



Pavement Profile
Viewing and Analysis

Painless Transition from 2.7 to 3.0

by

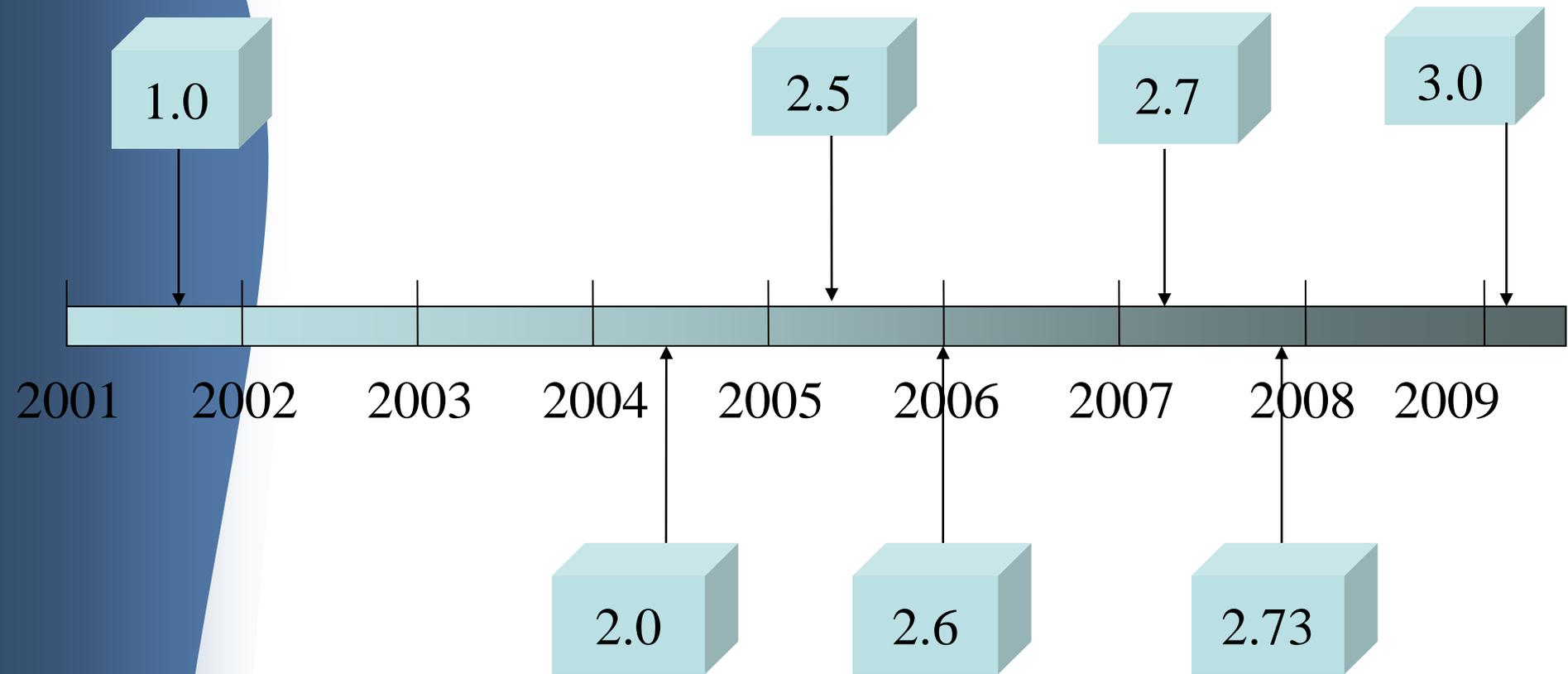
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ProVAL Support Team



History of Releases



Major Differences

1	File and Project Management
2	Sections Handling
3	Ride Statistics
4	Input Settings
5	File selection
6	Milepost Display
7	Charts
8	Report

