

Introducing FlexPro 2021

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Innovations in FlexPro 2021

- Import Schemes for Binary Data
- State-of-the-Art on Interactive Data Analysis
- New Row Table and Improved Column Table
- The New Control Panels & Controls
- Extended Analysis Object Event Isolation
- The New Rosette Transformation
- The New Option Order Analysis
- And More ...



Import Schemes for Binary Data

Save Schemes for Import Settings

- Channel Selection
- Renaming of Channels
- Assignments of Channel Colors
- Assignments of Units
- Assignments of Calculations

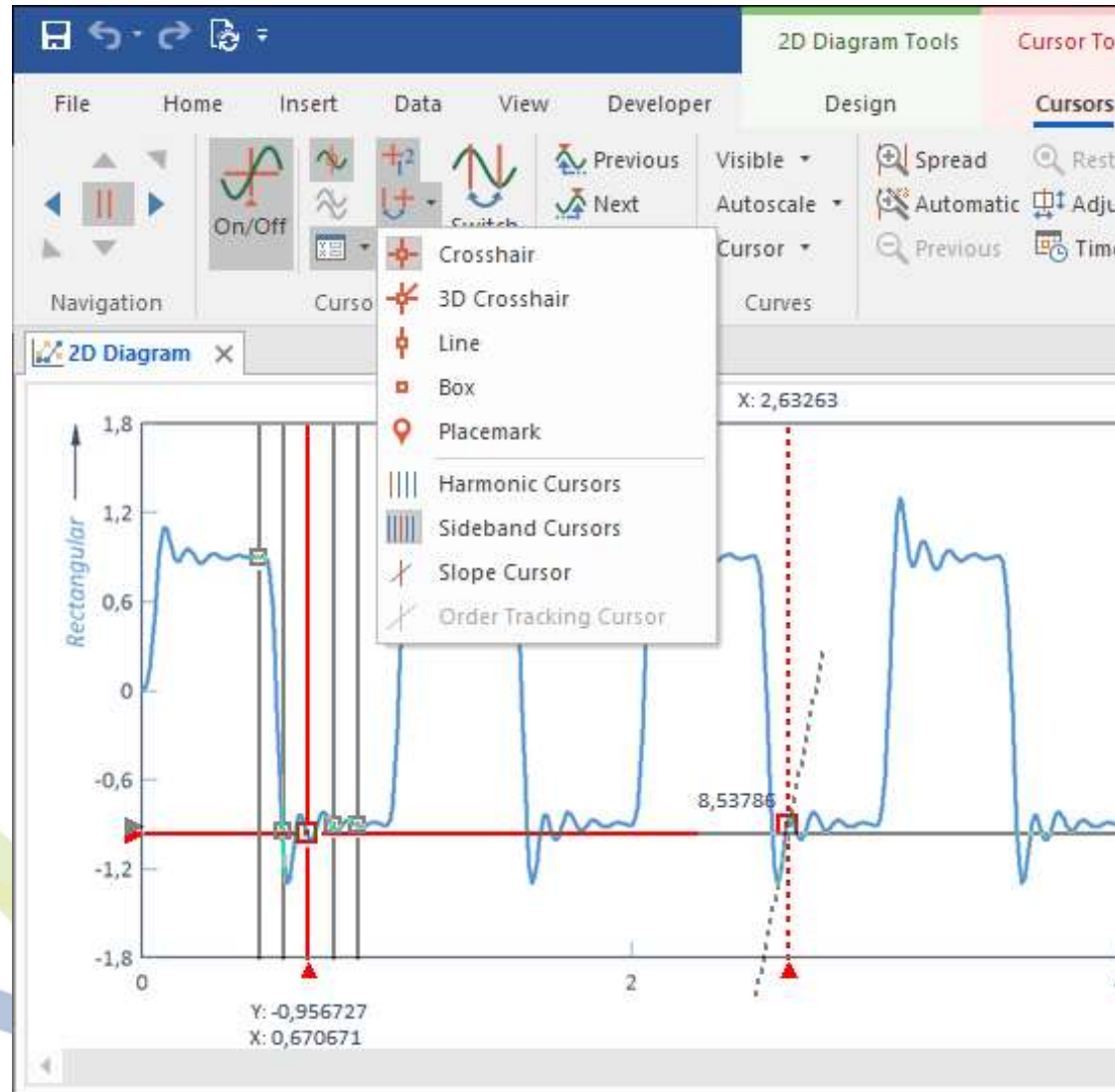


State-of-the-Art on Interactive Data Analysis

Cursor

- **Switching Between Different Cursor:**
Crosshairs, 3D Crosshair, Line, Box, Placemark
- **Auxiliary Cursor**
Harmonic, Sideband, Slope, Order Analysis Cursor

