

TSS / SAT Update Summary

Version	Date	Description	Affected Applications
13.01.3138	5/16/2012	New Release	All applications
13.01.3138	5/15/2012	Updated installers to put version 8.0.50727.6195, dated 6/27/2011, of msvcr80.dll and msvcr80d.dll in TSS_WIN/dynamic.	Installers
13.01.3137	5/14/2012	Updates to SINDA Output Options form in Concap: - Initial IDs now default to 1 instead of 0 - Group box "User Constants" is now "User Defined"	ConCap
13.01.3136	5/14/2012	Concap's LIST/CONDUCTOR was not outputting conductor information. Fixed by updating GLIST command to support /BOTH as an equivalent to /ALL.	ConCap
13.01.3135	5/14/2012	Updated Concap to support the Windows' color names.	ConCap
13.01.3134	5/14/2012	Fixed a problem in SindaWin where the Include files were being written in the temp directory instead of the work directory. Also fixed a problem with the icons on the Output tab.	SindaWin
13.01.3133	5/14/2012	Fixed a divide by zero error that would occur if SindaWin was run on a system that had more CPU cores than Sinda was licensed for.	SindaWin
13.01.3132	5/7/2012	New Release	All applications
13.01.3132	5/4/2012	Corrected a problem where the Dataset form blanks out the previously specified dataset name when selecting Cancel.	ConCap
13.01.3131	5/3/2012	The Heatrate file selection dialog will now validate that the orbit dataset in the specified Animation matches the selected orbit dataset.	Heatrate
13.01.3130	5/4/2012	Added surface names to error messages.	FECC
13.01.3129	5/4/2012	Added surface names to error messages.	ConCap
13.01.3128	4/30/2012	New Release	All applications
13.01.3128	4/27/2012	Column headers were added to Optics variable property table forms.	Geometry
13.01.3127	4/27/2012	Added a new LIST command qualifier/feature named VALIDATION. This List feature will validate the parameters defined for all objects, as well as verifying optics and material property names. If any discrepancies are found, they are listed for troubleshooting.	Geometry
13.01.3126	4/26/2012	Improved the load time performance for Symbol View for models with a large number of symbols defined in Geometry.	Geometry
13.01.3125	4/16/2012	New Release	All applications
13.01.3125	4/13/2012	Added the new SCIENTIFIC option for the NASTRAN to TSS translator in the GUI as a checkbox.	NASTRAN to TSS Legacy Translator

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13.01.3124	4/13/2012	Added a new command parameter named SCIENTIFIC to the NASTRAN to TSS translator. This option will output all values translated from NASTRAN using scientific notation in the the TSS Geometry file. This is used so that very small numbers are represented accurately. Prior to this update, small numbers were being converted to zero.	NASTRAN to TSS Legacy Translator
13.01.3123	4/13/2012	Updated nastran_to_tss to support FEMAP outputted bulk data decks with scientific notation that doesn't use the 'E' format (1.234-7 are treated as 1.234E-7).	NASTRAN to TSS Legacy Translator
13.01.3122	4/11/2012	The Command Language help file is now accessible from LaunchPad's context menu via the Other Application's submenu.	LaunchPad
13.01.3121	4/10/2012	The 64-bit installer was updated to include 32-bit DLL's required to run 32-bit Legacy applications.	Translate
13.01.3120	4/6/2012	Additional application PropertySheets were updated to use a new LIB requirement. This is a continuation of update 13.01.3118.	Animation, ConCap, FECC, FEM, Geometry, Heatrate, Heatsource, Image, launchPad, Mesh, Orbit, Radk, SATSTRAN, Transfer, XYPlot
13.01.3119	3/30/2012	The TRASYS to TSS Legacy Translator process was modified to use TSS_TIME when creating its temp directory.	Translate
13.01.3118	3/30/2012	Command Line processes would not run if the working directory is a UNC path (\\server\folder). Legacy translators and SINDA/FLUINT launch processes were modified to identify UCN paths and to attempt to temporarily map the UNC to an unused drive letter (such as Z:) for the duration of process.	Translate and SINDA/FLUINT
13.01.3117	3/26/2012	UNDO now included in Autodraw.	Geometry
13.01.3116	3/27/2012	New Release	All applications
13.01.3116	3/23/2012	- Added GUI interface for list/node_coordinates command added in update 13.01.3103. - Enabled the Object List selection radio buttons on "List Node Correspondence" and "List Node Data" forms.	Geometry
13.01.3115	3/21/2012	Simplification of Linux source code on Windows.	Linux Animation, Radk, Heatrate, Orbit
13.01.3114	3/20/2012	Updated additional applications to use the new custom ToolTip control.	Animation, LaunchPad, Satstran, Translate
13.01.3113	3/19/2012	Corrections to update 13.01.3105.	Linux Animation, Radk, Heatrate, Orbit
13.01.3112	3/19/2012	Updated additional applications to use the new custom ToolTip control.	Heatrate, Heatsource, Image, Orbit, SINDA, Transfer

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13.01.3111	3/16/2012	Updated additional applications to use the new custom ToolTip control.	ConCap, FECC, Mesh, Radk, XYPlot
13.01.3110	3/14/2012	<p>Geometry UI enhancements:</p> <ul style="list-style-type: none"> - Updated Geometry to use the new custom ToolTip control. - Added a new Tools->Options->Global tab with a control to set the new custom ToolTip's display duration. - Updated the Comments field on the Object input forms to let the user control the row count of the expanded comment field. Also added the ability to always show the comment field expended, or to display it in 1 row and expand when active. - Added new controls on Tools->Options->User Interface to control the comment size and always expanded. 	Geometry
13.01.3109	3/12/2012	Created a custom ToolTip control to make it easier to set the ToolTip display duration. Instead of having to manually set each tooltip's duration, the custom tooltip looks up the duration via the registry.	Space3Dcontrols.dll
13.01.3108	3/12/2012	Fixed a problem in the tree where the cached parent nodes were not getting cleared out when the tree was cleared out. This caused problems when the tree was reloaded/refreshed.	FEM
13.01.3107	2/20/2012	New Release	All applications
13.01.3107	2/17/2012	Corrected Triangle surface input form to enable Node ID list for double-sided node numbers.	Geometry
13.01.3106	2/16/2012	This update corrects a problem observed in the TSS graphics when the graphics quality is set to HIGH where the foreground color of all triangles were not set when constant color mapping is on.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, Transfer
13.01.3105	2/16/2012	Added support routines for Multithreaded programming.	All applications
13.01.3104	2/16/2012	<p>Added new BOOLEANS qualifier for the PICK command. It picks an object as well as all of the booleans associated with it. Format:</p> <p style="padding-left: 40px;">PICK/BOOLEANS object</p> <p>Geometry's tree has been updated to add a "Pick Booleans" option in the context(right-click) menu. The existing "Booleans" option was renamed:</p> <p style="padding-left: 40px;">"List Booleans"</p>	Geometry
13.01.3103	2/6/2012	New Release	All applications