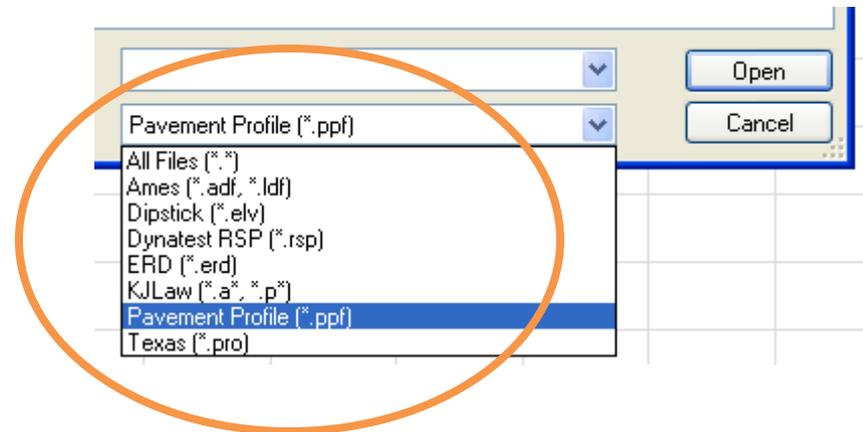
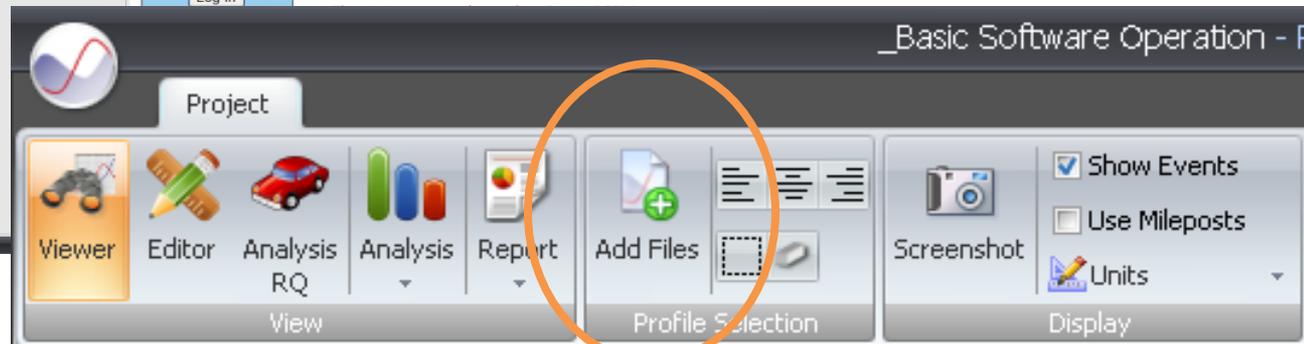


File and Project Management

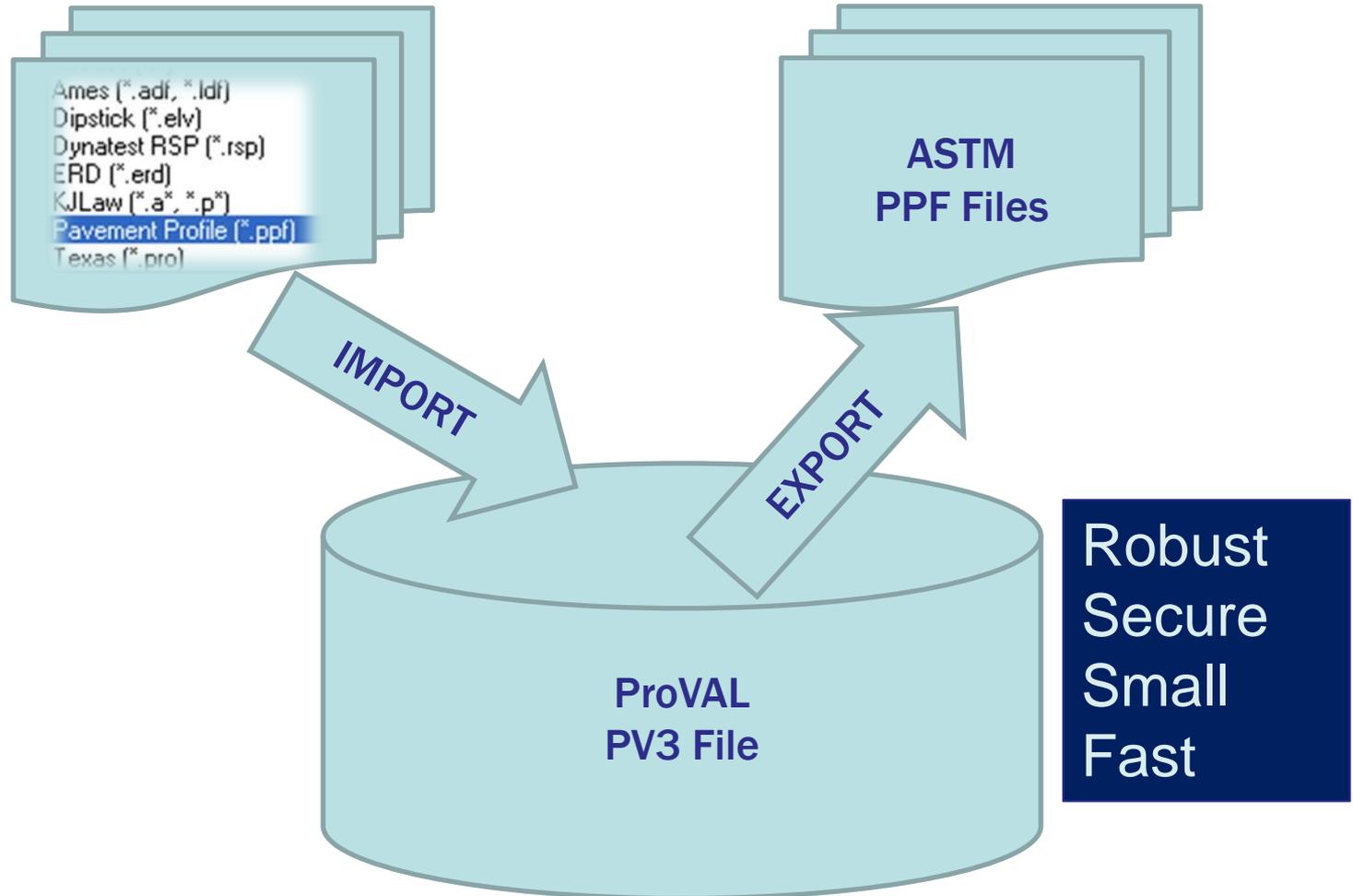
- **2.7 - Separated project analysis file (*.pv2) and imported data files (*.ppf) are used to store analysis settings and profile data, respectively.**
- **3.0 - An all-in-one single compressed file (*.pv3) is used to combine all imported profile data and analysis settings while imported data can be exported.**



