on a new PC. Contact James Heal Application Support quoting the Titan serial number TestWise and Windows version for assistance.
Emergency Stop	
TestWise has not recorded the test results	TestWise has a safety feature which means the result will not record if it is not the active screen as it shows the user is not checking the testing.

12. List of Standards Included in TestWise

This is a list of standards included in TestWise 2024. The list is updated regularly. To discuss the latest standards list or for a standard to be included, contact James Heal directly.

AATCC 136 (withdrawn)	DIN 53530	GAP INC S1066-2	LTD 24
AATCC/ASTM TS-010	DIN 53835 Part 13, 14	GB 6675-2	LTD 26
AATCC/ASTM TS-015	DIN 53858	GB/T 13772-1 and 2	LTD 27
AF 002	DIN 53859 Part 4, 5	GB/T 13773-1 and 2	LTD 81
AMZN-MTD 003	DIN 53868	GB/T 14272	LTD 84 Part 1, 2
AS 1683.11 Type 1	DIN 53934	GB/T 18132	LTD 98
AS 1683.12 Method A, B, C	DIN 54310	GB/T 19976	M&S P11 A, B, C
AS 2001.2.10, 2.19, 2.20, 2.21, 2.22, 2.3.1, 2.3.2, 2.7	DIN EN 14716	GB/T 21294	M&S P115 B, H
AS/NZ 4547.3	BS 0037	GB/T 2660	M&S P12 A, B, C
ASTM D1335	DS 01300 Test 1, 2A, 2B	GB/T 2662	M&S P122
ASTM D1578 - Option 2, 3	DS-044	GB/T 2664	M&S P124
ASTM D1682	DS0452	GB/T 2665	M&S P13 A
ASTM D1683	DS-102	GB/T 2666 4.4.10 & Annex B-T	M&S P14 A, B, C
ASTM D1876	DS-1047	GB/T 2666 4.4.11 & Annex C-T	M&S P141
ASTM D1894	DS-160	GB/T 32610	M&S P15 Part 1
ASTM D1938	DS-275	GB/T 3916	M&S P15A
ASTM D2061 10.1, 10.3, 19.1, 19.2, 19.3, 19.4, 19.5, 27.3, 72.1	DS-302	GB/T 3917-2, 3, 4 and 5	M&S P15B
ASTM D2207	DS-303	GB/T 3923-1 and 2	M&S P35
ASTM D2208	DS-306	GB/T 528 Type 1	M&S P42
ASTM D2209	DS-307	GB/T 529 Type B, C and T	M&S P43

ASTM D2211	DS-308	GB/T 532	M&S P70
ASTM D2212	DS-340	GOST 12.4.241 - Method A	M&S P98
ASTM D2256	DS-343	GOST 8847 Method 2, 3, 4 and 5.1	NEXT© TM16
ASTM D2261	DS-348	GPF D5035	NEXT© TM16a
ASTM D2262	DS-355	H&M TM DS:12	NEXT© TM21
ASTM D2724	DS-579	H&M TM DS:13	NEXT© TM21a
ASTM D3167	DUPONT TTM 076	HB 3DV	**NEXT© TM25**
ASTM D3354 Procedure B	Edana 70.4	HB EN ISO 20932-1	NEXT© TM36
ASTM D3759M Procedure A, B	EN 12242	HB MP 19	NEXT© TM37
ASTM D3787	EN 12310 Part 1, 2	HBI PD006	NEXT© TM42
ASTM D3940	EN 12311-1	INEN 1061 Method A, B, C	NEXT© TM42a
ASTM D4034	EN 12317-2	INEN 561	NEXT© TM45
ASTM D412	EN 12332-1	IS 14181 - Part 2. Annex B, C, D, E, F, G, H and J	NEXT© TM46
ASTM D434	EN 12743	IS 14625 Annex D	NF G07-140
ASTM D4533	EN 12773	IS 15891 (Part 4)	NF G62-021
ASTM D4632	EN 12785	IS 1670	NIKE - Part 1
ASTM D4704	EN 13514	IS 1969	NIKE - Part 2
ASTM D4776	EN 13522	IS 2508	NIKE TEST EQ01
ASTM D4830	EN 13567 Part 5.10	IS 3400 (Part 1) (Type 1)	NIKE TEST G76
ASTM D4831	EN 13571	IS 3565 Annex K and L	NIKE TEST G77
ASTM D4833	EN 13572 Method A, B	IS 6489 Part 2, 3 and 4	NWSP 100.2
ASTM D4846	EN 13594 Annex B	IS 7016 Part 2, 3.1, 5 and 6.1	NWSP 100.3
ASTM D4851 - 14	EN 13634 Part 6.1	IS 7071 (Part 4)	NWSP 110.1
ASTM D4912	EN 13780	IS 7703 (Part 2)	NWSP 110.4
ASTM D4964	EN 13859-1	ISO 11857	NWSP 110.5
ASTM D5034	EN 1392	ISO 1209-1	NWSP 401.0
ASTM D5035	EN 14350-1 Part 6.3.1, 6.3.2	ISO 17696	Pacific Brands PB-001
ASTM D5169	EN 14410 Method A, B	ISO 17697 Method A and B	Pacific Brands PB-002

