PRODUCT RELEASE ANNOUNCEMENT

Product Category	Theorem-XR
Product Group	All Associated Products
Release Version	Version 2022.3

Document Type	Product Release Announcement
Status	Released
Revision	1.0
Author	Product Manager
Issued	20-Dec-22

Contents

History

Revision	Update Information
1.0	Version 2022.3 Release

Note! Theorem versioning has changed from a syntax of “<Quarter release> <Year>” to “<Year> <Release Version>”. This is to allow for client / server compatibility checks at run time.

Product - Distribution Media

CD images of the latest release are available from the following download sites.

Product	URL for .msi installer and install package download
Visualization Pipeline	***2022.3* (20221220)**
VR Client Support	***V2022.3.5***
Quest 2 Untethered Support	***V2022.3.5***
Desktop Experience Support	***V2022.3.5***
HoloLens 2 Support	***2022.3.3.1*** **–** Update on Microsoft Store Pending
AR Android Client Support	***V2022.3.4***
AR Windows Client Support	***V2022.3.4***
AR Apple Client Support	***V2022.3.3*** – App Store

Theorem-XR Online Documentation

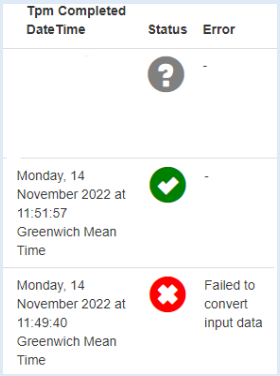
Click to review the User Guide

New Features / Enhancements

The following new features or enhancements have been introduced with this release.

Ref ID	New Feature / Enhancement Description
Theorem-XR Visualization Pipeline (TVP)	***V202200630 – TheoremVisualizationPipeline_V2022.3.zip***

- **Output format – UAB WebGL (REQ-161)**
  - Allow users to output Unity Asset Bundle's that support the ability to open in a Unity WebGL app via a browser.
- **Restrict User Registration on TVP Homepage (XR-972)**
  - Included the ability to turn off the "Register as a new user" option on TVP. This is recommended for AD users.
    - Web config setting "HideUserRegistrationPage"
- **TVP : Provide better Error feedback for data upload (XR-1000)**
  - UploadHistory and UserUploadHistory pages now show a coloured status indicator to help distinguish the statuses. Hovering over the icon shows a popover with a textual explanation of what the status means. At present there are four states:
    - Ok (Green): Model exists, no warnings.
    - Warning (Orange): Model exists, missing requested output file.
    - Fail (Red): Model doesn't exist
    - Null (Grey): In progress or TPM script failed to contact TVP.

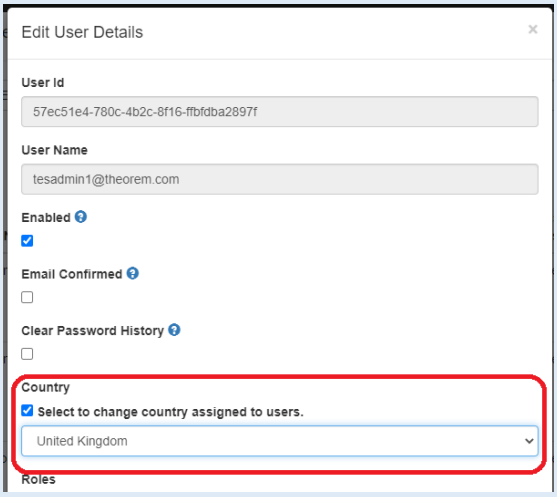


- **Add Slicing Support into the TVP (XR-1006, XR-1114, TD-1433)**
  - Gives the user the ability to upload one data set and an accompanying "slice file". This slice file contains targeted bounding boxes co-ordinates, TVP interprets this and auto sections the model at the defined locations and creates

subsets of data that can be loaded adjacent to one another in the resultant generated files.

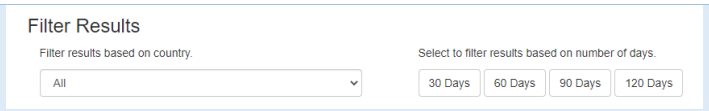
This can be defined in the “Upload Settings Files” Menu of the “Upload” page:

- **2D Slicing (XR-1102)**
    - Updated "DefaultExperience" Python script to support this. Requires DWG read cadverter to be installed (v26.0.0.1 used).
- **Assign a Geographic Region to a Project and allow for more granular metrics based on the projects (XR-1027, XR-1028)**
    - Administrative users can set the country for each user on the site.



- Administrative users can set project permission based on user country when create/editing projects.