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13.01.3103	2/3/2012	Added a node coordinates LIST function to output Sinda node x- y- z-coordinates in specified units. Currently available on Command Line only (view report in the Console). Will be added to UI soon. Command format: list/node_coordinates/length=uom/all	Geometry
		Also updated node data LIST function to have a header record and to also support the optional length qualifier. Length field added to UI.	
13.01.3102	2/3/2012	Comment fields on object edit forms now always show multiple lines.	Geometry
13.01.3101	2/2/2012	This update corrects a problem found in the 3D boolean section of the TSS graphics where the gamma wrap of a base 3D surface caused facets to be processed incorrectly.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, Transfer
13.01.3100	1/28/2012	This update corrects a problem found in the 3D boolean section of the TSS graphics where facets could be identified as within a boolean boundary instead of outside it when one of the sides of the facet is coincides with part of the boolean boundary. This condition can could cause additional facets to become visible when they should not.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, Transfer
13.01.3099	1/30/2012	New Release	All applications
13.01.3099	1/27/2012	Updated SatstranWin to remember the path to the last opened dataset.	SATSTRAN
13.01.3098	1/25/2012	Fixed a problem where Orbit would crash when first launched on some system configurations.	Orbit
13.01.3097	1/23/2012	New Release	All applications
13.01.3097	1/20/2012	Updated the code to handle Booleans for paraboloids.	Radk, Heatrate, Mesh
13.01.3096	1/20/2012	Removed ansa.vbs, mkwork.vbs and nastran.bat from installers.	Installers
13.01.3095	1/20/2012	Updated Satstran to run under .NET control instead of nastran.bat.	SATSTRAN
13.01.3094	1/20/2012	Changed the icon colors for Translate so it would be diiferent than Transfer.	LaunchPad
13.01.3093	1/20/2012	Replaced the 'padding' icon in LaunchPad Utilities with Translate (legacy).	LaunchPad
13.01.3092	1/20/2012	Added a 'padding' icon to LaunchPad Utilities to keep window size from being too small.	LaunchPad
13.01.3091	1/9/2012	Included a better 48x48 icon in for LM Tools in LaunchPad Utilities.	LaunchPad
13.01.3090	1/10/2012	New Release	All applications
13.01.3090	1/9/2012	Changed LaunchPad's desktop shortcut to read "Spacedesign LaunchPad".	LaunchPad
13.01.3089	1/9/2012	Added a Utilities group, containing LMtools, to LaunchPad.	LaunchPad
13.01.3088	1/6/2012	Fixed issue where "radks kept" was being output as 0 due to the use of a "long long" integer. This was caused by Microsoft requiring a non-ANSI compatible format prefix of "ll" for printf commands.	Radk

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13.01.3087	1/6/2012	Added checkbox to installer to place a LaunchPad shortcut on the desktop. Option is checked by default. Due to a bug in Visual Studio, this option cannot be "unchecked" during a command-line (silent) install.	Installers
13.01.3086	12/29/2011	Increased MXLINS (maximum line count) from 20,000 to 2,000,000.	SATSTRAN
13.01.3085	12/29/2011	Removed STOP introduced in update 13.01.3063, and added machine type 23 for 64-bit Windows.	SATSTRAN
13.01.3084	12/23/2011	This update corrects a condition in the radk contour code where it is possible that two contours could point to the same contour set but starting from different vertices. This can cause a fatal error to occur if entire contour system is deleted.	Radk, Heatrate, Mesh
13.01.3083	12/23/2011	GUI interface added to Mesh Part form for UNIVERSE, ADJACENT_TEST_ON and ADJACENT_TEST_OFF commands added in updates 13.01.3077 and 13.01.3078.	Mesh
13.01.3082	12/23/2011	This update corrects a problem seen in the boolean contour code in Radk and Heatrate where open boundaries could be accidentally skipped while processing the boolean chain in the contour code.	Radk, Heatrate, Mesh
13.01.3081	12/23/2011	This update corrects a problem seen in the boolean contour code in Radk and Heatrate during the handling of the intersection of a base planar surface and a boolean 3D quadric surface when the unbounded intersection forms two parallel lines.	Radk, Heatrate, Mesh
13.01.3080	12/23/2011	This update corrects a problem seen in the boolean contour code in Radk and Heatrate where the contour base of a base ellipse could be created incorrectly due to the flawed conversion of an ellipse's gamma angles.	Radk, Heatrate, Mesh
13.01.3079	12/23/2011	This update corrects a problem observed within the 3D boolean rendering section of the TSS graphics where the failure to properly determine which of two boundaries were nested within the other can cause the appearance of a base surface to be incorrect.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, Transfer
13.01.3078	12/22/2011	This update adds the ADJACENT_TEST_ON and ADJACENT_TEST_OFF commands to the MESH application's command set. The two commands toggle on and off the checking of surfaces adjacent to each octcell when determining its composition so that points and edges between adjacent cells match up more closely. This adjacent surface check is new with this update. Neither command has qualifiers or values, the default is ON.	Mesh

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13.01.3077	12/22/2011	<p>This update adds the UNIVERSE command to the command set of Mesh. Prior to this update, the center point of the bounding box or universe that surrounded the geometry model and was used as the basis for meshing the model was determining automatically. The UNIVERSE command will allow the user to set the center point manually. By default, the center point is calculated automatically unless specified otherwise by the user.</p> <p>To manually set the center point, the user types in: UNIVERSE x y z length_unit where {x,y,z} are the coordinates of the center point and length_unit is unit desire which can be meters, cm, feet, or inches.</p> <p>To reset the automatic center point calculation, the user types in: UNIVERSE/AUTO</p>	Mesh
13.01.3076	12/22/2011	Enabled the Screen Output option and the File selection button (the '...' button) on the Radk Output form.	Radk
13.01.3075	12/19/2011	This update corrects a problem encountered during the processing of an open boundary in the contour code where an endpoint of the boundary that was located on the boundary of a position area was instead evaluated as located inside the boundary of the positive area, incorrectly changing the final results.	Radk, Heatrate, Mesh
13.01.3074	12/16/2011	<p>Multiple updates to FEM:</p> <ul style="list-style-type: none"> - Support for Material properties - Save Image to File - Map Sets of data over Time, with Gain - Database improvements - Nastran output improvements 	FEM
13.01.3073	12/16/2011	<p>Multiple updates to Sinda:</p> <ul style="list-style-type: none"> - Trapped error when deleting temp directory. - Options->Syntax Highlighting has new settings for "Warning" - "Run Model" summary now uses Syntax Highlighting settings. - Fixed crash when converting an empty text tab into a grid. - Grid context menu has new options for: <ul style="list-style-type: none"> Insert Multiple Rows Add Column Delete Column 	SINDA/FLUINT
13.01.3072	12/16/2011	This update removes the remaining periods from the database names used by anim_cl, heatrate_cl, orbit_cl and radk_cl on Linux. See also updates 13.01.3037 and 13.01.3038. This enables cross-platform database usage.	Linux Animation, Radk, Heatrate
13.01.3071	12/8/2011	New Release	All applications