ASTM D5170	EN 1464	ISO 17706	Pacific Brands PB-003
ASTM D5587	EN 14704-1 Method A, B	ISO 178 (MOD)	Pacific Brands PB-004
ASTM D5733	EN 14704-2 Method A	ISO 1805	Pacific Brands PB-021
ASTM D5735-95	EN 14704-3 Method A	ISO 2023 Annex C	Pacific Brands PB-027
ASTM D5748	EN 15598	ISO 20344 Part 5.2, 5.25 and 6.3	Pacific Brands PB-028
ASTM D575 Method A	EN 16653	ISO 20866	PRIMARK PM07
ASTM D5822	EN 16732 Annex B, C, D, E, G, H, I, J	ISO 20872	PRIMARK PM08
ASTM D5884	EN 17394-2	ISO 20874	PSTC-131 Procedure A, B
ASTM D6077	EN 1875-3	ISO 20875	Puma PT85
ASTM D624	EN 29073-3	ISO 20932 Part 1	PV 3955
ASTM D6241 Method B	EN 388 – 6.4, 6.5	ISO 22650	QB/T 2711
ASTM D6479	EN 455-2	ISO 29864 Method A and B	QB/T 2886
ASTM D6614	EN 71-1	ISO 3341	Renault D41 1015/--E
ASTM D6636	EN 863	ISO 3342	RMQT-OI/020-045 (MOD)
ASTM D6644-01	EN ISO 11644 (IUF 470)	ISO 3379	SABS SM 637
ASTM D6775	EN ISO 12625-4	ISO 34 Part 1 Type B, C and T	SANS 11644 (IUF 470)
ASTM D6797	EN ISO 12625-5	ISO 36	SANS 1540
ASTM D7005	EN ISO 13934 Part 1 and 2	ISO 37 (Type 1)	SANS 5636
ASTM D7142	EN ISO 13935 Part 6-2	ISO 4578	SANS 6194
ASTM D7506	EN ISO 13935 Part 1and 2	ISO 4606 Type 1 and 2	SATRA TM108
ASTM D751 Section 18, 22, 32	EN ISO 13936 Part 1, 2 and 3	ISO 4637 (BS 903-A27)	SATRA TM113
ASTM D7842	EN ISO 13937 Part 2, 3 and 4	ISO 4919	SATRA TM117
ASTM F1917	EN ISO 1421 Method 1 and 2	ISO 5081	SATRA TM118
ASTM D2412	EN ISO 17236	ISO 5082	SATRA TM120
ASTM F963	EN ISO 17695	ISO 6939	SATRA TM149
BS 1932-2	EN ISO 17698	ISO 8124-1	SATRA TM162
BS 2543	EN ISO 17708	ISO 8295	SATRA TM24