File and Project Management



File and Project Management

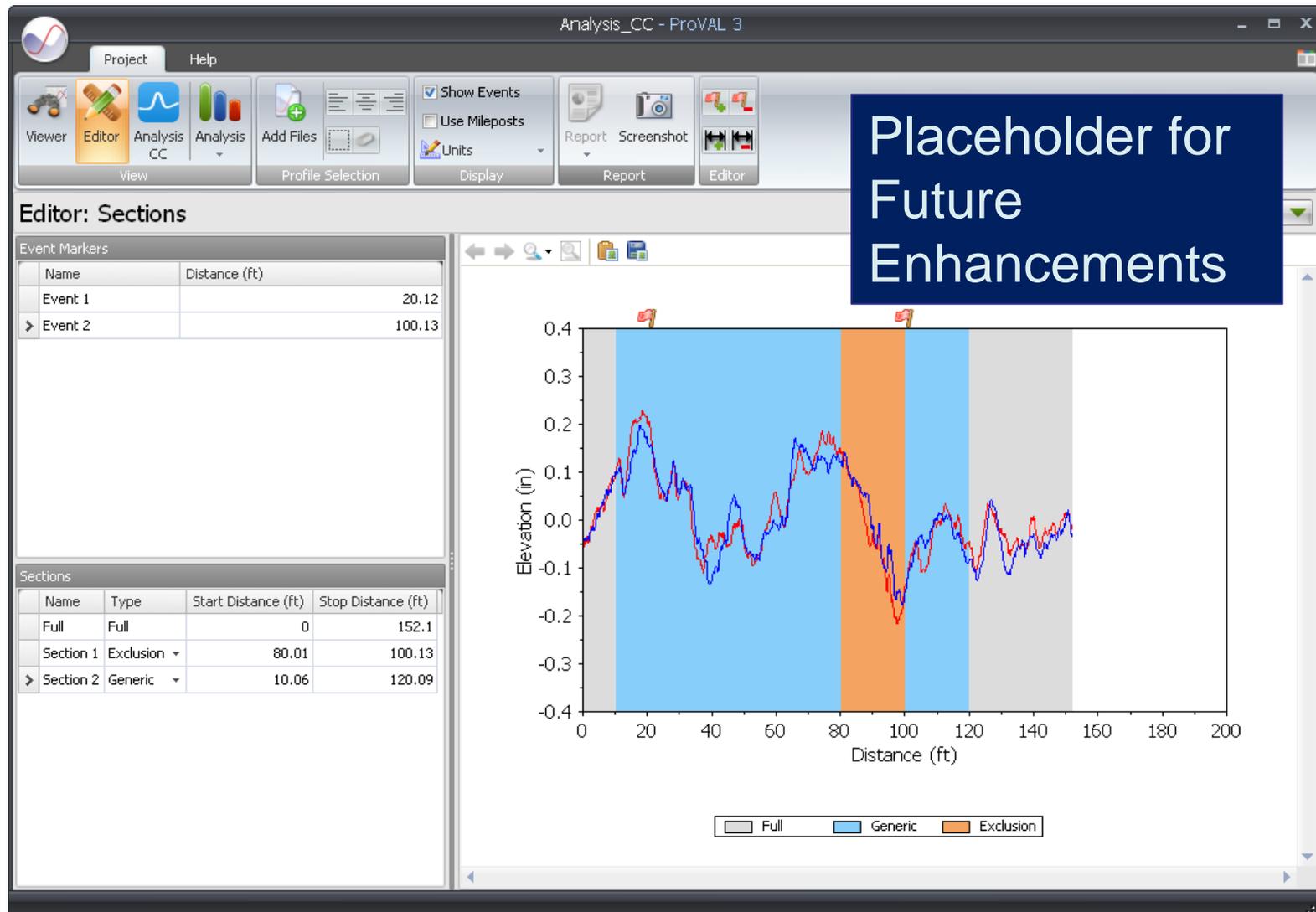


Sections Handling

- **2.7 - The features of “point reset” and/or “cropping” tools facilities are used to define and handle a single section of interest. Can only use lead-in and lead-out to define one section of interest.**
- **3.0 - “Sections” facility in the Editor can be used to define multiple sections of various categories (e.g. generic, exclusions). Therefore, lead-in and lead-outs can be handled more gracefully.**



Sections Handling



Ride Statistics

- **2.7 - Separated modules are used for Ride Stats, Ride Stats at Interval, and Ride Stats Continuous analyses. A limit of one file to be analyzed is imposed in the latter two analysis modules.**
- **3.0 - A single Ride Quality module is used to provide all three types of ride quality analyses. Also, multiple files are allowed to be analyzed for all three analysis types.**



Ride Statistics

The screenshot displays the RQ* - ProVAL 3 software interface. The main window is titled "Ride Quality" and contains several sections:

- Inputs:** Includes radio buttons for "Full", "Fixed Interval", and "Continuous". The "Continuous" option is circled in orange. Below these are fields for "Ride Quality Index" (set to IRI), "Baselength (ft)" (25.00), and "Threshold (in/mi)" (90.00).
- Profile Selection:** A table with columns "File", "Profile", "Section", and "Apply 250mm Filter". It lists two profiles: "LElev" and "RElev", both with "Full" sections and the filter checked.
- Profile Selection Table:** A table with columns "Start Distance (ft)", "Profile: RElev", and "Profile: LElev". It lists various distance intervals and corresponding IRI values.
- Graph:** A line graph showing "IRI (in/mi)" on the y-axis (0 to 200) versus "Distance (ft)" on the x-axis (0 to 6,000). Two data series are plotted: "Profile: RElev" (red line) and "Profile: LElev" (blue line). The graph shows significant fluctuations in IRI values across the distance range.

A dark blue box with white text is overlaid on the right side of the interface, stating: **Support Multiple Files**

File	Profile	Section	Apply 250mm Filter
Profile	LElev	Full	<input checked="" type="checkbox"/>
Profile	RElev	Full	<input checked="" type="checkbox"/>

