

True-Load Enhancements

2025-07-01



Tim Hunter

Anaconda Warning



Anaconda Terms of Service (TOS) are changing!

Starting July 15, 2025 companies over 200 employees will need to purchase licenses of Anaconda. (ref: [Anaconda Privacy Center](#))

Wolf Star will provide a work around of distributing Python 13 with necessary open source modules in early July! Companies can switch from Anaconda to non-Anaconda solutions for True-Load



Enhancements Overview

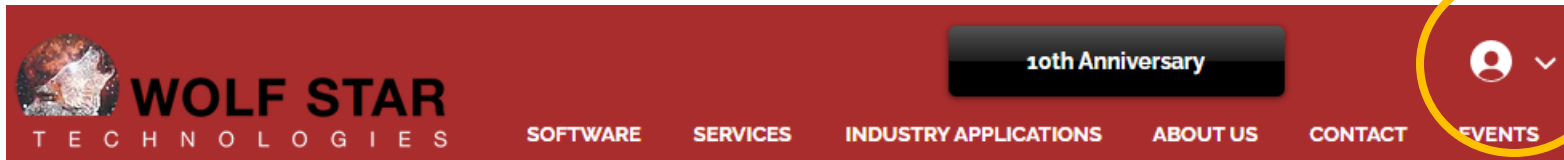
- FEMAP Plugin
- Siemens NX Plugin
- GOI / Strain Data Compare – Pick adjacent
- Reset Window Layout
- Update FEA DB paths in TLD and QSE
- ABQ Python 3.0 Utilities





Enhancements Overview

- Great updates in this release!!!
- Most of the enhancements discussed in this document are updates in performance and usability
- Some new features have been added.
- 25 Enhancements, 3 Bug Fixes



Members Only
Area



Enhancements - Overview



Bug Fixes



Details

Update / Install

✖ The picture can't be displayed.

✖ The picture can't be displayed.

FEA Codes

✖ The picture can't be displayed.

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Utilitarian Improvements

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WOLF STAR

True-Load Enhancements
2025-07-01



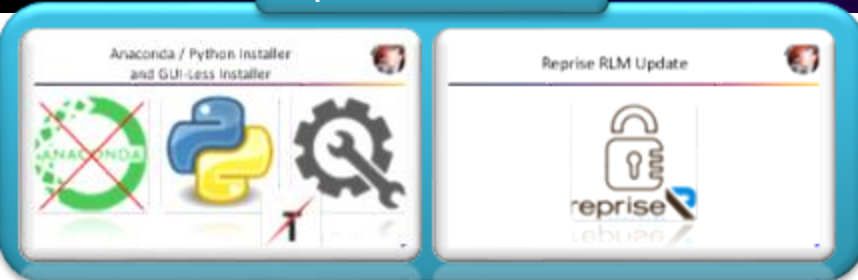
Tim Hunter





Details

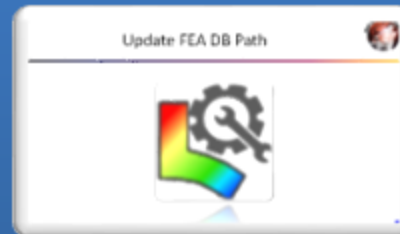
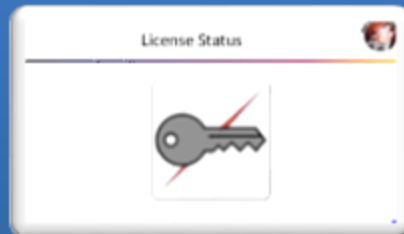
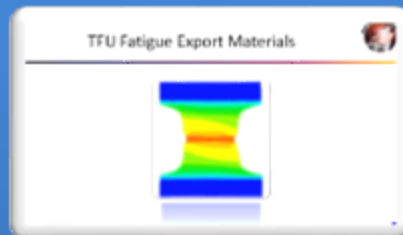
Update / Install



FEA Codes



Utilitarian Improvements



Bug Fixes





Bugs

Module	Type	Description
ALL	Bug	Fix PSD to Time
ALL	Bug	Join FEA DBs missing dimension model object
POST	Bug	QSE file for GOIs path not complete ... only works in local dir.

All issues are fixed



Enhancements - Overview





Enhancements – True-Load Environment

Highlighted Records Documented on Details page

Module	Type	Description
ALL	Enhancement	Utility to update FEA path in files





Enhancements – TFU Mgr

Highlighted Records Documented on Details page

Module	Type	Description
TFU	Enhancement	Create utility to export TFU Fatigue database to CSV
TFU	Enhancement	Add Band Stop Filter to TFU Manager
TFU	Enhancement	Add Band Stop Filter to tfuTools
TFU	Enhancement	Add option in bulk import to abbreviate file name suffixes (Z0D, RD, RT)
TFU	Enhancement	Add option in bulk import to abbreviate file name suffixes (Z0D, RD, RT) -- tfuTools too
TFU	Enhancement	Bulk Import make names for time duration be x.xxxx to _x.xxxx
TFU	Enhancement	Bulk Import DTS -- Automatically remove FILTERED / UNFILTERED from file names
TFU	Enhancement	Save As adds to recent files





Enhancements - Pre

Highlighted Records Documented on Details page

Module	Type	Description
PRE	Enhancement	Put pointy bits on STL gauges
PRE	Enhancement	WST_preserveEles.csv needs to be in scratch
PRE	Enhancement	New TLD File -- Enable Save As
PRE	Enhancement	Save As adds to recent files





Enhancements - Post

Highlighted Records Documented on Details page

Module	Type	Description
Post	Enhancement	Align Plot legend and Font Size on Post-Test form
POST	Enhancement	Post-Test Report Gauge table -- no wrap name, 2 decimal place on Angle.
POST	Enhancement	Remove Generate HTML, wrap Batch Mode
POST	Enhancement	When choosing cross plot color other than red, check plot legend





Enhancements - QSE

Highlighted Records Documented on Details page

Module	Type	Description
QSE	Enhancement	GOI Strain Data compare -- handle dropped gauges differently
QSE	Enhancement	New QSE File -- Enable Save As
QSE	Enhancement	GOI Strain Data compare -- Manually pick adjacent, disable Multi
QSE	Enhancement	Save As adds to recent files





Enhancements – 3rd Party

Highlighted Records Documented on Details page

Module	Type	Description
ABQ	Enhancement	Update scripts / utilities to work in ABQ Python 3.x
ABQ	Enhancement	Set up new installer for ABQ scripts
FEMAP	Enhancement	Add FEMAP Plug In
NX	Enhancement	Add NX Plug In



Anaconda / Python Installer and GUI-Less Installer





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FROM 2023-10-22 VERSION DOC ...



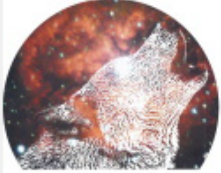
Installer and GUI-Less Install

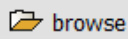




Installer GUI Update

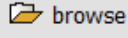
Wolf Star Technologies Installer

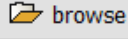
 **WOLF STAR**
T E C H N O L O G I E S

Destination Directory: 

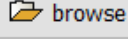
Python 3.6 | Anaconda 4.3.1 (64-bit) Directory: 

Default FEA: ☐ Install Abaqus CAE Plugin
☐ Open as VTFx ☐ Download Ansys WorkBench Plugin

Shortcut Location (e.g. Desktop): 

Default work dir (for shortcut): 

WST_scratch Location:

Licensing Path -- Optional
(e.g. port@host; <path to LiC file>): 



New button – Only for Admins

This downloads “installConfig.py” to enable GUI-less (command line) install of True-Load

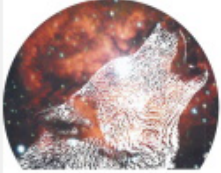
Everything else works the same as before

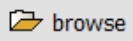


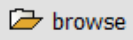


GUI-Less (command line) install

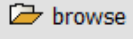
Wolf Star Technologies Installer

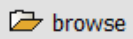
 **WOLF STAR**
T E C H N O L O G I E S

Destination Directory: 

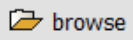
Python 3.6 | Anaconda 4.3.1 (64-bit) Directory: 

Default FEA: ☐ Install Abaqus CAE Plugin
☐ Open as VTFx ☐ Download Ansys WorkBench Plugin

Shortcut Location (e.g. Desktop): 

Default work dir (for shortcut): 

WST_scratch Location:

Licensing Path -- Optional
(e.g. port@host; <path to LiC file>): 

