New functionality: The STEP format now supports AP242, the new MBD/PMI Application Protocol, for read operations. This is the long anticipated MBD format for step that allows views, captures, GD&T, FT&A, material and manufacturing notes.

New functionality: Poly-to-CAD. This function, on the Operations tab under the Polygon Tools group, allows you to convert polygonal, or Viz-Rep files to CAD, or B-Rep files.

New functionality: SolidWorks PMI read support. We now support the native reading of SolidWorks PMI data which can be written out to several native PMI support formats such as 3D PDF, JT and STEP AP242.

Back by popular demand: TM Express. Full power translation and Auto-Repair, light-weight and simplified viewing. This program is launchable from the TransMagic program group in All Programs.

Updated version: ACIS R27
Updated version: CATIA V5/V6 R2016x (R26)
Updated version: Parasolid R29
Updated version: JT 10.2

***Other Highlights From Previous Patches***
TransMagic now supports a settings file readable from the hard disk. The benefit is that this file can be copied from machine to machine with common settings and interafce customization easily saved by the file. This file exists in this directory: "C:¥Users¥Public¥Documents¥TransMagic¥Settings¥TransMagic_R12.ini. You can copy this file from machine to machine by copying the Settings directory including this file to different machines. If this file exists, it will override the registry settings for TransMagic.

MagicCheck Enhancment: Multi-core MagicCheck validation and revision algorithms. This feature vastly increases the validation and revision checking algorithms to use all cores available to process the checking operation. The performance increase is on average 40% faster.

Implemented two new Bounding types: Bounding Sphere and Bounding Cylinder. These shapes, particularly cylinder for turning shops, are very useful for calculating various stock sizes.

General Enhancement: Converted 2D DWG or DXF from a view only format to full vector geometry support. The 2D DWG or DXF entities will now be converted to true vector based line data that can be saved out to other CAD formats. This changes the DWG or DXF support from View Only to a full vector-based translation which is significantly more useful.

General Enhancement: We have now mapped the DWG or DXF BLOCK structure to a traditional assembly structure. This preserves the original BLOCK structure organization and now makes it even more useful when saving 2D vector-based or 3D data out to other formats.

New Format: Collada Read has been added to all products. We are still working on this format. It is currently a primitive viz-rep with color support. We will continue work on it to complete full support of the format.

Updated Format Version: NGRAIN 6.0

Implemented User Defined Attributes (UDA) functionality under Body and Part levels. Most native CAD systems allow the application of these user defined attributes, which can literally be any textual information the user wants to apply. You can see these in the Assembly Browser by Body (Orange Block) level node and looking for the UDA node.

New Format: STEP Compressed format, also known as STEP ZIP or STEPZ. Essentially as the name implies, this is a zip compressed STEP file.

Revised the Layer Manager to be more intuitive and useful for manipulating entities on layers.

----------Version: 12.01.900 - 11/18/2016----------

Resolved issue on certain machines where a customer running R12 sp0 with expired maintenance would recieve an error and prevent launching of the program.

Resolved issue in SolidWorks Add-In where any level of automatic repair was causing a crash.

Resolved issue in TM Command writing out to the HSF format.

Resolved display of Japanese characters in PMI display.

Continued work on the Poly-to-CAD tool. More cases are now operational.

----------Version: 12.01.800 - 10/20/2016----------

IMPORTANT NOTES!:

1) This patch resolves a SolidWorks reader bug. This fix requires that you reset some application settings.

2) After upgrading to this release, go to Settings (gear icon) and click the Reset All Settings To Defaults button.

3) This will be the last sp0 patch. Sp1 is scheduled for a November 14th release.

Completed support for mass properties calculations of parts and assemblies while taking into account their specific material properties.

Completed support for the manipulating dimensions on views using the Add Dimensions To View dialog. This allows the user to create multiple views with dimensions constrained to that view. The user can then save out these multiple views to the TMR format and eventually 3D PDF in R12 sp1. This is a great productivity enhancer for quoting.

----------Version: 12.01.700 - 10/06/2016----------

Multi-core MagicCheck validation and revision algorithms. This feature vastly increases the validation and revision checking algorithms to use all cores available to process the checking operation. The performance increase is on average 40% faster.

Implemented User Defined Attributes (UDA) functionality under Body and Part levels. Most native CAD systems allow the application of these user defined attributes, which can

literally be any textual information the user wants to apply. You can see these in the Assembly Browser by Body (Orange Block) level node and looking for the UDA node.

New Format: STEP Compressed format, also known as STEP ZIP or STEPZ. Essentially as the name implies, this is a zip compressed STEP file.

Revised the Layer Manager to be more intuitive and useful for manipulating entities on layers.

Added a Copy To Clipboard button to the Missing File References dialog so the user can easily copy the list of missing file references and paste into a Word document, e-mail, etc.

