



EON-XR 9.5 Release Notes

Release date: August 3rd, 2022

Highlights

- EON Metaverse Builder*
- Avatar customization and lip sync with Ready Player Me
- Video upload and streaming without using YouTube

* EON Metaverse Builder is a separate product (currently only on mobile) and requires additional license for usage. However, all users will automatically get EON Metaverse Builder for a 30-days trial period.

EON-XR application

New Features

 = requires EON Merged XR license

 = requires EON Spatial Meeting license

EON Metaverse Builder



With this release, we are introducing a new creation tool called **EON Metaverse Builder**. Under this new build environment, you start with an empty scene and then populate the virtual world with 3D objects from the library, or import them directly from Sketchfab.

After that, you can inject knowledge to the imported objects and create assessments without leaving the AR mode.

Please see [Appendix](#) below on how to use the EON Metaverse Builder.

Create all assessments in AR with the new dockable Assessment Portal



To support the EON Metaverse Builder, we have extended the Assessment Portal introduced in the previous version of EON-XR (EON Merged XR) to enable the creation of all types of assessments in AR mode. This means you can create and manage Quiz, Locate, Identify and 3D assessments in one

place. Additionally, this portal can now be either docked in a 3D space or pinned to the camera. For more information on how to use this new Assessment Portal, please refer to the [Appendix](#).

Create your own unique avatar with Ready Player Me

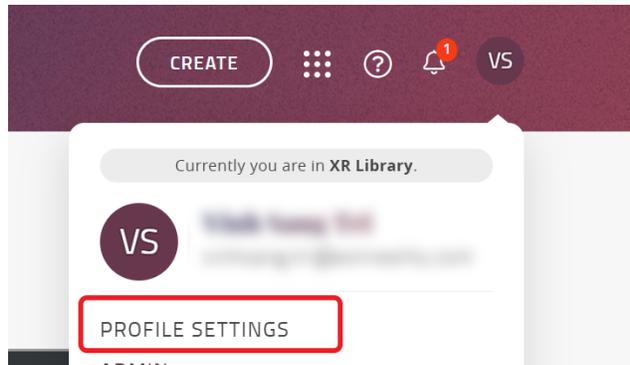
You can now create your own unique avatar, which can then be used in 3D recordings and Spatial meetings. You can access the vast library of components offered by the Ready Player Me system, where you can customize every aspect of your avatar, such as hairstyle, skin color, and attire.

Create your own avatar:

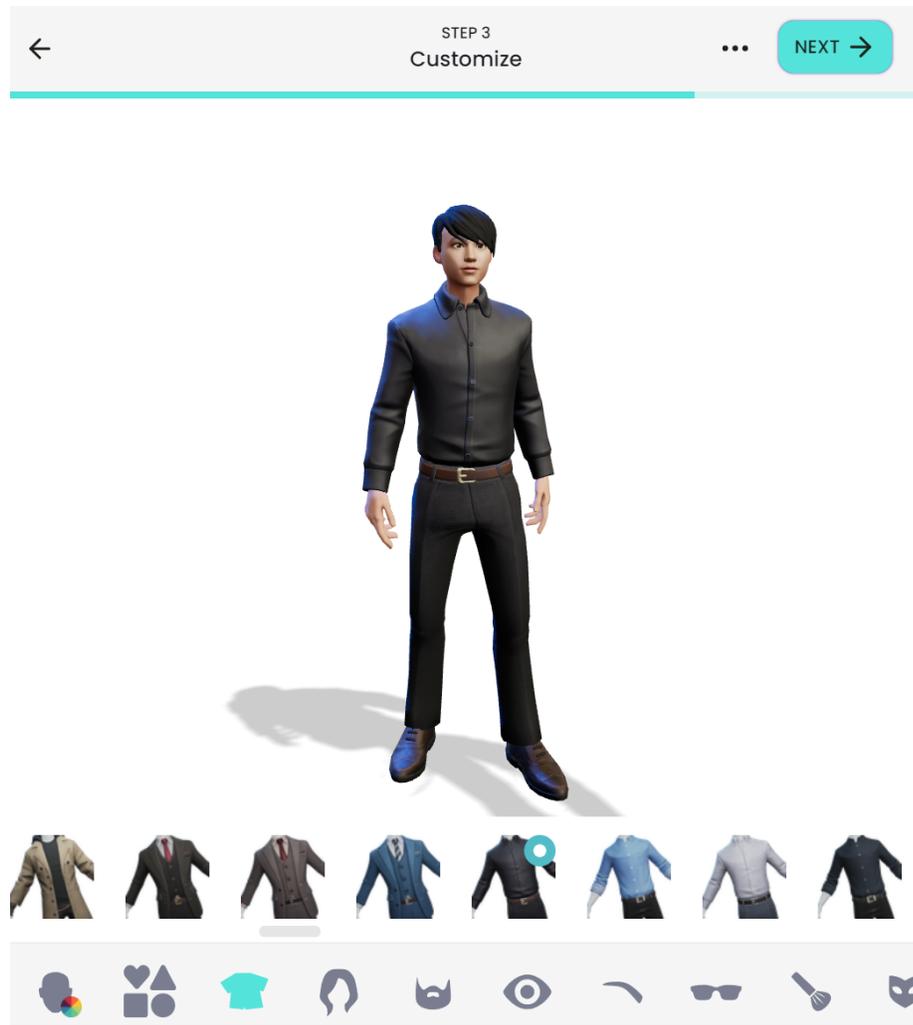
1. Log in to EON-XR
2. Go the Profile settings page:

Desktop

- a. Select the Profile icon, in the upper-right corner.
- b. Select **Profile Settings**.



- c. Select **3D Avatar** to create or edit your avatar..



- d. Select **Next** to generate your own avatar.

Mobile

- a. Select the profile icon  in the **Library** tab.
- b. Select **Profile Settings**.
- c. Select **3D Avatar** and create or edit your avatar.

- d. Select **Next** to generate your own avatar.

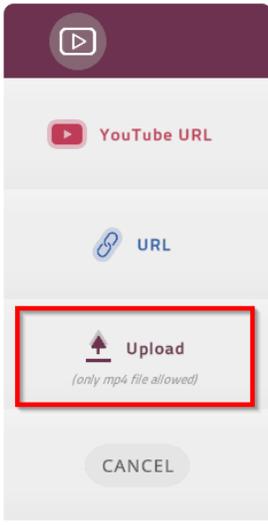


Avatar Lip Sync

The avatar you create with Ready Player Me is capable of syncing its lip movement to spoken words. This means that when you play back a 3D recording or participate in a spatial meeting, your peers can see the lips of your avatar animated to your speech. This feature is automatically enabled.

Video upload and streaming without using YouTube

If you have a shorter video, you can attach it with the video activity directly, instead of uploading it to YouTube first. The short video is streamed from the EON-XR server. The video must be encoded in H.264, using the container format mp4.



Play video from a custom URL

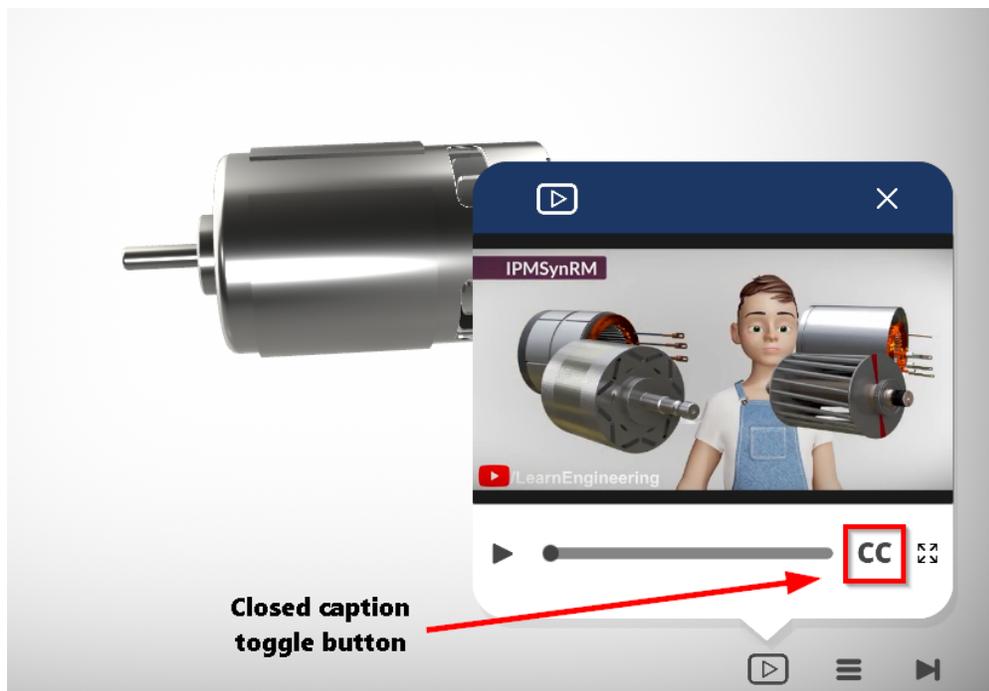
Instead of embedding the video directly into the lesson, you can put the video on your own server and add the URL of the video file. When playing this activity, the video is streamed from the URL.

