

## CADfix 12SP1 Data Exchange Fix Change Notes

**Change Notes for CADfix 12SP1 as a brief summary of each fix arranged under their respective Problem report number(s):**

28655	Fix a couple of places where the special filename <new> needs to be handled to suppress unhelpful messages
28603	Use the new minLength STL export parameter (if defined) to also control MINRAD.
28559	Add new SETA/R INSIDE for test if points/nodes are inside a surf(s) or body(s).
28527	Parasolid export should be using the Parasolid knot tolerance to compute NURBS knot multiplicities
28459	Truncating closed NURBS curves needs to be more careful
28428	The standard FileSelect code now attempts to change just the file extension when the file type is changed.
28424	Don't open the rarely used perpendicular pick list if you have some faces selected when you open the delete features tool
28400	Make the file save dialog ask for confirmation in save mode. Add new -overwrite option to skip this question if not needed
28361	When drawing shaded surfaces no longer also draw wireframe surfs as hidden to the databuffer
28330	Don't reset the swept body offset distance every time the tool is opened
28329	Upgrade the create-by-sweep functions to allow sweep distances to be lower than GTOL.
28325	Truncate the NURBS line before reducing knots.
28259	Set the loop tracing seed and gate colours so we can see how the loop was created and forced
28224	Extend the rotate-as-wireframe to support an 'Auto' mode that drops to wireframe for segments that take 'too long' to render
28224	Expose the new 'Auto' mode for the framerate control that drops to wireframe if image is slow to rotate.
28198	Allow an existing dvapp to be turned OFF while still preserving its priority level and not having to supply all its parameters again
28182	Switch drawing of point and node symbols to the databuffer so they use the much faster vgl 'pnt' primitive
28176	Add support for import SolidEdge models
28170	When the 1st surf or body is created in a model don't remove ELTY/MSTY settings on line and surfs
28162	Don't throw error on hyper-multiple knot, just go ahead and remove it.
28146	When opening a .frm file allow shared access so that we can open the same results database in more than 1 cadfix session
28138	Add an optional pallet of extra selection tools that can be user configured.
28088	Fix the assembly tree unscale/unmirror code so that it removes any translation component before exploding the scal/mirror.
28035	Add MAXLENGTH option to FRGFIX DECIMATE.
27996	Expose the new 'Min. facet length' control in the export options dialogs for facet-based exports like STL, FBX, 3DS, etc...
27996	Expose control over the LENMIN dvapp when generating facets for export.
27911	Add option controlling whether probe selection palette should be minimised
27893	Fixed issue whereby a Custom scan was wrongly scanning all the previously set tests
27882	Don't initiate a screen pick when automatically raising the modelTree tab on opening an assembly model
27868	Re-work the default FTOL calc to be based on an average of the largest body diameters in the model
27866	Add more digits and trailing 0s to probe and measure tool output
27864	Make it more obvious that the centroid is the default origin unless a point is picked
27806	Extend XASG command to support a new AUTO-ASSIGN option for COLOUR properties
27806	Switch to using the new XASG AUTO-ASSIGN command to assign random colours to parts
27789	When sag refinement is 'off' then zig-zag checker still needs a meaningful sag limit
27774	P-curves were not being cancelled after a surf was modified when some of its lines got joined
27763	Extend MOVE command to support TRA and ROT ops on the TRFMs contained in a SUBS entity
27763	Extend the new reorientation of the model on import to be a Wizard cwc option and a preference
27763	Add a new manual tool for 'Reorient the model'
27755	Fix infinite loop
27736	After loading a cwc in PPS tool ensure the options widgets are updated
27701	Fix (I think) the mismatch between pnt-pnt frog vertex normals between boundary and interior points.
27656	Improve Wizard Transform failure messages to make it clearer it failed and processing was aborted
27656	Must checkout the Morph import file licences during a batch run.
27628	Use original definition of cylinder, cone, plane, torus shapes created by a bool operation (if unchanged and def can be found).
27609	Find and fix folds at the end of CVTTRI
27607	Make CVT work for TR6 meshes.
27601	Implemented DIV <set> RULE ADD/REMOVE command
27564	Corrected selection of diagnostics tab
27564	Don't allow probed parts to be scanned unless the diagnostics tab is raised

