



# An Introduction



# Contents

- Overview of Horizon
- Easy test “Just 4 clicks to a test report”
- Consolidated test reports
- Solving problems – *on line support*
- Selling Model
- Flexibility in connection options
- Hardware Requirements
- Competition
- Launch Plan
- Practical – Use of software

# Can Horizon



- Q. Is Horizon easy to use? **YES**
- Q. Is Horizon XP and or Vista compatible? **YES**
- Q. Can I set up Pass\Fail limits? **YES**
- Q. Is there embedded traceability of results? **YES**
- Q. Can I operate all my machines from one PC? **YES**
- Q. Is Horizon network compatible? **YES**
- Q. Can Horizon communicate with my ERP system? **YES**
- Q. How quick to test and report? **4 mouse clicks**
- Q. Can I develop my own test methods? **YES**  
or will I be required to pay more? **NO**
- Q. Can I replace my existing TO software with Horizon? **YES**

# Can Horizon



Q. Is there on line support? **YES**

Q. Are there built in Tutorials to support operator training? **YES**

Q. Does Horizon use a centralised data base? **YES**

Q. What is the data base structure **SQL Express 2005**

Q. Can I have a graph not locked to zero i.e. 4 quadrant? **YES**

Q. Can I save in PDF and or Microsoft XPS? **YES**

Q. Can I have multiple extensometers and gauge lengths for one test **YES**

Q. ? **YES**

# Overview



# Launch Screen

Method Editor

Output Editor

Result Editor

Test & Recall

Configuration

Help Desk

Library

Test

Method library

Output Edit

Recall

Multi machines

Help Desk

**What would you like to do?**

*Search and review test methods. Import test methods from the library of standard methods*

# User Interface Overview

Attempt to flatten and consolidate

- Navigator had multiple tabs
- QMAT had multiple separate programs

Common grid for editor pages

- Easier to learn
- Same functionality throughout

Ultimate menu for overall functions in a given area

- Intro page
- Different functions for each major section
- Microsoft Standard

Multiple reports, graphs, exports, imports

- Complete flexibility

# Testing & Recall

## Adjustable

- Panel size
- Panel position

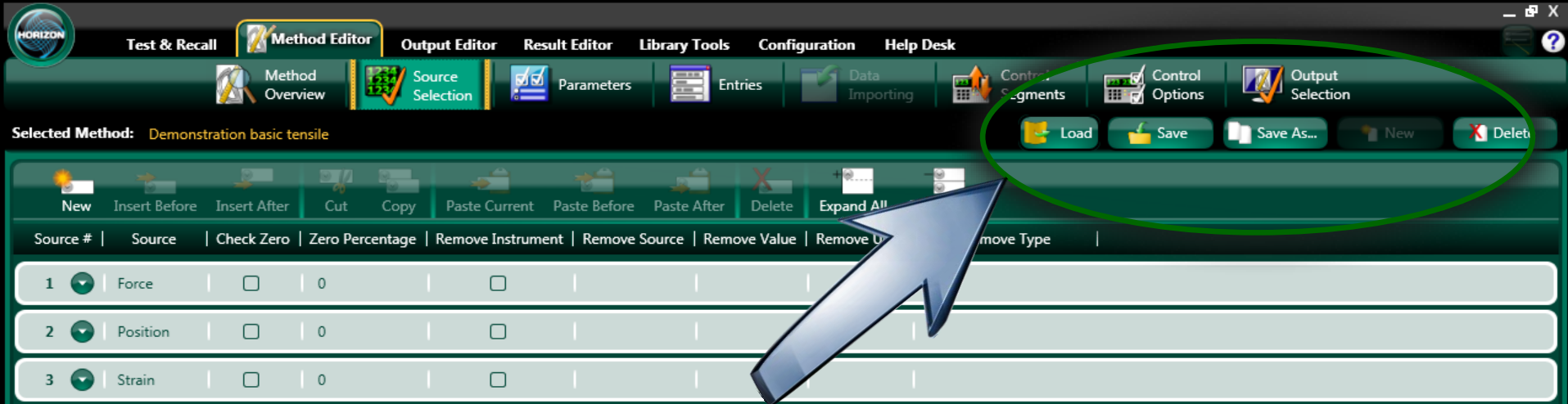
## Multiple Testing and Recall tabs

- Machines
- Recall

## Tab Settings

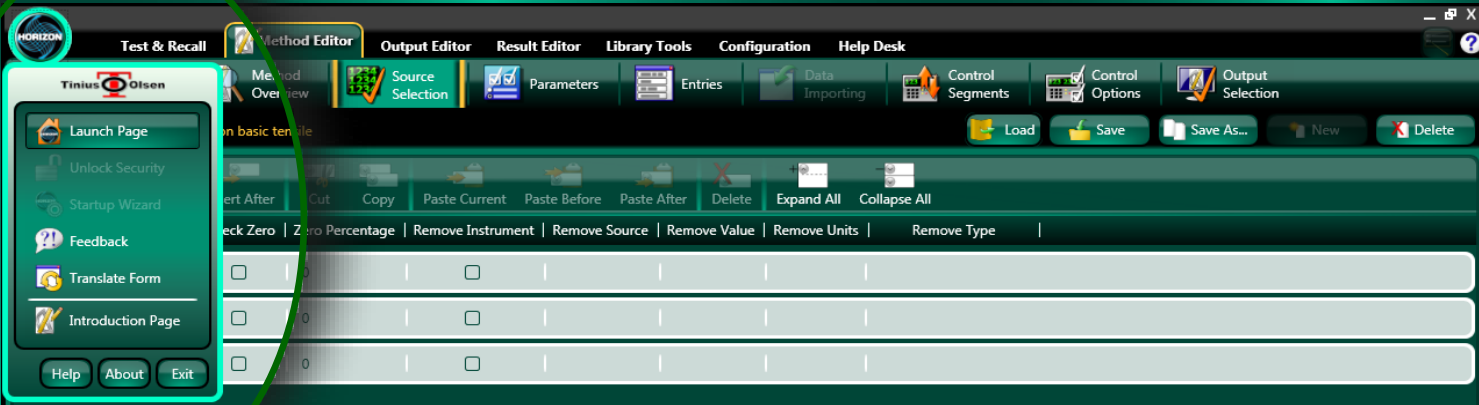
- Demo
- Method
- Machine
- Testing mode





## ***Common “Grid” functionality Windows Vista Graphics***

- Load, Save, Save As, Delete***
- Scalable to users preference***



***“Ultimate menu”***

***- Functionally context sensitive***

Test & Recall Method Editor Output Editor Result Editor Library Tools Configuration Help Desk

1234 Live Data Limits Graphing Reporting Data Exporting

Selected Output: Demonstration basic tensile

Overview History

SECTIONS TO VIEW

Live Data  Limits  Graphing  Reporting  Data Exporting

**Output Information**

Name	Demonstration basic tensile
Notes	
Created	12 December 2008 10:46
ID	9
Revision	8
Deleted	No

**Live Data**

Order #	Source	Label	Units	Format Type	Format
1	Force	Force	N	Automatic	
2	Position	Position	mm	Automatic	
3	Strain From Position	Strain (Pos) %		Automatic	
4	Time	Time	sec	Automatic	

**Graph #1**

**Graph Information**

Name	Force v Elongation
Main Graph	Yes
Grid Type	10 x 10
Display minor lines on screen	No
Display minor lines on report	Yes
Fixed Four Quadrant	No
Axis Thickness	1
Axis Color	Black
Major Line Thickness	0.5
Major Line Color	Gray
MinorLineThickness	0.25
Minor Line Color	Silver

**Y-Axis**

Unit Type	Label	Range Low	Rescale	Range Low	Range High	Rescale	Range High	Format Type	Format
Force	0 N	No		100 N	No			Automatic	

**X-Axis**

Output Notes

Tinius Olsen Horizon Software

Mouse over the icons below for a description of each section.



1234

## “Overviews”

- Summary of function set up – at a glance
- History review
- Revert and restoration of settings

Method Editor

Output Editor

Result Editor

Test & Recall



Library Tools

Configuration

Help Desk

**What would you like to do?**

*Search and review test methods. Import test methods from the library of standard methods*

# Library Tools

## Standards Library

- Search and Transfer

## Import/Transfer to working methods

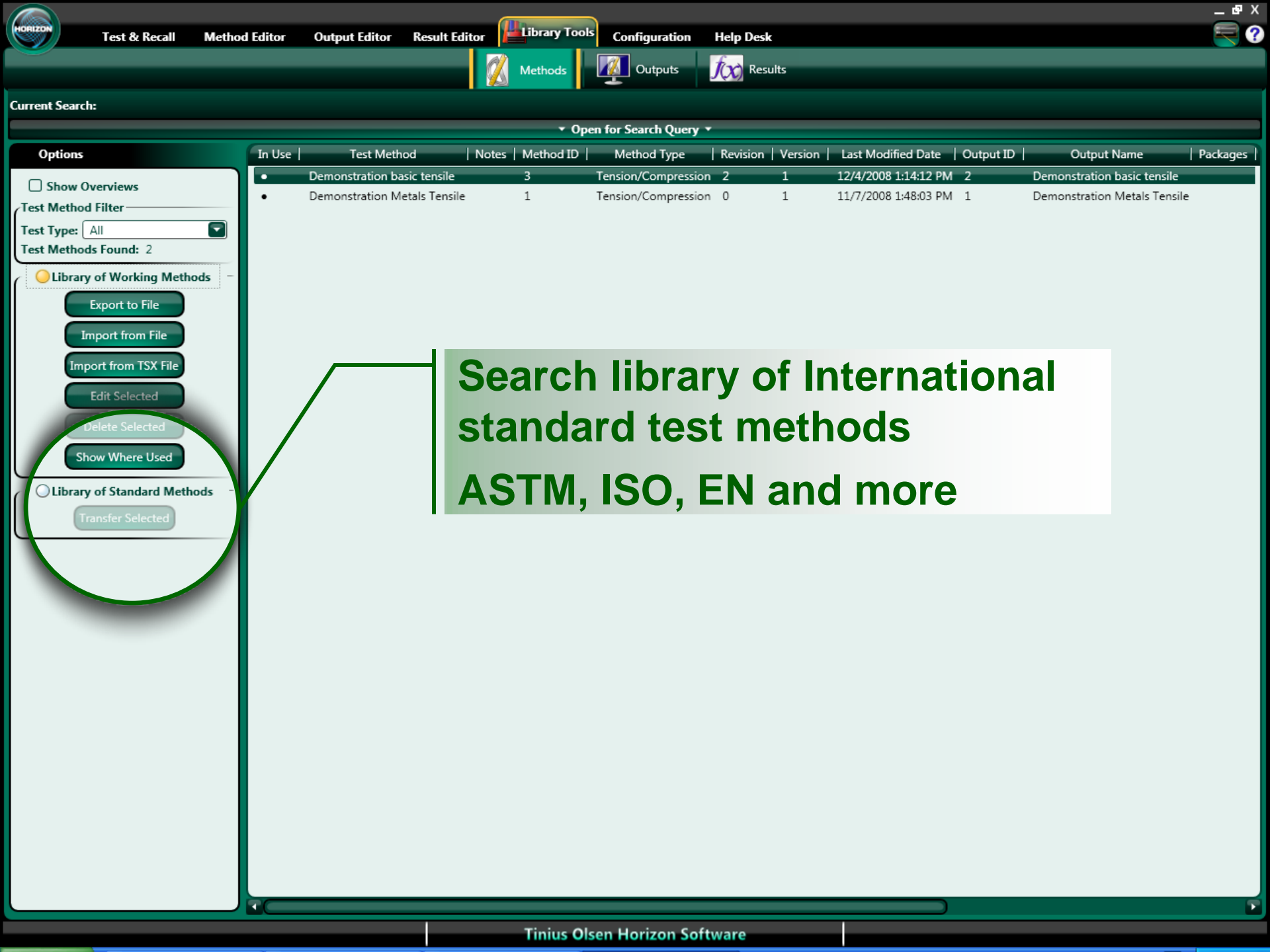
- Automatic transfer of company heading information
- Result definition conflict validation
- Editable library methods (after being transferred)

## Delete Methods, Outputs, and Results

- Centralized area for deleting software constructs

## At a glance information

- Overviews
- In - use



**Search library of International  
standard test methods  
ASTM, ISO, EN and more**

In Use	Test Method	Notes	Method ID	Method Type	Revision	Version	Last Modified Date	Output ID	Output Name	Packages
	Demonstration basic tensile		3	Tension/Compression	2	1	12/4/2008 1:14:12 PM	2	Demonstration basic tensile	
	Demonstration Metals Tensile		1	Tension/Compression	0	1	11/7/2008 1:48:03 PM	1	Demonstration Metals Tensile	

**Options**

Show Overviews

**Test Method Filter**

Test Type: All

Test Methods Found: 2

**Library of Working Methods**

Export to File

Import from File

Import from TSX File

Edit Selected

Delete Selected

Show Where Used

**Library of Standard Methods**

Transfer Selected

# Method and Output

Each method must have an output

An output can be standalone which will provide eventual “cross-module” reporting functionality

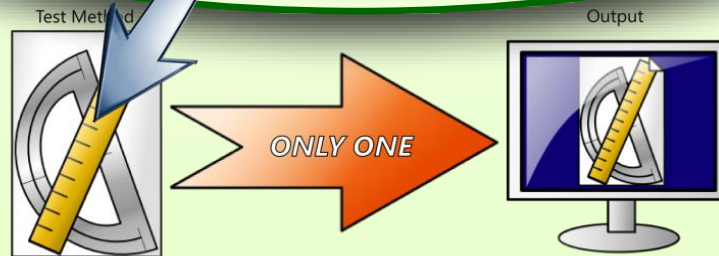
Each method in the standard library will have an output that will transfer with it