Cursor



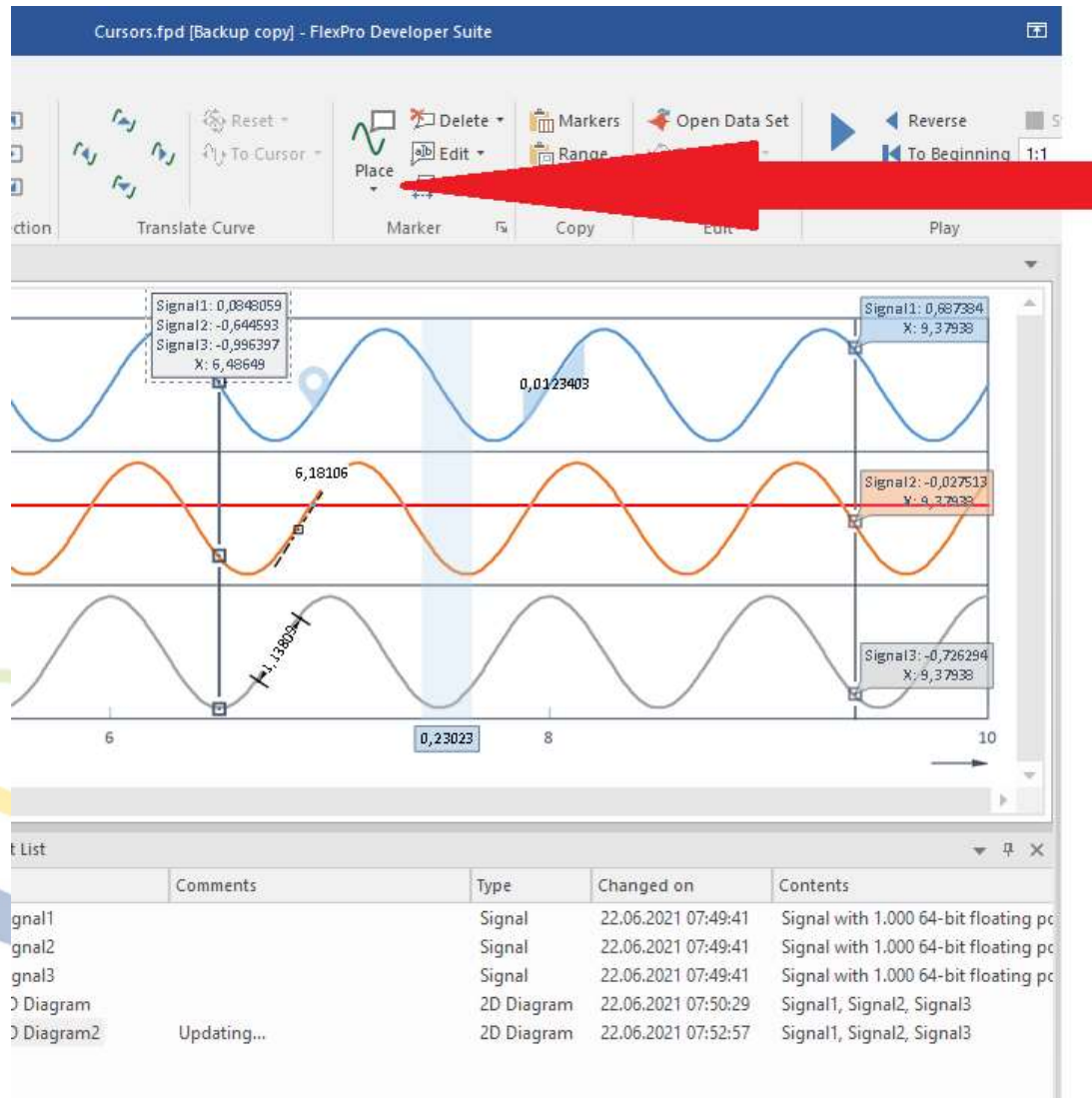


State-of-the-Art on Interactive Data Analysis

Cursor Marks

- Combining Marks & Curve Dimensioning to Dimension Marks
- Extension of Marks by Placemark, Multiple Mark
- Dimension Marks
- User-Defined Marks
- Reading out Markers using FPScript

Cursor Marks



- Markers**
- Point Marker
 - Placemark
 - Multi-Marker
 - Multi-Marker, Summarized
 - Image Marker
 - Curve Range
 - Area Under Curve
 - Horizontal Section
 - Vertical Section
- Dimensioning**
- Symbol
 - Symbol, Labeled
 - Horizontal Line
 - Vertical Line
 - Horizontal Tolerance Band
 - Horizontal Tolerance Band with Color Change
 - Vertical Tolerance Band
 - Vertical Tolerance Band with Color Change
 - Horizontal Perpendicular
 - Vertical Perpendicular
 - Tangent
 - Horizontal Dimensioning Line
 - Vertical Dimensioning Line
 - Free Dimensioning Line
 - Order/Frequency
- Custom Markers**
- Point Marker
 - Multi-Marker
 - Image Marker
 - Range Marker
 - Properties...
 - Set Markers in All Views



The New Row Table and Improved Column Table

New Row Table

- When Cell Table Too Static
- Functionality Like Column Table
- Convertible to Column Table

Improvements Column Table

- Various pagination modes for larger amounts of data
- Arbitrary font angles
- Line wrapping of larger texts

New Row Table

No.	1	2	3
Time [s]	2,45971	2,49359	2,5293
MaxOverLimit [V]	0,232239	0,240784	0,233765
Max [V]	0,240784		
Min [V]	-0,219727		

Object List

Name	Comme...	Type	Changed on	Contents
Measurement 1		Folder	22.06.2021 08:07:25	3 object(s); No value
↳ Ultrasound Signal		Data Set	22.06.2021 08:07:25	Signal with 4.578 32-bit