 Get installConfig.py

1) Get the installConfig.py file

You will browse for a folder to store this file in.





installConfig.py

```
# installConfig.py
#
# Configuration file for automating / prepopulating installation parameters
#
# This is python, all paths should be preceded by "r" (r=raw text string)
#=====
# Python Imports
# -----
import os
from win32com.client import Dispatch
shell = Dispatch('WScript.Shell')
# -----
# Helper variables
# -----
winDesktop = shell.SpecialFolders("Desktop")      # Path to Windows Desktop
winTemp     = os.environ['TEMP']                  # Path to Windows Temp directory
homeDrive   = os.environ['HOMEDRIVE']             # User Home Drive
homePath    = os.environ['HOMEPATH']              # User Home Directory
homeDir     = os.path.join(homeDrive, homePath)   # User Home Directory (full path)
#=====
#                               User variables
# -----
unAttendedInstallFlag = True                    # --> True = No GUI, False = GUI
destDir                = r'C:\trueLoadApp'      # --> True-Load Application Destination
defFEA                 = '*.odb'                # --> Default FEA ['*.odb', '*.rst', '*.op2', '*.h3d', '*.neu']
openAsVTFxFlag         = False                  # --> Converts FEA to VTFx; True=On, False=Off
shortCutDir            = winDesktop              # --> Location for True-Load shortcut
shortCutWorkDir        = winTemp                # --> Working directory for True-Load Shortcut
scratchDir             = 'TEMP'                 # --> WST_scratch location ['HOME', 'TEMP', <path>]
licenseVar             = 'WOLFSTAR_LICENSE'     # --> value for WOLFSTAR_LICENSE *** DO NOT CHANGE ***
licensePath            = '5053@WST11'           # --> Location of license server or file [port@host, <path to LIC file>]
# *** Optionally ***
pythonDir              = None                   # --> Location of Python [None, <path>]
postInstallScript      = r"C:\scratch\helloWorld.bat" # Path to script to be run post install [None, <path>]
```

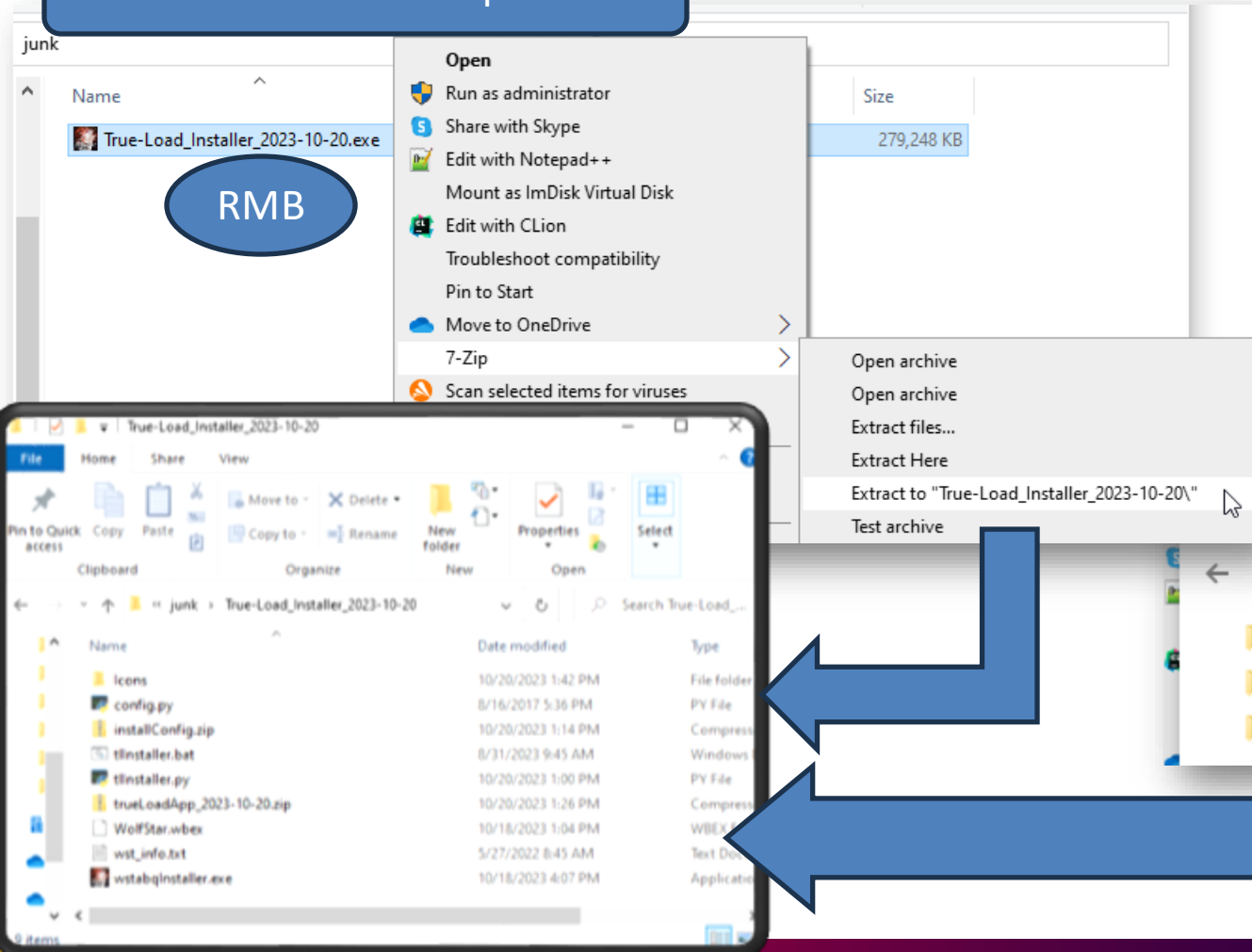
Edit the installConfig.py to suite your environment.