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13.01.3071	12/7/2011	This update corrects a problem observed during the output phase of the Mesh application when an octcell was not broken down correctly when instructed to break one of its vertices away. The resulting two pieces has a slight overlap in volume due to one the remaining part of the cell not processing a face correctly.	Mesh
13.01.3070	12/7/2011	Renamed manual "Sinda 43C App.pdf" to "Sinda 43C Appendices.pdf".	Installers
13.01.3069	12/7/2011	Installer now supports 'silent install' using msiexec /quiet option. Custom set-up window to copy example files was modified to use radio buttons instead of checkboxes, allowing this step to be overridden. The commands with options are listed below. Setting OPTIONALSTEP=0 will skip copying the example files. Setting OPTIONALSTEP=1 will copy the example files, causing the custom set-up window to pop-up (requiring user input).	Installers
<p>Use this to install in quiet mode for 32 bit:</p> <pre>msiexec /i winsetup.msi /quiet OPTIONALSTEP=0</pre> <p>or this for 64 bit:</p> <pre>msiexec /i winsetup64.msi /quiet OPTIONALSTEP=0</pre>			
13.01.3068	12/6/2011	New Release	All applications
13.01.3068	12/6/2011	This update corrects a problem found in Concap where the edge coordinates of the three unconnected edges in a surface defined as a triangle were not assigned correctly which caused the auto-connect command to connect to the wrong triangle edges when triangles are involved.	ConCap
13.01.3067	12/5/2011	Updated Sinda/Fluint version number in SindaWin from 4.6C to 4.7A	SindaWin
13.01.3066	11/29/2011	Fixed parsing problem with FAC cards and conductors introduced when the 4 character cards (e.g., SIVF/SIVM) were introduced. A FAC card in column 1 would not be recognized.	SINDA/FLUINT
13.01.3065	11/18/2011	Fixed a problem in SATSTRAN where it couldn't find file NASINFO if spaces were in the directory.	SATSTRAN
13.01.3064	11/17/2011	Updated the maximum number of (sub)models Sinda can process from 128 to 512. This affects the size of the CNTR file, so previous runs cannot be "restarted" using just the processor, but must be run from scratch starting with the preprocessor. Also Updated version numbers of the preprocessor and the processor from v4.6C to v4.7A.	SINDA/FLUINT
13.01.3063	11/15/2011	Replaced ansa.vbs with new version that removes run-time diagnostic messages.	Mesh
13.01.3062	11/15/2011	This update corrects an bug introduced in update 13.01.3060 where DEFAULT command in the tssgm file output was missing a '=' sign, causing the model loading process to terminate early.	Mesh
13.01.3061	11/13/2011	This update enables the Mesh application to output a log file.	Mesh
13.01.3060	11/13/2011	This update adds the UNITS command to the mesh command set which allows the length unit of the output to be set and the enables the unit setting in the preferences form to function correctly. The command is based on the UNITS command used in Radk and other applications.	Mesh
13.01.3059	11/15/2011	New Release	All applications

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13.01.3059	11/11/2011	Updated the GUI Progress Bar to not crash if it receives an invalid value.	Heatrate, Image, Mesh, Radk, SindaWin
13.01.3058	11/11/2011	Updated Mesh Part form to have a Units Drop Down for the revised MESH command from Update 13.01.3057.	Mesh
13.01.3057	11/11/2011	This update adds the UNIT and LENGTH_SIZE qualifiers to the MESH command. The UNIT qualifier allows the user to set the length unit of the mesh and the LENGTH_SIZE may be used place of the SIZE qualifier although SIZE will be remain available.	Mesh

Here is the new MESH command definition and format:

MESH/LENGTH_SIZE (or SIZE)={real value}/UNIT={string}/(INSIDE, OUTSIDE, or SHELL) {part name string}

Purpose – to create a shell or volume mesh based on the objects selected with the PICK function in the Mesh application. The resulting mesh will become a part and be assigned a name.

Qualifiers:

SIZE or LENGTH_SIZE – minimum cell size, must be real value greater than zero, if absent from command, default value is 0.01

UNIT – length unit string that is applied to SIZE value, valid strings are centimeters, cm, feet, ft, inches, in, meters, and m. If absent from command, default UNIT value is “meters”.

INSIDE – mesh volume inside selected objects

OUTSIDE - mesh volume outside selected objects

SHELL – mesh the shell of the selected objects

Keywords:

Part – the name by which the mesh to be created will be associated with.

13.01.3056	11/11/2011	Sinda Workspace Files now supports importing of folders. Added Drag and Drop support for the Workspace Files Tree. Files are copied by dragging them to/from Sinda from/to Window Explorer or other instances of Sinda.	SindaWin
13.01.3055	11/11/2011	Fixed a problem where the Specify Node form was not updated if the nodes were modified via the command line. Added the ability to multi-pick nodes on the Specify Node form. Delete routine updated to support multiple nodes.	Radk, Heatrate
13.01.3054	11/11/2011	State of source check boxes were not maintained on the Begin Run form. This has been corrected.	Heatrate
13.01.3053	11/11/2011	Error message files were not loaded in HeatRate. This could cause the program to crash. Files are now loaded.	Heatrate
13.01.3052	11/10/2011	This update corrects a problem within Mesh where a pair of function pointers that handles mapping between the uv space and 'ab' space in the boolean boundaries were incorrectly set for a number of surfaces. This condition had the effect of causing a fatal error during the loading of a model into Mesh.	Mesh

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13.01.3051	11/7/2011	This update modifies the COPY command in the Geometry application to support Boolean surfaces. When an assembly is copied, all the logical operations within the original assembly will be duplicated within the new assembly.	Geometry
13.01.3050	11/7/2011	This update corrects a problem seen in the TSS graphics when the image quality is set to LOW. It was found that some base surfaces that had boolean operations associated with them would draw their node outlines as though the image quality was set to HIGH.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC
13.01.3049	11/7/2011	This update improves graphics speed, addressing reduced performance introduced in the image quality command in update 13.01.3042, particularly when the quality is set to HIGH.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC
13.01.3048	11/2/2011	Added Update Increment to the About window. This displays the full TSS_Win version number that is otherwise accessible via the Control Panel.	GUI applications
13.01.3047	11/2/2011	Enabled Mimize Window in Launchpad. Minimize button does not show up in a tool window, so use the context menu (right click) to access the minimize option.	LaunchPad
13.01.3046	11/3/2011	New Release	All applications
13.01.3046	10/31/2011	This update is a correction to update 13.01.3042 where the GLH draw polygon was not setting the edge color in one of its branches thus it used whatever the current color was in OpenGL.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC
13.01.3045	10/28/2011	Added Folders and Icons to the Workspace Files in Sinda. The Workspace tree is now sorted. Revised Reference File Open routines to use a SystemFileWatcher to import changes to files. New Workspace File Info window accessible via right-click context menu. Revised error handling when importing files.	SindaWin
13.01.3044	10/28/2011	Updated Display Preferences form to support the HIGH_SMOOTH value for the IMAGE_QUALITY command.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC
13.01.3043	10/26/2011	This update corrects a fatal error encountered while the octcell tree building operation was processing a base disc surface with a Boolean chain. It was found that the disc and ellipse surface types use the 3D boolean octcell intersection test and a quadric equation data structure that is initialized by all the 3D quadric surface types was not initialized for any of the 2D surface types. When the structure was initialized in disc and ellipse, the fatal error was eliminated and the octcell tree was completed normally.	Radk, Heatrate, Mesh