- Dashboard page allows data to be filtered by last N days and user country.



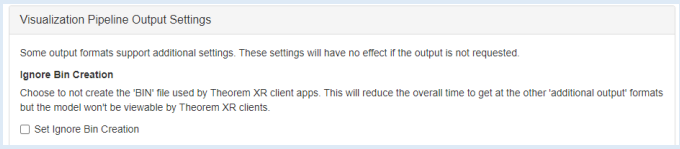
- **Upgrade Node.js shipped with TVP (XR-1054)**
    - Updated the bundled copy of Node JS (used for signalling server) to 16.17.1.

      The copy of Node JS has been separated from the signalling server exe so that Node JS can be updated easier.

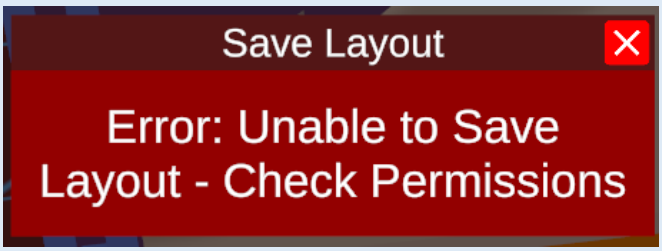
      Edit the TVP Windows Service's config file to set "NodeExe" path appropriately if the location of node used changes (due to user wanting to update node etc).

- **Include switch to allow the ignoring of Binary file creation during TVP upload (XR-1056)**
    - Upload page now provides UI control to opt to not create a BIN file (we make a 0kb one instead). This exists in "Visualization Pipeline Output Settings" of the upload page (tick "Use a custom options string" to access).

      For users only exporting external formats using TVP (not Theorem client apps) – this will improve processing speed.

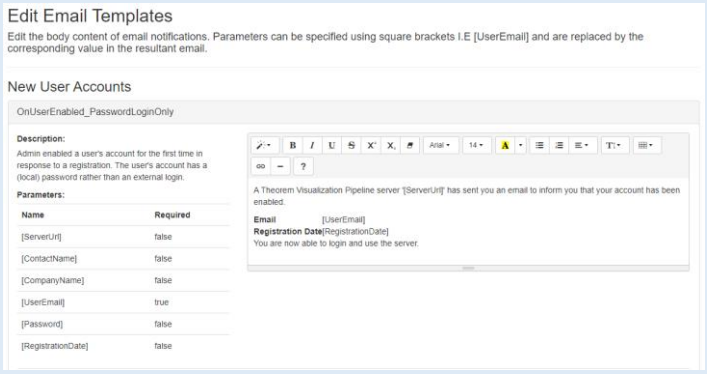


- **Add Reasons for 403 when Users have no roles (XR-594)**
    - Prevented users from seeing unknown “403” errors by assigning logical messages to known errors:



- **Email Update (XR-597)**
    - Provided ability for administrators to edit the email template that is issued when new users are registered on

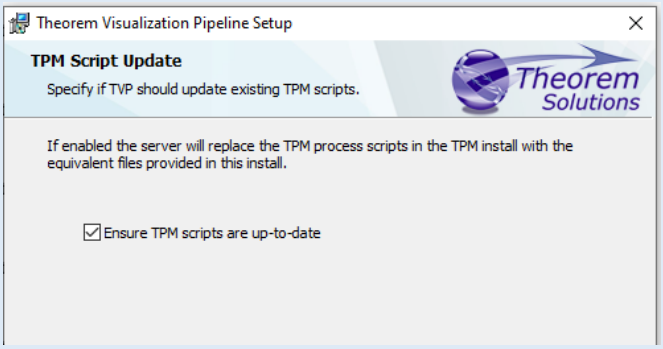
TVP. Access to do this is via the Manage/Settings/EditEmailTemplates menu:



- **Deliver mechanism to update scripts on install (XR-604)**

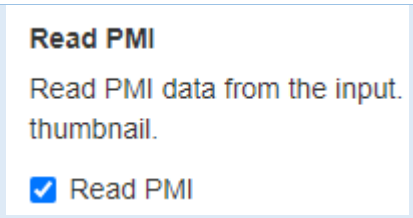
  - On installation run, TVP checks if the file in the TPM scripts directory is the same as the one in the TVP install directory. If found to not be the same, then this is shown as an “issue” on the TVP website. It is attempted to update this automatically. The TPM page also allows this to be fixed by copying the file from TVP install directory to TPM. If the IIS “application pool” for TVP is running as local service then we may not have the file system permissions to do this.