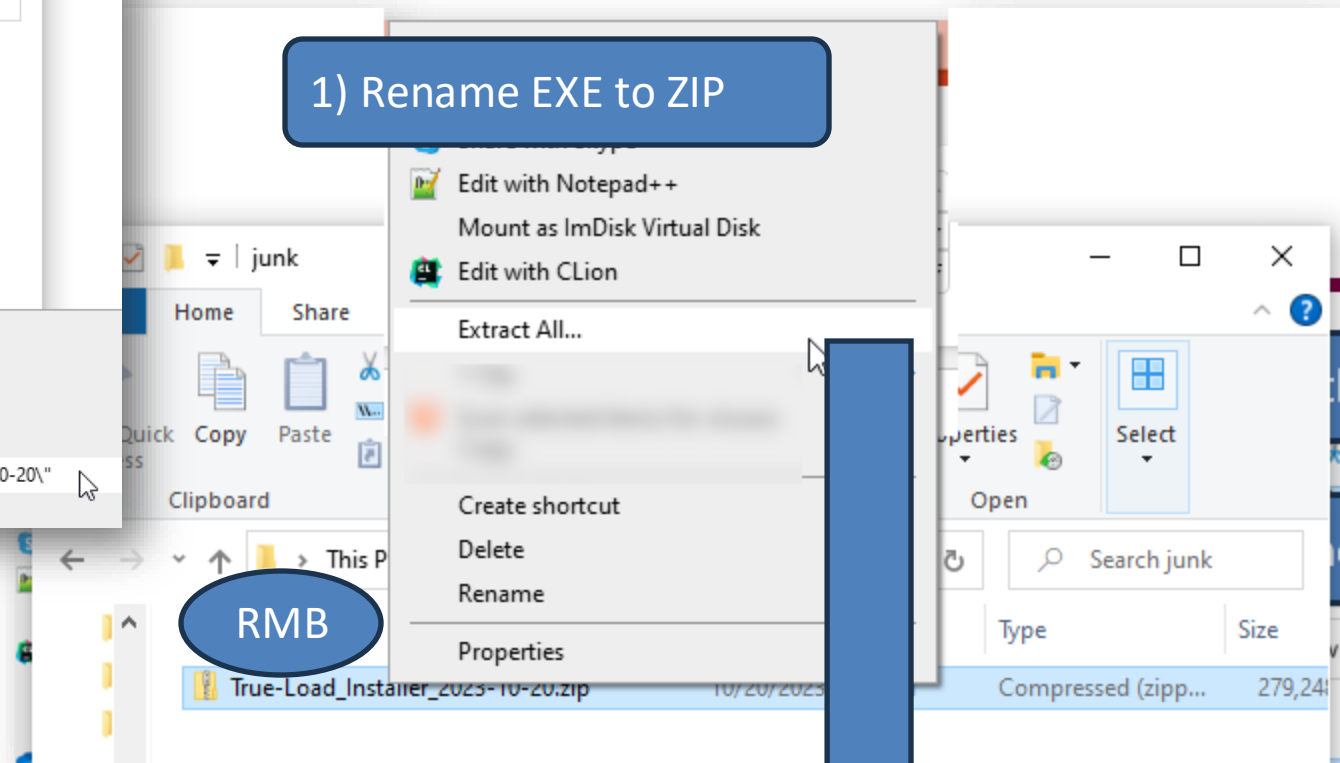
Unzip the installer

Method 1: 7Zip



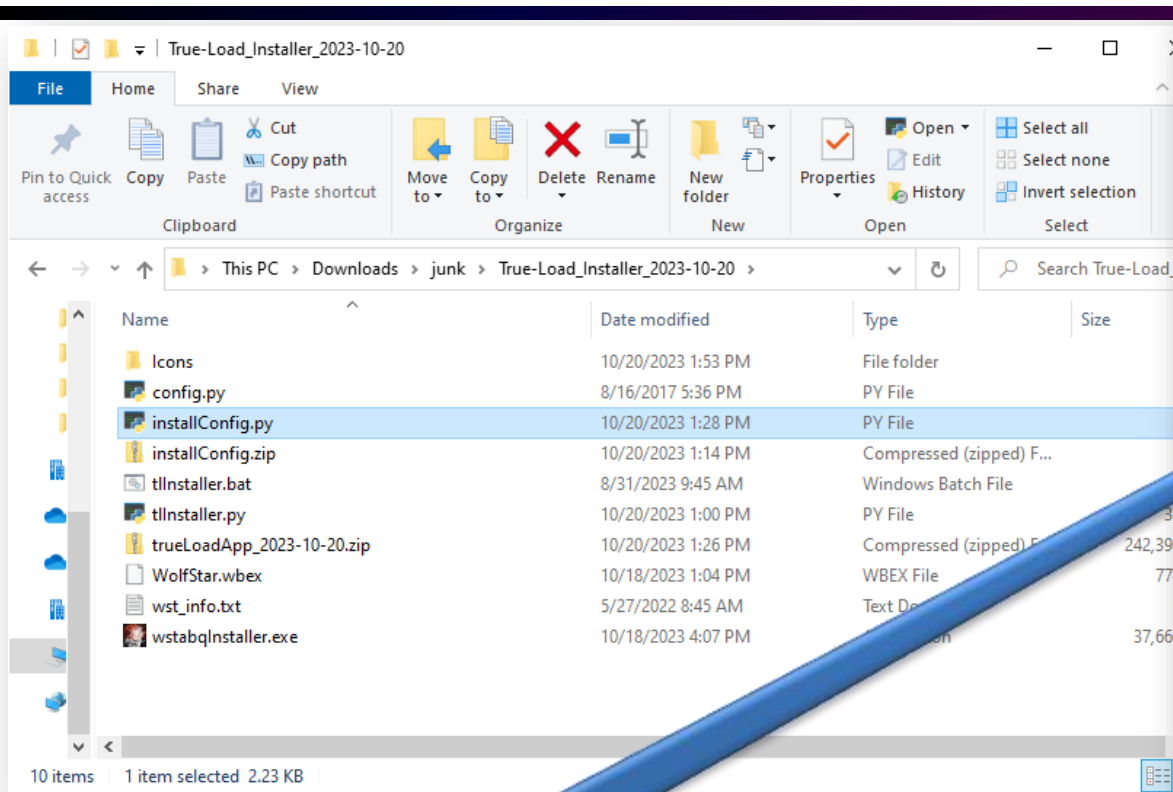
Method 2: Zip

1) Rename EXE to ZIP





Copy installConfig.py to installer folder



Run tlInstaller.bat

```
C:\Windows\System32\cmd.exe
C:\Users\TimHunter\Downloads\junk\True-Load_Installer_2023-10-20>tlInstaller.bat
C:\Users\TimHunter\Downloads\junk\True-Load_Installer_2023-10-20>python tlInstaller.py
=====
Installing...
Install Dir: C:\trueLoadApp
Python Dir: None
Default FEA: *.odb
=====
Purging...
Purging C:\trueLoadApp\wst
Purging C:\trueLoadApp\gui
Purging C:\trueLoadApp\...
Purging C:\trueLoadApp\bin
Purging C:\trueLoadApp\Doc
Purging C:\trueLoadApp\Icons
Purging C:\trueLoadApp\VTfxViewer
Software Zip File: trueLoadApp_2023-10-20.zip
Unzipping Software...
Software Unzipping Done.
=====
Updating BAT files...
Updating config.py ...
Creating shortcut...
Updating PATH variable...
Setting Open Methods / File Icons...
C:\trueLoadApp>python ./wst/setTLreg.pyc
Admin status: 0
Requesting admin status...
finished.
=====
Running Post Install Script...
Script: C:\scratch\helloWorld.bat
C:\Users\TimHunter\Downloads\junk\True-Load_Installer_2023-10-20>echo Hello World
Hello World
=====
Installation Complete.
=====
Wolf Star Technologies, LLC
True-Tools Installation Suite
Copyright(c) 2010 -- ALL RIGHTS RESERVED
=====
C:\Users\TimHunter\Downloads\junk\True-Load_Installer_2023-10-20>
```

Reprise RLM Update



Reprise RLM Update

- True-Load license management system is now running on the latest version of Reprise RLM Software.
- This should eliminate any security concerns.
- It will not affect any current license installs.



Ansys Plugin





Ansys 2024

Supports Ansys 2024 and
Earlier versions



Abaqus





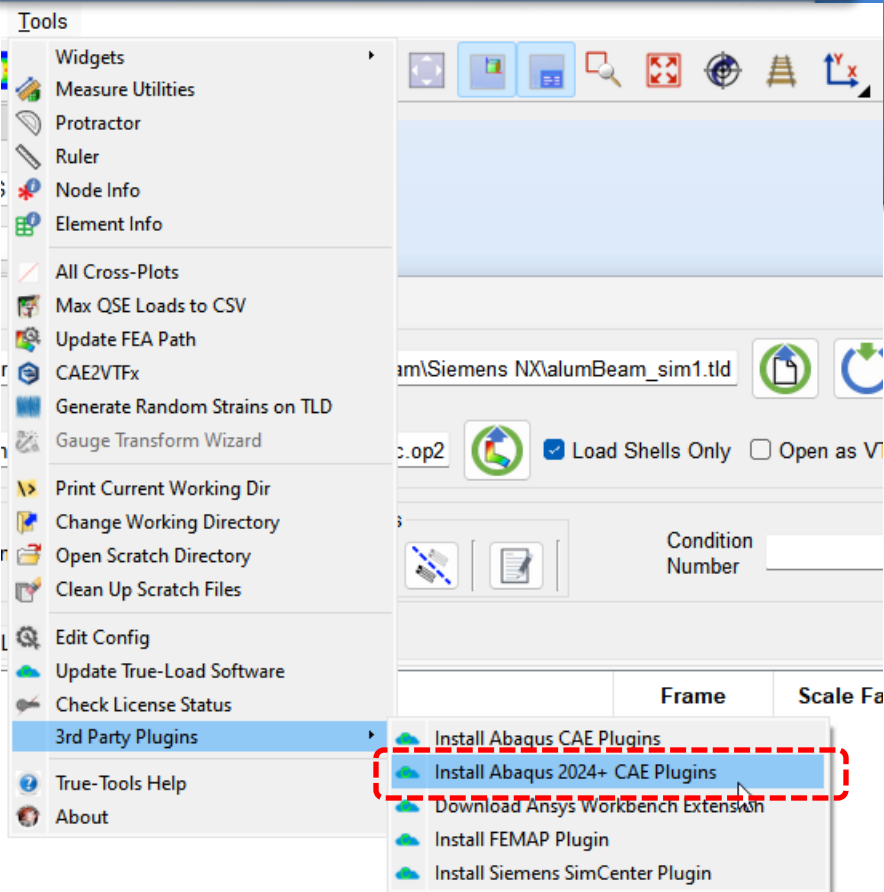
Abaqus 2024

True-Load

Supports Python 3 in Abaqus

Tools → 3rd Party Plugins → Install Abaqus 2024+ CAE Plugins
installs the plugins into Abaqus CAE