↳ Voltage		Data Set	22.06.2021 08:07:25	Signal with 4.578 32-bit
↳ Current		Data Set	22.06.2021 08:07:25	Signal with 4.578 32-bit
↳ MaxOverLimit		Event Isola...	22.06.2021 08:09:17	Signal with 3 32-bit floa
↳ Max		Statistical ...	22.06.2021 08:09:27	32-bit floating point sc
↳ Min		Statistical ...	22.06.2021 08:09:32	32-bit floating point sc
↳ Table		Row Table	22.06.2021 08:09:42	MaxOverLimit, Max, M



The New Control Panels & Controls

Interactive Evaluations

- Application
 - Cockpit e. g. for Condition Monitoring Tasks in Wind Parks, etc.
 - Report e. g. interactive Report for unexperienced FlexPro Users
- Function
 - Control panels as a separate object or embedded in documents, worksheets, tables, etc.
 - Controls (e.g. text fields, buttons or list boxes) allow user input and executable VBA macros
 - Controls operated by user and used in control panels, documents, worksheets, tables, etc.

The New Control Panels & Control Elements

Control x

Report x

Engineer:

Circle smoothing width:

Algorithm (for circular curve fit):

Circle visualization

Plot only reference circle

Plot all circles

Quality level (roundness):

Roundness analysis - B_ID66723

Smoothing width = 77

Circle approximation

Statistic	Value
Engineer	M. Smith
Measurement	B_ID66723
Algorithm (for circular curve fit)	Minimum Zone Circle
Quality level (for roundness)	2,65 mm
Roundness (difference circum. and inscr. circle)	1,76 mm



Extended Analysis Object Event Isolation

Time Filter Analysis Object Now Part of the Event Isolation

- Searching for periodic time segments in calendar time
- Link individual search criteria, as hour in the day or day of the week