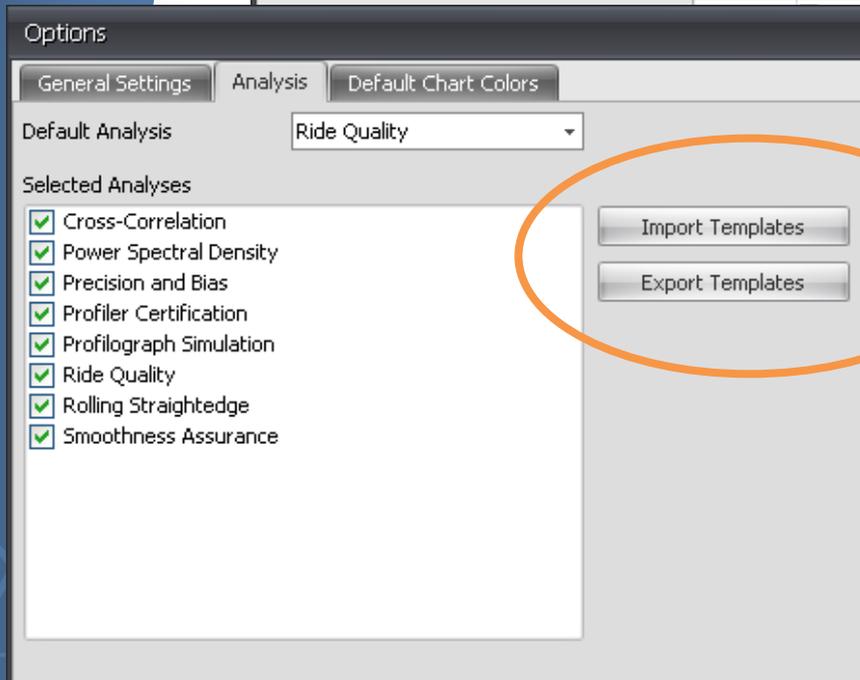
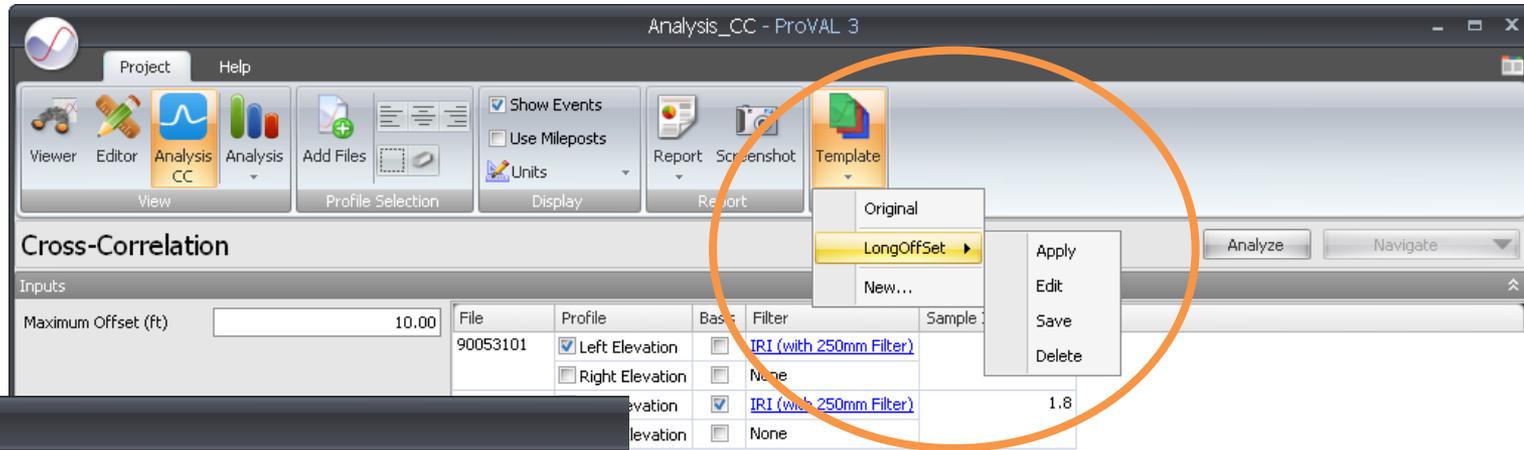
Start Distance (ft)	Profile: RElev	Profile: LElev
116.40	121.70	97.02
130.40	163.00	133.36
214.40	226.50	101.24
226.60	226.80	90.04
254.10	291.90	199.90
2,126.40	2,148.80	114.56
3,206.80	3,230.40	108.08
3,392.70	3,394.40	92.00
3,395.80	3,397.50	92.42
3,403.30	3,404.60	91.45
3,406.70	3,408.80	93.93
3,410.10	3,413.10	93.80
3,414.40	3,417.50	95.99

Input Settings/Template

- **2.7 - Input set is used to handle input settings.**
- **3.0 - An improved analysis template is used to manage input settings.**



Input Settings/Template



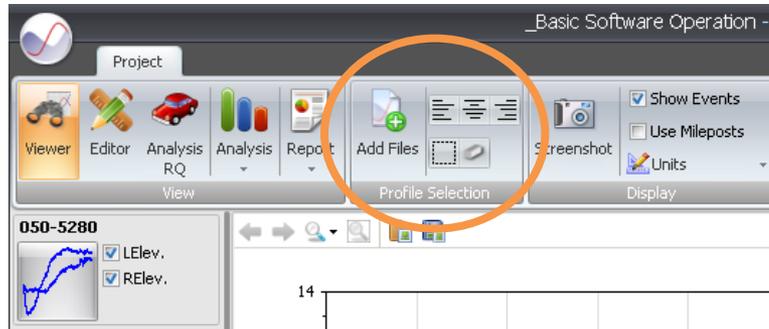
Easier Sharing Settings

File selection

- **2.7 - Users need to manually select files for analysis. Only limited numbers of files are allowed.**
- **3.0 - A file selector facility is used to speed up files and profiles selection. No limitation on number of file selections!**



File selection



Look trivial
but
Very handy



Milepost Display

- **2.7 - Mileposts can only be in increasing manner.**
- **3.0 - Users can define starting milepost and direction of travel (increasing or decreasing milepost) of a profile. ProVAL would then allow display of profile charts in terms of mileposts and in proper increasing or decreasing manner.**