Includes all of the great Abaqus CAE utilities





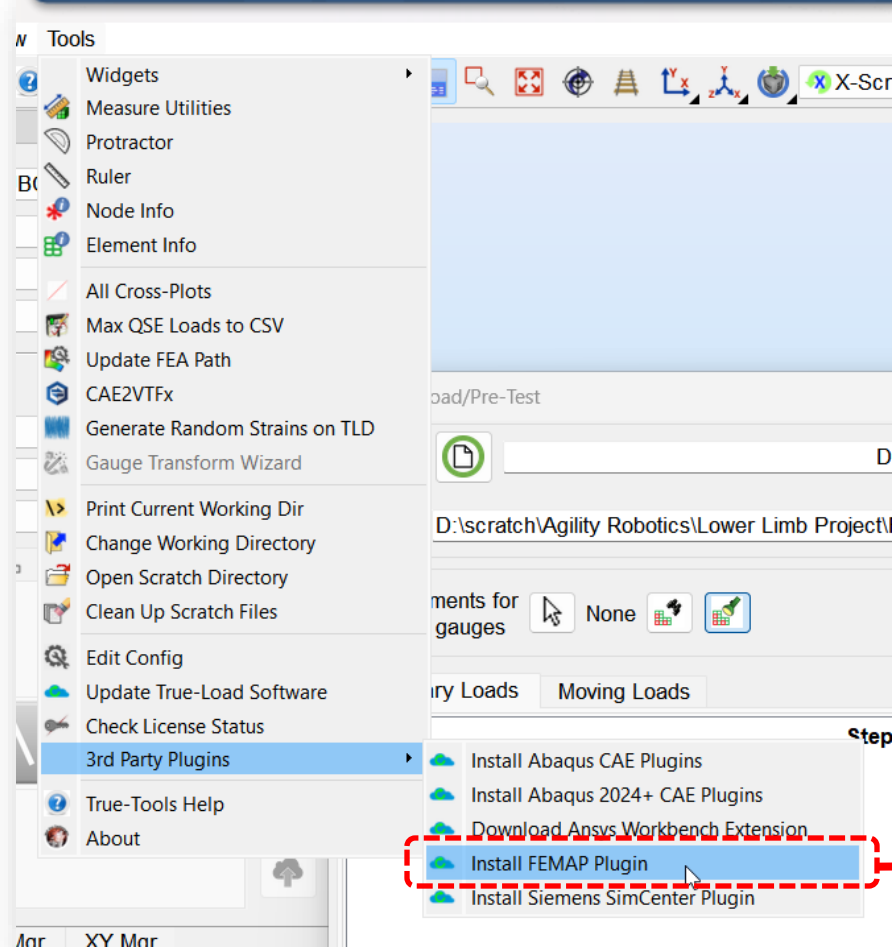
FEMAP

FEMAP

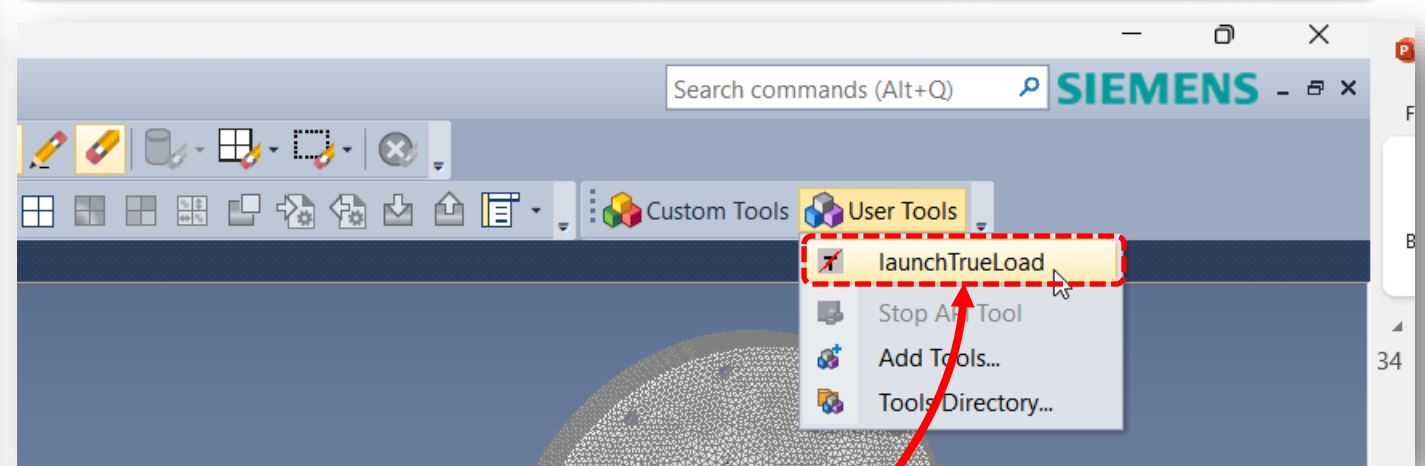


Install FEMAP Plugin

True-Load



FEMAP



Tools → 3rd Party Plugins → Install FEMAP Plugin
installs the plugin into FEMAP





Launch True-Load from FEMAP

The screenshot displays the FEMAP software interface. The 'User Tools' dropdown menu is open, showing the 'launchTrueLoad' option highlighted. A red arrow points from this option to the 'True-Load/Pre-Test' dialog box. The dialog box contains the following settings:

- State: KNEE-1KN-FX.SUBCASE 1-(1)
- True-Load/Pre-Test: True-Load/Pre-Test
- Contour Result: No
- Contour Style: Cont
- Vector Result: No
- FEA DB: I:\scratch\Agility Robotics\Lower Limb Project\FEA\thigh_v2-0002.op2
- Load Shells Only: ☒ Load Shells Only
- Open as VTFx: ☐ Open as VTFx
- Store FEA DB Relative Path: ☐ Store FEA DB Relative Path
- Session Tools: ☒ Session Tools
- Condition Number:
- Hide Load Table:
- Stationary Loads: ☒ Stationary Loads
- Moving Loads: ☐ Moving Loads
- Scale Options: ☒ Auto E-Scale
- Choose Scales:
- Plot Legend: ☒ Plot Legend
- Font Size: 10
- Gauge Placement: ☒ Top SPOS ☐ Bottom SNEG
- Min Distance between Gauges: 0.0
- # of Gauges: 2
- Tensors: ☒ Refresh
- Labels Only:
- Test Simulation:
- Event File Name:
- Begin typing for recent files:
- ©2010, Wolf Star Technologies ALL RIGHTS RESERVED Version: Cee tron 2025-02-14

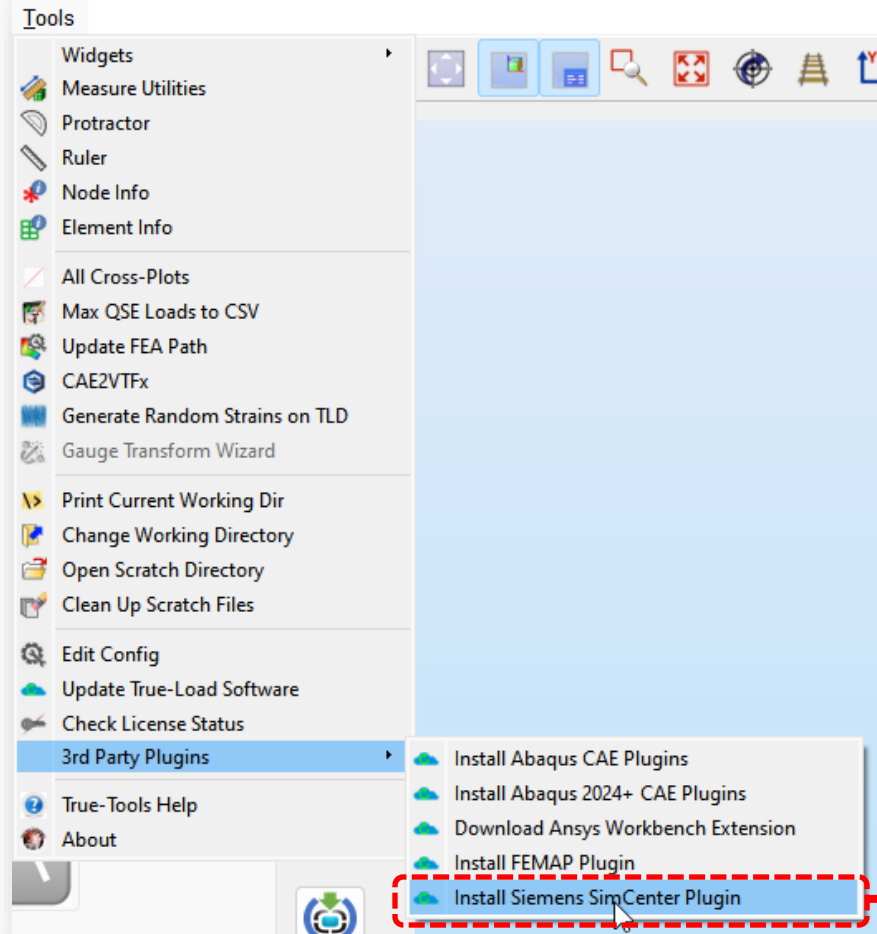
The background shows a 3D model of a mechanical part with a coordinate system (X, Y, Z) and a 'Demonstration License - For Demonstration Use Only' watermark.