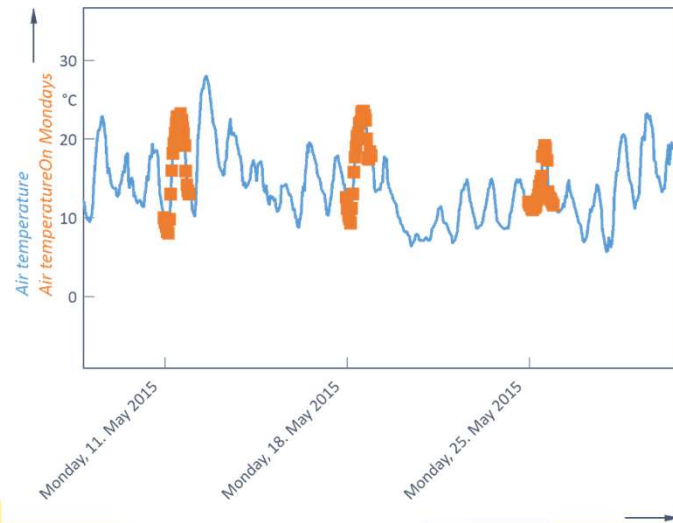
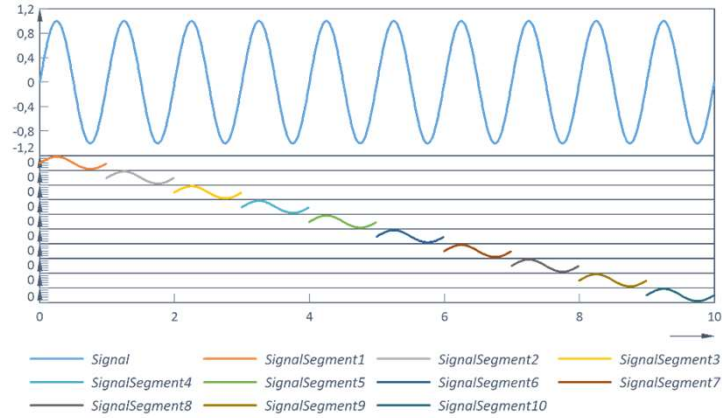
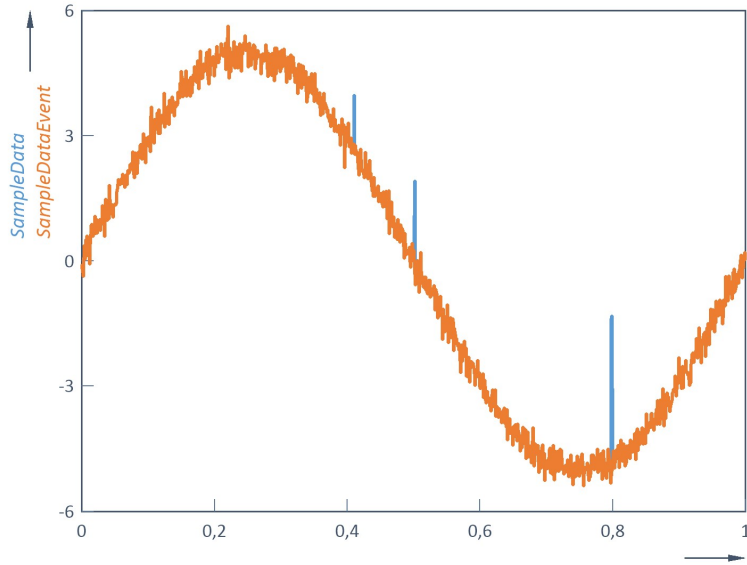
New Spike Detection

- Search for spikes in signal to interpolate, remove or invalidate

Extended Result Selection

- Number of Elements, Extract segments, Split into Segments

Extended Analysis Object Event Isolation



Event

Search in:
 Data set on the Data tab
 Data set: 'Exponentially distributed sample'

Event: Values in spikes

Orientation:
Level crossings
Extrema (maxima and/or minima)
Global extrema (maximum and/or minimum)
Slopes
Slopes at level

Parameters:
Burst beginnings and/or ends
Values in bursts

Minimum height:
Positive peak beginnings and/or ends
Values above level
Negative peak beginnings and/or ends
Values below level
Values in interval
Void values

Maximum width:
Positive peak beginnings and/or ends
Values above level
Negative peak beginnings and/or ends
Values below level
Values in interval
Void values

Values in spikes:
Time period "second in minute"
Time period "minute in hour"
Time period "hour in day"
Time period "day in month"
Time period "weekday in week"
Time period "month in year"
Time period "year"
Time period "day in year".