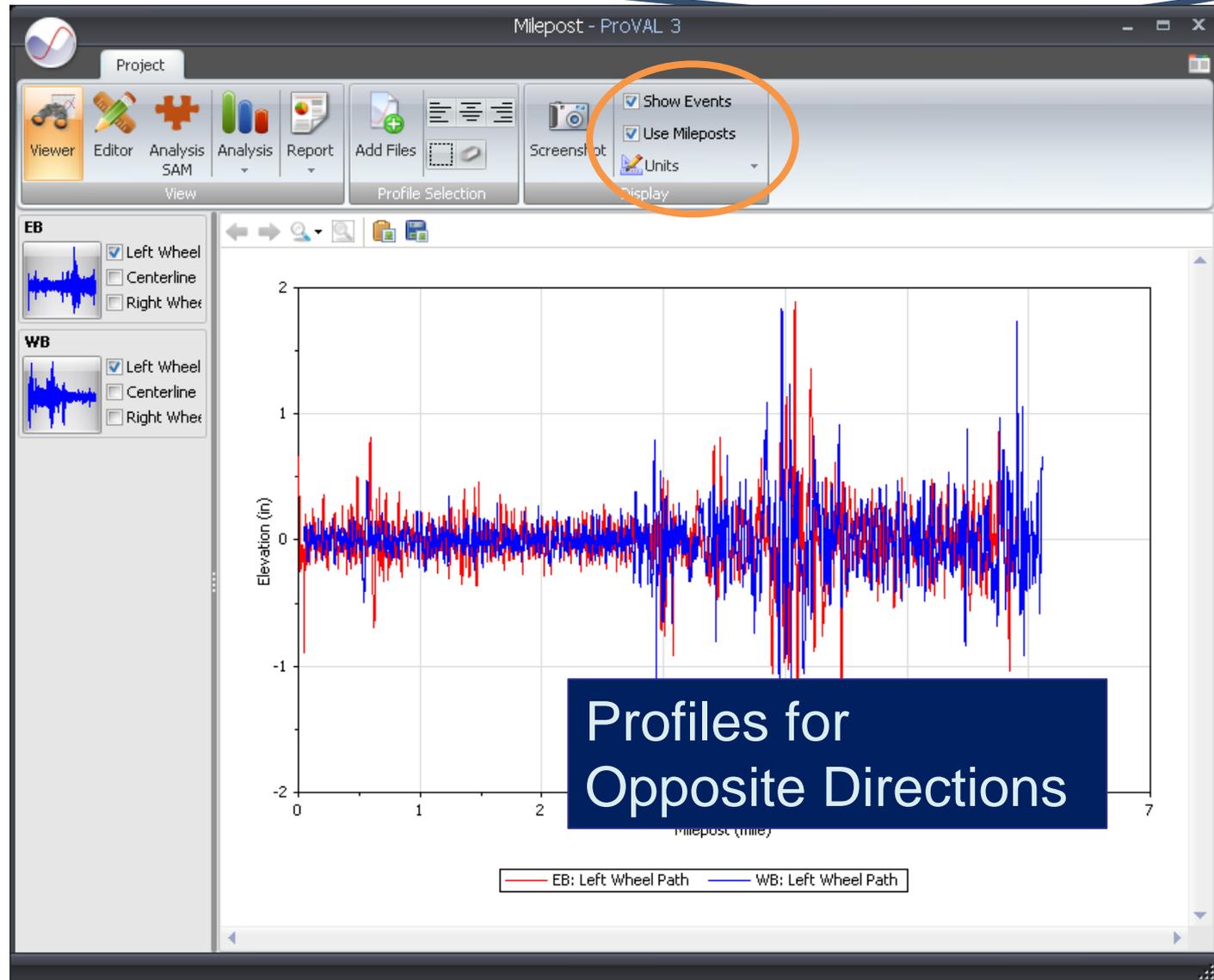
Editor

The screenshot displays the 'Milepost - ProVAL 3' software interface. The top menu bar includes 'Project', 'Viewer', 'Editor', 'Analysis SAM', 'Analysis', 'Report', 'Add Files', 'Profile Selection', 'Screenshot', 'Display', and 'Editor'. The 'Editor' panel is active, showing the following settings:

- Profiling Direction: Forward
- Sample Interval (in): 6.000
- Distance Offset (ft): 0.00
- Begin Station (mile): 0.0
- Left: [Dropdown]
- Right: [Dropdown]

A blue callout box highlights the 'Profiling Direction' and 'Begin Station' fields with the text: 'Profiling Direction & Beginning Station'. Below the settings is a plot showing 'ation (m)' on the y-axis (ranging from 0 to 2) and data points on the x-axis.