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13.01.3042	10/25/2011	<p>This update modifies IMAGE_QUALITY command within the GU command set and also changes how the settings will be implemented within TSS graphics and the HGI/GLH libraries.</p> <p>First, the graphics invoked by the "IMAGE_QUALITY HIGH" command now will draw the node outline with a "3-D" line which cause the outlines to stand out more against the solid rendering than the original optimized but '2-D' node outline did. The new node outline in this mode will tend to appear jagged however.</p> <p>Second, a new value has been added to the IMAGE_QUALITY command called HIGH_SMOOTH which will anti-alias or 'smooth' the node outline when it is drawn. The appearance of the outline is improved but the user can potential suffer a time penalty since this method of rendering is slower than either the LOW or HIGH image quality values.</p>	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC
13.01.3041	10/10/2011	New Release	All applications
13.01.3041	9/30/2011	<p>Added support for multi-line comments for the objects in Geometry. When the comment field is active, it will expand to show multiple lines. Clicking on the form or tabbing to the next field will restore the comment to a single line. Comments will multiple lines will show a ... after the text box to let the end users know the comment has multiple lines.</p>	Geometry
13.01.3040	10/6/2011	<p>This update corrects a flaw in the boolean boundary creation code where a legitimate boundary can be accidentally clipped entirely away if it is completely coincident with one of the clip planes used to bound a 3D base surface.</p>	Radk, Heatrate, Mesh
13.01.3039	10/3/2011	New Release	All applications
13.01.3039	9/30/2011	<p>This update corrects a flaw in the 3D booleans in the TSS graphics seen during the process of turning on and off facets of an boolean overlay where a flaw in the algorithm could allow a jump across the boolean boundary and turn on extra facets in the overlay.</p>	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, Transfer
13.01.3038	9/29/2011	<p>This update corrects a flaw in the 3D booleans in the TSS graphics where an operation was applied to the initial surface boundary instead of just the boolean boundaries. This could cause some of the facets to turn off when the initial base surface has a gamma range of 360 degrees.</p>	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, Transfer
13.01.3037	9/27/2011	New Release	All applications
13.01.3037	9/27/2011	<p>This update corrects a flaw seen in the radk boolean boundary code where a composite boundary was not redefined correctly if one of the polynomials of the composite boundary was removed during the clip plane process which in turn could cause a fatal error during the Radk/HR loading process.</p>	Radk, Heatrate, Mesh
13.01.3036	9/26/2011	<p>Added '.' separator back into individual position files, which had incorrectly been removed previously. Also removed an expected '.' when reading a motion file which had been missed. The update affects both the command line and gui versions of Animation.</p>	Animation

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13.01.3035	9/23/2011	This update corrects two issues found within the 3D Boolean section of the TSS graphics. First, a correction to the boundary sets involving wrap-around flags and extraneous points eliminated a chance for some facets to have 'sawtooth' appearance. Second, a flaw in the node outline algorithm used by 3D Booleans was found and corrected.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, Transfer
13.01.3034	9/22/2011	This update changes the facet and edge definitions of the torus surface type in the TSS graphics from a counter-clockwise to a clockwise orientation as viewed from the 'out' side of the surface, thus matching all of the other surface types that are surfaces of revolution. This change is strictly internal and should be transparent to the user.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, Transfer
13.01.3033	9/22/2011	Added logic to expand the size of bounded sphere objects being transferred from Iges to TSS in Transfer. This corrects an issue where boolean boundary surfaces were not always intersecting with graphics facets to create a complete boundary.	Transfer
13.01.3032	9/21/2011	Fixed a resize window bug in Orbit that could crop the OpenGL view. Revised resize routines to better align the checkboxes in Orbit's View Options group box. Fixed a typo in an error message in Save Image to File.	Animation, Concap, FECC, Geometry, Heatrate, Image, Mesh, Orbit, Radk XYPlot
13.01.3031	9/19/2011	This update corrects a flaw seen in the 3D boolean graphics which could cause a fatal error. The test used to determine whether two points are considered colocated if the coordinates are compared as floats rather than doubles did not always work if one pair of coordinates are close to zero. The error was originally found in Transfer.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, Transfer
13.01.3030	9/19/2011	This update fixes two problem that caused fatal errors during the building of an octcell tree into Radk and Heatrate. The first bug involved an uninitialized pointer and counter for keeping track of extended polynomials for a boolean surface in a 3D boolean boundary set in the RT database, the second bug involved an extra zero variable defined in a 'u = ?' or 'v = ?' polynomial which caused a fatal error with the boundary intersection point function.	Radk, Heatrate, Mesh
13.01.3029	9/17/2011	This update fixes a problem seen in the Transfer application where a division by zero caused a fatal error within the facet overlay initialization during the meshing process. This initialization is also used in the 3D boolean operations of the TSS graphics.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, Transfer
13.01.3028	9/19/2011	New Release	All applications
13.01.3028	9/16/2011	File Tab brings up a New Tab form for the creation of new workspace tabs. A file can optionally be imported. Double-click on an include that does not exist will open the New Tab form with the tab name prefilled. Find will now find text in Grid tabs. Context Menu (right-click) added to workspace tabs. Options are: Info, Rename and Remove Tab. Header Tree now includes Grid tabs.	SindaWin
13.01.3027	9/16/2011	This update fixes a problem seen in the Geometry application when a TSS sphere is defined with a boolean list and the number of facets in the Preferences form is set to 200. The point set of the facets located at the apices of a sphere were defined incorrectly in the 3D Boolean operations and this incorrect definition would later cause a fatal error in HGI/GLH.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, and Transfer