    A web config entry to control whether we automatically update the script on start-up exists and the MSI installer page controls the setting of this:



- **PMI Support (XR-627, XR-875, TD-701)**

  - Provided the user the ability to read PMI data for processing through to client applications. Select options from “Import Settings” menu:



- **Experience Editing Roles (XR-803)**
    - Allowed cad file and metadata uploaders to upload, edit and delete experiences
- **GLTF - use as source format if selected for Azure Remote Rendering (ARR) (XR-973)**
    - ARR will accept both FBX and GLTF as formats for asset generation. TVP has been updated so that if GLTF is uploaded and “pass through” is selected, the GLTF is pushed directly to Azure for processing. This works for GLTF and GLB
- **Shrinkwrap Enhancements (XR-946)**
    - Shrinkwrap can now also accept a FloorHeightCulling parameter. This parameter accepts a value (starting with 0 meaning the bottom of the model)

      Any objects below this defined value level will be omitted from shrinkwrap model removal. This allows for models to be considered closed even if they have an open surface, to enhance shrinkwrap performance.
- **Parting Line Solid Removal (XR-1060, TD-1224)**
    - In CATIA you can have data that includes geometry and parting lines (direction stored as a geometrical set).

      Currently, it can be a heavy manual process to obtain external surfaces (surfaces outside of the parting line) and remove them. At this release Theorem have included the ability to omit geometry based on a model’s parting line

      This is done by defining the parting line name and the geometric set with the draw direction at the point of upload:

- **FBX enhancements (TD-1321, TD-1439, TD-1454, TD-1091)**
    - Improved support for material read and write to ensure roughness is included and FBX generated model appears correct
    - For some old types of FBX file, when processed through TVP, the resultant geometry appeared in the incorrect location. This has been resolved.
    - Improved Mesh Vertex & Facet Normals - Indirect Indexing now used in meshes results in better quality, smaller FBX files
- **GLTF enhancements (TD-1328, TD-1408, TD-1455)**
    - Enhanced GLTF generation to cope with special characters in control characters
    - Code support for TIFF image texture types
    - When processing GLTF through to FBX via TVP the orientation of the source GLTF is now honoured correctly
- **Mixed unit assembly processing (TD-1427)**
    - Optimisation enhanced to ensure assemblies with mixed units process correctly with clean optimisation and at the correct scale.
- **Error when using Ampersand in filename (XR-953)**
    - Resolved an issue where upload a file with an “&” character in it resulted in a 0KB file being generated on the server
- **Formal Azure Spatial Anchor support in TVP (XR-1069 > XR-1072)**
    - ASA account information can be entered during the MSI installer.
    - Values are saved to web config:
        - <add key="SpatialAnchorsAccountId" value="" />
        - <add key="SpatialAnchorsAccountKey" value="" />

- <add key="SpatialAnchorsAccountDomain" value="eastus.mixedreality.azure.com" />
- <add key="AzureAdAppHasSpatialAnchorsAccountOwnerRoleInSpatialAnchorsAccountAccount" value="false" />

  - Endpoints "/AzureSpatialAnchors/AsaCredentials" and "/AzureSpatialAnchors/AsaAccessToken" exist to return the credentials or tokens in the same manner used for Azure Remote Rendering.

- **Using Alias site to redirect TVP site (XR-931)**

  - When TVP is hosted as a child of another IIS website the stylesheets and Javascript files didn't load properly.

  - Redirection to "please wait" and "unlicensed" pages didn't account for the URL prefix caused by parent site causing infinite loop.

- **Enhanced Scheduling (ICEM Ref Manager) (XR-941)**

  - Page is visible at /ARWebServer/Data/FileReprocessingSchedules for users with "CadFileUploader" role.

    When adding a new schedule you are shown a list of uploaded parts (icem session only, only these are known to benefit from this) that have an existing model that you have write permission for. The default #days and time is set in the web config. If a model is deleted or the initial processing isn't finished then the corresponding upload file isn't shown in the list.

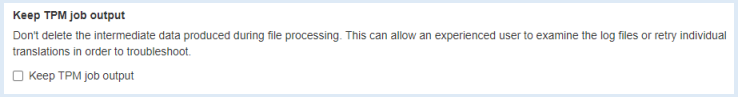
    Each schedule allows for up to one reprocessing of a file per day at the given hour. If there was a use case to run at multiple times it is advised create an additional schedule for the same file.

    The Windows service periodically checks if reprocessing is due and tells TVP to perform it. So, the service needs to be running for this to work.

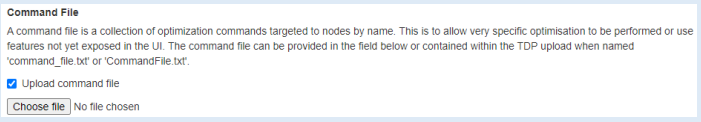
    Improved the formatting of the Windows service's log file.