Milepost Display

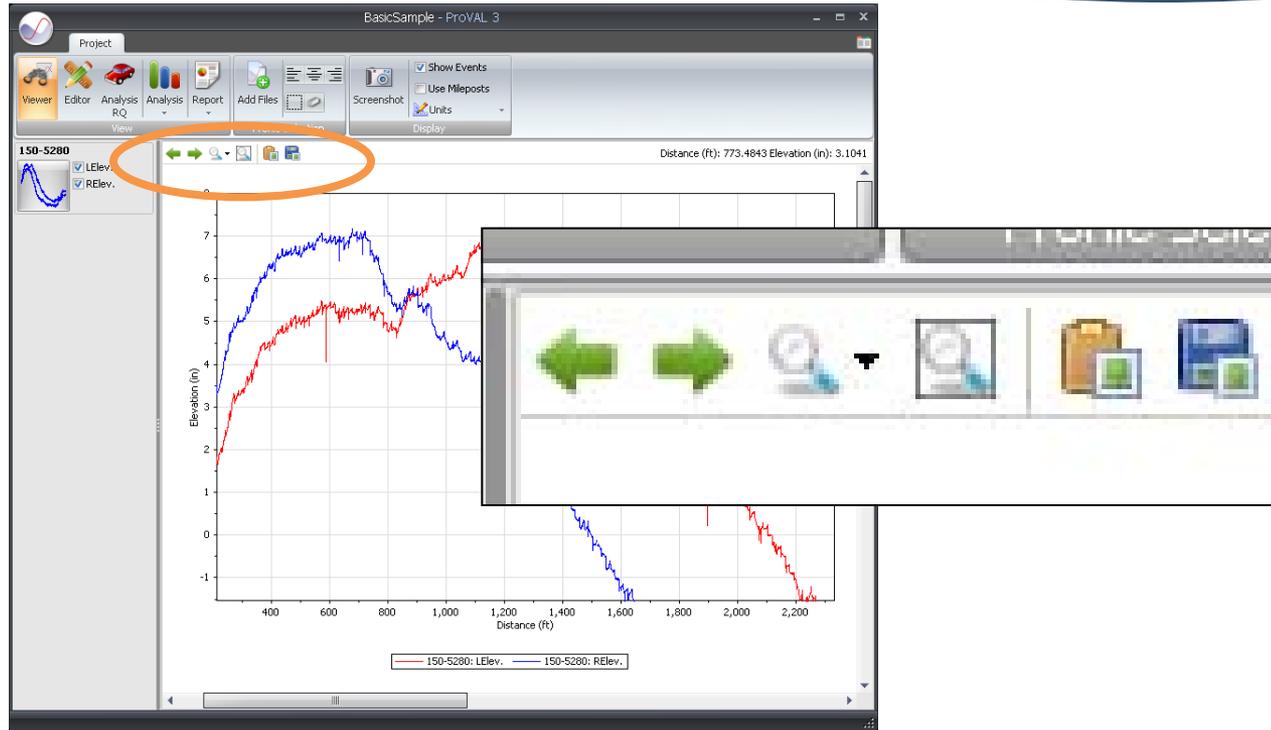


Charts

- **2.7 - Limited functions for chart controls. No charts for fixed interval reports and histograms.**
- **3.0 - Now all charts come with zooming, scrolling, panning, and zoom history support. Charts also are added