Note: Only direct file URLs are supported, meaning the URL must point to a file, for example: <https://docs.eon-xr.com/Videos/Releases/9.5/3dlesson-activity-name.mp4>.

The video must be encoded in H.264, using the container format mp4.

Closed captioning of YouTube videos

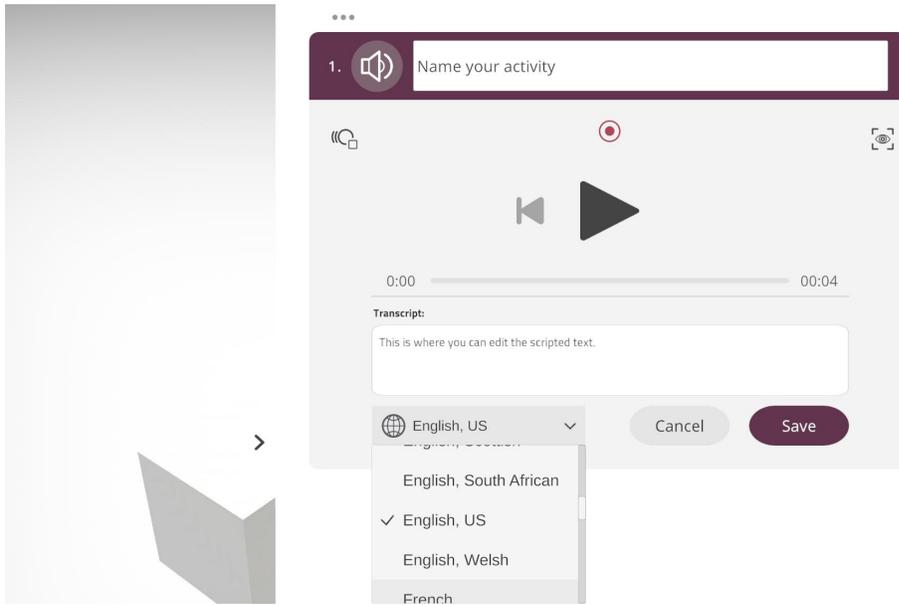
If you play a YouTube video with English caption data, you can now display the closed caption text in the video player by selecting the CC button (in the player control row). If no caption data is available (in English), the CC button is disabled.



Support for additional languages will be added in future releases. Note also that closed captions are currently not available in the Knowledge Portal video panels.

Transcribed audio can now be edited (and language set)

When you record or upload your own audio for the Audio activity, you can edit the audio transcript afterwards. You can also choose which language is spoken in the audio so it is correctly transcribed.



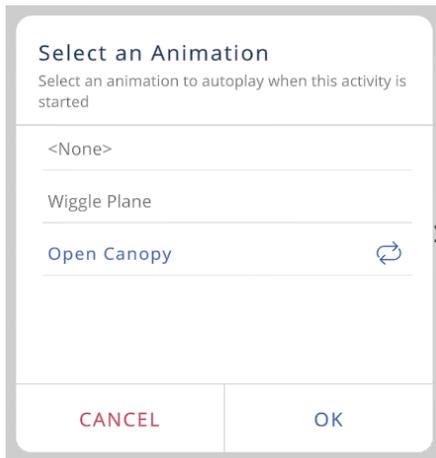
Toggle looping mode when linking an animation

When you link an activity to an animation, you can decide whether to loop the animation forever or only play it once when the activity is triggered.