- **TVP : Added a debug option to retain more logs(XR-999)**

- To enable verbose debug f issues, the upload page UI allows "KeepTpmOutput" to be toggled. (custom options -> import settings).



- **Active Directory enhanced support (XR-1059, XR-1090, XR-1032, XR-1043)**
    - ADFS Redirect Page after Logout. To have the user returned to TVP after signing out of TVP (and ADFS) requires TVP to keep a copy of the last id token.
    - Configure to allow pages to only accessible by ADFS users in TVP
    - Exposed end point on TVP to allow HL2 clients access to an Azure AD Cloud based server for user authentication.
    - Sanitised ADFS / OpenId Connect settings in web config.
    - The installer UI allows for both ADFS and other OIDC to be specified as external logins.
- **Command file usage (XR-829, XR-794)**
    - Users now have the ability to submit a “command file” via TVP. This gives the means to use different more granular conversion options at the component level.



- **Optimisation – JT Edge sewing (XR-1063)**
    - User now can sew together edges (of faces) that are within the specified tolerance of one another. This can repair 'splits' in the geometry caused by floating point inaccuracies or aggressive optimizations.

- **360 Viewer Support activities (XR-802)**

	○ Enhanced support for license features and client preferences for 360 Viewer usage. • **Theorem Data Retention Rules Service (XR-916)** ○ Data retention is now working when the data is stored on a network drive. It's recommended that UNC paths are used • **New control options in TVP:** ○ New web config value – Disable common folder All users will be unable to upload to common. Folder will not appear as a destination on upload page if turned on. key="DisableUseOfCommonFolder" ○ New web config value – remove ability to upload to another users folder: Admins still have permission to do this, but option is removed from upload page for users if turned on key="RemoveUploadToAnotherUsersFolderFromUploadPage"
Theorem-XR for VR **&** **Theorem-XR for Desktop**	***V2022.3.4 - TheoremDesktop_V2022.3.zip*** ***V2022.3.4 - TheoremVR_V2022.3.zip*** ***V2022.3.4- TheoremVR_V2022.3.zip*** • **Cintoo – Formal integration support (XR-1009, XR-1022, XR-1023, XR-1034, XR-1067, XR-1078, XR-926, XR-694)** ○ Theorem has integrated Cintoo SDK into both VR and Desktop applications. This release also includes fixes including: ▪ Corrected Height Offset, by allowing an override to not use the Layout as the height offset ▪ Allowed for darker scenes to enable the user to have an “empty” scene to use as a backdrop for Cintoo data ▪ Added the ability to change the opacity of Cintoo data via the use of a UI slider. ▪ Added the ability to specify an alpha value for the floor base material, now the floor base can be made completely transparent ▪ Reworked the Cintoo Project opening behaviour in an attempt to reduce the overall time to launch a Cintoo project

- Added additional checks throughout the logic to improve application exit

- **Support for Japanese characters in metadata (XR-1017)**

  - Updated code to support Kanji character sets in model metadata menu.

- **Support for save / load of point cloud Scans in Layouts (XR-1011)**

  - Point Cloud / Scan data files can be loaded into a Layout (Factory Layout / Design Review) context and are positioned and rendered relative to the Layouts origin. Saving a layout now retains these in their placed positions.

- **Cache Management - Add ability to download/delete models and experiences from Selected Model panel (XR-1012)**

  - Models, guides, and panoramas can now be downloaded to the cache and deleted from the cache from the model selection menu.

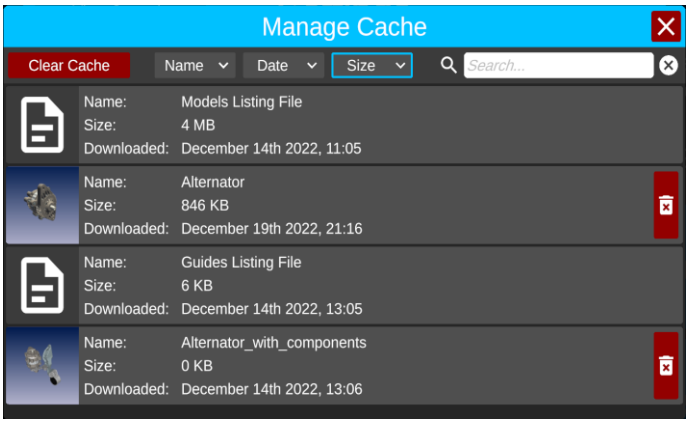
    The top right of a select model button which would previously show a save icon if the model was in the user's cache, will now display a download icon if the model isn't in the user's cache. This icon can be clicked to download the model to the cache.