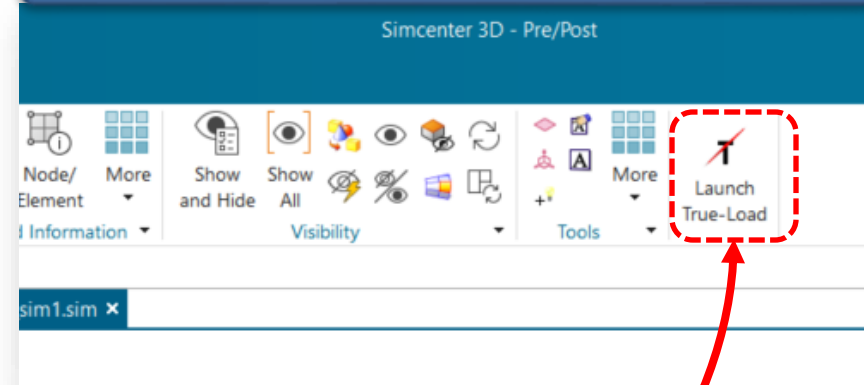


Install SimCenter Plugin

True-Load



SimCenter



Tools → 3rd Party Plugins → Install Siemens SimCenter Plugin
installs the plugin into SimCenter





Launch True-Load from SimCenter

The image shows the Siemens SimCenter 3D - Pre/Post interface. The top toolbar contains various icons for simulation setup. A red box highlights the 'Launch True-Load' icon, and a red arrow points from it to the 'True-Load/Pre-Test' dialog box. The dialog box is open, showing the 'TLD File' path: D:\scratch\MSOE\static mode shapes\Alum Beam\Siemens NX\alumbeam_sim1.tld. It also displays the 'FEA DB' path: c:\mode shapes\Alum Beam\Siemens NX\alumbeam_sim1-static.op2. The 'Stationary Loads' tab is selected, and the 'Scale Factor' is set to 1.0. The 'Gauge Placement' section shows 2 gauges. The 'Console' at the bottom displays the following text:

```
©2010, Wolf Star Technologies ALL RIGHTS RESERVED Version: Cee tron 2025-02-14
Loading Native FEA Groups...
SUBCASE - STATICS 1 SUBCASE 1-(1) 1000
Parts: 1
Nodes: 468
Elements: 468
```

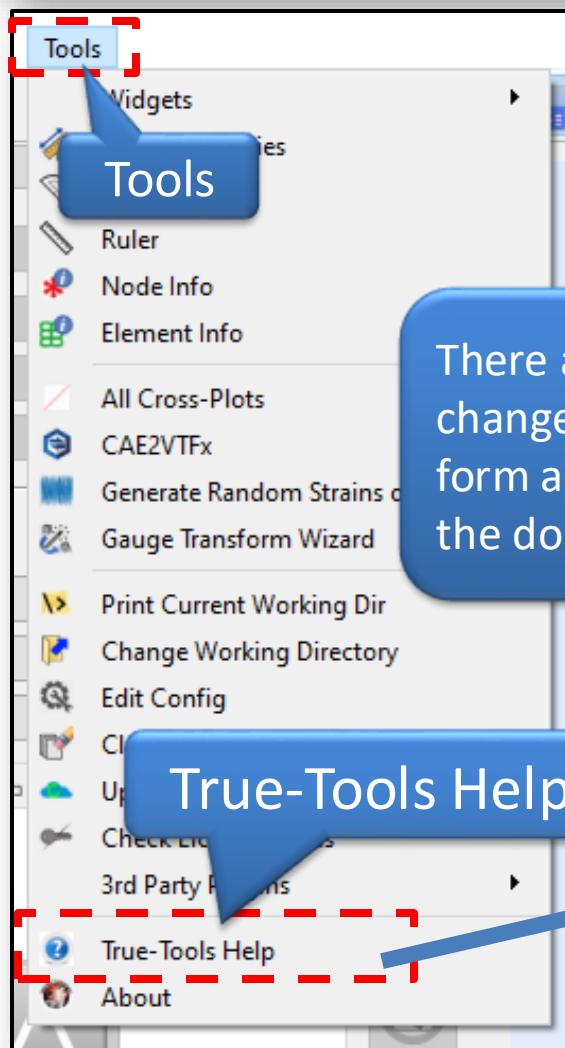
Help



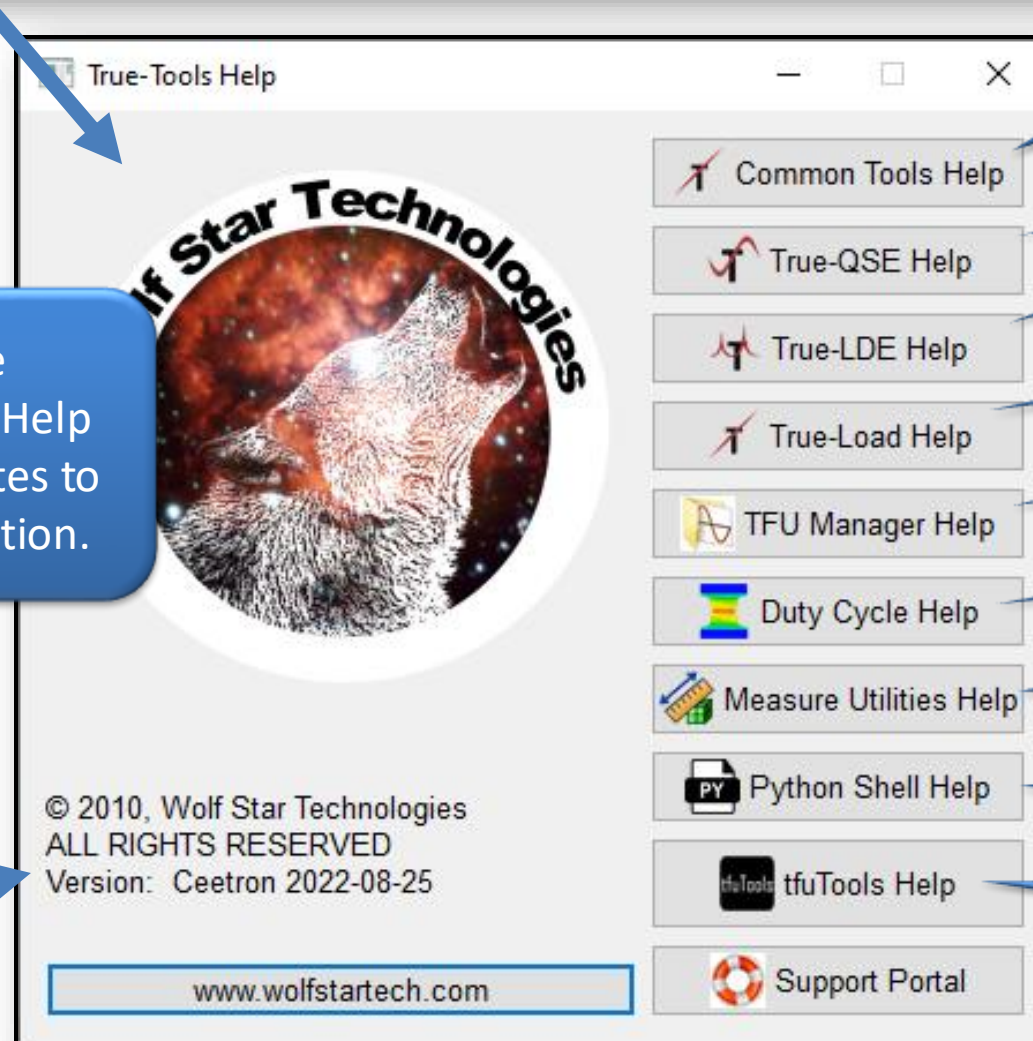


True-Tools Help

Help



There are some changes to the Help form and updates to the documentation.