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13.01.3026	9/16/2011	This update fixes a problem in Transfer where the trim boundaries of certain surfaces were not changed from open loops to closed loops during the meshing process.	Transfer
13.01.3025	9/15/2011	This update fixes a problem in Transfer where the HGI Polygon Data structure could be left uninitialized in function gm_transfer_calculate_surface.	Transfer
13.01.3024	9/14/2011	This update fixes a fatal error observed during the model loading operation in the Geometry application caused by attempts to free memory already previously freed within the 3D Boolean section of the TSS graphics.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, and Transfer
13.01.3023	9/12/2011	New Release - TSS v13.01 Revision C (3000 series)	All applications
13.01.3023	9/12/2011	Fixes a crash in Heatrate due to an uninitialized pointer.	Heatrate
13.01.3022	9/10/2011	This update corrects two problems with the GUI of the Heatrate application when it issued commands which caused fatal errors when loading a new Heatrate model. The problem was corrected by having the GUI call the functions performing a DRAW and FIND command directly instead of processing them as a command. Since this is occurring in the GUI's initialization phase and other actions are called directly instead of through the command processor, this modification should not violate TSS GUI protocol.	Heatrate
13.01.3021	9/8/2011	Updates to SindaWin: <ul style="list-style-type: none"> - New Delete Temp Directory option added to Tools->Options form. - Updates Find to work with new RunTime tabs. - Run Model and Legacy options moved to new Analyze menu. - File->Close now prompts for save, plus it now closes the new RunTime tabs. 	SindaWin
13.01.3020	9/8/2011	Cosmetic update to banners in SINDA/FLUINT processes	SINDA/FLUINT
13.01.3019	9/8/2011	Increased SINDA/FLUINT array size to allow up to 100,000 elements per array.	SINDA/FLUINT
13.01.3018	9/8/2011	Corrects an issue where Animation database files were saved with a trailing '.', which is the extension separator on Windows. When a Windows database was moved to Linux, it could not be read, as the period was not part of the filename.	Animation (Linux)
13.01.3017	9/8/2011	This update modifies the sun right-ascension and sun declination angle calculations by changing the Julian time baseline from the year 1900 to the year 2000. This change should produce a very slight change in the resulting values of the two angles but the values should be more accurate.	Orbit, Heatrate
13.01.3016	9/2/2011	Fix minor preferences issue with Legacy form. Added context menu (right click) to Workspace and Results to allow viewing/saving of files.	SindaWin
13.01.3015	9/2/2011	Min flux field on Geometry Map form was incorrectly disabled at times.	Geometry
13.01.3014	9/2/2011	Added access to the Application Help files to LaunchPad.	LaunchPad
13.01.3013	9/2/2011	Fixed a minor display issue for symbols with lengthy definitions.	Geometry

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13.01.3012	9/1/2011	This update adds the 'rev B to rev C' checkbox to the file selection form of the Geometry application. Checking this box will modify certain TSS surfaces by switching the logical operators of their Boolean surfaces in the IGIF database from 'cut' to 'intersection' or vice versa after the geometry model is loaded into the IGIF database. This switching of logical operators is based on a correction to the TSS graphics when displaying the 2D Boolean 'slash' operation to match the Radk application contours. The modification only affects 3D curved surfaces used as slashes on 2D base surfaces. This operation should be performed only once when moving a model from Rev B to Rev C.	Geometry
13.01.3011	8/31/2011	Added GUI for new Animation commands added in update 13.01.3001.	Animation
13.01.3010	8/30/2011	Updated installers for new SidnaWin application.	Installers
13.01.3009	8/30/2011	Renamed Add Materials/Optics to Import Materials/Optics to make it clearer to the end users that it was a different function than Create. Redid the Import forms to be easier to use.	Geometry
13.01.3008	8/30/2011	New version of SindaWin that utilizes the workspace concept (*.tssws).	SindaWin
13.01.3007	8/29/2011	Updated version # and dates of Sinda to reflect corrected licensing (new Intel and AMD processors).	Linux SINDA/FLUINT
13.01.3006	8/29/2011	Conversion of Linux Sinda to Eclipse/Photran/G95.	Linux SINDA/FLUINT
13.01.3005	8/30/2011	Minor fixes for Linux CL applications build. This update indirectly affects graphical applications on windows as well.	All applications
13.01.3004	8/29/2011	This update allows an open Boolean boundary loop or 'slash' to be a valid operand for affecting a logical operation onto a 3D quadric base surface when when processed as a boolean boundary set within Radk/Heatrate. Previously, open boundaries were simply discarded when the base surface was a 3D quadric type while they could affect the boundary set of a base surface type that was planar.	Radk, Heatrate, Mesh
13.01.3003	9/1/2011	Revision 2 - - the header file igif_protos.h needed to be modified due to a compiler error on release machine. The file has been checked-in and has included in the modification list.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, and Transfer.
13.01.3003	9/1/2011	Revision 1 - the source file frm_geomui_boolean_options.c was modified but not checked-in during the original update announcement and was not included in the modification list.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, and Transfer.
13.01.3003	8/29/2011	This update allows an open Boolean boundary loop or 'slash' to be a valid operand for affecting a logical operation onto a 3D quadric base surface when displayed in the TSS graphics. Previously, open boundaries were simply discarded when the base surface was a 3D quadric type while they could affect a base surface type that was planar.	Geometry, Animation, Radk, Heatrate, Mesh, Concap, FECC, and Transfer.
13.01.3002	8/29/2011	This update implements the paraboloid and hyperboloid as valid base surface types into the Radk boolean boundary definitions.	Radk, Heatrate, Mesh

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13.01.3001	8/29/2011	This update adds a set of commands to the command set of the Animation application in order to implement the following two new enhancements used when an orbit dataset is input. 1) An option to the Auto-Track motion table to allow a user to point an axis of an object to a specific latitude/longitude point on a planet. 2) An option to allow the planet to rotate in sync with the current frame number.	Animation
13.01.2106	8/23/2011	New Release	All Applications
13.01.2106	8/19/2011	Fixed typos in error messages.	Geometry, Animation, Radk, Heatrate, Image, FEM, Concap, FECC, Mesh, and Transfer
13.01.2105	8/17/2011	This update corrects a fatal error encountered in the Heatrate application when the higher quality graphics and the color mapping options are both turned on.	Geometry, Animation, Radk, Heatrate, Concap, FECC, Mesh, and Transfer
13.01.2104	8/15/2011	This update improves the processor detection and core counting functions to better support newer AMD processors.	All applications
13.01.2103	8/15/2011	This update modernizes the TSS command line applications on Linux to Version 13. It also adds support for the Eclipse/GCC IDE on RHEL 4. The update directly affects the command line TSS applications on Linux and indirectly affects the Windows version.	All applications
13.01.2102	8/11/2011	This update fixes a problem encountered with the Concap application when during the loading of a CC model an error message was displayed indicating that a user conductor was not created in spite of the fact that the conductor was indeed created. Debugging the problem revealed three different errors within the user conductor section of function cc_create_graphics_object_traverse_conductors(). Once these bugs were corrected the error message was eliminated and the user conductor was created and displayed correctly.	ConCap
13.01.2101	8/11/2011	This update fixes a problem in the TSS graphics where 3D TSS surfaces with boolean boundaries were rendered as if the boundaries did not exist when the higher quality graphics was turned on but they did render correctly with the higher quality graphics turned off.	Geometry, Animation, Radk, Heatrate, Concap, FECC, Mesh, and Transfer
13.01.2100	8/3/2011	Fixed a problem where the File Fields in the File Dialog box were not properly appending the *.tss?? Extension if the user hit RETURN instead of clicking the OK button.	GUI Applications
13.01.2099	7/12/2011	New Release	All Applications
13.01.2099	7/11/2011	Added autodraw to the Setup -> Postprocessing form	Concap, FEM, Geometry, Heatrate, Mesh and Radk
13.01.2098	5/18/2011	Fixes an invalid property that prevented Debug x64 builds from being made.	64-bit