# Test Method/Output Relationships

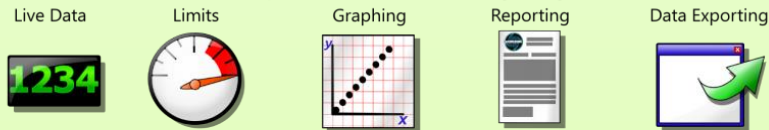
A Test Method contains information regarding:



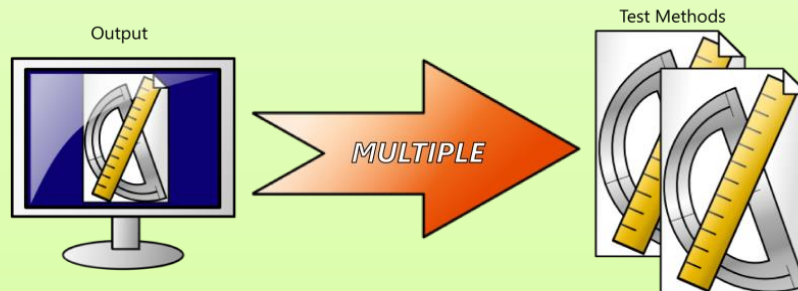
One Test Method can only have ONE Output



A Output contains information regarding:



One Output can be used by multiple Test Methods





## Test Method/Output Relationships

A Test Method contains information regarding:

Source Selection



Parameters



Entries



Data Importing



Control Segments



Control Options



One Test Method can only have ONE Output



A Output contains information regarding:

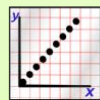
Live Data



Limits



Graphing



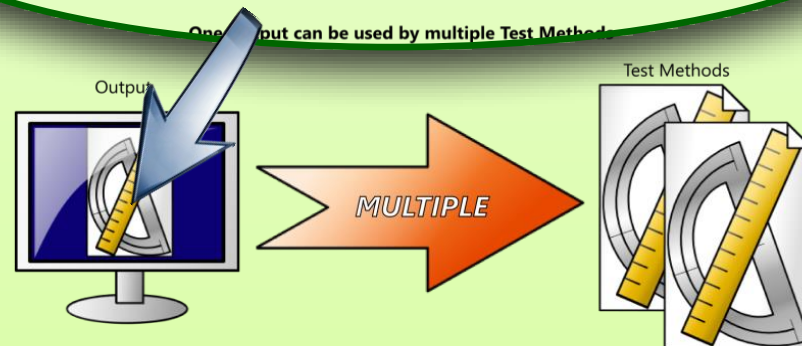
Reporting



Data Exporting



One Output can be used by multiple Test Methods





Method Editor



Output Editor



Result Editor



Test & Recall



Library Tools



Configuration



Help Desk

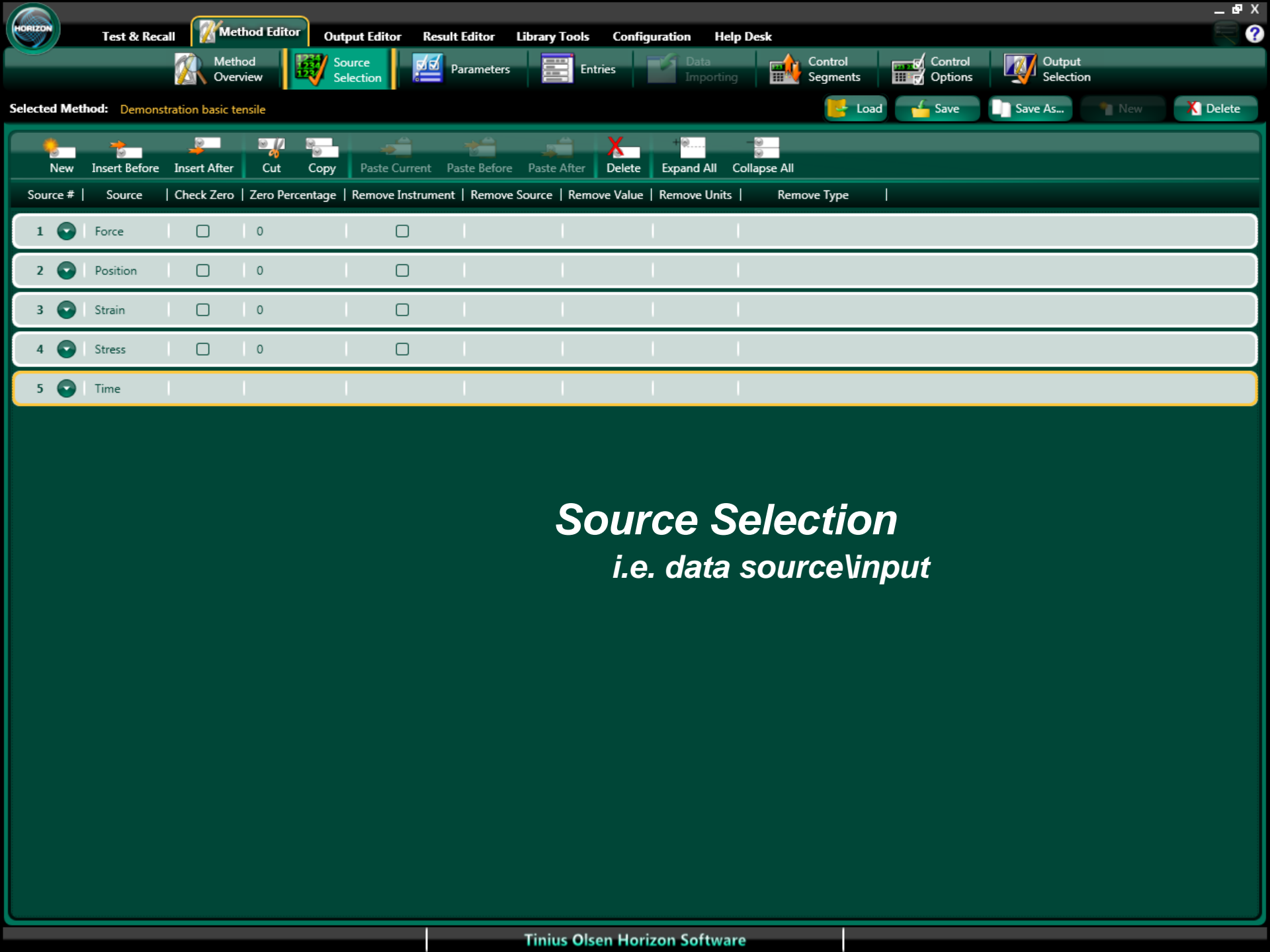
**What would you like to do?**

*Modify and create test methods located in the library of working methods*

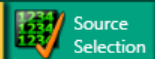
# Method Editor

Contains details/settings that must be in place **before the start of the test**

- Overview
  - History
- Source Selection
- Parameters
- Entries
- Importing
- Control Segments
- Control Options
- Output Selection



Method Overview



Source Selection



Parameters



Entries



Data Importing



Control Segments



Control Options



Output Selection

Selected Method: Demonstration basic tensile

Load

Save

Save As...

New

Delete



New



Insert Before



Insert After



Cut



Copy



Paste Current



Paste Before



Paste After



Delete



Expand All



Collapse All

Source # | Source | Check Zero | Zero Percentage | Remove Instrument | Remove Source | Remove Value | Remove Units | Remove Type

Source #	Source	Check Zero	Zero Percentage	Remove Instrument	Remove Source	Remove Value	Remove Units	Remove Type
1	Force	<input type="checkbox"/>	0	<input type="checkbox"/>				
2	Position	<input type="checkbox"/>	0	<input type="checkbox"/>				
3	Strain	<input type="checkbox"/>	0	<input type="checkbox"/>				
4	Stress	<input type="checkbox"/>	0	<input type="checkbox"/>				
5	Time							

**Source Selection**  
*i.e. data source\input*

Selected Method: Demonstration basic tensile

Testing Options

SHAPE SELECTION

<None>

TEST DIRECTION

Tensile  
Compression

Modulus

MODULUS OPTIONS

Modulus Result: Debug Modulus  
Modulus Offset Result:  
Modulus Cutoff Source: <None>  
Cutoff Value: 0.5  
Lock First Calculation

LIVE POINTS

Source: Start Point (%): 10  
Stop Point (%): 20  
Range Value: 50

ZERO STRAIN DETERMINATION

Extrapolate to Zero  
Zero Source:  
Load Trigger  
Load Trigger Source:  
Load Trigger

POST POINTS

Entered Values source: Start Point (%): 10  
Percent of Yield

Parameters

- Specimen type

- Modulus

- Curve data

- Stiffness compensation

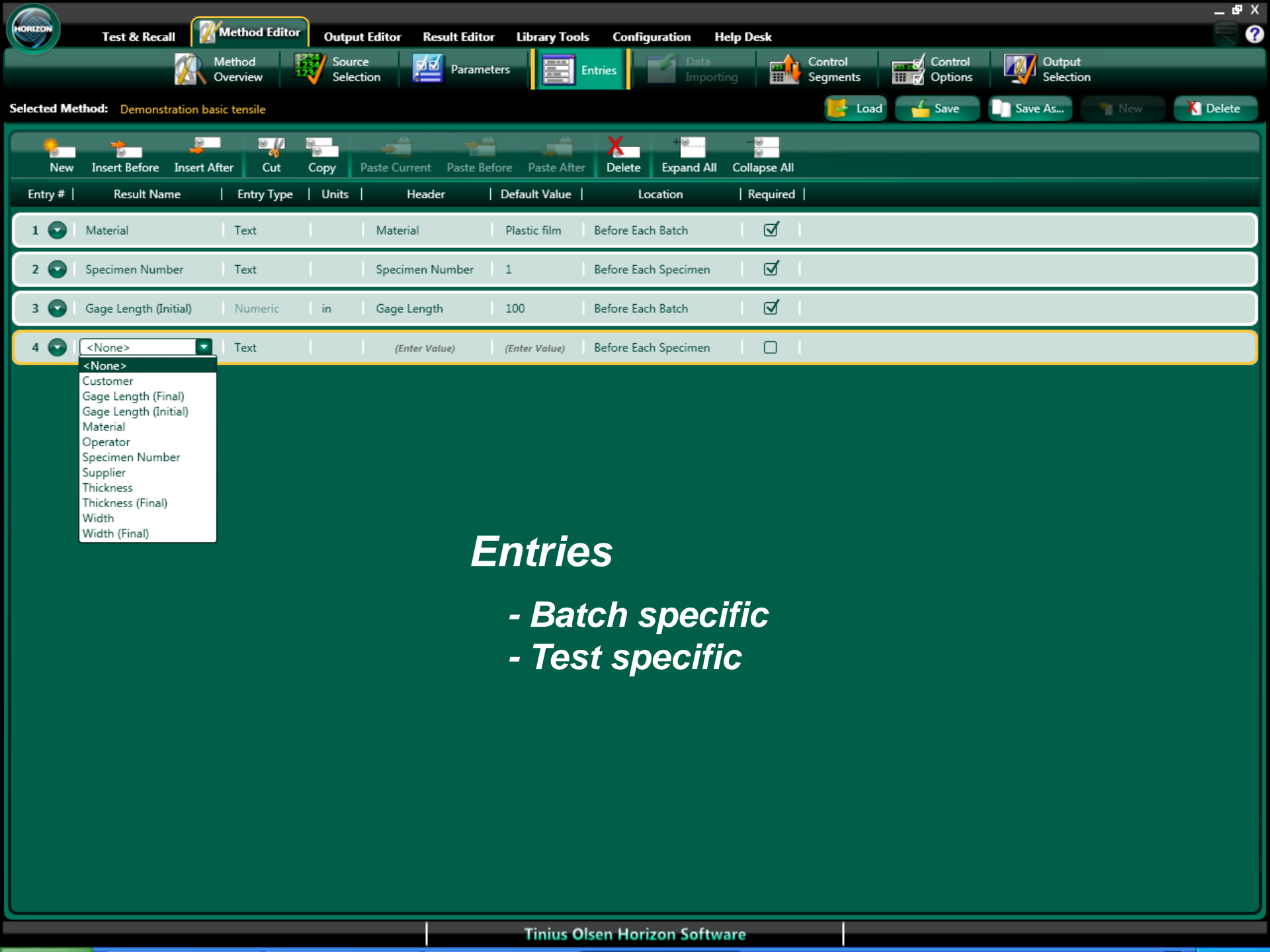
Curve Storage

Actual Points  
Entered Points

Source: <Auto>  
Distribution: Even  
Number of Points: 1000

Stiffness Correction Factor

Stiffness Correction Factor: 0  
Force Source: Force  
Position Source: Position  
Force Units: N  
Position Units: mm



