



JAVELIN®
software by Weyerhaeuser

Release Notes

Javelin® software v5.3

Release date: March, 2015

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Description of Changes

For more detailed information, refer to the help file included with the program. To access the help file, use the Help menu.

Orthogonal Selection Mode (Ortho Mode)

Javelin's new Orthogonal selection mode speeds up the process of drawing the structure by forcing straight lines during the input, editing, and tracing processes. Most objects in blueprints/structures are horizontal or vertical, so forcing orthogonal lines prevents the user from mistakenly choosing incorrect snap points which will have to be fixed later.

To turn on Orthogonal Selection Mode:

- Set "Force Orthogonal Selection" to Yes under Setup>Program Settings>View & Selection>Snapping. This determines if Ortho mode is on or off when a job is opened.

Or

- Click the Force Orthogonal Selection button  on the Snapping & Selection toolbar.

Orthogonal mode limits what snap points are available to the horizontal and vertical axes from the control point. Orthogonal mode will also create a 'projected' snap point, a selectable point along the horizontal or vertical axes from the control point at the same distance away from the control point as a snap point that is not along these axes.

The control point can be:

- The first point selected during stretchy line input.
- The original location of a linear object's end point or an area object's end, side center, or center point during drag and drop of that end point.
- The original location of a point object's center point during drag and drop of that object.

Snap Point Shapes available for Ortho mode:

- Ends are squares
- Mids are triangles
- Centers are circles
- Intersections are Xs
- Perpendiculars are upside-down Ts

When drawing in Ortho mode and editing a rectangular object the system will lock one of the three points, and a visual representation will accurately display how the rectangle will look when the mouse button is released.

Factored Loads Display

You now have the option to display factored reactions to supports, in load path labels, bearings, and member reports. A new Job setting under Design>General Preferences allows you to select between Factored and Unfactored for the "Loading for Load Path Labels, Bearings, and Member Report." This setting defaults to "Unfactored."

When Factored is selected the following properties display for Bearings in the properties grid:

Factored Total Loads:
Maximum (LDF)
Critical (LDF)

Standard Loads	
Dead	-2.0
Floor Live	66.0 / -74.0
Roof Live (Attic)	0.0 / 0.0
Roof Live	0.0 / 0.0
Snow Loads	
Snow Balanced	0.0 / 0.0
Total Factored Loads (LDF)	
Maximum (LDF)	64 (1.00) / -76 (1.00)
Critical (LDF)	64 (1.00) / -76 (1.00)

When Factored is selected for the new job property, a new grid displays in the member report.

Factored Loads to Supports:

<u>Support</u>	<u>Max Down / LDF</u>	<u>Crit Down / LDF</u>	<u>Max Up / LDF</u>	<u>Crit Down / LDF</u>
1	197.5 / 1.00	197.5 / 1.00	- / -	- / -
2	1623 / 1.15	1623 / 1.15	- / -	- / -

When Factored is selected for the new job property, load path labels will display the maximum and critical values in new rows:

Transfer Reaction
TS1-3
Max Factored: 18196 (0.93) / - lb (-)
Crit Factored: 23196 (0.93) / -500 lb (1.00)
T: 1623 / - lb
(D+L+RL) /
D: 528 / - lb
L: 595 / - lb
LR: 500 / - lb
S: 500 / - lb

User Control for Updating Floor Member Spacing

You now have the option to only update the spacing for members in the floor container when the spacing property has been updated/modified. Typically, users have customized joist locations for mechanical or plumbing needs and would like to retain the locations of the joists while quickly modifying the depth of the floor system.

A new program setting has been added to Program Settings>Floor AutoFrame>Update Floor Members for "Update Floor Member Spacing." The choices are:

Always: always update existing member locations to match floor container settings. This is the default setting.

Only when spacing is modified: only update existing member locations when the floor container spacing property is changed (when using the Update Floor Members tool).

Redefine Left End

The previous Floor Redefine Left End tool has been converted to a General Edit command and has been moved to the Geometric Edit toolbar. This allows you to redefine the left end of other linear members, such as beams. The Roof Truss Redefine Left End tool will remain as is.