Common Tools

True-QSE

True-LDE

True-Load

TFU Manager

Duty Cycle

Measure Utilities

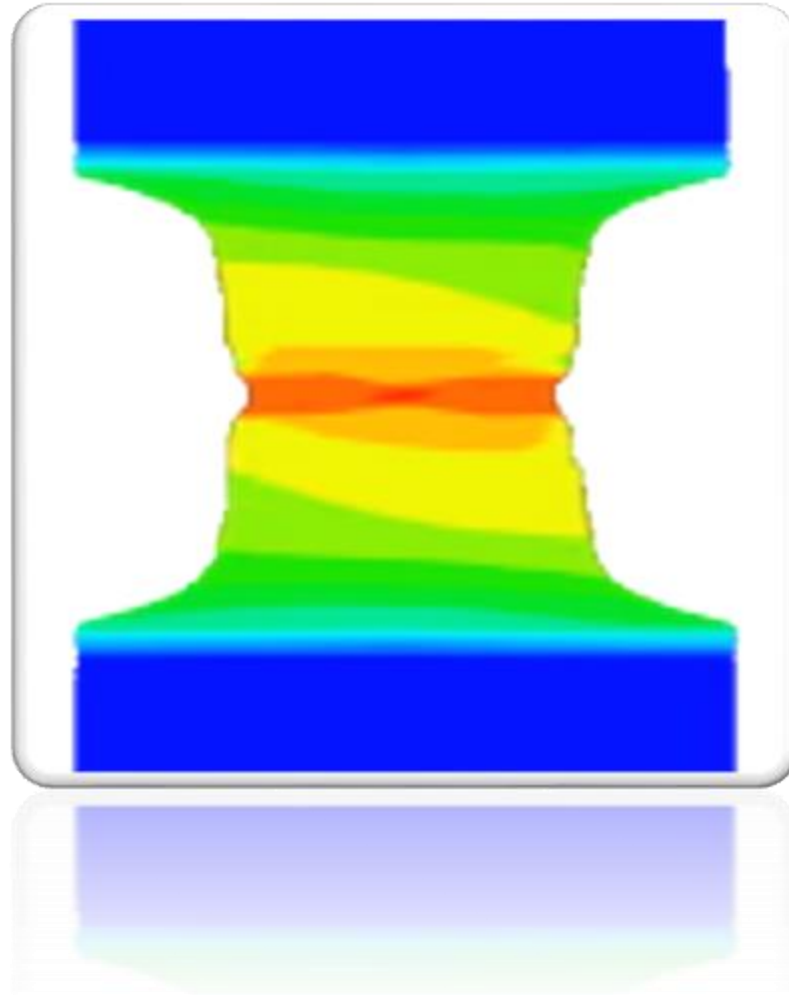
Python Shell

tfuTools

- Common Tools Help
- True-QSE Help
- True-LDE Help
- True-Load Help
- TFU Manager Help
- Duty Cycle Help
- Measure Utilities Help
- Python Shell Help
- tfuTools Help
- Support Portal



TFU Fatigue Export Materials





TFU Fatigue Export Materials

Set Matl to userMats

Click Export

=====

```
E x p o r t U s e r M a t s t o C S V
```

```
C:\<home dir>\WST_userFiles\userMats.csv written
```

=====





TFU Fatigue Export Materials

userMats.csv

A1 X f _x Mat Name											
	A	B	C	D	E	F	G	H	I	J	K
1	Mat Name	yp	ult	sigf	epsf	b	c	n	K		units
2	AL2014-T6	68900	462	510	868	0.556	-0.103	-0.745	0.16	689	N-mm
3	fe-safe SA	206980.6	234.0081	363.9742	1600.963	0.976	-0.197	-0.595	0.351	1916.743	N-mm
4	4130-HT--I	29010000	197000	207000	250000	0.803	-0.08	-0.672	0.114	246000	
5	Aluminum	70000	229	283	600	0.027	-0.124	-0.53	0.043	379	N-mm
6	Honda ma	30020000	33940	48010	163000	0.46	-0.175	-0.543	0.318	209300	Lbf-in
7	Honda ma	30020000	33940	48010	163000	0.46	-0.175	-0.543	0.318	209300	Lbf-in
8	4340-HT--I	27560000	121000	152000	185100	1.224	-0.075	-0.714	0.105	181200	Lbf-in
9	1010-HR,S	29440000	29010	48010	73000	0.104	-0.1	-0.408	0.244	125700	Lbf-in
10	BS970 G15	207000	430	682	1015	0.439	-0.078	-0.53	0.151	1065	N-mm
11	1008-HR,S	30020000	30000	40000	800000	0.2	-0.172	-0.543	0.5	209300	Lbf-in
12	SAE-1008	207000	253	364	1601	0.976	-0.197	-0.595	0.351	1917	N-mm
13	SAE-1005	200000	262	345	641	0.1	-0.109	-0.39	0.12	462	N-mm
14	SAE-1006	207000	249	319	954	0.262	-0.135	-0.461	0.25	1088	N-mm
15	SAE-1015	206800	227.5	414	946	0.739	-0.133	-0.582	0.243	1083	N-mm
16	SAE-1020	186000	255	393	855	0.234	-0.135	-0.459	0.3	1487	N-mm
17	SAE-1022	203000	262	441	1521	0.402	-0.165	-0.502	0.276	1460	N-mm
18	SAE-1025	207200	306	547	1525	0.601	-0.153	-0.521	0.233	1254	N-mm
19	SAE-1030	206700	289	455	1015	0.195	-0.136	-0.435	0.295	1558	N-mm
20	SAE-1035	204400	1395	1606	2427	1.833	-0.095	-0.779	0.125	2270	N-mm
21	SAE-1040	200000	345	621	1538	0.61	-0.14	-0.57	0.18	1666	N-mm
22	SAE-1045	200000	634.3	724	1227	1	-0.095	-0.66	0.18	1344	N-mm
23	SAE-1080	208100	1260	1433	1989	0.355	-0.091	-0.544	0.162	2283	N-mm
24	SAE-1137	207800	501	717	896	0.598	-0.075	-0.583	0.134	963	N-mm
25	SAE-1144	197000	717	931	1000	0.32	-0.08	-0.58	0.15	1186	N-mm
26	SAE-1522	200000	1006	1089	1463	0.163	-0.078	-0.45	0.198	2399	N-mm
27	SAE-4130	220600	779.1	896.4	1315	1.007	-0.082	-0.651	0.149	1428	N-mm
28	SAE-4140	201000	965	1076	1827	1.2	-0.08	-0.59	0.14	1780	N-mm
29	SAE-4142	206700	1723	1929	2170	0.682	-0.081	-0.981	0.114	2712	N-mm
30	SAE-4340	193100	1172	1241	1964	1.223	-0.102	-0.734	0.137	1862	N-mm