Select loop mode:

1. Select the activity in the Side panel.
2. Select  **Edit**.
3. Select  **Animation**, to open the Animation Selection dialog.
4. In the Animation selection dialog, select an animation in the list.

Note: This dialog only shows animations available for the current hierarchy level. To switch hierarchy level, close the dialog and use the hierarchy level control in the upper-right corner and to go to the hierarchy level where you have created your animation(s).



5. After you have selected an animation (the name becomes blue), the loop mode toggle  is available on the right side of the selection row.
6. By default the loop mode is on (blue). Select  button to toggle it off.

Inline editing of part names in the hierarchy view

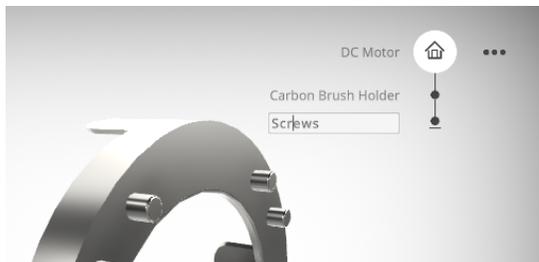
The display name of each part of the 3D model used in a lesson can be changed in many different places and in this release we are introducing an additional way to rename any part of the 3D model directly inside the lesson 3D editor.

Here is a summary on how the part name is shown as display name in the hierarchy view:

1. The part has a name given when it's being modeled. If the user changes this name by modifying the 3D model and reuploading the new asset, a new lesson must be created, because all activities are tied to this internal part name.
2. To rename parts after the asset is already in use, you can find settings for this in the **Hierarchy** tab on the Asset page.
3. When you create a lesson from the 3D asset, an annotation is created for each part of the 3D model, using the name in the **Hierarchy** tab, if set. Otherwise, the internal part name is used.
4. After the annotations are created, you can change the annotation name in the **Hierarchy** tab.
5. If you delete a created annotation, you will not be able to change the part name.
6. Since no annotation is created for the root object, there is no way to change this name for the lesson.

That is where this new feature of editing the part names in the hierarchy view becomes useful. Here is how you use it:

1. Check if the part you want to rename is visible in the hierarchy view. If not, double-click the 3D model to go down in the hierarchy until the part is revealed.
2. Click once on the label portion of the part in the hierarchy view, to open the text editor.
3. Type to edit the label.



4. Select the Return key or click anywhere outside the edit box to update the text.
5. Select the ESC key or select the Cancel button, to cancel the editing.

Note: If you have an annotation connected to this part, the annotation is also updated.

360 Portals

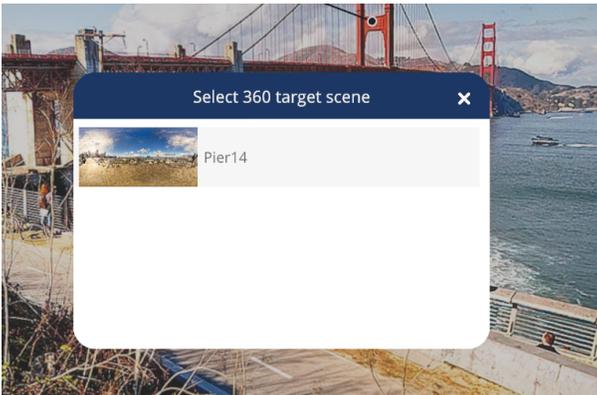
In 360 lessons, you can now create so-called **Portals** to transition from one 360 scene to another. This means you can lay out Portals anywhere on a 360 scene, and then specify the destination 360 scene for each Portal. In play mode, you can click on one of these Portals to initiate a transition to the destination 360 scene, instead of using the forward and backward buttons to move linearly between two consecutive 360 scenes. You can go back to the previous 360 scene by selecting the new back icon, by the navigation buttons.

Create a Portal:

1. Right-click (or use long tap on mobile) on the spot where you want to create a Portal.
2. Select **Add Portal** in the pop-up context menu.