New Redefine Left End tool on the Geometric Edit Toolbar

To Redefine the Left End of a linear object:

1. Select the "Redefine Left End" tool from the Geometric Edit toolbar (or access this command by other means).
2. Drag a line over the ends of the members to define as the Left end
3. The system evaluates which side of each member's center point the line crosses and defines that end as the left end.

Note: If you trigger the Redefine Left End command with the members already selected the system sets the active end of each member as the left end

Output Material Lists to Excel

You now have the option to export material information to a Microsoft Excel® spreadsheet by means of the "Send Material List to Excel" option in the Output menu.

Once you have selected "Send Material List to Excel":

1. The Export Materials List dialog displays.
2. Check Off any materials you don't want to export.
3. Choose the Excel template you want to export to and click OK.

The software will open the specified Excel template when it is done. The material information is filled in according to the Name Manager maps, sorted alphanumerically, output in decimal feet.

Excel 2007 and up are supported. Each level will be sent to its own Excel file.

The available Excel templates include:

- Tally
- Tally with Pricing

You can also customize or create additional Excel templates to export the material lists as needed.

New Ability to Provide Direct Feedback on any Help Topic

The new **Send feedback about this Help topic** link at the top of every topic in the Help file allows you to send us suggestions about the contents of the Help file. If you feel more information is needed on a subject in order for you to master the software, if you think the presentation of the information is too hard to understand, or if you feel any of the information is in error, please click this link in order to tell us what the problem is.

This link will open an Outlook or other default email form. The Subject Line will automatically fill in with the title of the current Help topic. For example:

Feedback about this Javelin Help topic: Managing Customer Information

Notice also that the body of the email has been started for you:

Dear Javelin Documentation Team,

I have feedback about the above Help topic.

[Enter your comments here]

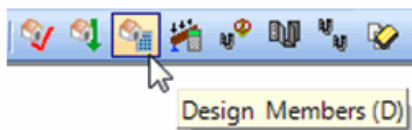
At this point you may enter any comments or suggestions.

Unfortunately, our email form does not yet support any of the third-party Webmail programs. But you may still give us feedback by opening your webmail program, filling in the Subject line with the topic title, and entering your comment into the body of the email.

Send your comments to this address: help.feedback@weyerhaeuser.com.

Miscellaneous

- The Design Members toolbar button has an updated look to provide consistency with other analysis tools.



- Hatch functionality has been extended to standard beams, standard roof beams, and roofline beams. Among the many advantages this allows you to distinguish between dropped and flush beams.
- The following notation has been added to member reports:
 - Member design (strength) is based on loads shown in loading section.
 - Pro Rating, if shown, is based on {0} o.c. spacing.
- The redraw performance for Snap Symbols and Cross-hairs during input and edit has been greatly improved.
- BDX import is no longer supported in Javelin.
- Cantilever checks have been added to the member report and design summary for deflection display.
- In order to improve PDF Trace Object performance trace objects are now created as one line/object instead of as multiple entities.
- A new Javelin Construction Detail Drawing has been added to the Misc folder. It is a QR Code to direct users to a series of videos about floor framing.



Material Changes

To simplify maintenance and increase efficiencies with use of materials in Javelin, we have modified and removed a number of materials for Dimension Lumber, Glulam and Sheathing.

Defects Fixed

The following defects were fixed in version 5.3 of Javelin software:

- The error message that displays when deleting the last consider list under an Application Category has been corrected.
- Bearing stress value differences are now considered for joist consolidation.
- A situation in which floor containers were not autoframing correctly has been fixed.
- An issue with the placement of web stiffeners for point loads over 1500 lbs over flush supports has been resolved.
- The software has been updated for how the low end "adjusted" bearing endpoints are set for roof beams and roof joists. The software uses the actual input bearing length instead of the supporting member width.
- A tolerance has been added to the 1" cantilever length check in order to avoid potential problems with Javelin.
- Hatching is now respected in the Print to PDF functionality.
- Web stiffeners triggered by point loads above clear spans are now properly analyzed by load combination.
- Struts are now properly reported for their Member Cut Length on the Member Report.
- The mirror command no longer increases the floor area by the opening size in the Geometric Output Report.
- Notes are now printing correctly in Print to Pdf. Boxes are now closing as they should and there is no text outside the expected area.
- A circumstance in which there were faulty moment and deflection results with a simple span over long supports has been corrected.
- Beams no longer shift when mirroring a job with beams drawn in a header.
- A situation in which members were using incorrect bearing stresses has been fixed. When a member (joist or beam) is bearing flush on a solid wall, the correct bearing value property will