Selected Method: Demonstration basic tensile

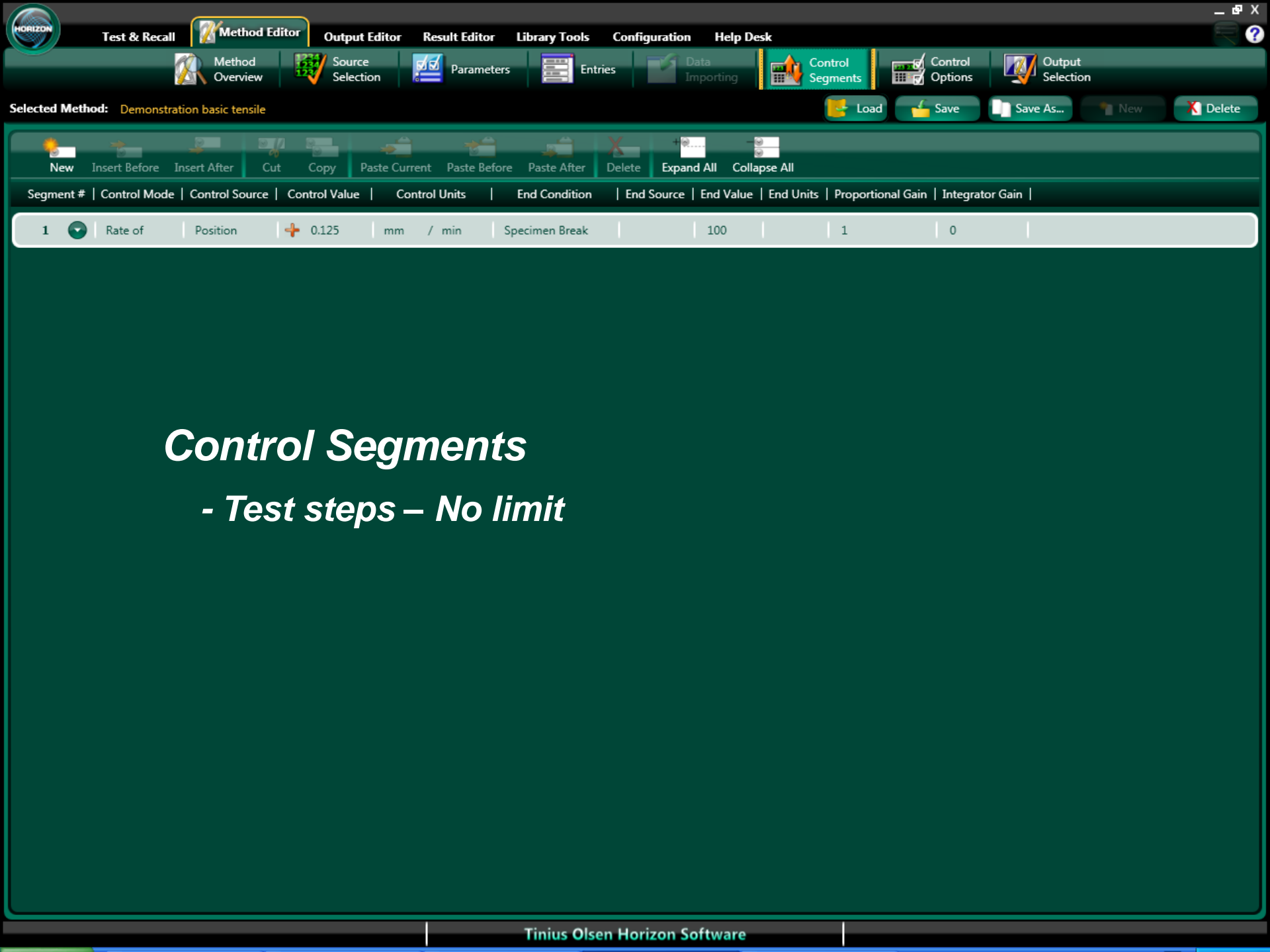


Entry #	Result Name	Entry Type	Units	Header	Default Value	Location	Required
1	Material	Text		Material	Plastic film	Before Each Batch	<input checked="" type="checkbox"/>
2	Specimen Number	Text		Specimen Number	1	Before Each Specimen	<input checked="" type="checkbox"/>
3	Gage Length (Initial)	Numeric	in	Gage Length	100	Before Each Batch	<input checked="" type="checkbox"/>
4	<None>	Text		(Enter Value)	(Enter Value)	Before Each Specimen	<input type="checkbox"/>

- <None>
- Customer
- Gage Length (Final)
- Gage Length (Initial)
- Material
- Operator
- Specimen Number
- Supplier
- Thickness
- Thickness (Final)
- Width
- Width (Final)

# Entries

- Batch specific
- Test specific



Method Overview



Source Selection



Parameters



Entries



Data Importing



Control Segments



Control Options



Output Selection

Selected Method: Demonstration basic tensile

Load

Save

Save As...

New

Delete

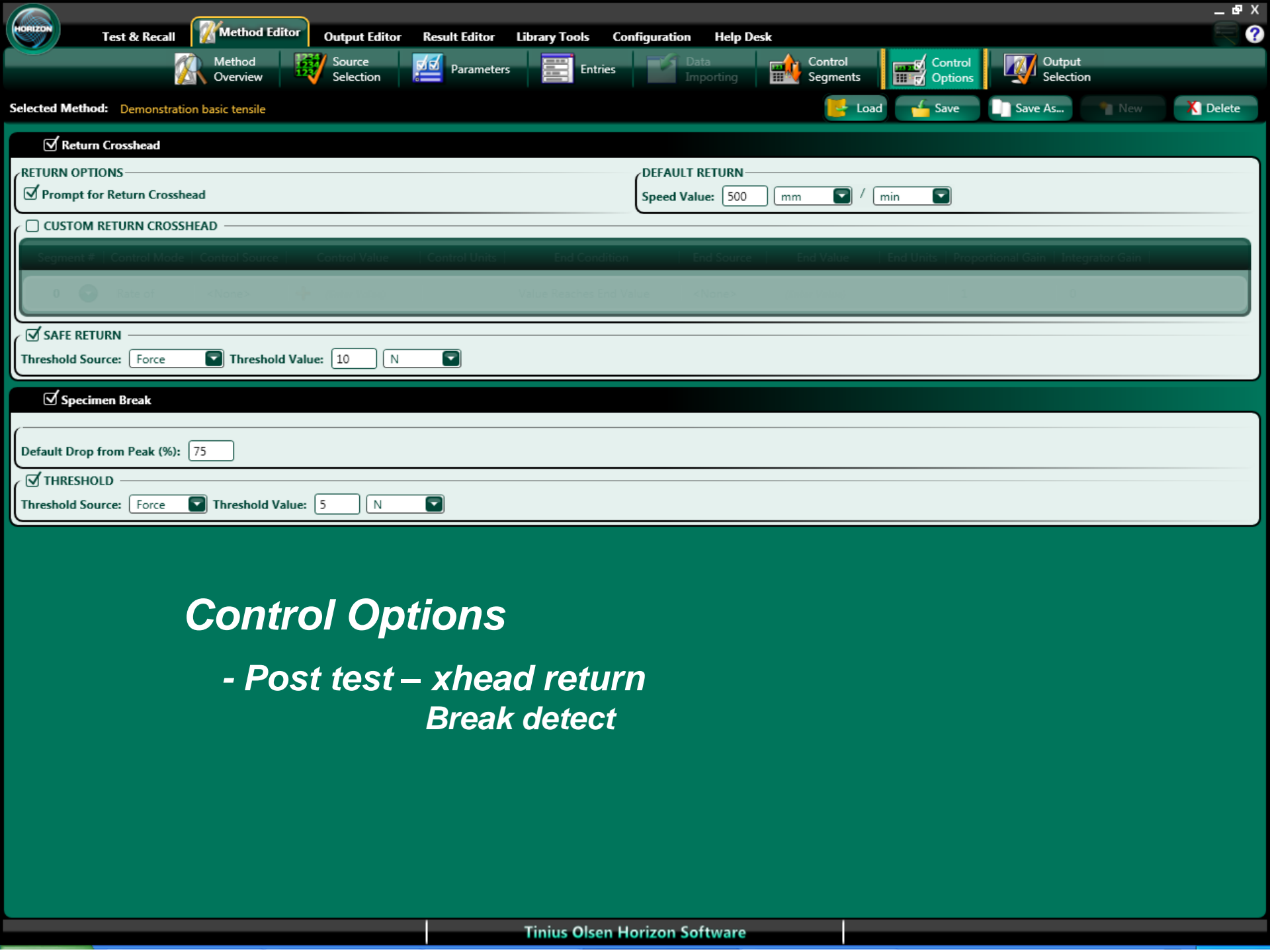


Segment # | Control Mode | Control Source | Control Value | Control Units | End Condition | End Source | End Value | End Units | Proportional Gain | Integrator Gain |

Segment #	Control Mode	Control Source	Control Value	Control Units	End Condition	End Source	End Value	End Units	Proportional Gain	Integrator Gain
1	Rate of	Position	0.125	mm / min	Specimen Break		100		1	0

# Control Segments

- Test steps – No limit



Test & Recall

Method Editor

Output Editor

Result Editor

Library Tools

Configuration

Help Desk



Method Overview



Source Selection



Parameters



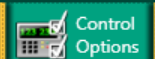
Entries



Data Importing



Control Segments



Control Options



Output Selection

Selected Method: Demonstration basic tensile

Load

Save

Save As...

New

Delete

Return Crosshead

RETURN OPTIONS

Prompt for Return Crosshead

DEFAULT RETURN

Speed Value: 500 mm / min

CUSTOM RETURN CROSSHEAD

Segment #	Control Mode	Control Source	Control Value	Control Units	End Condition	End Source	End Value	End Units	Proportional Gain	Integrator Gain
0										

SAFE RETURN

Threshold Source: Force Threshold Value: 10 N

Specimen Break

Default Drop from Peak (%): 75

THRESHOLD

Threshold Source: Force Threshold Value: 5 N

# Control Options

- Post test – xhead return  
Break detect



Select Output

Output:  Save As Edit

Preview Output: Demonstration basic tensile

Output Information

<b>Name</b>	Demonstration basic tensile
<b>Notes</b>	
<b>Created</b>	04 December 2008 13:37
<b>ID</b>	6
<b>Revision</b>	5
<b>Deleted</b>	No

Live Data

Order #	Source	Label	Units	Format Type	Format
1	Force	Force	N	Automatic	
2	Position	Position	mm	Automatic	
3	Strain From Position	Strain (Pos)	%	Automatic	
4	Time	Time	sec	Automatic	

# Output Selection

## - Output summary

Graph #1

Graph Information

<b>Name</b>	Force v Elongation
<b>Main Graph</b>	Yes
<b>Grid Type</b>	10 x 10
<b>Display minor lines on screen</b>	No
<b>Display minor lines on report</b>	Yes
<b>Fixed Four Quadrant</b>	No
<b>Axis Thickness</b>	1
<b>Axis Color</b>	Black
<b>Major Line Thickness</b>	0.5
<b>Major Line Color</b>	Gray
<b>MinorLineThickness</b>	0.25
<b>Minor Line Color</b>	Silver

Y-Axis

Unit Type	Label	Range Low	Rescale	Range Low	Range High	Rescale	Range High	Format Type	Format
Force	0 N	No		100 N	No			Automatic	

X-Axis

Unit Type	Label	Range Low	Rescale	Range Low	Range High	Rescale	Range High	Format Type	Format
-----------	-------	-----------	---------	-----------	------------	---------	------------	-------------	--------

Method Editor

Output Editor

Result Editor

Test & Recall

Library Tools

Configuration

Help Desk

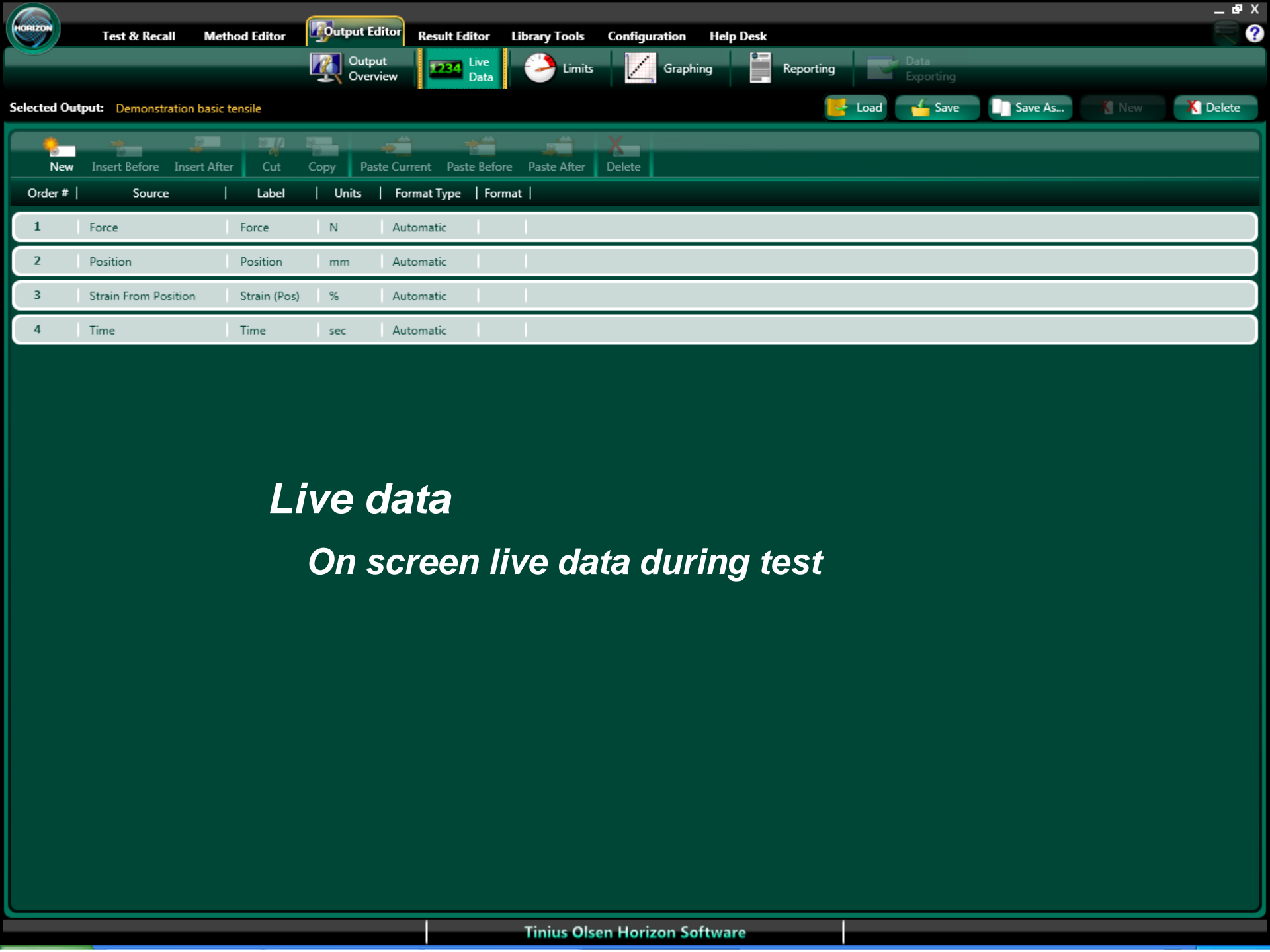
**What would you like to do?**

*Modify and create outputs in the library of working methods*

# Output Editor

Contains details/settings that must be in place **after the start of the test**

- Overview
  - History
- Live Data (UTM Only)
- Limits
- Reporting
- Graphing (UTM Only)
- Exporting