3. Choose the 360 scene you want to transition to.



4. A portal with the name "Portal" is created.
5. Select the label and the Pen icon, to rename the Portal.

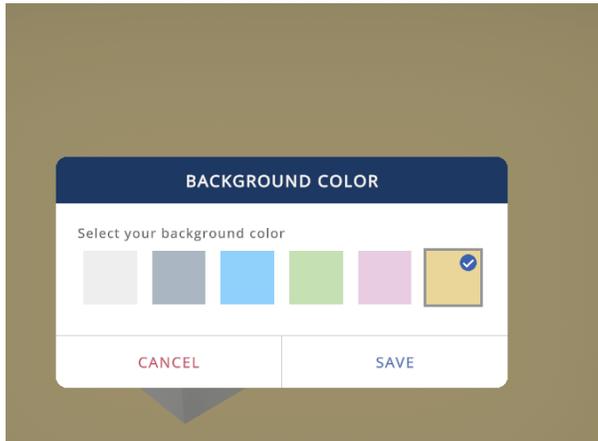
Edit an existing Portal:

1. Select the portal by tapping on its label.
2. Open the side panel.
3. Delete the Portal by selecting the **Trash icon**, in the upper-right corner.
4. Select the Pen icon to:
 - a. Choose another destination 360 scene, by selecting the 360 image.
 - b. Set the view point when entering the destination 360 scene, by moving the slider beneath the 360 image.

Change the background color of a lesson

The background color of a lesson can now be changed, in the Settings dialog.

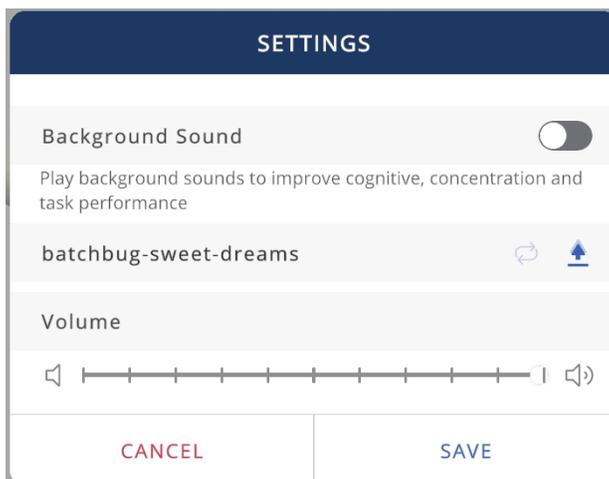
1. Select  to open the **Options** menu.
2. Select **Settings**.
3. Select **Background Color**.
4. Choose your new background color from a set of predefined colors.
5. Select **Save** to commit the change.



Add a background sound to a lesson

It's now possible to add a background sound to a lesson, to create an ambient atmosphere or as an audio introduction. To set the sound:

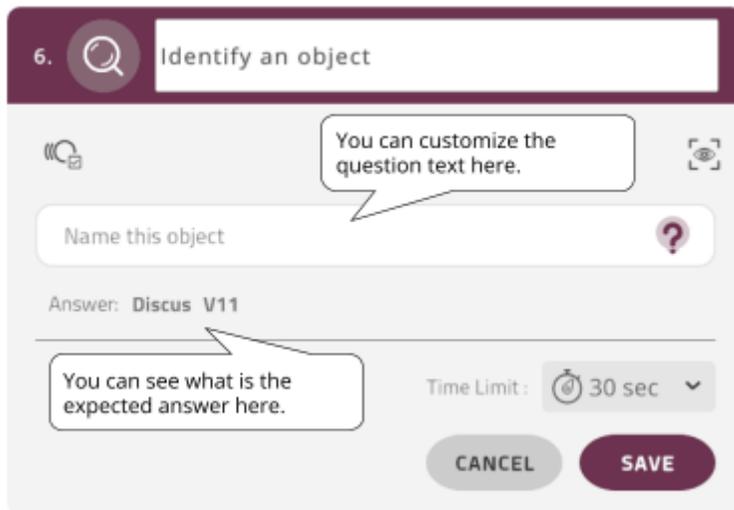
1. Select  to open the **Options** menu.
2. Select **Settings**.
3. Select **Background Sound**.
4. The Settings dialog changes to this dialog:



5. Select  to upload an audio file (must be encoded in mp3 format).
6. Select **Background Sound** to toggle the background sound on or off.
7. Change the background sound volume using the **Volume** slider.
8. Select  to toggle the looping of the sound.
9. Select **Save** to confirm the sound settings and exit back to the Settings dialog.

