MecaStack Revision History

Version	Date	Revision Description
v5600	4/14/2022	* Fix Update Issues & Redesign Update Window
		* Fix issues with missing TOC entries on Analysis Report
		* IBC Seismic use R =2 to be conservative for self supported and 3 for guyed
		* Fix some issues with STS vortex not working correctly when variable but Const_dia = true
		* Fix TMD Issues
		* Fix issue with Baseplate washer no retained
		* Fix problems with damping pad graphics and data not updating properly
		* Add validation for stressfac
		* Fix problems with Freq, Damping not updating correctly.
v5601	4/19/2022	* Fix TMD Phi incorect value issue
		* Fix riser weight issue
		* Fix incorect heights on Strakes and Dampners
		* Fix fatigue category not found issue
		* Fix struc flange gusset graphics issue
		* Fix shell buckling and stiff checks issue
		* Fix stiffening country profile incorrect issue
		* Fix multiple Stiffener Selection issues on window
		* Fix Multiple TOC on report issues
v5602	4/21/2022	* Fix NBR Calc St Values
		* Fix Report Crashing errors
		* Fix Pretension errors
		* Fix extraction saving guy wire info
		* Fix Messagebox Default Button issues
		* Fix Zs adjusted for Reference Elevation Issues
v5603	4/26/2022	* Fix Shape Factdor button on the Wind menu
		* Fix Aerodynamic Damping criteria when Euro wind used to force to use Euro for damping criteria
		* Fix some bugs with regard to stack height
		* Fix problems with missing TOC items
		* Correct wind conversion when using BS 6399 for wind
v5604	4/28/2022	* Fix mistake in nozzle pipe weight calculation, was too low
		* Address some validation issues with StrucFlange and Flange
		* Display Factor used in Insulation/Refractory weight table (Fac is used for External Insulation)
		* Changed reference elevations to be clearer
		* Change stack dimensions enter Stack Top Elev and also Stack Height

		* Fix speed issue
v5605	5/3/2022	* Unable to select stiffeners other than flat (Rings and Vertical)
		* Strake elevations in output adjusted twice for Ref Elevations
		* Fix User Input form for Structural Flange, no longer need to specify Radial you just enter either value
		* Ensure elevation entries are at least separated by the tolerance (0.1 ft)
		* Fix problem with platform override weight and wind area not being retained
v5606	5/13/2022	* Fixed Report TOC issues
		* Improved 3D Menu
		* Fixed Stiffening Rings issues
		* Fixed Strucure Shape issues
		* Fixed File Import Issues
v5607	5/18/2022	* Add check of Shackle capacity when Shackle used for Guy wire stack termination
		* Correction to include turnback at stack when shackle used, and correct Guy Hardware to match Length calculations
		* Correct way in which Nozzle Loads are transformed to Global System, accounting for orientation and tilt
		* Allow user to enter External Point Load Moments +/-, since sometimes - is worst case (i.e. stack supported higher)
		* Fix ASME STS-1 vortex to use converted ASCE 7-05 wind parameters
v5608	5/24/2022	* Fix thermal expansion when support isn't at the bottom of the stack
		* Fix some validation warnings
		* Fix some issues with Guy Lug validation
		* Vertical stiffeners on cones were not showing graphically correct
		* Baseplate Bolt material changes not being retained
		* Structural Flange, lookup not pulling Flange OD and when Flange Spec values changed change spec to None
v5609	5/25/2022	* Resolve speed issues with Breach, especially when Breach located in cone
		* Fix issue with graphics and vertical stiffener not always starting/stopping in right location
		* Fix issue with Breach cutout in shell graphic not always correct
v5610	5/27/2022	* Too many Breach related elevations being shown on 3D Model
		* Fix mistake made in converting between Struc Flange OD / Radial OD
		* Problem with application added a zero entry for diameter automatically
v5611	5/31/2022	* Fix problem with auto generation of Stiff Ring Elevations, and formatting of multiple elevations text
		* Stress code was always set to STS
		* Fix Diameter dual input issues
		* Correct upper warning limit for Euro EQ S from 1.4 to 1.6
v5612	6/1/2022	* Fix metric rounding issue with user input
v5613	6/7/2022	* Add guy wire termination info at Guylug
		* Fix Struc Flange Pre-load to match that stated in Shigley, add entry for bolt friction coefficient
		* Fix issue with Support Lug Chair weight, wind area and validation using baseplate info.
		* Breach reinf graphics not taking Ref Elevs into account for cylinder on detail screen
		* RefElevs not being reflected property in ASCE 7 wind and Kz was adding base distance twice