Selected Output: Demonstration basic tensile

New Insert Before Insert After Cut Copy Paste Current Paste Before Paste After Delete

Order # | Source | Label | Units | Format Type | Format |

1 | Force | Force | N | Automatic | |

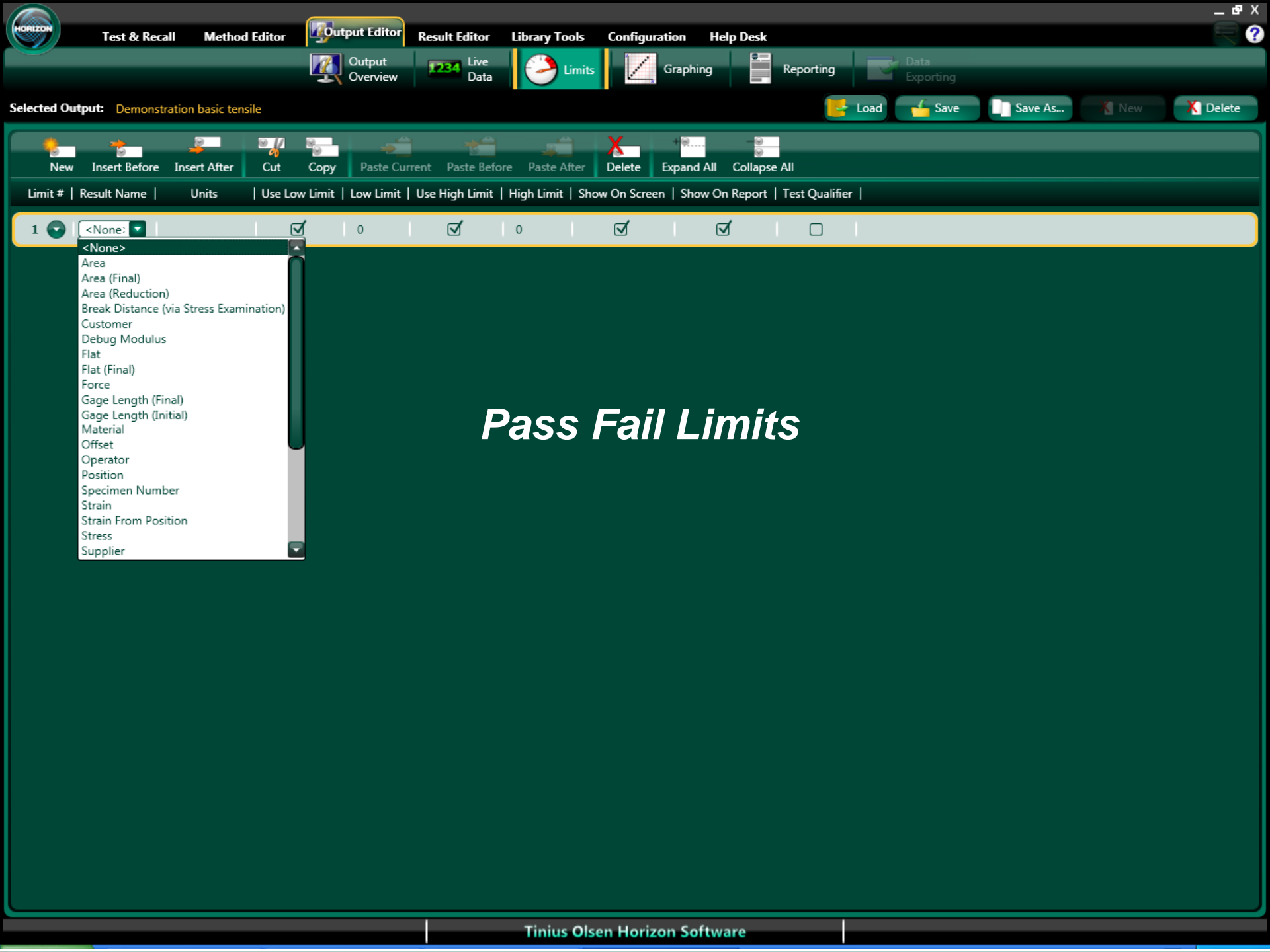
2 | Position | Position | mm | Automatic | |

3 | Strain From Position | Strain (Pos) | % | Automatic | |

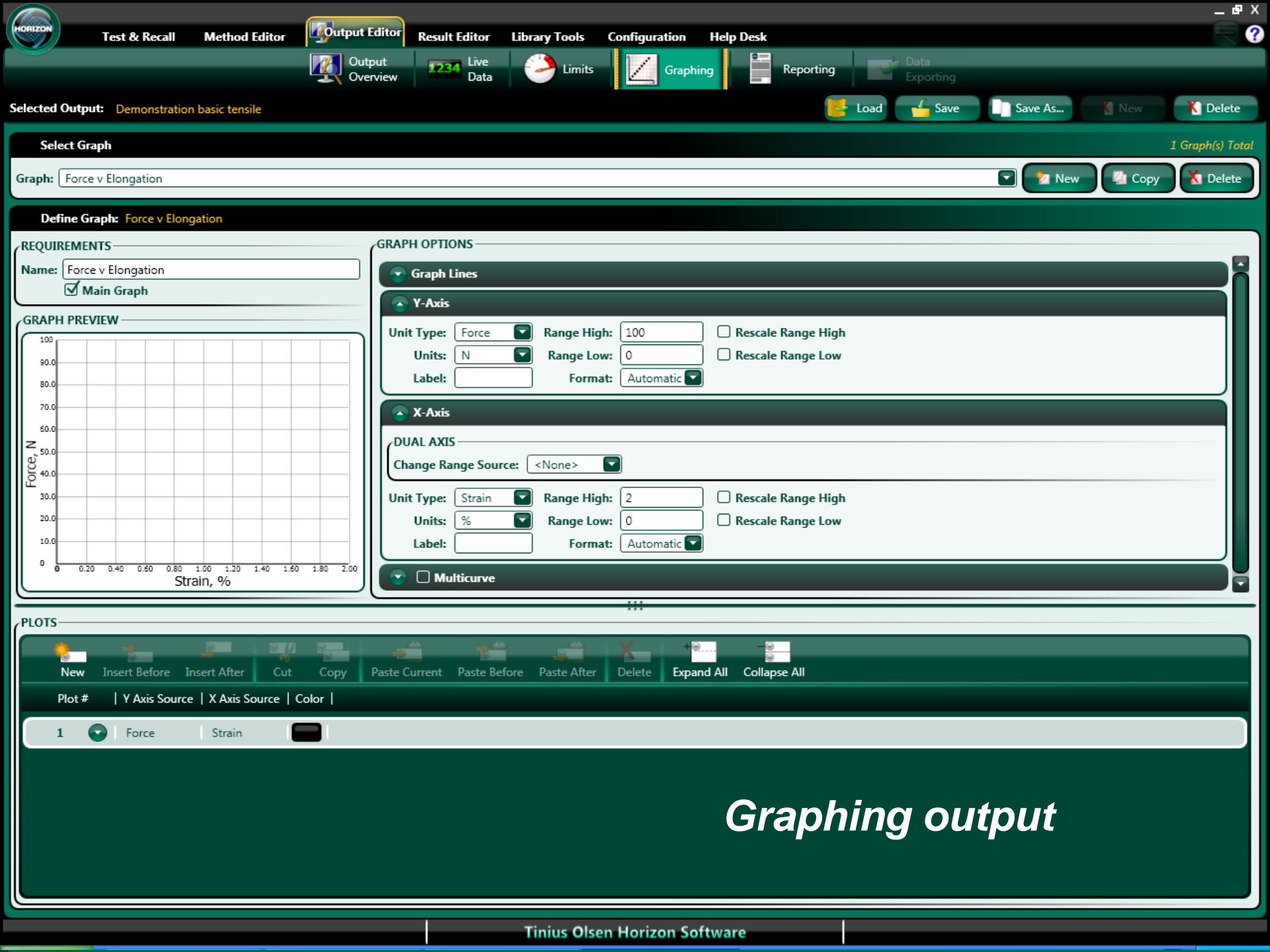
4 | Time | Time | sec | Automatic | |

*Live data*

*On screen live data during test*



# Pass Fail Limits



Selected Output: **Demonstration basic tensile**

### Select Graph

1 Graph(s) Total

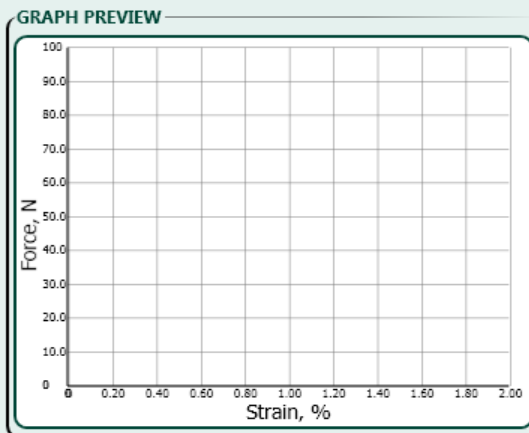
Graph: Force v Elongation   **New**   **Copy**   **Delete**

### Define Graph: Force v Elongation

**REQUIREMENTS**

Name: Force v Elongation

Main Graph



**GRAPH OPTIONS**

**Graph Lines**

**Y-Axis**

Unit Type: Force   Range High: 100    Rescale Range High

Units: N   Range Low: 0    Rescale Range Low

Label:   Format: Automatic

**X-Axis**

**DUAL AXIS**

Change Range Source: <None>

Unit Type: Strain   Range High: 2    Rescale Range High

Units: %   Range Low: 0    Rescale Range Low

Label:   Format: Automatic

Multicurve

**PLOTS**

New   Insert Before   Insert After   Cut   Copy   Paste Current   Paste Before   Paste After   Delete   Expand All   Collapse All

Plot #	Y Axis Source	X Axis Source	Color
1	Force	Strain	

*Graphing output*

Selected Output: Demonstration basic tensile

Select Report

1 Report(s) Total

Report: Single Report [New] [Copy] [Delete]

Define Report: Single Report

REQUIREMENTS  
Name: Single Report  
Type: Single  
Paper Size: Letter  
Paper Orientation: Landscape

Automatic Options

SECTIONS TO ADD  
Title Logo  
Batch Graph  
Results Comment

Print Preview

REPORT PREVIEW

**Tinius Olsen** **QC/QA Test Report**

Force:  
Strain:

# Results

Force, N

Strain, %

Test report approved

Comment

  
Method Editor

  
Output Editor

  
Result Editor

  
Test & Recall

  
Library Tools

  
Configuration

  
Help Desk

**What would you like to do?**  
*Configure global options*



### Configuration Introduction Page

Mouse over the icons below for a description of each section. Click a button in the toolbar above or an icon below to navigate to that area.



# Configuration

## Preferences

- Application options stored per user

## Security

- Select and manage security model

## Database Setup

- Select and manage database connection

## Machines Setup

- Create and manage machines

## RS232 Setup

- Create and manage RS232 devices

## Result Editor

- Create and adjust results for all methods and outputs

## Translations

- Edit translation strings

# “Windows Security Model”

## Security



### Unrestricted (default)

- One user
- No restrictions

### Restricted User

- One user
- Can restrict areas using passwords

### Multiple Users

- Many Users
- Grouped Based on Permissions
- Login to software with password

# Machines Setup

## Machine management

- Machines displayed for the current computer
- Allows for easy disabling/enabling of machines where necessary

## Machine specific information editing

- Channels
- Calibration (602, 603, MI)
- Speeds and Gains

Device #	Device Name	Type	Computer ID	COM Port	Initialize Each Test	Read Delay	Timeout	Disabled	
1	<NewRS232Device>	Single Read	2	0	<input type="checkbox"/>	0	10000	<input checked="" type="checkbox"/>	Test Device

***Device installation – No limit to number of devices***

Languages

- | View                     | Flag | Language    |
|--------------------------|------|-------------|
| <input type="checkbox"/> |      | Ěskey       |
| <input type="checkbox"/> |      | Francais    |
| <input type="checkbox"/> |      | Deutch      |
| <input type="checkbox"/> |      | Italiano    |
| <input type="checkbox"/> |      | Nederlands  |
| <input type="checkbox"/> |      | Polska      |
| <input type="checkbox"/> |      | Portugues   |
| <input type="checkbox"/> |      | Espanol     |
| <input type="checkbox"/> |      | English     |
| <input type="checkbox"/> |      | Argentina   |
| <input type="checkbox"/> |      | Bolivia     |
| <input type="checkbox"/> |      | Brazil      |
| <input type="checkbox"/> |      | Chile       |
| <input type="checkbox"/> |      | Colombia    |
| <input type="checkbox"/> |      | Costa Rica  |
| <input type="checkbox"/> |      | Cuba        |
| <input type="checkbox"/> |      | Dominica    |
| <input type="checkbox"/> |      | Ecuador     |
| <input type="checkbox"/> |      | El Salvador |
| <input type="checkbox"/> |      | Guatemala   |
| <input type="checkbox"/> |      | Honduras    |
| <input type="checkbox"/> |      | Mexico      |
| <input type="checkbox"/> |      | Nicaragua   |
| <input type="checkbox"/> |      | Panama      |

Phrases

USA

Maximum Force
What would you like to do?
My Added Machine
HDV -- 6 Stations
H5KS -- Metals Tensile
Results
NAVIGATION
Troubleshooting
<Not Assigned>
Save
Profile already exists.
Delete This Profile
Users for group:
There are no users in this profile.
Add New User
enter new name
enter new password
Language
Information has changed. Do you want to save?
Security
Nothing to save.
Area or Function
Allow
Password Set
User Name

*Language options*

Options

Add Language Add Phrase



Selected Result: Area

Load Save Save As... New Delete

### Result Editor Introduction Page

Mouse over the icons below for a description of each section. Click a button in the toolbar above or an icon below to navigate to that area.