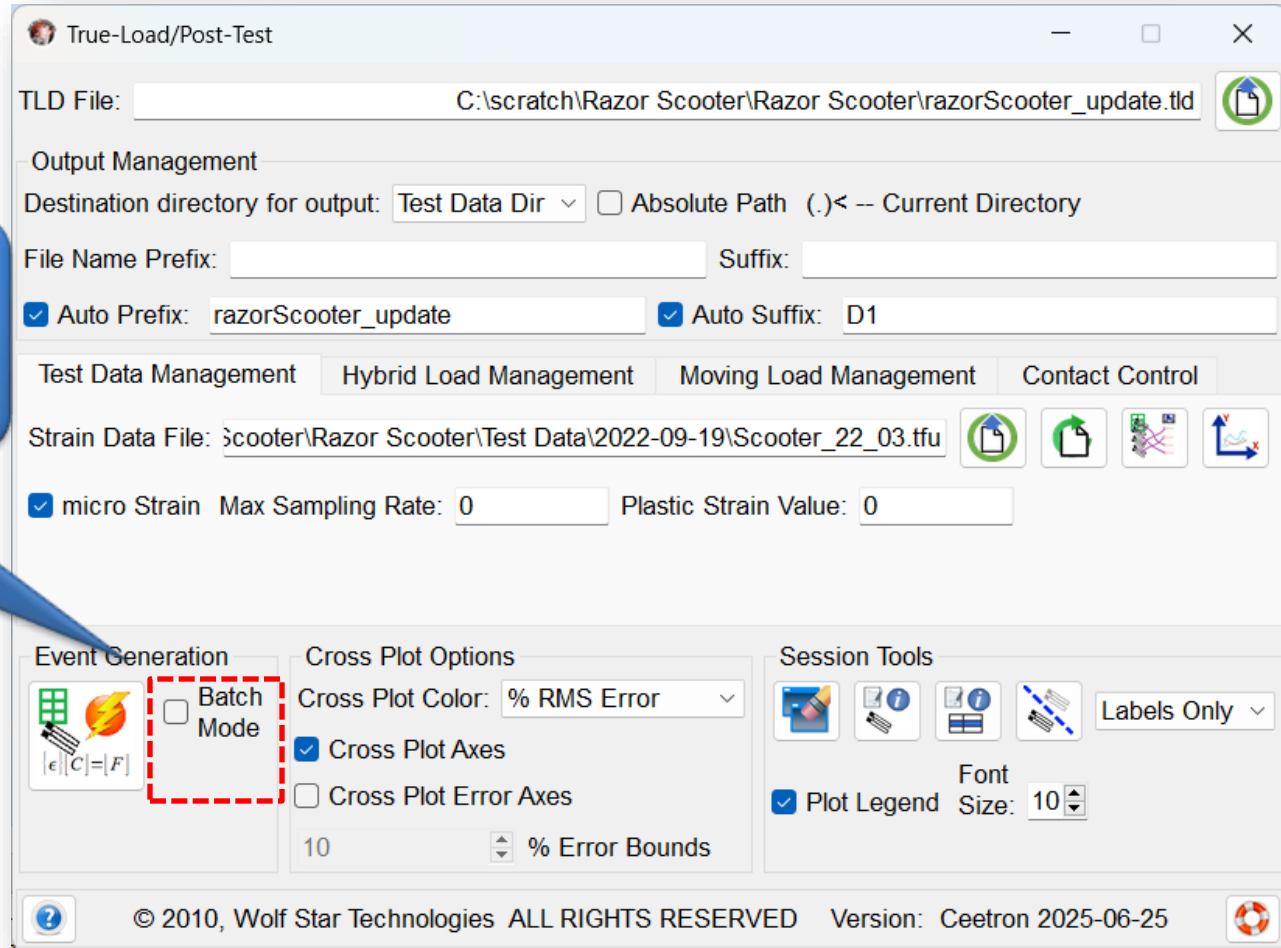
Post-Test GUI



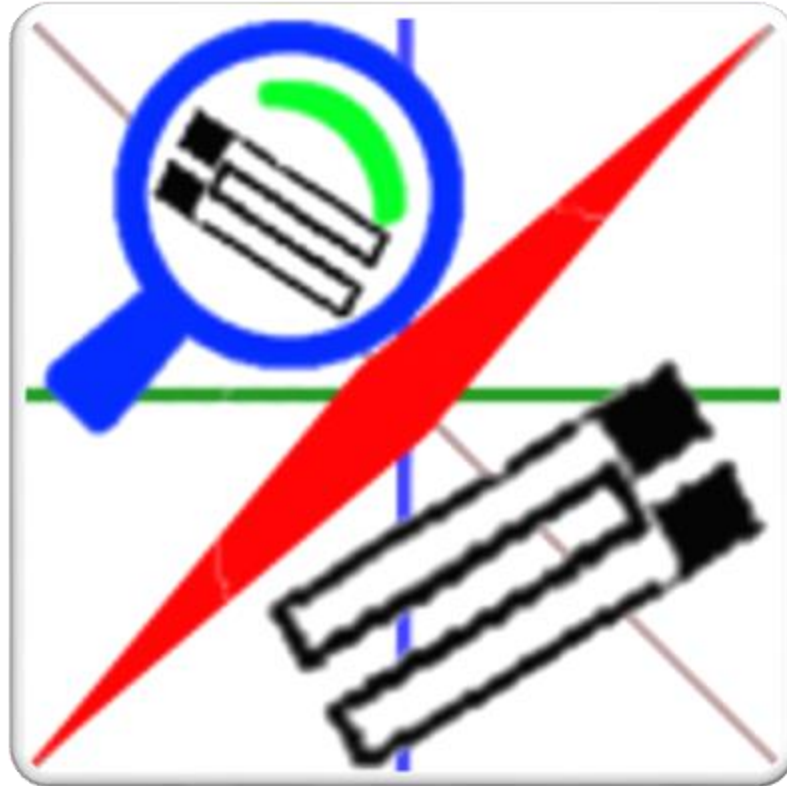


Post-Test GUI Update

- HTML Switch removed (on permanently)
- Batch Mode wrapped (to save space)



GOI / Strain Data Compare





GOI / Strain Data Compare

GOI / Stain Data
Compare now allows for
picking of elements.

This is important
especially for regularly
shaped structures.

Test Data Comparison

GOI File: C:/scratch/Razor Scooter/Razor Scooter/razorScooter_update.tld

☒ Include T-L Gauges | Add adjacent | Remove adjacent | ☐ Pick adjacent elements

Data Component

Shell Surface: ☒ Top SPOS ☐ Bottom SNEG

Map File: C:/scratch/Razor Scooter/Razor Scooter/razorScooter_update.map

Test TFU File: \\Razor Scooter\Razor Scooter\Test Data\2022-09-19\Scooter_22_03.tfu

Plot: ☒ All Adjacent GOIs ☐ Best Adjacent GOI

Best Adj Coord: Vector:

Movement to Best Adj GOI: Distance:

Single Multiple

Test Function: Chan#04 Uniaxial Gauge

GOI Name: TLG #4

Time Hist:

Error:

Cross Plot:

Clear Apply Cancel





Pick Adjacent Gauges

Test Data Comparison

GOI File:

☒ Include T-L Gauges | ☒ Pick adjacent elements

Data Component

Shell Surface: ☒ Top SPOS ☐ Bottom SNEG

Map File:

Test TFU File:

Plot: ☒ All Adjacent GOIs ☐ Best Adjacent GOI

Best Adj Coord: Vector:

Movement to Best Adj GOI: Distance:

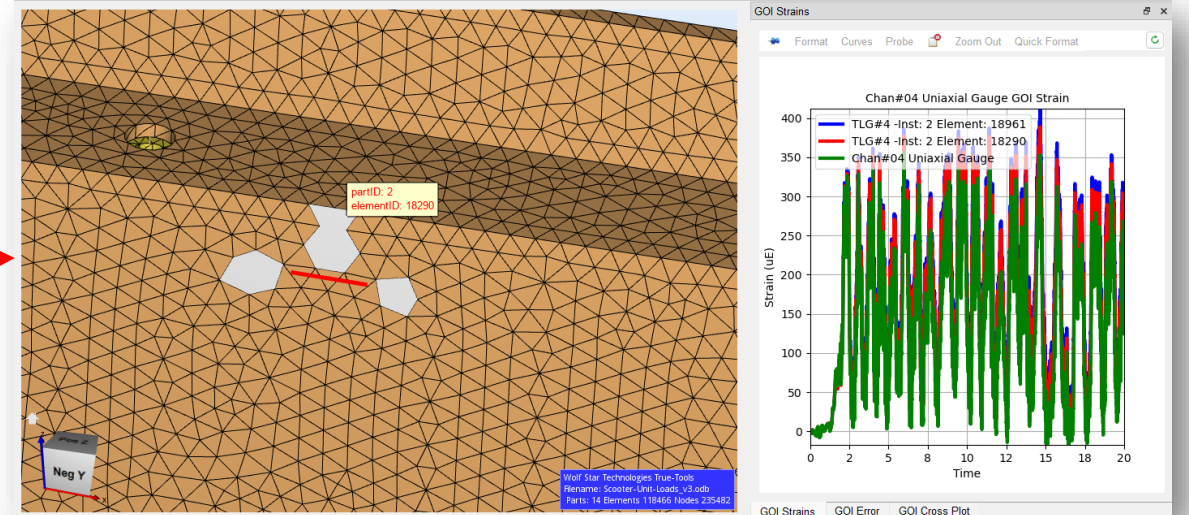
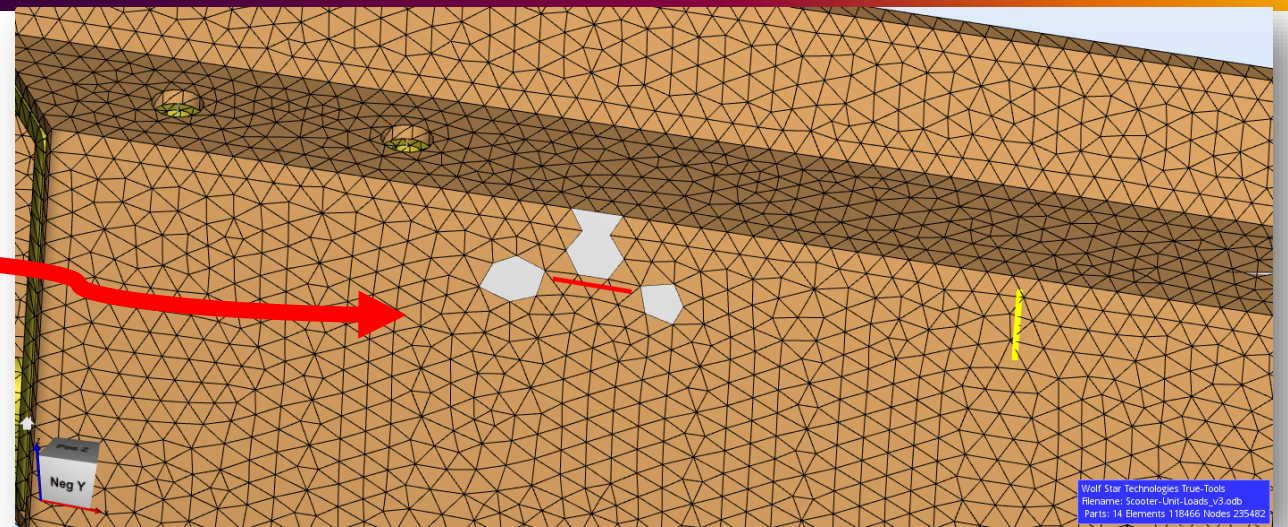
Single ☒ Multiple ☐