		* Vortex Shedding Euro when simplified method selected then only first mode can be checked, add validation
		* Problem with vertical stiffener graphics not reflecting top/bot elevation correctly
		* Fix Euro Seismic validation to allow values S <= 1.8 without a warning
		* Fix some validation issues on guy wire updating the guy lug button
		* Limit the elevations on Nozzle/Breach in graphics to not show all Elevs used in analysis
		* Fix bug where cone would pass because there was a stiffener, even when there was no stiffener
		* WRC 537 adjustments made after unit testing added
v5614	6/10/2022	* Fix problem with Structural Flange Bolt load (Fi was too high) and torque
		* Fix some FileIO issues with Seismic Euro and Seismic Response spectrum when opening old files
		* Fix Baseplate wind area when support lug selected
		* Add GuyLug Pin Dia to window for reference
		* Add Cable properties for Wire Rope 6x36 EIPS
		* Fixed some values of BS for Wire Rope W6x36, that was based upon metric tons rather than tons (Conservative)
		* Fix problem with ASCE 7 wind conversion for Vortex Shedding, the category was always III
		* Fix some cable areas that were not correct
		* Fixed strake pitch in output, it was adjusting for RefElevs.
		* Fix Guy wire info being lost
		* Corrected Bolt Yield stress in database
v5615	6/24/2022	* Baseplate add validation for Fw when entered too large
		* Correct NBR 6123 Elevation units and validation for S1
		* Fix Baseplate material issues
		* Fix Guylug to be considered as a stiff ring if Ring Thk OR Reinf band > 0
		* Improvements to CICIND and Euro vortex checks
		* Nozzle loads fix Fx and Mz signs to be additive with wind loads always
		* Guy Lug model errors
		* Fix Guy wire File IO issues
		* Clean Up EQ validation
		* Fix warning for EQ_Response
		* Fix Struc Flange Plate validationuusing wrong bolt dia
		* Fix Baseplate spacing Ratio not triggering Red/Green in TOC
v5616	7/6/2022	* Guy Wire Hardware show pretension for each cable
		* Fix issue where stiff rings failing but showing green (pass)
		* For guyed stacks include consideration of Cold Allowables (Was using Hot everywhere)
		* Change graphics to default to Flat, so reflection not shown
		* Fix layer for Jacket
		* Fix Bolt material because it wasn't updating in Basepalte
		* Baseplate pretension load was messed up, should have been stress not load
		* Fix NozzleLoads global transformation when loads were applied in global coordinate system

		* Fix average weight problem where baseplate could be included in top 1/3 average
		* Fix graphics issue with multiple nozzles in cylinder at same elevation
v5617	8/2/2022	Fix issue with Graphics on Windows 7
		Spelter hardware not always finding correct socket for metric
		Make it so that when Guy Termination Custom selected that no validation checks performed
		Fix baseplate so that when bt/Lt <1 that it calculates correctly
		Fix External Load signs for nozzle and external loads to be consistent
		Fix problem with Breach vertical stiffener not being checked
v5618	8/5/2022	Fix speed issue with forms loading slow
		Add ASCE 7-22 as option for wind
		Add ASME STS-1-2021 to Stack Comprehensive Standards
		Add NBCC 2020 for Wind, Stress and Seismic options
		Fix help with Design Codes