Cancel

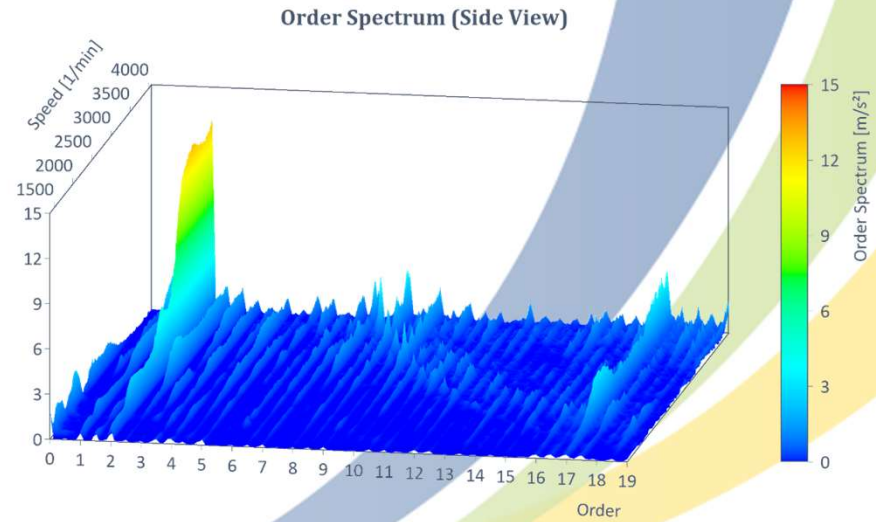
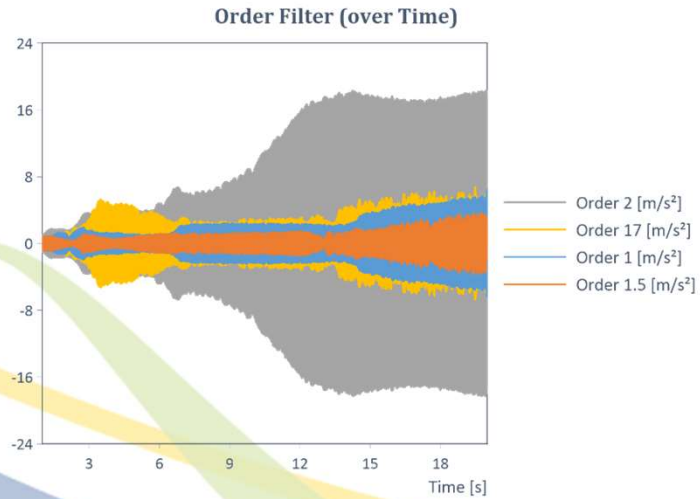
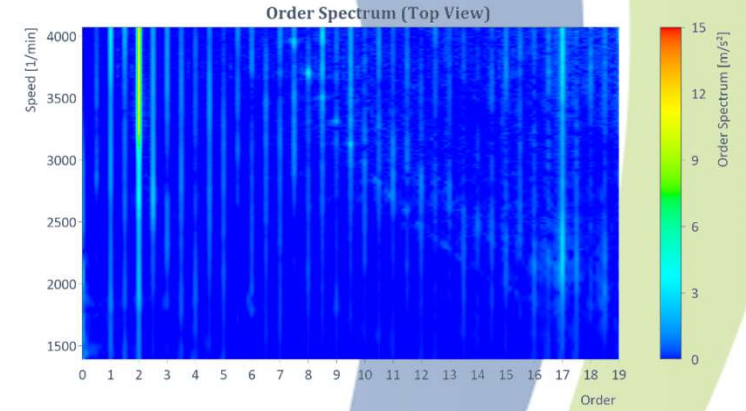
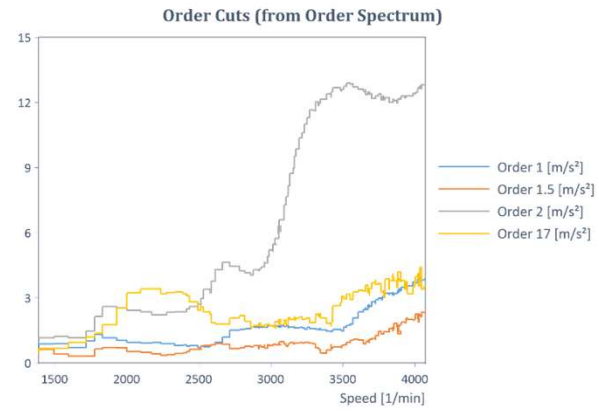
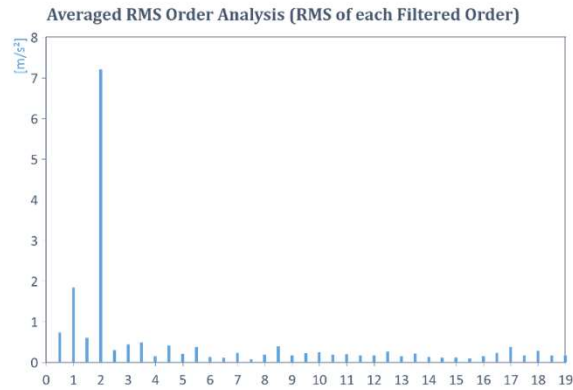