# Result Editor

Central Area to view/edit  
result definitions

Save As from existing  
result base

Formula Editor

Sources defined here as  
well

Eventual Result Wizard





Selected Result: Stress Load Save Save As... New Delete

**Base Options** (Result ID: 28)

Location: Specimen  Answer Editable  Built In Formula

Result Type: Source  
Usage Location: Source  
Unit Type: Stress

RESULT NOTES

**Source Options**

Source Type: Source  
Machine:   
Channel Source:   
Change At Value: 0  
Change At Units: psi  
Change To Source: <None>

Easy test just **4 mouse clicks** to  
a test report



H5K-T X Recall Tab

Panels Default Layout

Open for Testing Tab Options



Live Data

Force	474 N	0	X
Position	67.1 mm	0	X
Strain (Pos)	0.0 %		
Time	0.0 sec		

Machine Controls

Entries / Results - Single Test Mode

Show All Entries New Delete Specimen Comments Reset Clear Completed Devices

Action / Status | Material | Specimen Number | Force, N | Strain, % |

New	Plastic film				
-----	--------------	--	--	--	--

Start this test



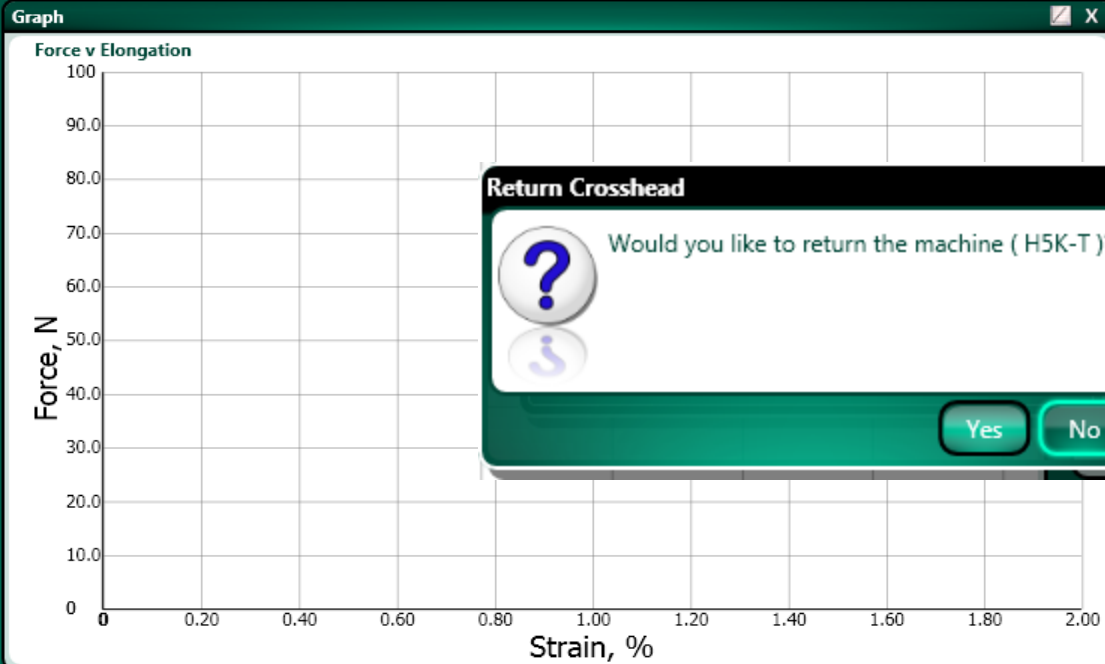
Click - 1

H5K-T X Recall Tab

Machine Status: (Demonstration Mode)

Panels Default Layout

Open for Testing Tab Options



**Return Crosshead**

Would you like to return the machine ( H5K-T)?

Yes No

**Live Data**

Force	474 N	0	X
Position	67.1 mm	0	X
Strain (Pos)	0.0 %		
Time	0.0 sec		

**Machine Controls**

Entries / Results - Single Test Mode

Show All Entries New Delete Specimen Comments Reset Clear Completed Devices

Action / Status	Material	Specimen Number	Force, N	Strain, %
New	Plastic film	1		

Start this test



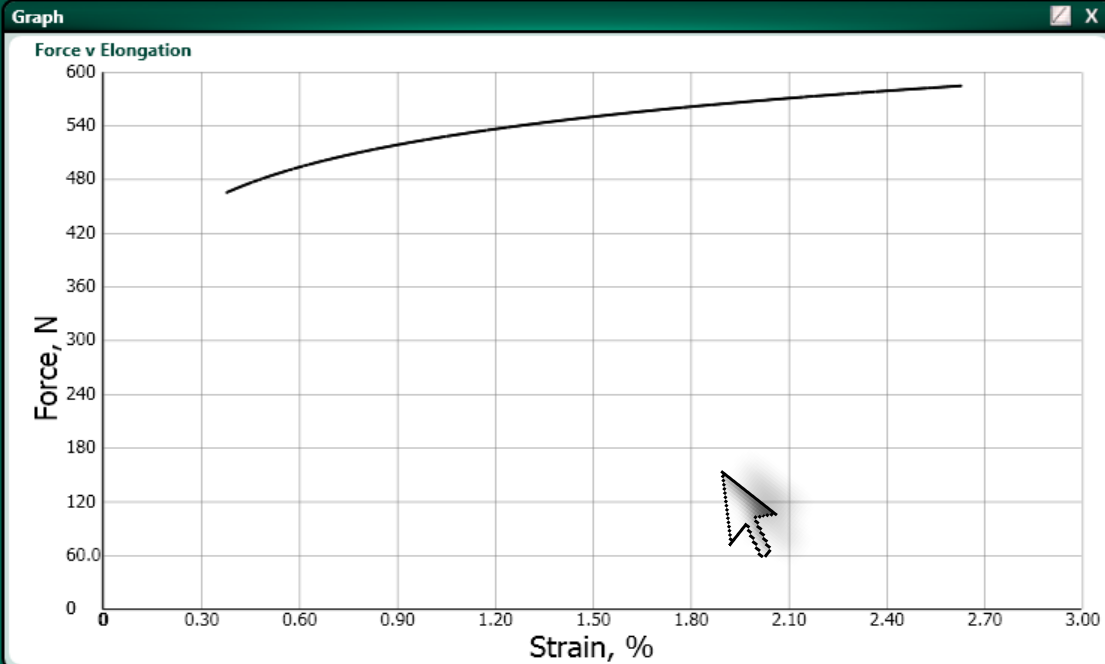
Click – 2 return the cross head

H5K-T X Recall Tab

Machine Status: (Demonstration Mode)

Panels Default Layout

Open for Testing Tab Options



Live Data

Force	684 N	0	X
Position	335 mm	0	X
Strain (Pos)	0.0 %		
Time	0.0 sec		

Machine Controls

Entries / Results - Single Test Mode

Show All Entries New Delete Specimen Comments Reset Clear Completed Devices

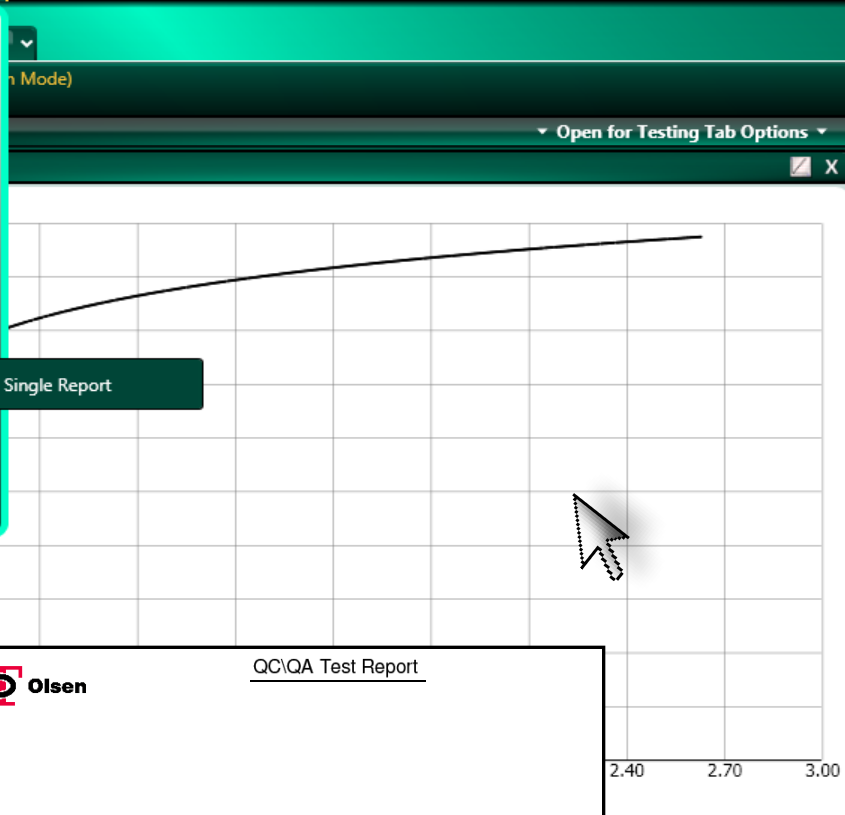
Action / Status	Material	Specimen Number	Force, N	Strain, %
<input checked="" type="checkbox"/> <input type="checkbox"/> After Test	Plastic film	1		
Accept this test	Plastic film	1		



Click – 3 accept the test

Tinius Olsen

- Launch Page
- Unlock Security
- Startup Wizard
- Feedback
- Translate Form
- Statistics
- Print **Single Report**
- Print Preview
- Help About Exit



Live Data

Force	751 N	0	X
Position	993 mm	0	X
Strain (Pos)	0.0 %		
Time	0.0 sec		

Machine Controls

QC/QA Test Report

Tinius Olsen

Force:  
Strain:

Test report approved by: *MELU*

20060405



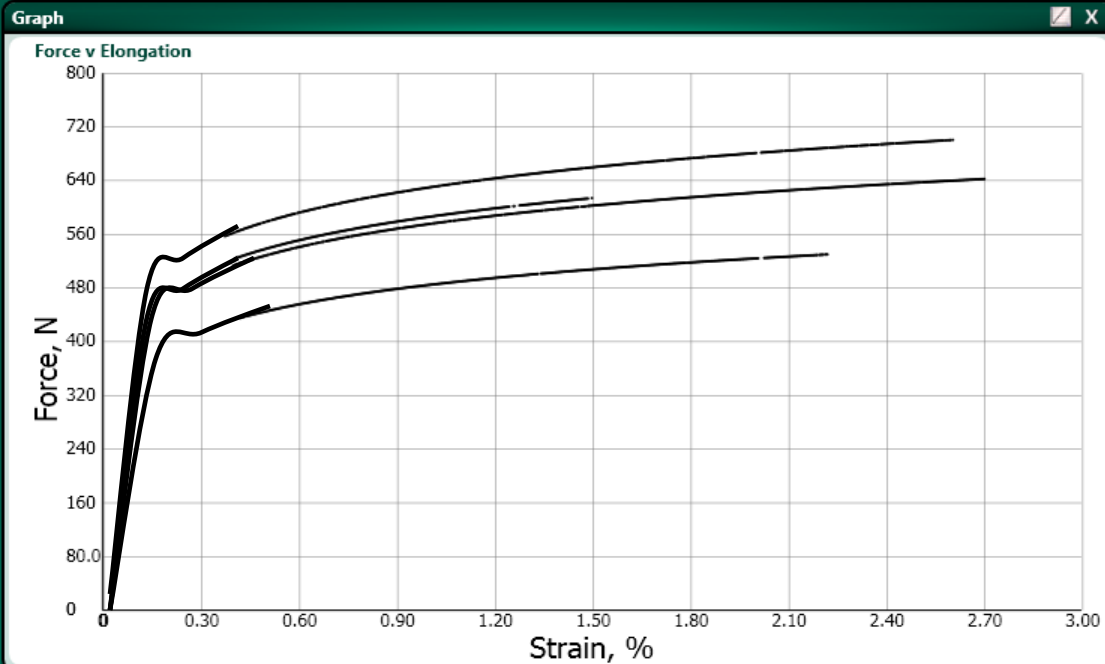
Click – 4 print the report

H5K-T X Super L Recall Tab

Machine Status: (Demonstration Mode)

Panels
Default Layout

Open for Testing Tab Options



**Live Data**

- Force: 736 N
- Position: 12,635 mm
- Strain (Pos): 0.0 %
- Time: 0.0 sec

**Machine Controls**

- Home / Data
- Up Arrow
- Down Arrow
- Up Arrow with Gear
- Down Arrow with Gear
- Stop (Red X)
- Refresh / Cycle (Green G)

Entries / Results - Single Test Mode

Show All Entries
New
Delete
Specimen Comments
Reset
Clear Completed
Devices

Action / Status	Material	Specimen Number	Force, N	Strain, %
Complete	Plastic film	1		
Complete	Plastic film	1		
Complete	Plastic film	1		
Complete	Plastic film	1		
New	Plastic film	1		