Test Function: GOI Name:

Time Hist:

Error:

Cross Plot:





Pick Adjacent Gauges

When Pick Adjacent Gauges is checked, Multiple option tab is disabled

The screenshot shows the 'Test Data Comparison' dialog box with the following settings and annotations:

- GOI File:** C:/scratch/Razor Scooter/Razor Scooter/razorScooter_update.tld
- Include T-L Gauges:** ☒ (checked)
- Add adjacent:** (button)
- Remove adjacent:** (button)
- Pick adjacent elements:** ☒ (checked, highlighted with a red dashed box)
- Data Component:**
 - Shell Surface: ☒ Top SPOS ☐ Bottom SNEG
- Map File:** C:/scratch/Razor Scooter/Razor Scooter/razorScooter_update.map
- Test TFU File:** \\Razor Scooter\Razor Scooter\Test Data\2022-09-19\Scooter_22_03.tfu
- Plot:** ☒ All Adjacent GOIs ☐ Best Adjacent GOI
- Best Adj Coord:** (text field)
- Vector:** (text field)
- Movement to Best Adj GOI:** (text field)
- Distance:** (text field)
- Single:** (disabled tab)
- Multiple:** (disabled tab, highlighted with a red dashed box)
- Test Function:** Chan#04 Uniaxial Gauge (dropdown)
- GOI Name:** TLG #4 (dropdown)
- Time Hist:** (text field)
- Error:** (text field)
- Cross Plot:** (text field)
- Buttons:** Clear, Apply, Cancel

Red arrows indicate that when 'Pick adjacent elements' is checked, the 'Multiple' tab becomes disabled.

License Status





License Status

When launching modules (Pre-Test, Post-Test, True-QSE, True-LDE), total licenses and licenses in use are displayed in console window.

Console Output

```
>>> Reprise Check In Status:0
=====
L i c e n s i n g   I n f o r m a t i o n
=====
      Licensing Model : Reprise
      Licensed Module : True-QSE
      WOLFSTAR_LICENSE : 5053@wst11
      Max In-Use : 40
      In Use : 1
>>> Reprise Check Out OK
>>>                               Module:True-QSE
>>> Reprise Check Out Status:True
```



Reset Window Layout



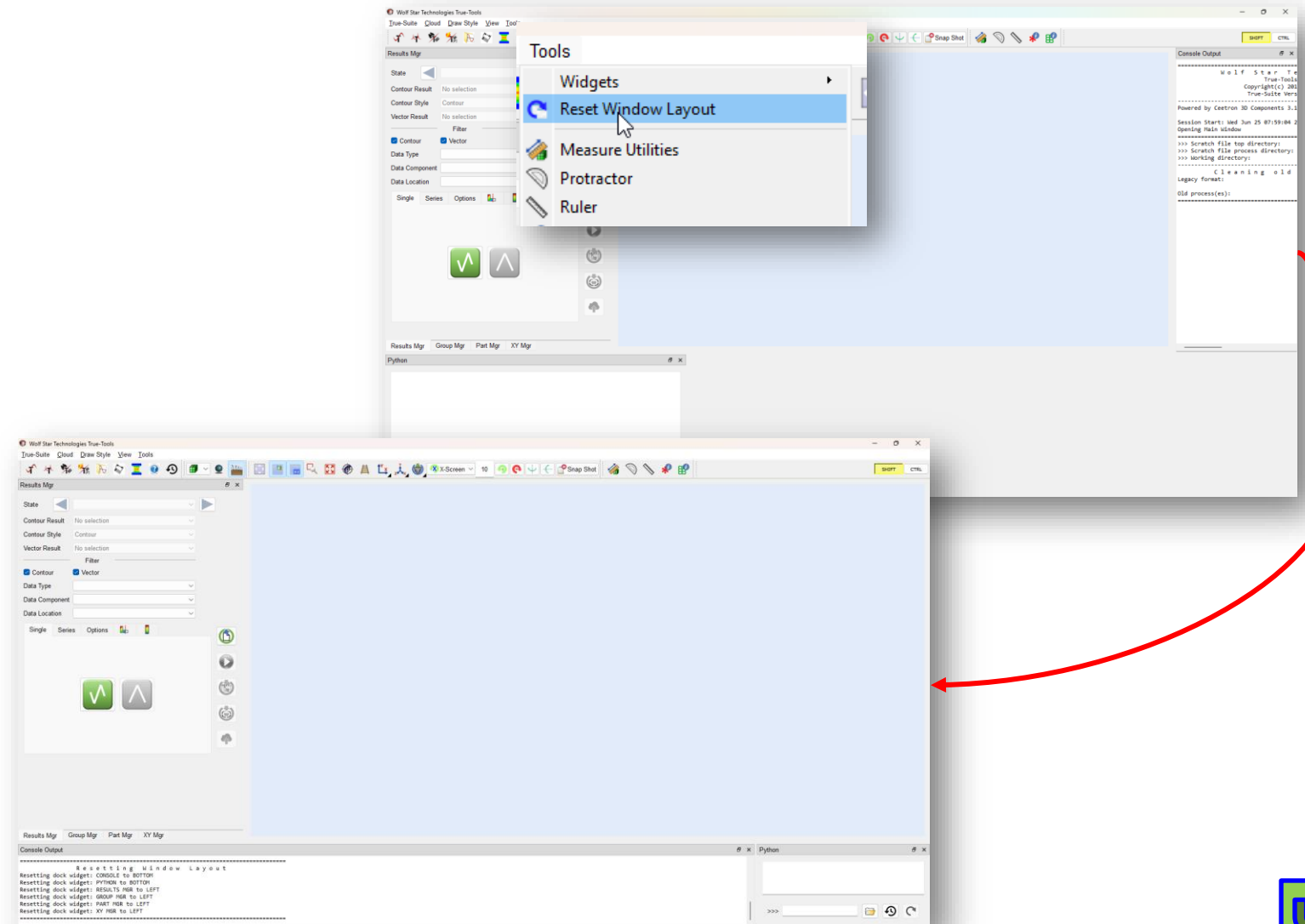


Reset Window Layout

Tools → Reset Window Layout

In the previous release, the layout of the windows was automatically saved between sessions.

To help with inadvertent mis-layout of windows a Reset Window Layout button was added.



Update FEA DB Path





Update FEA DB Path

This utility will update the Path to FEA DB or the FEA DB in your True-Load files: TLD, QSE

Often users move files between machines and the paths no longer make sense in the files. This fixes that issue

Changes the FEA DB Name

Changes path to the FEA DB

Tools → Update FEA Path