BS 2576	EN ISO 20344 Part 5.5, 5.9, 5.10, 5.17	ISO 9073 Part 3 and 5	SATRA TM281
BS 3084 Annex B, C, D, E, G, H, I, J	EN ISO 2062	Jantzen Test Method 3	SATRA TM29
BS 3144 - Ball Burst Test	EN ISO 20932-1 Method A, Aa, B and Ba	JIS K6252-1 Method A, B and C	SATRA TM30
BS 3320	EN ISO 20932-2 Method A	JIS K6521 (Type 5)	SATRA TM33
BS 3424 Part 4 Method 6	EN ISO 20932-3 Method A	JIS L1075 Method B	SATRA TM411
BS 3424 Part 5 Method 7A, 7B, 7C	EN ISO 23910	JIS L1085 Part 6.13, 6.5.1 6.6.2, 6.6.3 and 6.7.3	SC/T 4022
BS 3424 Part 6	EN ISO 2411	JIS L1086	SIS 25 12 31
BS 3424 Part 7	EN ISO 24264	JIS L1093 Method A1, A2 and A3	SIS 65 00 68
BS 3424 Part 33 Method 36	EN ISO 3303-1	JIS L1096 Part 8.14.1 Method A, B	Snag Strength Test
BS 3424 Part 38 Method 41	EN ISO 3376	JIS L1096 Part 8.14.2 Method E, F	Target TP 50&51
BS 4162	EN ISO 3377-1 and 2	JIS L1096 Part 8.15.1 Method A	TEMA ELASTICITY FT-07 Method 2
BS 4294	EN ISO 3386-1 and 2	JIS L1096 Part 8.15.2 Method B	TOWA Peel Test
BS 4303	EN ISO 374-4	JIS L1096 Part 8.16.1 Method A, B, C, D	Toyota Eng. Std. TSL3505G
BS 4723 Annex B	EN ISO 4674-1 - Method A, B	JIS L1096 Part 8.16.3 Method B	Triumph TP-22
BS 4952	EN ISO 9073-18	JIS L1096 (8.17.1) Method A	TWC-TM04
BS 5131-3.1, 3.7, 5.11, 5.13	EN ISO 9073-4	JIS L1096 (8.17.2) Method B, C	TWC-TM117
BS 6F 100 section 3.3	ENV 12718 Annex B and C	JIS L1096 (8.23.1) Method A, B, C, D	TWC-TM179 Part A
BS 7505	ERT 20.2	JIS L1096 (8.23.2) Method B	TWC-TM202
BS 7907 Annex B	Express EXP-06	JIS L1096 (8.23.3)	TWC-TM248

BS 8510 Section 10	FZ/T 70005 7.1.1 and 7.1.2	JTA ST 2012	TWC-TM264
CEN/TR 16792 Annex B	FZ/T 70006 - 8.2.1, 8.2.2, 8.3.1.1, 8.3.1.2, 8.3.2.1, 8.3.2.2 and 8.4	LLL-001	UATM 176
CEN/TS 17394-3	FZ/T 80007.1	LLL-002	UATM 183
CFR (16) 1500.51-53	FZ/T 81004	LS&CO METHOD 11 (IP units)	ULSD (30%)
CPSD-SL-24964-MTHD	FZ/T 81006	LTD 03	UNE 40385
CSA Z195 Part 6.3	FZ/T 81007	LTD 06	UNE 40413
DBA RMQT-OI/020-035	FZ/T 81008	LTD 07	UNE 40902
DIN 53289	FZ/T 81010	LTD 10	UNI 10606
DIN 53329	GAP INC S1023	LTD 102	UNI 4818 Part 7 and 11
DIN 53354	GAP INC S1027	LTD 11	UNI 5421
DIN 53356	GAP INC S1028	LTD 15	
DIN 53357 Method A	GAP INC S1031	LTD 16	
DIN 53363	GAP INC S1033	LTD 18	
DIN 53504	GAP INC S1034	LTD 19	
DIN 53507 Procedure A, B	GAP INC S1064	LTD 23	

13. Function Keys

TestWise Shortcut Key Function	F-Key	Note
Close TOP jaw	F2	Before test runs
Close BOTTOM jaw	F3	Before test runs
Take Snapshot	F5	During a test
Tare Loadcell	F8	Before test starts
Start test	F9	Before test starts
Run next test	F9	After specimen is loaded
Accept specimen test	F9	After specimen test completed
Reject specimen test	F10	After specimen test completed
Stop test	F12	During a test