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13.01.2097	5/13/2011	This update corrects a problem, most likely introduced in update 13.01.2068, where the 3D Boolean code in the TSS graphics library would turn off the visibility of all the facets of a base surface if no valid Boolean boundaries were in the set. The correct action in this case is to leave the visibility of all the facets of the base surface on which the correction now does.	GUI applications
13.01.2096	5/6/2011	GUI updates for Orbit: <ul style="list-style-type: none"> - Under the File menu added options for Save As and Save Image. - Under the Setup menu added options for Display Preferences and View. - Added the toolbar icons for View Standard Output. 	Orbit
13.01.2095	5/3/2011	New Release	All Applications
13.01.2095	4/30/2011	Updated license check to use new routines.	All applications except LaunchPad
13.01.2094	4/26/2011	This update replaces the recursive methods to create and destroy boolean chains in the surface evaluated data structure used when converting the IGIF database into TSS graphics data with comparable linear methods. In addition, a test was added that allows only a base surface to create its boolean chain within the evaluated data structure.	Geometry, Animation, Radk, Heatrate, Concap, FECC, Mesh, and Transfer
13.01.2093	4/25/2011	Generalized svd algorithm by adding option to remove (or not) singular values. Threshold can be explicit or calculated. Also increased points and tolerances for torus.	Transfer
13.01.2092	4/25/2011	Fixed a problem with the Position Override Window where the position numbers were off by 1. This caused the overrides to be displayed/performed 1 position below/less than the actual position specified. Overrides for position 1 were causing an error message (position must be greater than 0).	Animation
13.01.2091	4/22/2011	Fixed a crash condition that would occur if the icons for the "View standard Output" window were missing. This was due to a conflict with in-progress work.	Orbit, FEM
13.01.2090	4/18/2011	New Release	All Applications
13.01.2090	4/17/2011	Added column headers to HeatRate's Radiation Force Output.	Heatrate
13.01.2089	4/16/2011	The optional legend in Heatrate's XYPlot output had a couple incorrect descriptions. These have been corrected.	Heatrate
13.01.2088	4/16/2011	The wrong qualifiers were being used for the Type-of-data-to-output options on the Radiation Force Output screen. The wrong qualifiers caused all the report variations to be generated instead of just the selected ones.	Heatrate
13.01.2087	4/15/2011	This update corrects a problem in the Heatrate application where the RAD_FORCE command would not output the force values unless an enclosure for model.1 was defined beforehand, a condition that is unnecessary.	Heatrate
13.01.2086	4/14/2011	This fixes a problem with the tree auto-expanding when doing a 'resequence node ID'.	Geometry
13.01.2085	4/14/2011	Radiation Force Output was missing the File Name Prefix field. Without the prefix the various reports were not being generated.	Heatrate

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13.01.2084	4/14/2011	Fixes in the file dialog: <ul style="list-style-type: none"> - HeatRate Options form showed some garbage in the Options window. - TranslateWin showed wrong Window Title for SINDA85 to XYPlot. 	Heatrate, Translate
13.01.2083	4/12/2011	This update fixes Nan (Not a number) checking for TSS surface parameters before translating into TSS.	Transfer
13.01.2082	4/8/2011	New Release	All Applications
13.01.2082	4/6/2011	This update corrects problems encountered when Pick-Hidden-Objects was set to Exclude. <ul style="list-style-type: none"> - hidden objects were picked - lag during dynamic rotation - CAD method labels and points were not displayed 	Geometry, Heatrate, Radk
13.01.2081	4/4/2011	New Release	All Applications
13.01.2081	4/4/2011	Correction to routines that update the Active Side in the Tree.	Geometry
13.01.2080	4/1/2011	Correction to CHANGE command to improve performance.	Geometry
13.01.2079	3/28/2011	Detached Tree View and Symbol View windows now always float in front of the main application window(when the windows overlap). Use Options to disable this and allow the floating windows to appear behind the main application window.	GUI applications
13.01.2078	3/28/2011	<ul style="list-style-type: none"> - Command Line now sets tree to Batch Mode for the CHANGE command. This improved performance dramatically for large models. - Command Line now converts Window's Smart Quotes to standard ASCII quotes so copy and paste of commands from Outlook, Word, etc. won't crash programs. - Added a COPY button to the History window which copies the selected command into the clipboard. 	GUI applications
13.01.2077	3/22/2011	<ul style="list-style-type: none"> - Geometry's GROUP command was fully expanding the tree. It now only expands the assemblies as needed and only if the Auto Find option is turned on. - Expand and Collapse buttons have been enhanced - use Shift-Click or Control-Click for enhanced functionality: <ul style="list-style-type: none"> no modifier = Expand/Collapse entire tree Shift = Expand/Collapse assembly and its sub-assemblies Control = Expand/Collapse just the assembly - Tooltips added to the Expand and Collapse buttons. 	GUI applications
13.01.2076	3/22/2011	Fixed a problem where the tree would get out of sync if the version number was not included for the object being renamed.	Geometry
13.01.2075	3/22/2011	Updated boolean tree report (LIST/BOOLEAN_TREE) to include object type in the output.	Geometry
13.01.2074	3/22/2011	Fixed a fatal error in Geometry when renaming objects to have a version number that's longer than 7 digits.	Geometry
13.01.2073	3/22/2011	Fixes incorrect Tool Tip for SATSTRAN button on LaunchPad.	LaunchPad
13.01.2072	3/17/2011	New Release	All Applications