be "Solid Wall Pocket." When a beam is supported by a wall pocket, the correct bearing value property will be "Vertical Member" and when supported by top of wall, the value property will be "Plate."

- A situation in which prescriptive hole analysis in 1.55E LSL returned an exception has been corrected.
- Duplicate Alternate IDs are no longer being sent during PMD export.
- When rotating a beam 180 degrees the beam's length no longer changes.
- A minimum SCL round hole size of 1/16th of an inch has been established. This fixes a situation in which the SCL hole design solution was not applied correctly to a small hole.
- License Manager no longer rejects certain valid email addresses.
- The critical hole solution property "Centerline Location" has been renamed to "Shear Location."
- In License Manger the Licensing Status now updates upon renewal.
- A Roof Point Load Magnitude issue in which the magnitude of the point loads from the apportionment part of the load was incorrectly increased has been fixed.
- TJI hole sizer logic and hole shear capacity based on hole size are no longer disconnected due to tolerance.
- Distributed loads with simultaneous negative and positive magnitudes no longer fail analysis.
- A situation in which downward CLL reactions in hybrid conditions created an unhandled exception has been corrected.
- A situation in which Bearing Length details/labels were being created away from the model 'in space' has been corrected.
- A situation in which changing a member with a Required Bearing Length Detail made the program terminate has been corrected.
- Load is now being correctly transferred/distributed to supporting members with parallel closure rim input spanning between two walls.
- Consider lists with multiple plies no longer causes incorrect hole design in Javelin.
- BIMXML now correctly imports wall members.
- The program no longer terminates unexpectedly during autoframe after rotating a job with a girder member.
- Exporting invalid objects to Forte no longer causes Javelin to terminate unexpectedly.
- Scrolling on material selection no longer turns all products on.

- A situation in which the program terminated unexpectedly when a wall member report was opened with a header present in the wall has been corrected.

System Requirements

- CPU: Core2 Duo 2.00Ghz 1066Mhz FSB
- L2 Cache: 4MB
- RAM: 2GB DDR or RDRAM
- Video: 1280x1024 256MB, full support for DirectX 9
- Mouse: Scroll Mouse
- Storage: 50GB free storage (average 6,000–8,000 jobs)
- Optical Drive: DVD Reader
- Supported Operating Systems:
 - Microsoft® Windows® 8.1 64-bit
 - Microsoft® Windows® 8 32-bit and 64-bit
 - Microsoft® Windows® 7 32-bit and 64-bit
 - Microsoft Windows Vista® SP2 32-bit and 64-bit

Note: The software only supports the English language version of Windows.

Recommended System Requirements:

- CPU: Core2 Duo 2.66Ghz 1066Mhz FSB
- L2 Cache: 4MB
- RAM: 8GB DDR or RDRAM (note that for 32bit systems the max is 4GB)
- Video: 1280x1024 512MB, full support for DirectX 9
- Mouse: Scroll Mouse
- Storage: 50GB free storage (average 6,000–8,000 jobs)
- Optical Drive: DVD+/-RW

Note: Testing has determined that meeting or exceeding these recommended system requirements will provide the designer with improved software performance across a broad range of file sizes.