The New Option Order Analysis

Interactive Evaluations

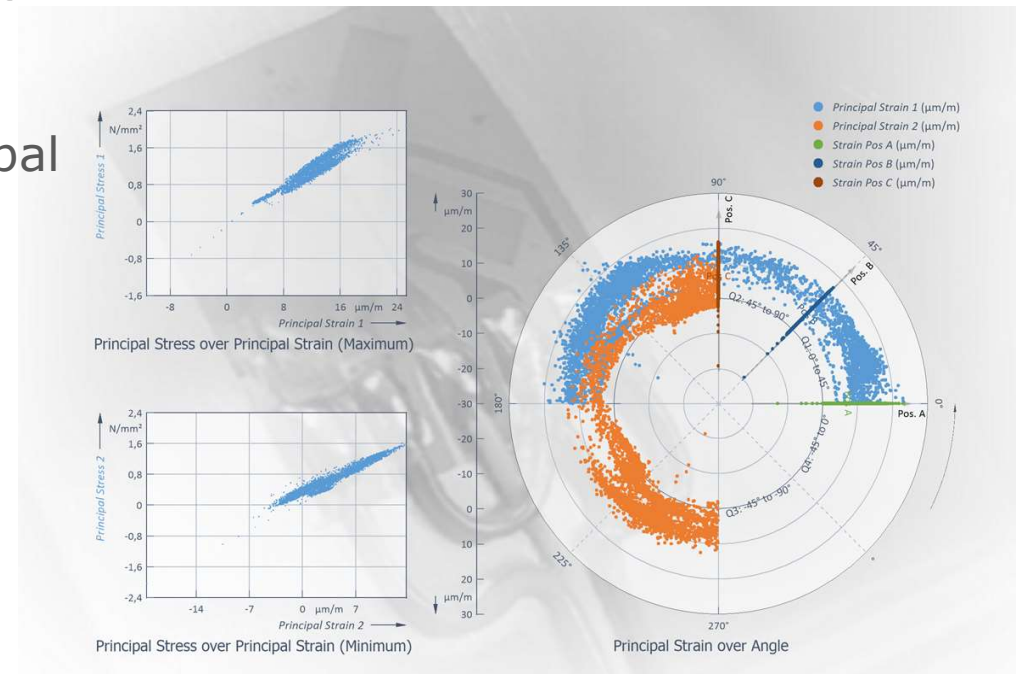
- Order Spectrum
- Averaged Order tracking
- Order Cuts from Order Spectrum
- Order Filter
- Harmonic Filter