# Multiple Curves

Need a little more  
sophistication?  
**its still just 4 clicks**

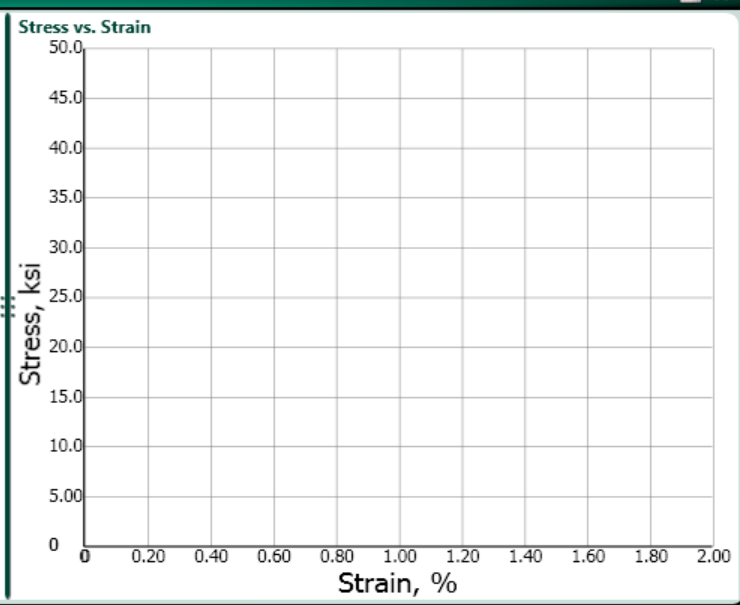
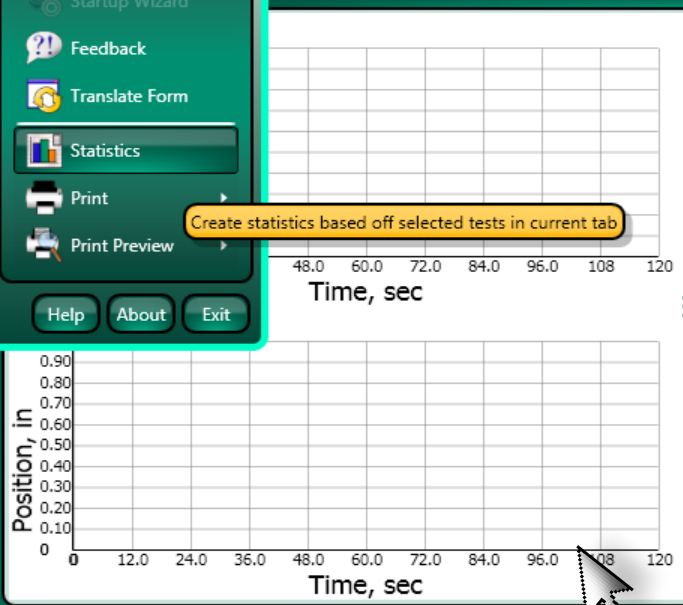




**Tinius Olsen**

- Launch Page
- Unlock Security
- Startup Wizard
- Feedback
- Translate Form
- Statistics**
- Print
- Print Preview

Create statistics based off selected tests in current tab



**Machine Controls**

**Live Data**

- Force: 68.2 lbf
- Force: 303 N
- Position: 34.2 in
- Strain (Pos): 0%
- Strain (Inst): 34.2%
- Time: 0 sec
- Stress: 0 ksi
- Offset: 0%
- Modulus: 0.0 Mpsi

**Entries / Results - Single Test Mode**

Action / Status	Customer2	Supplier	Material	Specimen Number	Width, in	Thickness, in (1.00e-6/0.60)	Gage Length (Final), in	Width (Final), in	Thickness (Final), in	Area, in <sup>2</sup>	Area, m <sup>2</sup>	Ult
Complete	Tinius		Steel	1	0.5	0.1	1	0.75	0.15	0.0500	0.0	150
Complete	Tinius		Steel	2	0.5	0.1		0.75	0.145	0.0500	0.0	52.
Before Test	Tinius		Steel	3	0.5	0.1		(Enter Value)	(Enter Value)	0.0500	0.0	



**Click – 4 clicks to TEST & REPORT**

# Entries/Results Datagrid on "Test & Recall" Screen

Entry type results come first in the datagrid.  
Duplicates are only displayed once.

They are defined in the following areas:

Entries



Data Importing



When a result has a limit defined, both the high and low limit will show in the column header title as well in the tooltip of the header.

Limits are defined in the following area:

Limits



Action / Status	Operator	Specimen Number	Width, in	Thickness, in (0.10/0.10)	Gage Length (Initial), in	Area, in <sup>2</sup> (1.00/1.00)	Area, m <sup>2</sup> (0.0/0.0)	Ultimate Force, lbf	Ultimate Force, N	Total Time
New	rgn	1	0.5	0.1	1	0.0500	0.0			

The testing buttons as well as testing status are located in the first column of each specimen listed.

Status Notifications:

New, Before Test, Testing, After Test, Complete

Testing Button Icons:

Start Test



Abort Test



Accept/Discard Test



Report type results come last in the datagrid.  
Duplicates are only displayed once.

They are defined in the following areas:

Reporting



Data Exporting



H5K-T Super L Recall Tab X

Panels Default Layout

Open for Recall Tab Options

Search Options

From: 26/11/2008 26 November 2008 To: The latest batch in the database Test type: UTM

Advanced Options

Search Results

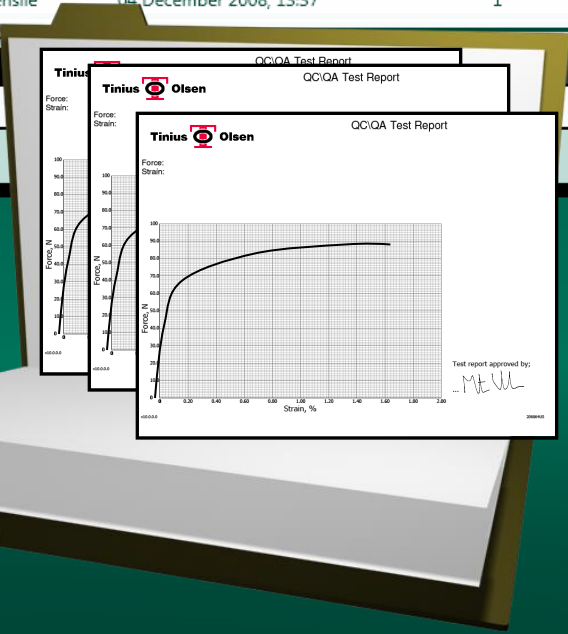
Batches found: 12 | Maximum number of batches to display: Unlimited

Batch #	Test Method	Output	Start Date	Specimens
10	Demonstration basic tensile	Demonstration basic tensile	08 December 2008, 12:50	1
9	Demonstration basic tensile	Demonstration basic tensile	08 December 2008, 12:56	1
8	Demonstration basic tensile	Demonstration basic tensile	08 December 2008, 12:49	1
6	Demonstration basic tensile	Demonstration basic tensile	04 December 2008, 13:40	1
5	Demonstration basic tensile	Demonstration basic tensile	04 December 2008, 13:40	1
4	Demonstration basic tensile	Demonstration basic tensile	04 December 2008, 13:37	1

View

Selected Output: Demonstration basic tensile

Apply Cancel



Recall Tests & Results SQL data base



System Fit

# Consolidated test reports

All results from the lab in one place



MFI

Tension  
test


Impact

HDT Vicat

e mail report  
consolidated test report

Print Save

locally or across a  
network



Plastics North America

**DOW High Density Polyethylene (HDPE) Resins**

High Density Polyethylene (HDPE) Resins are used for injection molded items.

For blow molding, DOW HDPE Resins are used for household, industrial and agricultural applications.

DOW HDPE pipe resins offer a wide range of capabilities. Applications include water supply pipes, gas distribution pipes, and industrial process piping.

For injection molding, DOW HDPE Resins offer a wide range of capabilities. Advantage is available across a wide range of applications.

DOWLEX™ Improved Process Resins, DOWLEX IP Resins, DOWLEX IP Resins, DOWLEX IP Resins, DOWLEX IP Resins

**Action Legend (Close)**

T Technical Datasheet, M Material Safety Data Sheet

Page 1 of 3

Action	Product
T M	DOW HDPE 25055E
T --	DOW HDPE 59900.8
T --	DOW HDPE 80255E
T --	DOW HDPE DGDA-2
T --	DOW HDPE DGDA-2
T M	DOW HDPE DGDA-5
T M	DOW HDPE DGDB-2
T M	DOW HDPE DGDC-2
T M	DOW HDPE DGDM-1
T M	DOW HDPE DGDP-6

Page 1 of 3


Action	Product
T M	DOW HDPE 25055E
T --	DOW HDPE 59900.8
T --	DOW HDPE 80255E
T --	DOW HDPE DGDA-2
T --	DOW HDPE DGDA-2
T M	DOW HDPE DGDA-5
T M	DOW HDPE DGDB-2
T M	DOW HDPE DGDC-2
T M	DOW HDPE DGDM-1
T M	DOW HDPE DGDP-6

Page 1 of 3

- Literature
- Products
  - Engineering Thermoplastics
  - Fiber Solutions
  - Film Substrates
  - NORDEL Hydrocarbon Rubber
  - Performance Elastomers & Plastomers
  - Polyethylene
    - AFFINITY Polyolefin Plastomers (POPs)
    - ASPUN Fiber Grade Resins
    - ATTANE Ultra Low Density Polyethylene (ULDPE) Resins
    - CONTINUUM Bimodal Polyethylene Resins
    - DOW High Density Polyethylene (HDPE) Resins
    - DOW Low Density Polyethylene (LDPE) Resins
    - DOW Linear Low Density Polyethylene (LLDPE) Resins
    - DOWLEX Polyethylene Resins
    - ELITE Enhanced Polyethylene (EPE) Resins
    - FINGERPRINT™ Resins
    - FLEXOMER Very Low Density Polyethylene (VLDPE) Resins

### Technical Information

## Results derived from Lab equipment



### DOW HDPE 25055E High Density Polyethylene Resin

**Overview** POLYETHYLENE HIGH DENSITY 25055E High Density Polyethylene Resin is a very narrow molecular weight distribution resin, developed to impart excellent mechanical properties, high gloss and high surface finishing to injection moulded parts, while providing easy processing.

Note: POLYETHYLENE HIGH DENSITY 25055E High Density Polyethylene Resin should comply with FDA regulation 177.1520(c) 3.2a and with most European food contact regulations when used unmodified and processed according to good manufacturing practices for food contact applications. Please, contact your nearest Dow office for food contact compliance statements. Complies with Canadian HPFB No Objection (With Limitations) and Europe EU-Directive 2002/72/EC (See Notes). The purchaser remains responsible for determining whether the use complies with all relevant regulations.

Applications:

- Housewares.
- Food containers.
- Toys.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.953 g/cm <sup>3</sup>	0.953 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	25 g/10 min	25 g/10 min	
190°C/5.0 kg	62 g/10 min	62 g/10 min	
Molding Shrinkage - Flow	0.021 in/in	2.1 %	ASTM D955
Environmental Stress-Cracking Resistance			ASTM D1693
100% Anterox CO-630, Compression Molded	0.700 hr	0.700 hr	
Spiral Flow Length			Dow Method
482°F (250°C), 2 seconds injection	42.9 in	1090 mm	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638
Yield, Compression Molded	3630 psi	25.0 MPa	
Break, Compression Molded	3920 psi	27.0 MPa	
Tensile Elongation			ASTM D638
Break, Compression Molded	200 %	200 %	
Flexural Modulus - 2% Secant (Compression Molded)	126000 psi	870 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Impact Strength (Compression Molded)	26.2 ft-lb/in <sup>2</sup>	55.0 kJ/m <sup>2</sup>	ASTM D1822
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Shore Hardness (Shore D, Compression Molded)	65	65	ISO 868
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	255 °F	124 °C	ISO 2061

# Resin Lab



Brittleness Tester



Density measurement



Drop dart



MFI



Dynamic Scanning Calorimeter



Impact



Notcher



Hardness Tester



Stress cracking



Specimen Prep



Tensile & Flex



HDT/Vicat

# Help Desk

## Tutorials

- Documents and videos to aid first time users

## Machine Check

- Check basic machine functions
- Relay order of operation functionality (SpecialRelays)

## Software Key

- Verify contents (saved and currently connected)

## Help Desk

- Contact options



Tutorials



Machine Check



Software Key



Help Desk



Knowledge Centre

## Software Key Page

Read the current software functionality or unlock additional features.

Mouse over the icons below for a description of each section. Click a button in the toolbar above or an icon below to navigate to that area.





# Tutorials

Accessible via main testing screen

Can be viewed here or in a separate window that can be kept on top of all windows

Will provide documents that can be printed or videos to provide step by step visual aids

Will contain common problem solutions or typical usage scenarios

# Knowledge centre

Read the current software functionality or unlock additional features.

Mouse over the icons below for a description of each section. Click a button in the toolbar above or an icon below to navigate to that area.



**Company Website**  
Information related to the company who sold this application.

**TOpedia**  
Direct link to the Knowledge Center on the Tinius Olsen Website which contains a collection of helpful information regarding testing.

**The Testing Times Blog**  
A record of some of the interesting custom made products that the design engineers have developed within Tinius Olsen.

**Testing Plastics**  
Covers different methodologies for plastics testing. [Ask the Expert](#)

**Testing Metal**  
Explains different methodologies for metalwork testing. [Ask the Expert](#)

**Testing Textiles**  
Covers applications of testing methodologies for textiles. [Ask the Expert](#)

**Testing Concrete**  
Dedicated to the subject of testing in the civil engineering and construction field. [Ask the Expert](#)

**School of Testing**  
Demonstrates testing expertise within the education industry. [Ask the Expert](#)

Tinius Olsen - Testing Plastics - Microsoft Internet Explorer provided by Tinius Olsen

http://dev.ideamesh.com:8080/testingplastics/

Google

Connecting...