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13.01.2072	3/16/2011	Corrected a problem in SINDA/FLUINT and SATSTRAN for checking out a license. The problem was introduced in the 13.01.2070 release, which updated FLEXnet licensing to v11.9.1.	SINDA/FLUINT, SATSTRAN
13.01.2071	3/16/2011	Corrected a problem with the FACETS command to prevent a mismatch of static variables.	GUI applications
13.01.2070	3/9/2011	New Release	All Applications
13.01.2070	3/8/2011	Flexera USB dongle driver install utility and FLEXnet Publisher v11.9.1 Imutil added to install.	Installer
13.01.2069	3/8/2011	Added prefix names for Geometry surfaces created in Transfer. This will facilitate merging geometry models output from Transfer.	Transfer
13.01.2068	3/7/2011	Updated boolean operations to allow an open ("slash") boolean boundary to be first operation defined in the chain.	All applications
13.01.2067	3/7/2011	Updated license routines to FLEXnet Publisher v11.9.1. This adds support for USB dongles on 64-bit machines. Users with 64-bit Windows machines must use v11.9.1 Imgrd/spaced/Imtools and provided dongle driver installer. TSS applications will run using FLEXnet Publisher 11.4.1 Imgrd and 10.8 spaced (except for dongles on 64-bit OS). FLEXnet Publisher v11.9.1 Imtools, Imgrd, and spaced added to installer.	All applications
13.01.2066	2/17/2011	Corrected MHAX typo in CAD ->Parameter Replacement -> Maximum Height routine in Geometry.	Geometry
13.01.2065	2/17/2011	New Symbol View added to Geometry; updated LIST/SYMBOL output to include evaluated values.	Geometry
13.01.2064	2/17/2011	Fixed rename of Assembly bug in Tree routines. Added Dataset name to detached tree window.	Geometry; Tree view applications
13.01.2063	2/17/2011	Updated View Standard Output with revised GUI, Font Selection and Print abilities.	GUI applications
13.01.2062	2/3/2011	Fixed a Resequenece Node ID bug where objects would disappear from the Tree View.	Geometry
13.01.2061	2/2/2011	Correction to model loading code in Mesh.	Mesh
13.01.2060	1/28/2011	Correction to GLH tessellation source code.	GUI applications
13.01.2059	1/26/2011	Fixed a memory leak in Radk octcell tree creation code.	Radk
13.01.2058	1/25/2011	New Release	All Applications
13.01.2058	1/24/2011	Updated various forms to have a larger color field for showing the longer Windows Color Names. Fixed some routines which were still limited to color names of 10 characters instead of 40.	Geometry
13.01.2057	1/24/2011	Modified Tree, Edit and Right-Click menu to ghost options if tree was out of sync with Picklist. Fixed problem where copy via Drag & Drop was not selecting the new object in tree. Fixed a problem where PICKs done during *add were not being reflected in the tree.	Geometry
13.01.2056	1/24/2011	USER_COLOR/ADD command was allowing duplicate color names. Changed to not allow them.	Geometry
13.01.2055	1/24/2011	Add quadrilaterals as boolean surfaces in Transfer to cut cones.	Transfer
13.01.2054	1/24/2011	Correction for a defect in the 3D boolean graphics in TSS when a cone is rendered with boolean boundary passing through its apex.	GUI applications

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13.01.2053	1/24/2011	Eliminate bogus error messages in the Edit menu & Control-Right-Click menu in Geometry.	Geometry
13.01.2052	1/24/2011	Remove vertex points from Nurb surface calculations. Add igif tolerance checks to small surfaces in Transfer. Bypass boolean surfaces too small to be recognized in Igif.	Transfer
13.01.2051	1/18/2011	New Release	All Applications
13.01.2051	1/17/2011	Fixed RENAME problems in Geometry related to the Tree.	Geometry
13.01.2050	1/17/2011	Fixed two problems with SAVE command found when using the 'Drag & Drop' feature in the Tree.	Geometry
13.01.2049	1/14/2011	Fixed a load-model crash in Geometry. A range check was added so the progress bar can't be set to an invalid value.	Geometry
13.01.2048	1/14/2011	Fixed Windows Color Name support.	Animation, Concap, FECC, Geometry, HeatRate, Image, Mesh, Radk and Transfer
13.01.2047	1/14/2011	Added File -> Save Image added to GUI applications. This feature was already in Geometry and Animation.	ConCap, FECC, Heatrate, Image, Mesh, Radk, and XYPlot
13.01.2046	1/10/2011	Fixed a nurb calculation in Transfer for a sphere, where Hmin or Hmax > Radius.	Transfer
13.01.2045	1/10/2011	New Release	All applications
13.01.2045	1/7/2011	Updated Help routines in all apps.	GUI applications
13.01.2044	1/7/2011	Fixed Drag & Drop crash bug and an incorrect rectangle error message in Geometry.	Geometry
13.01.2043	1/5/2011	Added random points to nurb calculations in Transfer.	Transfer
13.01.2042	1/5/2011	Changes to interpolation code in Transfer.	Transfer
13.01.2041	1/5/2011	Added ability to override default incoming units in Transfer.	Transfer
13.01.2040	1/4/2011	Update to TSS graphics that roughly doubles graphics performance.	GUI applications
13.01.2039	12/24/2010	New Release	All applications
13.01.2039	12/22/2010	Transfer updates: Fixed a gmin/gmax issue in nurb Cones; Added user defined EPS for Rational Nurb Calculations; Added user options to run LU, SVD or Both as decomposition options in nurb calculations.	Transfer
13.01.2038	12/22/2010	Fixed convergence issues and mathematics for Booleans and IGES file transfer.	Transfer, Radk, Heatrate
13.01.2037	12/22/2010	Fixed problem where Prev/Next buttons in XY Plot weren't ghosting correctly.	XYPlot
13.01.2036	12/21/2010	Added spreadsheet output of XY Plot Data to Heatrate.	Heatrate
13.01.2035	12/21/2010	Fixed failure to acquire license if the TSS_LICENSE_FORMAT Environment Variable was defined.	All applications
13.01.2034	12/12/2010	Update to Sinda for Linux to accommodate Fortran to C calling conventions	SINDA/FLUINT
13.01.2033	12/12/2010	Licensing fixes for Linux and Windows.	FLEXIm, all applications
13.01.2032	11/22/2010	New Release	All applications

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13.01.2032	11/19/2010	Fixed surfaces to update object labels in Tree when it is in Boolean Mode. Added new File->Save Image menu option in Geometry.	Geometry
13.01.2031	11/19/2010	Linux version of SINDA/FLUINT v4.5C was updated to use the new source tree.	SINDA/FLUINT
13.01.2030	11/18/2010	Changes to licensing code, and made Linux licensing compatibility fixes.	All applications
13.01.2029	11/15/2010	New Release	All applications
13.01.2029	11/12/2010	Added a function stub so CL Orbit could work with new GUI perspective flag.	Orbit
13.01.2028	11/12/2010	Fixed minor perspective problems in Animation, added new File->Save Image feature.	Animation
13.01.2027	11/12/2010	Added dynamic rotate, zoom and pan to the Animation application.	Animation
13.01.2026	11/12/2010	Added perspective command to the Orbit application.	Orbit
13.01.2025	11/11/2010	Added dynamic rotate, zoom and pan to the Orbit application.	Orbit
13.01.2024	11/11/2010	Fixed a GMIN/GMAX calculation error for the cone in Transfer.	Transfer
13.01.2023	11/8/2010	New Release	All applications
13.01.2023	11/5/2010	Performance improvement for image capture routines used for Windows printing and clipboard support.	All applications
13.01.2022	11/5/2010	Fixed a problem where the GUI Position control in Animation would send a 2nd SHOW command for each one encountered in a script. This would set up a situation where a memory pool ran out, resulting in a program crash.	Animation
13.01.2021	11/5/2010	Animation's Object Motion Auto Orbit form has been updated to support the new OUTSIDE_FLAG and OUTSIDE_VALUE qualifiers for the LIMIT command.	Animation
13.01.2020	11/4/2010	This update modifies the command set for defining the Auto Orbit Track type of an object motion to allow the definition of a default single-axis angle to be used if the calculated rotation angle is not within the specified range. The LIMIT command now have the /OUTSIDE_FLAG and /OUTSIDE_VALUE qualifiers.	Animation
13.01.2019	11/4/2010	Users can now control the Architecture flag (ia32/intel64) for the Fortran compiler.	SINDA/FLUINT
13.01.2018	11/4/2010	The Border OFF checkbox in Display Preferences did not always turn off the border.	Animation, ConCap, FECC, Geometry, Heatrate, Mesh, Radk.
13.01.2017	11/4/2010	This update fixes a graphics problem in the Orbit application where the planet would be colored black if the background was set to white and the planet surface mapping option was turned on. The planet now displays correctly.	Orbit
13.01.2016	10/25/2010	Fixed a crash bug on the Boolean Operations form that was caused by trying to sort an empty list of surfaces.	Geometry
13.01.2015	10/25/2010	This update modifies the Auto Orbit Track motion option in the Animation application so that it could handle any single-axis restricted rotation within the range of -360 to 360 degrees. The LIST command was further modified so that the angles printed out are always within the range specified by the motion.	Animation