    When a user hovers over this save icon for a cached model, the icon will turn to a bin and the text will turn to "delete from cache", if this bin icon is clicked the model will be deleted from the cache

Experiences can also be downloaded to and deleted from the cache. To do this, select a model from the model selection menu and there will be download icon next to non-cached experiences. This icon will once again change to a floppy disk if an experience is cached, and this can then be hovered over to become a bin icon which can then be clicked to delete an experience from the cache.

- **Cache Management Panel - View / Sort / Delete content in cache (XR-722)**

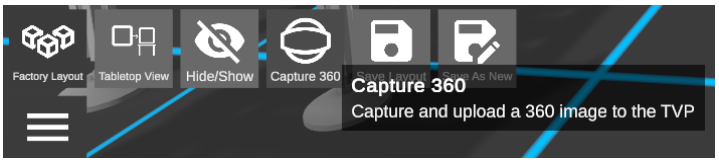
    - There is now a Manage Cache button in the Settings Panel which opens a Cache Management Panel. Within this panel, the user can use the "Clear Cache" button to clear all files within their cache, use the sorting buttons to sort ascending or descending for size, date and name, and use the filter search bar to view only cached files whose filenames contain a certain piece of text. Each listing in this panel also has a bin button a user can click to delete that individual file from their cache:



- **360 Image view capture (XR-1029)**

    - Added a Capture 360 button within the Factory Layout menu. When this button is clicked, a 360 image will be captured at the user's location and then automatically

uploaded to the user's folder on the TVP within Non Processed Data.

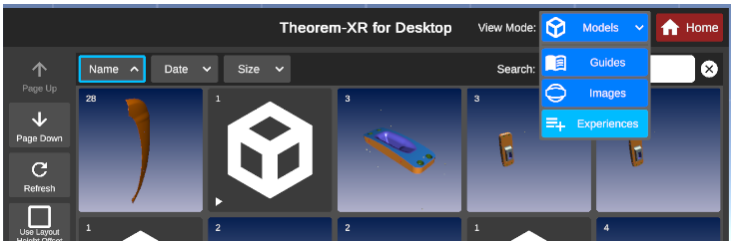


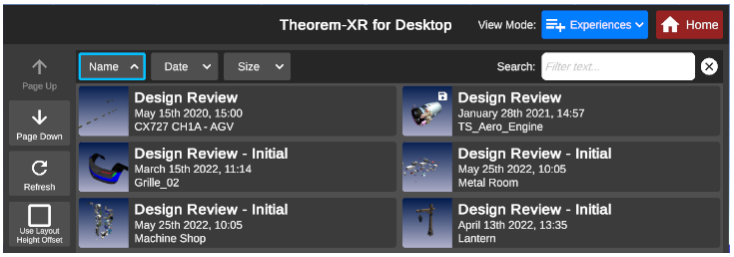
- **Initial Menu Option to see Experiences or Model Repository (XR-1083)**

    - Added the ability to select a new view type of "Experiences", this will then show any selectable type of experiences in a listing of 2 columns of data.

      These experiences can be sorted in a similar fashion to models, such as via the sorting modes of: Name, Date or Size. As well as by providing a name to search for within the text input field.

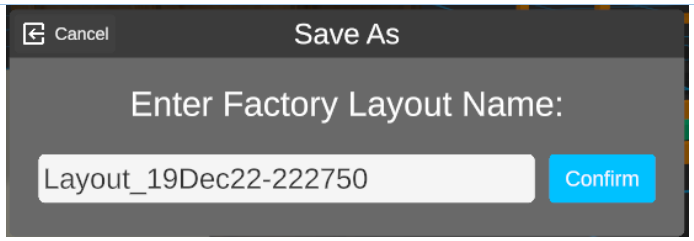
      Selection of any of these experiences will automatically load the associated model and the selected experience.





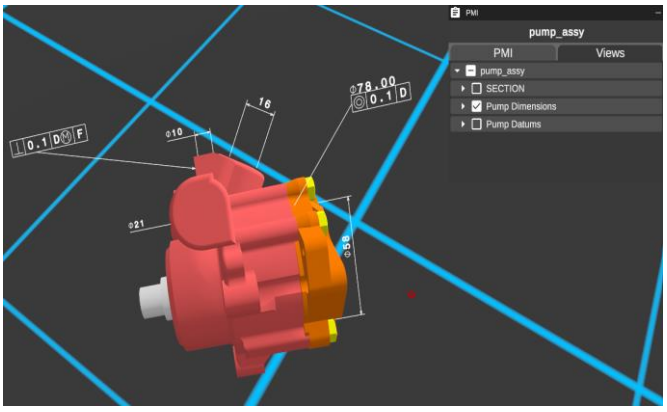
- **Enter Custom Layout Names when Saving in Client Apps (XR-1084)**

    - Added the ability to enter custom name when choosing to save a layout from within the client application.