**Tinius Olsen** ASTM Directory of Equipment Manufacturers

Home Products Ask The Expert

## Testing Plastics

Home

**Main Menu**

- Home
- News
- Products
- Ask The Expert
- Our Other Sites

**Latest News**

- Tinius Olsen to announce 12 new developments at Interplas
- Successful series of technical seminars across India
- Why instrumented impact?
- Choosing a pendulum unit
- Physical Strength & Performance

**Popular**

- Choosing a pendulum unit
- Why measure melt index?
- More & better features
- Which method to use?
- Physical Strength & Performance

---

**Tinius Olsen - Testing Plastics**

About us... 📄 📖 📧

Welcome to our new Microsite from Tinius Olsen - dedicated to the subject of testing in the civil engineering and construction field. It coincides with the launch of a new Tinius Olsen Civil Engineering Product range launched in September 2008.

Tinius Olsen is a leading specialist manufacturer of materials testing machines, and has been manufacturing, servicing and calibrating testing equipment of the highest quality since 1880. In fact, many of the Tinius Olsen machines that were built in the early part of this century are still in operation.

To achieve this record of reliability, you need a quality-built product, proper preventive maintenance and a trained field support staff committed to maximizing your equipments performance and longevity.

For more information on all of our products and services we have to offer visit our main website [www.TiniusOlsen.com](http://www.TiniusOlsen.com)

**Ask The Expert**

**Login**

Username

Password

Remember Me

**Tinius Olsen to announce 12 new developments at Interplas** 📄 📖 📧


Thursday, 05 February 2009 06:05

**Interplas Stand Number: Hall 4, Stand F255**

Materials testing equipment experts Tinius Olsen will be using the Interplas Show in September to announce the addition of 12 new developments to their extensive range of testing equipment, details of which will be available at the show.

**Successful series of technical seminars across India** 📄 📖 📧

Thursday, 05 February 2009 06:02

 Tinius Olsen and their Indian agents, Aimil Ltd., have just concluded a successful technology tour around India, with technical seminars given in Bangalore, Vadodara, Chennai, Pune and Delhi. Presentations

Internet 100%

**Company Website**  
Information related to the company who sold this application.

**TOpedia**  
Direct link to the Knowledge Center on the Tinius Olsen Website which contains a collection of helpful information regarding testing.

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Dedicated to the subject of testing in the civil engineering and construction field. [Ask the Expert](#)


**School of Testing**  
Demonstrates testing expertise within the education industry. [Ask the Expert](#)

Ask The Expert - Microsoft Internet Explorer provided by Tinius Olsen

http://dev.ideamesh.com:8080/testingplastics/ask-the-expert

Google Search

Endian Firewall - The request... Ask The Expert



ASTM Directory of Equipment Manufacturers

[Home](#)
[Products](#)
[Ask The Expert](#)


## Testing Plastics

Home >> Ask The Expert

**Main Menu**

- [Home](#)
- [News](#)
- [Products](#)
- [Ask The Expert](#)
- [Our Other Sites](#)

**Ask The Expert**  
Harry answers your questions....



# 20

Items	Rating	Hits
Dear Harry is there any standard for measuring the spiral flow of polyethylene	██████████	32
Harry how can i detect the percentage of PVC content in PET grinded? we are a recycling company look for improve our quality control lab?	██████████	43
Harry, how much time do I have to fill the Melt Indexer Barrel and start the test in a Method A Test. I have heard 60 Seconds to fill and then wait 300 Seconds or 420 Seconds. What is the proper procedure?	██████████	59
Harry, Is there an equivalent test for Plastic products that would be similar to N-Vlaue in the testing of metals?	██████████	42
Harry, We are a small recycling company and have need of a device to test plastics for different grades. i.e. injection grade HDPE, HMW, ect. Is a melt flow index tester what we need, or is there a more economical product we can use? Thanks	██████████	17
Harry, what is the general norm for testing MFI values on batches of recycled LDPE film grade material. 250 kgs 500kgs 750kgs? the material is being used by extruders in general use field.	██████████	4
Hi Harry Can you please tell me the temperature range of the Tinius Olsen LDT. I know the resolution is	██████████	11

**Login**

Username

Password

Remember Me

  
Method Editor


  
Output Editor

  
Result Editor

  
Test & Recall

  
Library Tools

  
Configuration

  
Help Desk

**What would you like to do?**  
*View Help Desk information and utilities*

# Help Desk

Locale specific contact information that is updateable

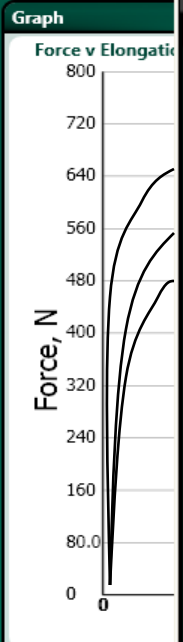
Message log saving and uploading (if active internet connection available)

Feedback or supporting file uploading

FTP Site download instructions for updates

Website (If active Internet connection)

Additional ideas for customer connectivity?



- Entries / Results -
- Show All E
  - Action / Sta
  - Complete
  - Complete
  - Complete
  - New

Print Preview

Print Save As XPS Save As BMP Save As HTML Close

**Tinius Olsen** QC/QA Test Report

**Got a problem?**

**Yes no test curves on print preview**

**Send TO the OUTPUT and or METHOD files**

Force:  
Strain:

Test report approved by;  
MEU

Current Search: Open for Search

**Options**

Show Overview

**Outputs**

Outputs Found: 2

**Library of Working Outputs**

Export to File

Import from File

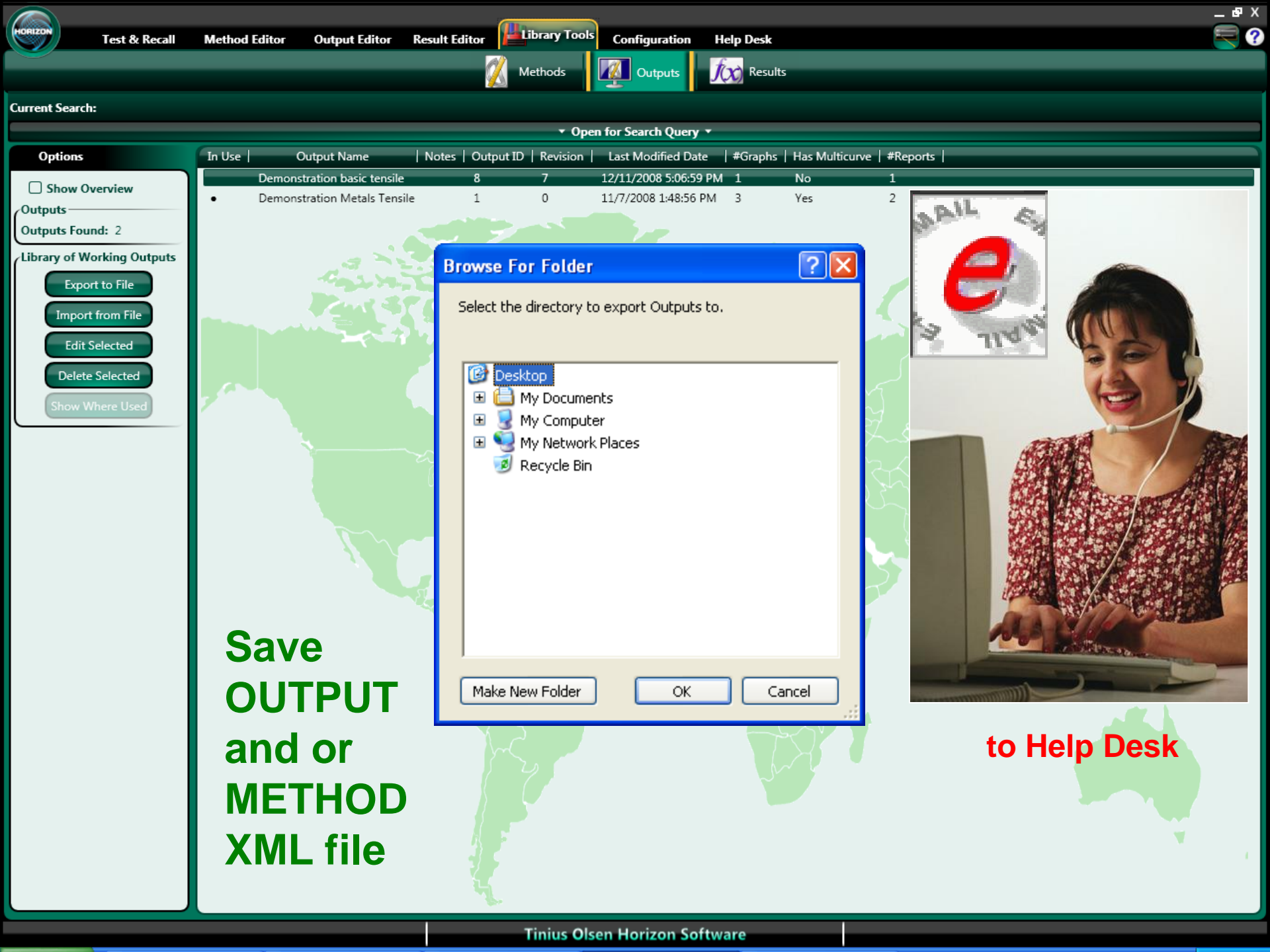
Edit Selected

Delete Selected

Show Where Used

In Use	Output Name	Notes	Output ID	Revision	Last Modified Date	#Graphs	Has Multicurve	#Reports
	Demonstration basic tensile		8	7	12/11/2008 5:06:59 PM	1	No	1
•	Demonstration Metals Tensile		1	0	11/7/2008 1:48:56 PM	3	Yes	2





Current Search:

Open for Search Query

In Use	Output Name	Notes	Output ID	Revision	Last Modified Date	#Graphs	Has Multicurve	#Reports
	Demonstration basic tensile		8	7	12/11/2008 5:06:59 PM	1	No	1
•	Demonstration Metals Tensile		1	0	11/7/2008 1:48:56 PM	3	Yes	2

**Options**

Show Overview

**Outputs**

Outputs Found: 2

**Library of Working Outputs**

Export to File

Import from File

Edit Selected

Delete Selected

Show Where Used

**Browse For Folder**

Select the directory to export Outputs to.

- Desktop
- My Documents
- My Computer
- My Network Places
- Recycle Bin

Make New Folder    OK    Cancel

**Save  
OUTPUT  
and or  
METHOD  
XML file**



**to Help Desk**



Fits with your systems



Fuels your  
business productivity



Enables confident  
decision making



*"New Era"*

# The Selling Model

# Horizon selling model

## Equipment Hardware

- Super L
- MTM floor standing
- Horizontal
- MTM bench mounting
- MFI
- Impact
- HDT/Vicat
- Torsion
- Manual input of results e.g. from Stiffness tester

## Primary Platform \$

- Includes;
- Method library application focused
  - Test environment
  - Recall
  - Regeneration
  - Basic statistics
  - Exporting (printing, Ascii)
  - Edit & creating methods
  - Translation
  - Security
  - Central server capability
  - Closed loop control for bench machines
  - Help Desk Access
  - TO knowledge centre (requires internet connection)

## Additional Functional Modules (AFM's) \$

### 1. Import

- Import data from main frame Ascii (later XML) e.g. IDS, Limits etc

### 2. Multiple machines

### 3. Connectivity (Other)

- Other products e.g. Hardness, scales, bar code reader etc

### 4. Formula generation

### 5. Enhanced reporting

- Cross Primary Platforms

### 6. Automation (Robotic)

### 7. Closed loop control



# **PRICING**

## **Primary Platforms per machine**

- Super L	\$ 5000
- MTM floor standing	\$ 5000
- Horizontal	\$ 5000
- MTM bench mounted	\$ 3250
- MFI	\$ 950
- Impact	\$ 950
- HDT/Vicat	\$ 3250
- Torsion	\$ 5000
- Manual input of results TO machine e.g. from Stiffness tester	\$ 950

**One Test method library included,  
selected\specified on order**

## **AFM's**

1. Import	\$ 750
2. Multiple machines	\$ 500
3. Connectivity (Other machines)	\$ 2000
4. Formula Generation	\$ 500
5. Enhanced Reporting	\$ 500
6. Automation (Robotic systems)	\$ 3500
7. Closed loop control	\$ 1000

## **Additional Test Method Library sets**

- i) Metals \$200
- ii) Plastics \$200
- iii) Textiles \$200
- iv) Other additional e.g. Medical, Timber, Rubber, Packaging etc \$ 200

**Upgrade prices for existing users (Navigator Standard & Plus, Stanpac, QMat, QMat XT)**

**Primary Platforms per machine**

- Super L	\$ 2500
- MTM floor Standing	\$ 2500
- Horizontal	\$ 2500
- MTM bench mounted	\$ 1625
- MFI	\$ 475
- Impact	\$ 475
- HDT/Vicat	\$ 1625
- Torsion	\$ 2500
- Manual input of results TO machine e.g. from Stiffness tester	\$ 475

***One Test method library included,  
selected\specified on order***

**AFM's**

1. Import	\$ 750
2. Multiple machines	\$ 500
3. Connectivity (Other machines)	\$ 2000
4. Formula Generation	\$ 500
5. Enhanced Reporting	\$ 500
6. Automation (Robotic systems)	\$ 3500
7. Closed loop control	\$ 1000

**Additional Test Method Library sets**

- i) Metals \$200
- ii) Plastics \$200
- iii) Textiles \$200
- iv) Other additional e.g. Medical, Timber, Rubber, Packaging etc \$ 200