The New Option Order Analysis



The New Rosette Transformation

- Calculation of principal stresses or principal strains from 2 or 3 strain gauges
- Cross-Sensitivity
- Temperature compensation




The New Rosette Transformation

Rosette Transform 'Rosettentransformation' Properties

General
Parameters
Calculations
Formatting
Data
Options
Results

Rosette Properties

Rosette type: 

Poisson's ratio:

Modulus of elasticity: N/mm²

Cross-sensitivity

Position a: % Position b: % Position c: %

Temperature Compensation

On

Output Options

- Principal strain 1
- Principal strain 2
- Principal stress 1: Stress in direction of principal strain 1
- Principal stress 2: Stress in direction of principal strain 2
- Angle
- Shear strain
- Shear stress: Stress in direction of shear strain
- Comparative stress according to von Mises

OK Cancel Apply

- T rosette
- Rectangular rosette
- Delta rosette

And More ...

FlexPro Online Help

Hide Back Forward Home Print Options

Contents Index Search | Fal

Type in the keyword to find:

1000h separator
customize
2D Approximation (Analysis Object)
2D Diagram
(Description)
Adding a Boundary Line
Adding a Dimension Line
Adding a Perpendicular
Adding a Symbol
Adding a Tangent
Adding a Tolerance Band
Adding Curve
Adding or Deleting a Title
Adding or Removing an Axis
Aligning a Title
Axis
Changing Page Splitting
Changing the Background Color
Changing the Style
Color Palette and Color Grader
Creating
Cursor Environment
Dimensioning a Curve
Display Formats
Displaying in the Coordinates V
Displaying the Curve Data
Enabling or Disabling Automatic
Exporting
Floor Line
Grid
Inserting a Picture
Legend
Multipage
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Resizing
Showing a Page
Specifying Output Unit for Axis
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Adding a Tangent
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Adding or Deleting a Title
Aligning a Title
Axis
Changing Lighting Parameters
Changing the Background Color
Changing the Style
Changing the Viewing Angle
Color Legend

Display

Introduction >

What's New in FlexPro 2021

FlexPro 2021 highlights include the redesigned data cursors and cursor markers, the new row table, the new order tracking, as well as control panels and controls for creating forms and dialog boxes. This page provides a detailed description of all the new features. Click on the highlighted items to view more information.

New User Interface and FlexPro Project Database Features

- Restoring Project Databases
- File Import General Enhancements
- Text Data Import
- Excel File Import
- Data Explorer
- Exporting Presentation Objects, Documents and Worksheets
- File Indexing Enhancements
- Data Query Enhancements
- General Enhancements

New Presentation Features

- Control Panels and Control Elements
- Diagrams
- Extensively Revised Column Table
- New Row Table
- Create Document Collections Easily
- Documents
- Media
- Text
- General Features

New Analysis Features

- New Revolution Synchronous Order Tracking Analysis Object (Order Tracking Option)
- New Order Filter Analysis Object (Order Tracking Option)
- New Harmonic Filter Analysis Object (Order Tracking Option)
- New Revolution Synchronous Sampling Analysis Object (Order Tracking Option)
- New Rosette Transformation Analysis Object (FlexPro Professional and Developer Suite)
- Enhanced Count Matrix Analysis Object (Counting Procedures Option)
- Enhanced Statistical Quantity Analysis Object (Statistics Option)
- Enhanced Analysis Objects: Time-Frequency Spectrum, Cross Spectrum and Fourier Spectrum (Spectral Analysis Option)
- Stable higher order IIR filters and enhanced IIR Filters analysis object (Digital Filters Option)
- Enhanced Event Isolation Analysis Object

Applying FPScript Function to Multiple Data Sets

New Presentation Features

- Improved Cursor Appearance
- Order Tracking Cursor
- Better Support for the Mouse Wheel
- Improved Cursor Markers
- Improved Copy Area

New Commands for Editing Data under Cursors

New FPScript Programming Language Features

Thank you for your attention!

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