for fixed interval reports and histograms. Grinding charts are added to highlight grinding locations.**



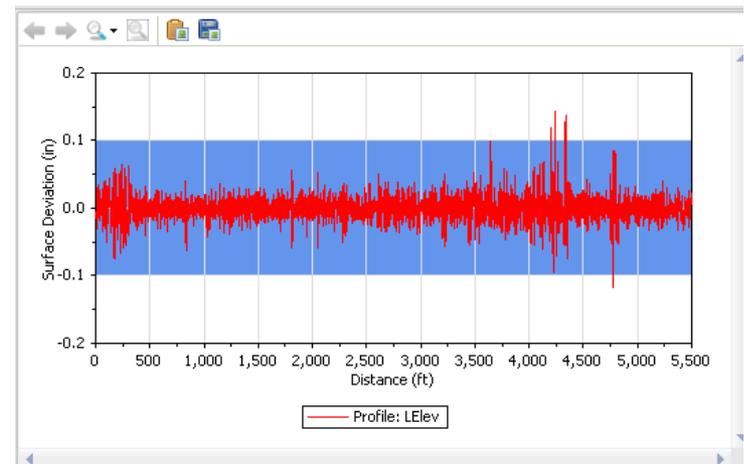
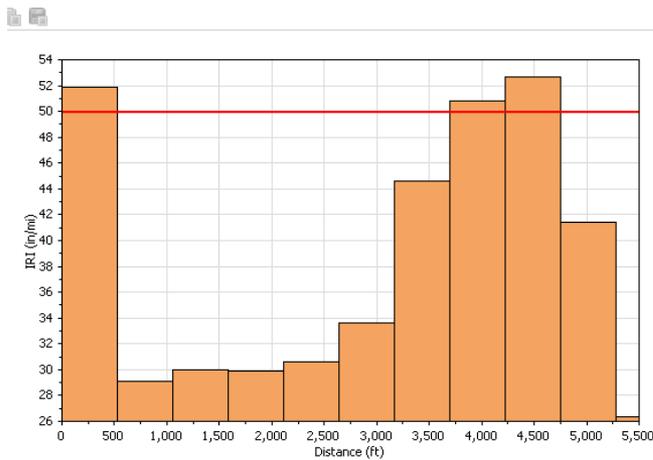
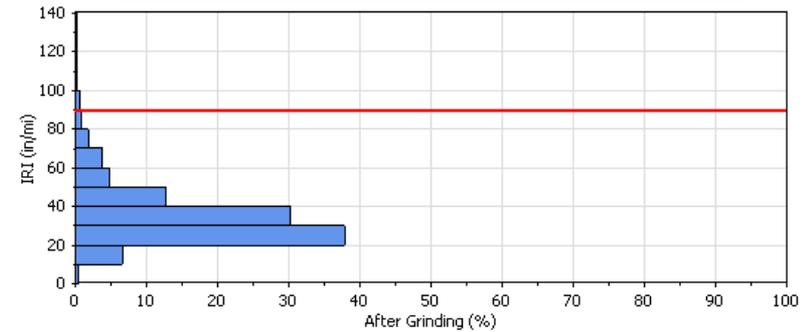
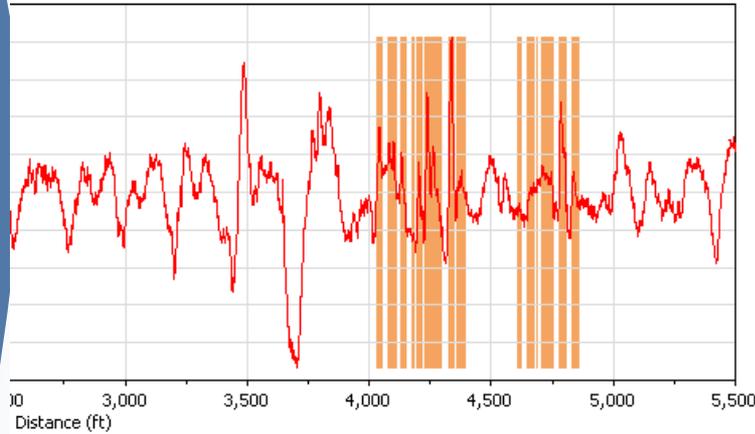
Charts