Tips on Buying a New Computer:

When considering a new computer system to run Javelin® software, here are some points to think about:

- **Processor:** Processors have the biggest overall impact on the performance of Javelin software. Select the best processor you can afford. In general, it is better to select a processor with:
 - Higher maximum clock speeds - at least 2.93 GHz with automatic overclocking like Turbo Boost or Turbo Core technologies
 - Larger amounts of shared cache - at least 4MB
 - Integrated Memory Controllers
 - Compatibility with faster memory - DDR3 1066 MHz or faster
 - 2 or more cores
 - Recommended Desktop Processors
 - Intel: Any of the models in the i5, i7 and i7 Extreme families. Models in the Xeon family including E5520 - E5645, W3520 - W5590 and X5550 - X6550.
 - AMD: Phenom II X4 945, Phenom II X4 955, Phenom II X4 965
 - Recommended Mobile Processors: Intel i7-620M, i7-720QM, i7-740QM, i7-820QM, i7-840QM, i7-920XM and i7-940XM or AMD equivalents.

Notes: Multi-core processors may help improve performance when running multiple applications in addition to Javelin software. In newer processors with Turbo Boost like the i5 and i7 series of processors from Intel, you may experience better performance from Javelin software by disabling some of the processor cores and running the active cores at higher clock speeds. Hyper Threading technology can enhance the performance of Javelin software.

- **RAM:** In general you want to buy the fastest RAM you can afford which is compatible with your processor. 4GB of installed RAM is recommended for systems running 32-bit operating systems. At least 6GB is recommended for systems using 64-bit versions of the Vista and Windows 7 operating systems.
- **Operating Systems (32-bit versus 64-bit):** Designers who work mostly on single family residential projects in the 3,000 SqFt – 4000 SqFt range (4MB or less file size) probably do not have a pressing need for a 64-bit operating system. Designers who regularly work on large custom homes (12,000 SqFt or greater), multi-family and light commercial projects (file sizes of 10MB or greater) would benefit significantly from a 64-bit operating system.

Note: Before deciding to purchase a 64-bit operating system, you should consider the 64-bit compatibility of other programs you need to run, your company's IT Policies, and the availability of drivers for your printers and plotters which are 64 bit compatible. Not all 32 bit programs will install and run in the Windows XP Mode available for Windows 7 Professional, Ultimate and Enterprise.

- **Video Card:** In general it is best to avoid integrated graphics and select a professional graphics card that:
 - Supports multiple monitors
 - Has at least 512MB of dedicated video memory
 - Fully supports DirectX 9

- Intended for use with CAD applications

Cards based on the NVIDIA Quadro series or ATI FirePro series are intended for use with CAD programs. High-end graphics cards may be a worthwhile investment for a designer who regularly works on large custom homes, multi-family and light commercial projects to improve “Plan View” navigation performance.

- **Hard Drive:** Hard drive upgrades (for example, 10,000 RPM SATA drives) may help reduce the time to load or save a job, but provide little overall improvement to Javelin software performance for most users.
- **DVD Drive:** All new systems should be equipped with at least a DVD reader as Javelin software has moved to DVD as the standard install media for full releases. You should consider upgrading to a DVD writer as a means of cost effective backup and archiving of your Javelin software job files.

Javelin Program Settings Which May Affect Performance

Undo – Redo Level: Changing this setting to “Off” can reduce memory usage as well as speed up performance. For example, turning off Undo-Redo during plot cleanup allows each label and hex move operation to complete sooner because an undo save is not performed with the move of each label or hex. However, when operating without the Undo safety net you may have to do quite a bit of rework if you accidentally make an unwanted change.

Save Preferences\Auto Save: Auto Save can make some operations take much longer than expected. Turning off Auto Save or increasing the Auto Save interval can reduce the amount of time you wait for an auto save to complete. The downside to these adjustments is that you may lose work if you forget to periodically perform a manual save.

View and Selection:

- a. **Dialog Settings:** Changing this setting to “Always” can make the system seem slower as you are waiting for dialogs to display and close.
- b. **System\Prevent Label Collisions:** Setting this to “Yes” can cause dramatic slowdowns. Never turn this on with large jobs.

Warnings and Messages: Choosing to show all messages can make the system appear slower as you are waiting for message dialogs to open and close. Customizing warnings to only display messages you want to see can improve perceived performance.

Walls\Wall Update\Auto Renumber: Setting this to “Yes” can have a negative impact on performance.