----------Version: 12.01.600 - 08/18/2016----------

IMPORTANT NOTES!:

1) This patch is a customer bug-fix patch. It resolves the 3 issues referenced below. If the fixes below do not apply to you then you can skip this patch.

2) After upgrading to this release, go to Settings (gear icon) and click the Reset All Settings To Defaults button.

Removed a dependency on a no longer supported verson of the Xerces XML API.

Resolved off-line network installation issue.
Resolved DWG and DXF Write issue.

Removed a dependency on a no longer supported verson of the Xerces XML API.

----------Version: 12.01.500 - 08/09/2016----------

Updated the Missing File References dialog to include JT missing file references.

Developed a new predictive heuristic that will detect a certain variety of JT files with incorrect or exploded transforms and proactively correct these files upon reading them into TransMagic.

Upgraded OpenSSL to 1.0.2h.

Added assembly support to Collada.


----------**Version: 12.01.400 - 07/28/2016**----------

IMPORTANT NOTES!:

1) We have resolved the Admin Privileges install issue. This issue will not allow certain Admin users to automatically upgrade. If this applies to you, simply run the TransMagicR12.01.400.exe installer from your Downloads directory. As this fix applies to 12.01.400 and greater, future updates will not have this issue.

2) After upgrading to this release, go to Settings (gear icon) and click the Reset All Settings To Defaults button.

General Product Enhancement: Converted 2D DWG or DXF from a view only format to full vector geometry support. The 2D DWG or DXF entities will now be converted to true vector based line data that can be saved out to other CAD formats. This changes the DWG or DXF support from View Only to a full vector-based translation which is significantly more useful.

General Product Enhancement: We have now mapped the DWG or DXF BLOCK structure to a traditional assembly structure. This preserves the original BLOCK structure organization and now makes it even more useful when saving 2D vector-based or 3D data out to other formats.

New Format: Collada Read has been added to all products. We are still working on this format. It is currently a primitive viz-rep with color support. We will continue work on it to complete full support of the format.

Updated Format Version: NGRAIN 6.0
Updated Format Version: JT 10.1

Resolved Parasolid write issue that was affecting about 30% of all Parasolid based output formats. This included Parasolid, JT and SolidWorks outputs. It manifested itself as missing surface (even though they were there). If this affected you, or just to be sure, see the first bullet in this release and reset all defaults AFTER this upgrade.

Implemented two new Bounding types: Bounding Sphere and Bounding Cylinder. These shapes, particularly cylinder for turning shops, are very useful for calculating various stock sizes.

Resolved STEP read hang issue that had affected about 30% of STEP files.

If you use Precise Positioning to move a Bounding Box then the size dimensions will now move with the box. Previously, if you move the box, the dimensions would dissappear.

MagicCheck: Resolved View Browser issue in PDF report output where the views in the PDF file did not match the exact zoom level of the views in the View Browser.

Resolved issue where if a SolidWorks file was open in SolidWorks, and then a SolidWorks file was saved out of TransMagic, then TransMagic would erroneously shut-down both the SolidWorks writer and the running copy of SolidWorks itself.

Resolved Collada output issue...If the incoming file had PMI, was then reduced using Polygon Reduction and then saved out to Collada, the save operation would fail.

MagicCheck: Resolved issue related to 3-Pt Move where the icon was de-activated after stitching had been run.

MagicCheck: Resolved issue related to 3-Pt Move with PMI enabled.

MagicCheck: Resolved issue related to 3-Pt Move dialog appearing repeattedly.

MagicCheck: Resolved micrometer issue returning 0 for certain measurments..

Resolved issue where the Auto-Repair Wizard was activated but you could click on the screen and then de-select the parts with issues, then the Auto-Repair Wizard would simply repair and empty selection and give the green light.

Resolved issue where some STEP files, especially large files, where either taking a long time to start loading or were hanging altogether on loading.


----------Version: 12.01.100 - 05/10/2016----------

IMPORTANT!: After upgrading to this release, go to Settings (gear icon) and click the Reset All Settings To Defaults button.

TransMagic now supports a settings file readable from the hard disk. The benefit is that this file can be copied from machine to machine with common settings and interafce customization easily saved by the file. This file exists in this directory: "C:¥Users¥Public¥Documents¥TransMagic¥Settings¥TransMagic_R12.ini. You can copy this file from machine to machine by copying the Settings directory including this file to different machines. If this file exists, it will override the registry settings for TransMagic.

Implemented a new option which gives the user ability to not include Property Measurements in the MagicCheck reports. These include volume, center of gravity, surface area and topology checks. The default is NOT to include these properties in the reports. The reason is that the primary use of Validation in MagicCheck is to satisfy the Boeing D6-51991 spec. This spec does not call for the inclusion of any of these properties. This spec only calls for a Geometry Validation within 0.001 inch unless otherwise specified. Thus, the primary objective is to create the Validation report as concisely for the D6-51991 spec as possible without extraneous data or calculations.