# Flexibility in connection options



Primary Platform  
Materials Testing  
Machine

AFM  
Multiple machines



# Flexibility in connection options



Primary Platform  
Materials Testing  
Machine

Primary Platform  
Melt Flow

AFM  
Multiple machines





# Flexibility in connection options



Primary Platform  
Melt Flow



Full price



Primary Platform  
Melt Flow



1/2 price



Primary Platform  
Melt Flow



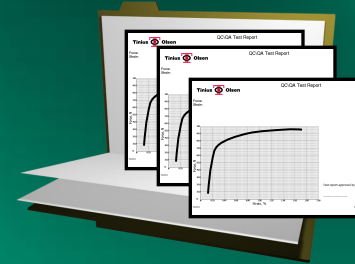
1/2 price

# Hardware requirements

# Summary Feature\Benefits



*4 clicks to  
TEST & REPORT*



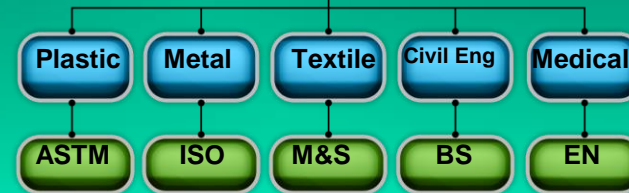
*Wysiwig report  
editor and  
custom  
formatting*



*System Fit  
Consolidated test reports*



*On line support  
TO Help Desk*



*Searchable test method library*



*Full network &  
Lims compatibility*



*Wizards and Tutorials  
for quick understanding*

# Coming Soon

- *Plan for CFR-21 compliance*
- *Key language capability Chinese, Korea, French, German, Spanish, Portuguese, Thai, Russian and more*
- *Upgrade existing Navigator, QMat, MI, Impact customers (including obsolete Controllers M series, 290, 398, MI993, Impact 927, HDT 290,398)*
- *Universal units change*

# Competition



www.instron.com

**Bluehill<sup>®</sup> Lite Software**  
Flexibility and Performance for Everyday Material Testing Applications

Test Method Flexible Admin

Simple 0.000 N 10.000

Performance Easy-to-Use

**Bluehill<sup>®</sup> Lite**

**INSTRON**  
The difference is measurable

Bluehill Lite Software

www.instron.com

**Bluehill<sup>®</sup> Software**  
Simplicity and Power for Any Material Testing Application

Simple Accurate Intuitive

Fast Powerful Flexible

**Bluehill<sup>®</sup>**

**INSTRON**  
The difference is measurable

Bluehill Software

www.instron.com

**Bluehill<sup>®</sup>2 Software**  
Simplicity and Power for Material Testing Applications

Simple Accurate Intuitive

Fast Powerful Flexible

**Bluehill<sup>®</sup> 2**

**INSTRON**  
The difference is measurable

Bluehill 2 Software

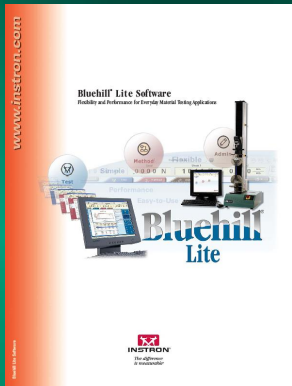
Click on docs to open PDF

The difference is measurable

Instron Corporation

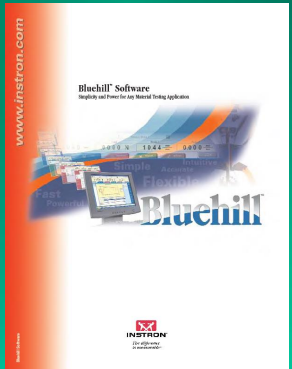
**INSTRON**

# Competition



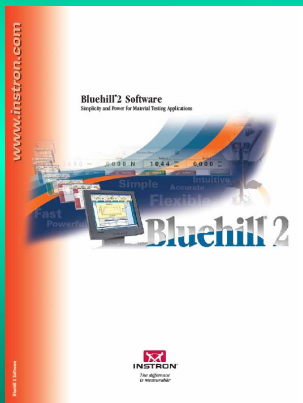
Traditional “Up the ladder” selling model approach, Technology and price hand in hand

WEAKNESS – User may want one function at top of ladder so must pay for all functions at that level. TO’s selling model is Horizontal



Bluehill has the old Instron Series IX program in the back with a .net front end\user interface

WEAKNESS – Functionality and network capability limited



Instron retain and still actively promote Series IX due to WEAKNESS – in Bluehill functionality, price issues and compatibility with existing users tests and data

Presentation, user interface

WEAKNESS – Already dated, white screen not Web 2.0 look & feel

# Competition

## Produzierende Unternehmen Manufacturing Companies

**Zwick GmbH & Co.**  
August-Nagel-Strasse 11  
D-89079 Ulm  
Tel. (0) 7305-100  
Fax (0) 7305-10200  
http://www.zwick.de  
eMail: info@zwick.de

**Hottline-Service Ulm**  
Soft- Tel. (0) 7305-10225  
ware: Fax (0) 7305-10432  
Hard- Tel. (0) 7305-10344  
ware: Fax (0) 7305-10401

**Roell Amsler**  
Prüfmaschinen GmbH & Co. KG  
Ziegelsteinstraße 12  
D-75244 Gottmadingen  
Tel. (0) 7731-7805-0  
Fax (0) 7731-7805-10  
http://www.amsler.com  
eMail: info@amsler.com

**Toni Technik**  
Baustoffprüfsysteme GmbH  
Gautier-Meyer-Allee 25  
D-13355 Berlin  
Tel. (0) 30-46403821/23  
Fax (0) 30-46403822  
http://www.tonitechnik.com  
eMail: info@tonitechnik.com

## Vertriebs- u. Servicegesellschaften Europa

**Austria**  
TWEMA  
A-2512 Cernyhausen  
Tel. (A) 22529 1403-8 1864  
Fax (A) 225246707

**France**  
Zwick France S.a.r.l.  
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**testXpert®**  
the first test software  
to think as it works



# Competition



Test Expert II – good product, good application coverage

WEAKNESS – Complex setting up new methods for users especially those in QC\QA. Too many steps and boxes to tick. Weak template function.

Test Expert II – Basic pull and bang package is included in machine\frame price.

WEAKNESS – Pricing structure causes price to ramp up significantly in particular for more complex tests e.g. multiple machines, multiple device inputs etc.

Data base of methods WEAKNESS – Appears weak, lacks depth in methods. Additional method price \$975



Quality management of data subcontracted to Schatz.

WEAKNESS – Not part of the Zwick programming team, support not through Zwick and expensive

FDA 21 CFR Part 11 compliant WEAKNESS – Lack of Customers specifically US medical specifiers FDA approved prefer\select TO systems and technology



# Competition



Test Expert II – Multi gauge length capability

WEAKNESS – Requires separate test method for each diameter rebar i.e. gauge length, cannot use the one routine and change gauge lengths.

# Competition



MODULAR MELT FLOW SOFTWARE

**CEAST**   
progress in testing

the NEW advanced Software  
**VisualMELT**



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IMPACT FAMILY SOFTWARE

**CEAST**   
progress in testing

NEW Advanced Software  
**VisualIMPACT**



HDT & VICAT FAMILY SOFTWARE

**CEAST**   
progress in testing

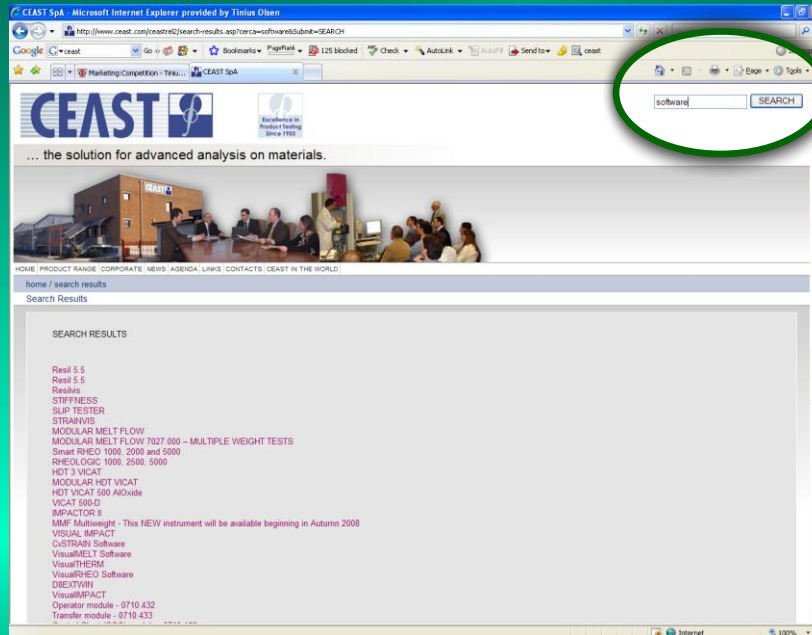
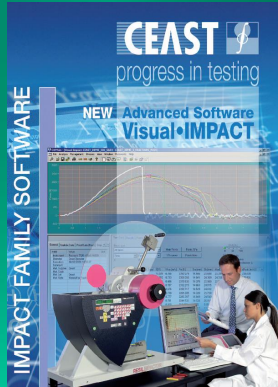
the NEW advanced Software  
**VisualTHERM**



# Competition



Today software is key, it is how a user primarily judges key parameters “Ease of use, Product Competency, fit for purpose” hardware functionality is implicit  
**WEAKNESS** – Search software on Ceast site- nothing found just lists all products i.e. the emphasis and market understanding is lacking



**Search software result a hardware product list**

Part of the Instron group  
**WEAKNESS** – Integration with Bluehill, technical support from Italy in Italian?

# Competition

Shimadzu - Trapezium2 Page 1 of 4

**SHIMADZU** North America Home

Products  Information  Service/Support  Training  News

[Products Home](#) - [testing Home](#)

**Testing Measurement Links:**  
Testing/Measurement Index

**Maintenance**  
Maintenance Plus

**Thermal Analysis**  
TMA-80 **NEW!**  
DTG-80  
DSC-80  
DSC-50/50Q  
DTA-50  
TGA-50/50H, 51/51H  
TMA-50/50H  
TA-80WS  
Sample Cells

**Universal Testing**  
Autography Testers terminology (.pdf)  
UH Series  
AG-1  
AG-1S  
AGS-J  
Trapezium Software  
EZGraph  
EZTest

**Particle Size**  
LATS-1  
SALD-7001  
SALD-30 IV  
SALD-20 IV  
SALD-3001  
SALD-2001  
SA-CP3  
WingSALD

**Capillary/Flow Testers**  
CFT-500D/100D  
SMV-300

**Hardness Testing**  
MCT-W  
DUH-W201/201S  
DKT Series  
HSV-30/30T  
HMV-2  
HMV-M

**Trapezium2**  
Software linked with the test machine in higher order



[Download a Trapezium training video](#)

The Windows®-based TRAPEZIUM2 software allows various testing operations from simple test control to complicated control patterns created by the user. With its visual wizard settings and the industry's first operation navigation system, data obtained from the test can be processed based on various standards.

Flexible operations such as re-testing and re-analysis, as well as many advanced functions, such as network transmission of measurement data and screen customization, intelligently navigate various strength tests.

Japanese, English, Spanish, Chinese (both simplified and traditional) versions available.  
(Other languages available upon request.)

**Navigation**

The Navigation Bar selectively displays functions needed for the current operation. Continuous tests can be efficiently carried out by simply pressing the large buttons.

**Efficient continuous testing begins in 3 steps**

- Testing can be started in 3 steps after the software is booted up.

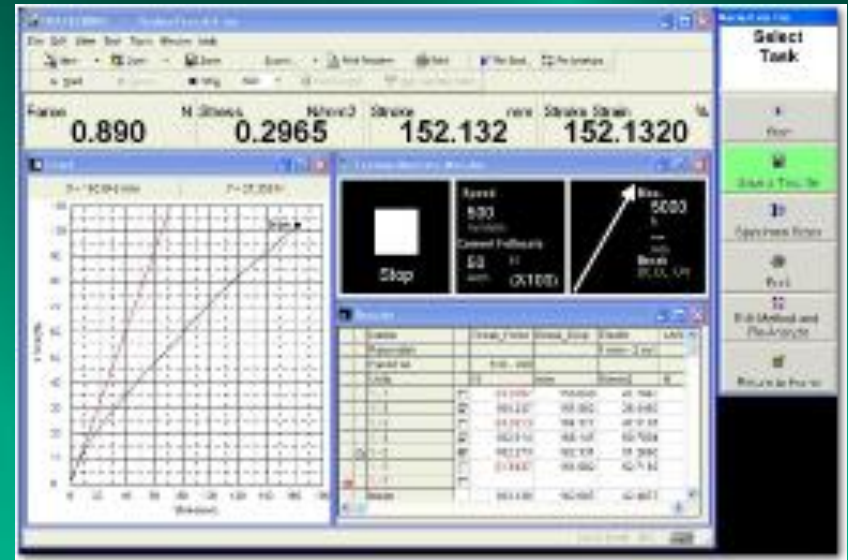
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<http://www.ssi.shimadzu.com/products/testing/newindex.cfm?product=trapezium2> 10/02/2004



WEAKNESS – Old style not Web 2.0, not fully scalable windows

WEAKNESS – No polymer analysis capability beyond Tension and flex

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# Launch Plan

- **Catalogue available**                      **early March 09**
- **TO web site update**                      **early March 09**
- **Editorial**                                      **early March 09**
- **On TO price list**                              **Completed**
- **First customer**                              **Dunlop rubber puncture test US  
successfully installed and working  
Jan 09**
  
- **Horizon available for  
existing Customers**                              **July 2009**
- **Navigator & Qmat will be available until end of 2009**