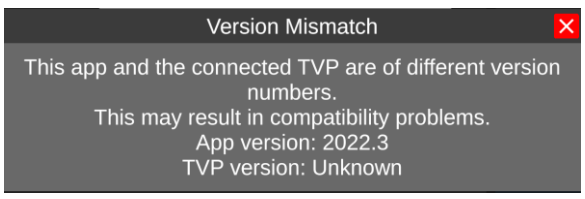


- **Persistent Client Defaults (XR-949)**
    - "Group By Project" and "Load As Component" toggles in the Load Scenery menu now persist across the same session or multiple sessions. The user's selection is retained.
- **PMI Support (XR-617)**
    - Supporting the ability to view data that has been processed with PMI on and review from within the client applications

      Users now can turn on PMI by its type or by its associated view. This can be selected from the PMI menu:



- **XR server / client compatibility (XR-721)**
    - To ensure full functional usage, a matching client / TVP release pair must be used. At this release there is inclusion of the automatic verification of this. A warning from within the client apps informs a user of an incompatibly with the connected TVP when logging in or when entering collaboration.



- **Animations in explode mode (XR-840)**
    - Fixed multiple conflicts with the explode tool and animations.
- **Enhanced COP data support (XR-1041)**
    - Implemented vertex shader into the project, allowing for individually coloured points in the point cloud.

      This removes the need to separate point cloud points based on their colour. As a result, significantly less Mesh entries need to be generated, which has the potential to lower the overall impact on the application, resulting in a higher frame rate.
    - Altered Point Cloud load behaviour to split the file read and file process across multiple threads. This appears to drastically reduce the load times when processing larger amounts of data
- **360 Viewer enhancements (XR-865)**
    - Users can now enter panorama mode from any world scene. If the user enters a panorama from a non-grid world scene, their world scene will be briefly loaded as the default grid (which shouldn't be noticeable to the user) before the panorama is loaded
    - When the user exits the panorama, their world scene should be loaded back as the world scene they had before loading the panorama. Viewing direction is no longer reset when the user teleports to a waypoint in Panorama mode
    - The waypoints panel is now on by default when the user enters Panorama mode. The waypoints panel in factory layout remains turned off by default when the user enters a factory layout experience
- **Allow import of Scan data (XR-958)**
    - Added the ability to load scan data into a Guide
- **Video comment crash (XR-1047)**
    - Rewritten video capture utility to allow for it to be successfully used in conjunction with new .exe software installation method.

	• **Launch App with predefined user settings (XR-1088, XR-728)** o Clients can now be launched with specific settings using a config.xml placed in the same directory as the launch executable. This config can contain every option available in the settings area of the application to allow a set configuration of options to be pre-defined for any user. The config can also contain a list of set servers that can be connected to allowing the use of hot swapping between certain defined servers without having to retype each host address. • **Clashing BB Analysis (XR-759)** o Implemented a feature to add walls that can detect clashing models. When a model is sectioned by a clashing wall the wall appears red. Measurements can be assigned to walls to give definitive sizes. The ends of the walls can snap together to make walls either fit together or equal in length. o ClientPreference for Dynamic Wall behaviour is required: "EnableDynamicWalls"
Theorem-XR for AR	***V2022.3.3 - TheoremAR_Android_V2022.3.zip*** ***V2022.3.3 - TheoremAR_Windows_V2022.3.zip*** ***V2022.3.3 – Apple – App Store*** • **Occlusion support (XR-1003)** o Support for depth occlusion using AR Foundation, this includes the ability to enable and disable the occlusion of the 3D model based upon real world scans. The user can select between the 3 available quality settings for Depth Occlusion, these being: ▪ Fastest (Low) ▪ Medium (Medium) ▪ Best (High) This will enable the user the ability to change their own settings depending on the performance of the device that the application is running on.