Changed the default check value to 0.001 inch and the default precision to X.XXX as per the Boeing spec D6-51991.

Changed default value of Generate The Standard Views to OFF in MagicCheck. With the addition of 3D PDF as the primary reporting format for MagicCheck these extra views are not needed as they were in the previous 2D report formats.

Added polygon options list -h command in TMCmd. Simply send the command: tmcmd -hpoly As this option set is relative to all polygonal formats, it has it's own option list at the command line. This has also been added to the TM Command docs.

Boolean operations are now supported with either Expert or the MagicHeal Add-On.

----------**Version: 12.01.000 - 04/18/2016**----------

New Format: 3DXML Read and Write has been added to Expert, Pro and SuperView. Supports graphical PMI (turn on edges).

New Format: WebGL (HTML extension) has been added as a VisRep format that is viewable in any HTML5 browser - no viewer necessary! File extension is .html. This format is ready-made for mobile viewing. This format is available in all TransMagic core products, and will be implemented in TransMagic COMMAND in a forthcoming patch. This format is will be hooked up to the Polygon Settings page in the Options dialog in a forthcoming patch.

New Format: Hybrid CATIA files; TransMagic will now automatically detect files that have both Visrep and Brep data, and give users the option to open the file as Brep or Visrep geometry.

New Format: CGR files are now supported for both Read and Write.

Updated Format Version: Parasolid 28.0
Updated Format Version: JT 10.0 support
Updated Format Version: SolidWorks 2016 support
Updated Format Version: Inventor 2016 support

Updated Format Functionality: STEP files can now refer to external parts, and TransMagic can load any external part currently supported by STEP.

Updated Format Functionality: 3D PDF files can now embed other files for Technical Data Package.

Updated Format Functionality: 3D PDF now supports full assembly structure, part names, transparency, and PMI fonts.

Updated Format Functionality: View Browser and PMI View Browser can both now output to 3D PDF.

Assembly Restructuring: Parts can now be removed from assemblies (in addition to being able to add componenets to assemblies and form new subassemblies, a feature added in R11).

Assembly Restructuring: Instanced or patterned parts can now be broken and converted into discrete components.

MBD and PMI: Capture support added to PMI View Browser, enabling instant visualization and documentation of section views, break-outs, and close-up views.

MBD and PMI: PMI captures and views can now be saved out to 2D and 3D PDF, as well as sent to the View Browser.

MBD and PMI: JT PMI selection now behaves consistenly with CATIA V5¥V6, Pro/E/Creo and UG/NX.

General Product Enhancement: Cutting planes (Section Planes) are now remembered by the View Browser when capturing new views.

General Product Enhancement: TransMagic now starts up in local language of user PC setting.

General Product Enhancement: Japanese and Chinese languages now fully updated.

General Product Enhancement: Import and Export have been removed from the Open and Save buttons and added to the File Menu in order to reduce confusion for new users.

General Product Enhancement: Custom Toolbar functionality has been enhanced by adding all Ribbon Tab functions.

General Product Enhancement: Material Nodes have been added to the part-level, visible in the Assembly Browser. You can right click on any given material and change its properties.

General Product Enhancement: Update function now downloads to the users Downloads folder instead of the Temp folder.

General Product Enhancement: New Layer Manager under Operations > Change Group.

General Product Enhancement: Special Render Modes to enhance publishing capabilities, including Transparent, Transparent Wireframe, Triangulated Wireframe(B-Rep), Hidden Wireframe(B-Rep), Solid Outline(Viz-Rep), Illustration(Viz-Rep), Optimize For Print HLR and Optimize For Print Greyscale.

General Product Enhancement: Added support for Windows 10.

TechDocs (Preview Technology): Save CAD data including 3D VisRep, company, file and part information out to 3D PDF.

TechDocs (Preview Technology): Optionally attach CAD or other external attachments to 3D PDF file for easy transport of related project data.

MagicCheck: Split-Window View for Validation and Revision Comparison

MagicCheck: Added new side-by-side comparison mode, where Source and Target components are separate, with viewing commands affecting both views.

MagicCheck: MagicCheck Reports can now output to 3D PDF, enhancing security and visibility, in addition to .xlsx and .html output.

MagicHeal: Cover Hole or Boss renamed to Skin Between Edges for better clarity.

MagicBatch: CGR to JT added (Visrep).

TransMagic Command: Support for all polygon formats to be processed.

TransMagic Command: Support for all polygon formats to be processed by using the Assembly XML + PMI functionality via TM COMMAND (previously this functionality was only supported for HSF and STL).

TransMagic Command: In individual translator pages in TM COMMAND, the PMI page shown/not shown depending on whether that particular format support PMI or not.

Resolved several customer-specific incidents. You will have been notified via e-mail if one of your incidents was resolved in this patch.