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13.01.2014	10/25/2010	New Release	All applications
13.01.2014	10/22/2010	User tried to have 2078 orbit positions in Orbit. Updated the program to support up to 3600 orbit positions. Also updated the input form to limit the number of positions as you could make more than allowed before. Fixed a performance issue with the List Edit form that showed up with 3600 entries.	All applications
13.01.2013	10/21/2010	This update modifies the 'calculated values' option of the LIST command so that an animation matrix that was of a form indicating a single y-axis rotation would be printed out as such instead of in the Euler angle format. A qualifier has been added to the command to allow the use the original format.	Animation
13.01.2012	10/20/2010	This update corrects the 'calculated values' option of the LIST command so that the rotation angles printed out are identical to those written out to the position motion files.	Animation
13.01.2011	10/20/2010	The Status Bar in Animation was not being updated. This also caused items picked in the graphics area to not being selected in the tree view.	Animation
13.01.2010	10/20/2010	This update corrects a condition in the Animation application where the FIND command would not work correctly if no graphics was drawn into the HGI graphics tree for an individual primitive object. A correction was made in the animation frame bounding box code so it can now handle this condition.	Animation
13.01.2009	10/19/2010	New Release	All applications
13.01.2009	10/19/2010	Radk Output was only outputting the first part of the data. The different sections of the report are output to scratch files that are then merged using a DOS COPY command. One of the files was still open for output which caused the COPY to fail to merge the report.	Radk
13.01.2008	10/18/2010	This update corrects a problem in the delete operation of the IGIF name tree where it was not correctly redefining the 'parent' pointer of the all data structures in the tree when the tree was being rebalanced. A patch function that ensured that the 'parent' pointers were set correctly did not check to be sure that the root structure had a NULL value for its 'parent'. The balancing functions were modified so that the 'parent' pointers are now reset correctly and the patch function has been disabled.	Geometry
13.01.2007	10/13/2010	This update corrects a condition in the LIST command where the data retrieved for reflected absorbed is overwritten by a second data retrieval, thus allowing erroneous values to be outputted. This error appears to occur only for reflected absorbed values.	Heatrate
13.01.2006	10/11/2010	New Release	All applications
13.01.2006	10/7/2010	Updated the active sides labels on the Surface Input form to show IN/OUT or DOWN/UP based on the surface type.	Geometry
13.01.2005	10/6/2010	Fixed problem in Geometry when multiple moves were done via the Tree. Fixed problem with tree where selecting multiple objects in the tree did not work correctly if you deselected any of the objects. Added a Console Output routine for .Net Strings to add in debugging.	All applications
13.01.2004	10/6/2010	Fixed the transfer to 2D Mesh Boundary Representation option in the Transfer application.	Transfer

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13.01.2003	10/4/2010	This update implements the following changes: 1) All function calls to the graphical structure registration and validation functions were removed from the GLH library. 2) The 'delete all structures' function was modified so that the graphical structures are cleared en masse instead of being deleted one by one.	Geometry, Animation, Radk, Heatrate, ConCap, FECC, Mesh, and Translate applications.
13.01.2002	10/1/2010	Fixed problem where Transfer would sometimes hang if started via LaunchPad.	Transfer, LaunchPad
13.01.2001	9/28/2010	Fixed problem where Booleans were always showing up when the model loaded even if the Display Preferences registry had been set to Boolean Display OFF.	All applications
13.01.2000	9/27/2010	New Release - TSS v13.01 Revision B (2000 series)	All applications
13.01.1012	9/25/2010	Updated ConCap's Adjust for to support changes made in update 13.01.1010.	ConCap
13.01.1011	9/25/2010	Fixed Command Line History Window bug if hitting Recall w/out any history. Also added Cancel button.	All applications
13.01.1010	9/25/2010	Updates to ADJUST command in ConCap: 1) internal nodes may be identified by CC object format. 2) added support for user-defined area and length for an unconnected edge.	ConCap
13.01.1009	9/25/2010	Optimization of boundary determination.	All applications
13.01.1008	9/25/2010	Additional fixes associated with 13.01.1006.	All applications
13.01.1007	9/25/2010	Improved GUI tree performance	GUI applications
13.01.1006	9/25/2010	Corrected problem with sphere base surface cut by a Boolean cylinder.	All applications
13.01.1005	9/25/2010	Fixed problem with installing to directory other than C:\Program Files\Space3D\TSS_Win. Fixed crash in Animation & Orbit if they couldn't open planet images or continent information. Updated tsspath routines to use registry for Windows builds. Orbit now maintains state of Console Window between runs.	Installer, Animation, Orbit
13.01.1004	9/25/2010	Correction to 3D Boolean rendering in TSS graphics	All applications
13.01.1003	9/25/2010	Fixed a couple of Fortran projects that pointed to the wrong location for x64 FLEXIm.	FLEXIm
13.01.1002	9/14/2010	Fixed fatal error that could occur on ConCap's Adjust screen. Tools->Adjust menu option only enabled for adjustable objects. Added Adjust menu option to the SHIFT-RIGHT-CLICK context menu.	ConCap
13.01.1002	9/14/2010	Added License Agreement page to installer.	Installer (included in 13.01.1002)
13.01.1002	9/14/2010	Installers are now being built on Windows 7 platform.	Installer (included in 13.01.1002)
13.01.1001	9/10/2010	Up/Down arrow causing a fatal error.	Animation, Heatrate, Radk.
13.01.1001	9/10/2010	Revised bitmaps to correctly fade in over additional screen. Changed setting so users no longer have to uninstall prior version. Updated information shown on the Support Information	Installer (included in 13.01.1001)
13.01.1000	9/9/2010	Official release - v13.01 Revision A (1000 series)	All applications