	• **Optionally save images to the camera roll (XR-1004)**
	  ○ Added NativeGallery plugin to the application. This plugin aims to facilitate the ability to save images to the device gallery regardless of the device in question.
	  The save image logic has been changed to accommodate this requirement by now always saving the image to the device gallery, but also saving the image to the connected experience server if the user has selected for it to do so via the settings panel.
	• **Model Tracking Stability Updates (XR-907)**
	  ○ This release has added extendible SLAM based tracking to Model and Image tracking, which should allow for the tracking target to leave the camera field of view, but still keep some correct tracked position, so that when the tracking target re-enters view, the augment content will still be positioned correctly. For this to work well, an initial look-around of the surrounding area, and 'swimming' the device around to prepare the SLAM AR context is necessary.
	• **Support for User-based Offline Licensing (XR-956)**
	  ○ Enhanced app to allow tablet users to check out licenses for offline usage.

HoloLens 2 Support	***V2022.3.3 - TheoremHL2_V2022.3.zip***
	• **New menu system (REQ-214, RP-66, RP-67)**
	  ○ As the numbers of features have increased, the previous menu system became unruly, with a focus on usability, the HL2 UI has been re-written at this release.
	  ○ Includes ability to filter on Simple and Advanced menu sets:
	• **Offer Flexible Model Positioning from QR-Code location (RP-72)**
	  ○ A user can visualise a model in a pre-defined offset position from a QR-Code. This uses the model origin - when pointing at the QR Code, it will show a guide line (yellow) pointing to the offset position (green) along with the model origin (white) and offset line (red). To use this a user must:
	  ▪ Upload model to TVP in regular manner
	  ▪ User must set QR_CODE_OFFSET in properties of model

- Then set associated X,Y,Z co-ordinates calculated from the desired QR code location.
- User places QR code in designed location
- Activates it in HL2 session
- Clicks to activate once offset guidelines appear.

- **Support for Japanese characters in metadata (RP-82)**

  - Updated code to support Kanji character sets in model metadata menu.

- **Initial Menu Option to see Experiences or Model Repository RP-91)**

  - Allows users to filter the model selection by either the model or experience type.

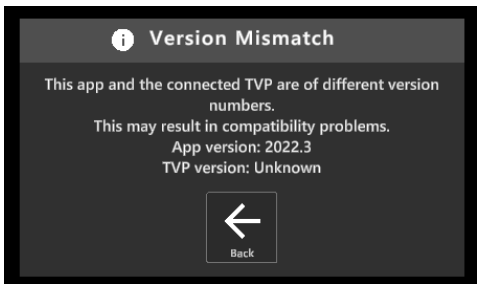
    This is operated via a new View Mode toggle on the Select Model menu panel, containing the two options: Models and Experiences

- **Enter Custom Layout Names when Saving in Client Apps**

  - Added the ability to enter custom name when choosing to save a layout from within the client application.

- **XR server / client compatibility (RP-98)**

  - To ensure full functional usage, a matching client / TVP release pair must be used. At this release there is inclusion of the automatic verification of this. A warning from within the client apps informs a user of an incompatibly with the connected TVP when logging in or when entering collaboration:



- **Persistent Client Defaults (RP-94, RP-71)**

  - "Group By Project" and "Load As Component" toggles in the Load Scenery menu now persist across the same session or multiple sessions. The user's selection is retained.

- **Initial Menu Option to see Experiences or Model Repository (RP-91)**

    - Added the ability to select a new view type of “Experiences”, this will then show any selectable type of experiences to select from.

      These experiences can be sorted in a similar fashion to models, such as via the sorting modes of: Name, Date or Size. As well as by providing a name to search for within the text input field.

      Selection of any of these experiences will automatically load the associated model and the selected experience.

- **Add Sensitivity Slider to Visualization Experience (RP-93)**

    - Included granular sensitivity slider in Visualization experience.

- **Active Directory support (RP-74)**

    - Included the ability for Hololens 2 users to connect to TVP and obtain models using their Active Directory credentials.
    - Added AD Client ID validation
    - AD: added more debug and exception handling.
    - Active Directory Sign in
    - Obtain AD OIDC data from the TVP server and support multiple providers.

- **Tool usage -Passive user view (QA-282)**

    - Fixed bug to ensure that a passive users can see the host interacting with tools (Pen etc.)

- **Updated on rails tutorial (RP-101)**

    - Updated the HL2 Tutorial with the latest menus and voice over snippets

- **Product Structure Viewer (RP-86)**

    - Implemented new menu to allow an assemblies product structure to be reviewed from within app. Includes features with hide/show, outline, search and model listing.

- **Limit user capabilities for demonstrations (RP-79)**

- A user now can enable “Non-interactive Mode” with host change prevention (unless the host has left the session). Enabling this restricts access to menus to allow a user to view a layout with no opportunity to modify anything. e.g. Read only & Just allow a user walk around and view mode.