Many Chart
Enhancements

Charts

Many Chart Enhancements



Report

- **2.7 - Save reports in HTML format.**
- **3.0 - Generate reports in secured PDF format.**



Report



Analysis: Profiler Certification

Inputs

Maximum Offset (ft): 5.00
 Minimum Repeatability (%): 92.0
 Minimum Accuracy (%): 90.0
 Basis Filter: IRI (with 250mm Filter)
 Comparison Filter: IRI (with 250mm Filter)

Selections

File	Profiles	Basis	Run	Sample Interval
asphalt1	Left + Right	No	1	1.2
asphalt2	Left + Right	No	2	1.2
asphalt3	Left + Right	No	3	1.2
asphalt4	Left + Right	No	4	1.2
asphalt5	Left + Right	No	5	1.2
Wk BIT1	Left + Right	Yes	0	9.5

Results

Accuracy (%)

Run	Left	Right
1	91	92
2	91	92
3	90	93
4	92	93
5	91	94

Statistics

Statistic	Repeatability - Left	Repeatability - Right	Accuracy - Left	Accuracy - Right
Comparison Count	10	10	5	5
% Passing	100	100	100	100
Mean	98	99	91	93
Minimum	98	98	90	92
Maximum	99	99	92	94
Standard Deviation	0.5	0.3	0.7	0.7
Grade	Passed	Passed	Passed	Passed

Secure PDF Report

Software

- [ProVAL 3.00.0059](#)
- [Installation Guide](#)

Documentation

- [ProVAL 3.0](#)
- [ProVAL 2.7](#)
 - [General FAQ](#)
 - [Library](#)

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Welcome to ProVAL

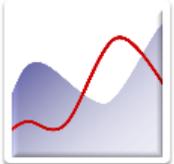
ProVAL is an engineering software application used to view and analyze pavement profiles. It is easy to use, yet powerful to perform many types of profile analyses.

The latest version is 3.0. Check out the [ProVAL 3 New Features](#) and [ProVAL 3 vs 2.7 documents!](#) [Contact us](#) if you have any training needs such as workshops.

Introduction to ProVAL:

[English](#) [Español](#) [華語](#) [华语](#)

FHWA ProVAL Team
Upcoming Events



8 Days Until:
ProVAL Workshop at LTRC

Nov. 10, 2009
Baton Rouge, LA

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ProVAL 3.0 Released

We are pleased to announce the official release of ProVAL 3.0. This was the longest beta testing period we can recall, so thank you for your patience. A flurry of issues arose near the end, so *please* read the [Release Notes](#) to see if you are affected by the changes. We also added a Known Issues section to the Release Notes.

The PPF file specification has been updated to **1.05**. How to handle Sections in PPF has been clarified, which will hopefully eliminate any confusion.

What's

Down

Updat

Templ

www.RoadProfile.com

the Analysis
are crashes.

ProVAL 3.0 Release Candidate 3 now available