27552	Exposed the new Creo import option to control if facets are imported for missing accelerator parts
27541	Fixed issue whereby an tool read from an external file (.ctl) was not named
27503	Make sure the Locale is set to standard 'C' before doing anything with pdelib as non-standard locales
27462	Optimise the very common action of SETR <set> ALL
27394	fix missing '+' as continuation line character in nastran files.
27390	Additional fold test for MREF2D, using surface normals at the vertices shared by neighbouring facets.
27382	Changed the printing format for the histogram scale labels to use scientific number notation
27339	If line morphing fails in LSIM deform, try to fit a c-spline instead.
27316	Fixed GUI bug due to invalid widget path specification
27311	Must update the import options before scanning so cwc values are picked up
27311	The assembly tree scan no longer uses " chars around strings
27311	Add support for scanning the assembly tree from a V4 .model file. Re-structure the scanning code so it can be called from cwi
27291	Make the PROX2D dvapp work on zones.
27255	Infinite radius of curvature (i.e. planar) regions should not be treated as a failure in curv/turn dvapps, aborting meshing
27233	Creo 5.0 export was not in Export menu, and also Creo 4.0 was showing the Native format when only 5.0 can have that
27184	Modifications to speed up PROX2D DIVAPPS and others.
27165	Command to fix number of divisions on two sided faces.
27163	Added some error checking when writing a .bmap file to prevent bad output
27159	Self-intersecting loop fix was not fully fixing some cases where a t-junction split left duplicate lines in a face
27136	Don't write frog label when exporting an open frog as well as when exporting a closed frog
27125	Enable the swept and spun body building tools to redefine an existing body
27106	Enable the 'Collapse points' tool to pick free points to use in collapse ops
27092	Don't auto-WIPE the build set from display when still using Transform tools
27025	Add trap to catch testing a name that is too long.
27000	Added more display logic so that selected entities are displayed in more cases
27000	Re-instated reference to a pick set in transform split tools.
26982	Fixed issue where filtered items were still being processed
26974	GUI was expecting inch model to have units specified as 'IN' when should be 'INCH'
26941	Fixed issue with surface refit option 'Pick corners'.
26919	Fixed issue with box simplification of a group of components
26881	Modified the exact NURBS line joiner to skip over degenerate input lines.
26876	cwi did not properly support an input line being a combined line (ITSIDE).
26872	Write a warning if going through PRTEQ but no element quality tests are enabled
26872	PRTEQ now always calculates combined test values wrt current weights
26859	CWC file written by CADfix PPS was wrongly specifying STEP when should be GenericSTEP
26842	Make sure the user's filename is actually what the wizard export process will use!
26840	Also update the attribute retention flags when loading a CWC file
26840	wizard settings need to be updated BEFORE you save the cwc else the current values are not recorded in the cwc
26823	Add missing STL, 3DX and FBX systems to the licensed list of exports for PPS
26823	Don't attempt to retrieve systemsMenu data if fam pid is 0
26775	Re-instate 2004 as a valid DXF export version
26769	fix infinite loop in msh3swp in rare sparse mesh condition.
26765	Changes to allow 'Scan this criterion' to work while recording a macro
26705	Added implementation of EQAL ORTH element quality test
26704	Added the three new quality tests to the PRNT EQT TEST <test> syntax
26704	Added EQAL RADI test and EQAL ERIK test. See cases 26704 and 26703
26649	Fixed GUI error in 'modelTree;selectHidden' when list of hidden parts is empty
26649	Enabled 'Select all hidden' option in PPS mode
26647	'Match case' checkbox now works when matching a label without a wildcard character
26646	When deleting entities in a component switch to delete-all action to also remove child entities
26643	When changing filetype of snapped image reset the file name
26642	Only allow FROG shapes to be selected in PPS mode when picktype is shapes
26611	Allow principal plane creation to work from user-specified coordinate.
26605	No tolerance ball displayed for PPS and other simplified products
26601	Introduced new .cwc option 'purgeFiles'
26600	Look for far-field faces in the MDL- set, not ALL
26553	Reset some global variables when processing multiple models in batch
26415	Added an additional refinement stage in MREF2D for DELQ with expansion factor
26395	LSIM to ARC now uses new ARCONLY option to ensure arc lines are created where possible
26288	Added PRNT ANG <line1> <line2> subcommand.
26251	Don't delete FLITE sources when deleting everything NOT selected
26132	When polygon pick stopped by a keypress event then extra care needed to restore previous popup menu
25825	Relax umbilic test when discriminant is negative.

25712	Verify that the user-entered export file name is correct before export.
25528	Corrected issue with small body deletion after some parts have been filtered
24759	New command, PRNT NAMES <type>, which prints all the names of a given type
21282	Re-work the dashed line patch so we can draw high quality dashed lines (slow) or the original (faster) low quality dashed lines.
18649	Re-work the deletion logic to make it more consistent and body-friendly
16286	Add new IFC import system
3245	Remove FAMERRs when a NURBS fails to export to Parasolid.
2885	Add new VRML export. Similar controls and operation as for XGL.