  The voice commands are:
  - “enter non-interactive mode"
  - "exit non-interactive mode"

- **Clone Mesh (RP-77)**

  - Included the ability to click on a mesh to clone it, then click to place the clone (single-user layouts)

- **Allow ARR referenced files to be loaded with no access to TVP (RP-70)**

  - A user now has the ability to work in Off-Line mode and allow an ARR Visualization Experience or Layout Model to be loaded from the cache.

    This is possible by retaining the ARR model reference and ARR blob storage token, such that the user can communicate with the Azure server without the need for direct access to TVP.

- **Improved error diagnostics**

  - Better error handling for server calls
  - Display error messages when checking connection.
  - More logging for licensing issues (requires VerboseDebug=True preference set on TVP) and the verbose log can be accessed from the HoloLens Portal

- **Added QR code support back into collaborative Design Reivew (QA-310)**

  - Resolved issue where QR code usage was missing from design review collaboration

- **Isolate component – Factory Layout**

  - Isolate Component feature added to Visibility menu, prevent automatic restore - added “Show All Components” button. (currently single user only)

Known Limitations and Restrictions

The following limitations and restrictions have been identified during final testing prior to release and will be resolved for a future lock-down:

Ref ID	Limitations and Restrictions
XR-69	***Exporting a Layout as JT*** • For the JT export to function correctly, a user must have the following minimum version Theorem JT translator installed: cdCAD_24.1_CA5JT_WIN.01. If this is not installed, a user may see a JT with empty (2KB) subordinate JTs created • If a user presses the "Output as JT" on a chosen layout, but a JT is not generated and the server appears to be unresponsive, the service that runs this capability may hang. To reset this, the following steps should be taken: o Launch the "Task Manager", on the "Details" tab locate "FBXGenerator.exe" o Right click on the FBXGenerator.exe and select to "End Task" and select to "End Process" when prompted o Change to the "Services" tab and locate "Theorem Experience Server Service" o Right click on this service and click to "Stop" then "Start" the service. o Once running, navigate back to the server page and select to "Output as JT" again • A user must have a valid FBX_DEFAULT license feature to use the JT Export option
XR-496	***Migration from SQLite to MS SQL Database*** • The existing data in the MSSQL database is replaced (not merged)! • Once complete any existing logins will no longer be valid. It will be required to sign in as a user imported from the SQLite database. • The SQLite database file is moved afterwards to prevent an admin re-running this procedure at a later date and losing all data added in the interim period. Ensure that the SQLite database file is backed up

XR-507	**New TVP Licensing** • On the licensing page a new menu item is listed: "*FlexLm license features that limit this server's functionality (including license and license features for clients)*" If legacy licensing is being used, expanding this will show several server license features, all listed as false. These values do not apply to legacy licensing, so the information will not be true for your server. • To use shrink wrapping successfully a server will need access to the following license features: ○ Legacy – DRFBX-U1 ○ New - XRFBX-U1
XR-184	**Check List Licensing** • To successfully use a new Checklist license (XRCHK-U1) a user must also have a valid comments license (XRCOM-U1)
XR-636	**Vive Focus 3** • Controllers are shown, but hand representation is not included at this release (Steam limitation).
XR-757	• If GLB is selected as an output type, it appears in the download list as "GLTF", when selected, the part is a GLB as required, it is just labelled incorrectly.
XR-876	**VRED : Allow Upload from a VRED client directly to the TVP server** • When using VRED Pass through, it is known that some material definitions are not passed through to the output VRED data set. These are AxF materials and Switch materials.
-	**Theorem AR: Movement of measurement tooltips** • Current measurement labels are fixed in location. They cannot be moved and sometimes may appear inside a model
-	**Theorem AR: Animation playback speed** • Animation is tied to device frame rate, this can give the illusion of stuttering in animation replay.

-	**QR Code origin placement in collaboration – HL2** • If a host defines their world origin using a QR code, currently it will only move the scene for the host user
-	**Collaboration session – Host acquisition** • Collaboration sessions have a slight time buffer when creating a new session. This introduces a small time period that allows for another user to join and take host privileges in between creating a session and it starting. To avoid this, allow a few seconds before joining any active sessions
XR-617	**PMI Support** Known limitations: • Sectioning • Camera Manipulation • Coordinate System Display • PMI text elements do not rotate to face the user, meaning that it is possible to see the text appear backwards
TD-1427	**Mixed unit assembly processing** • For any parts with scaling issues in client experience ensure 25.4.004 CA5JT is include in install location.
XR-1102	**2D slicing support** • Some failures may occur when creating PNG images for each "2d slice" this is currently being investigated, but will be rectified with new DWG Cadverter.
XR-1046	**Session name – special characters** • Some issues can be observed by passive users if special characters are saved in session names. It is advised not to include these in the name.