Customize the question text used for Identify and Locate activities

You can now customize the display text used for **Identify** or **Locate** activities. Previously, when you run such activities, it would always use *"What is this?"* for Identify and *"Locate [name of the part]"* for Locate respectively. You can now change these texts in the edit mode on the side panel:

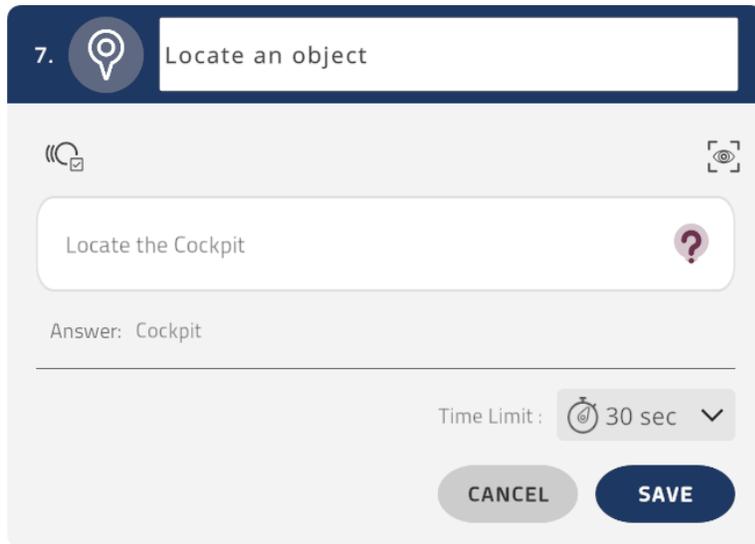


See what is the expected answer of an Identify activity

Now the expected answer of an **Identify** activity is clearly stated in the edit panel.

See the name of the Locate target

The name of the object that the **Locate** activity is looking for is now clearly stated in the edit panel.



Delete lessons on mobile

It's now possible to delete lessons you have created from the mobile app. Previously you could only do this on the web portal (desktop).

Move anchored object up and down

In AR mode, after you have anchored an object, you can finetune the vertical position of the object by panning (tap and hold) with 3 fingers up and down.

Change the scene title of a 360 lesson

The scene title (in the upper right corner) of a 360 lesson is set from the 360 image file. You can now change this title in the lesson, by clicking/tapping on the scene title and start editing it. Press **Enter** or click anywhere outside the text edit field to save the editing. Press **ESC** or select **Cancel** on the top of the onscreen keyboard to cancel the editing.

Updates

The animation is played immediately if there is only one in the lesson

When you select the animation button, and the lesson contains only one single animation, the animation plays immediately, instead of requiring you to select the play button on the animation pop-up control panel. If the lesson contains multiple animations, you must select the play button to play the animations.

Animation is now paused when pausing an activity with an animation

When you link an activity that is pausable, such as the audio or video activity, to an animation, and you pause the playback of this activity, the animation is now also paused. Previously, the animation would continue to play.

Animations can now be attached to empty group nodes

You can now create an animation under an empty group node without geometry, and it's still being recognized. Previously, these animations would be discarded.

Improved user experience when changing hierarchy levels

When you double-click on a subpart to go down to that level, there is now a gradual transition where the current level of geometry fades away, before the camera zooms in to center a new subpart into view. There is a similar transition when you go up in hierarchy level, in which the upper level parts appear first, before the camera zooms out to encompass the newly revealed parts.

This transition effect aids the user in tracking where the parts are going and improves the user experience when changing hierarchy levels.

Right-click mouse button to bring up the annotation creation menu

On desktop platforms, instead of clicking and holding down the left mouse button, you now right-click the mouse button once to bring up the annotation creation menu. This improves the user experience on these platforms.

For mobile platforms, you use the long tap to bring up the same menu.

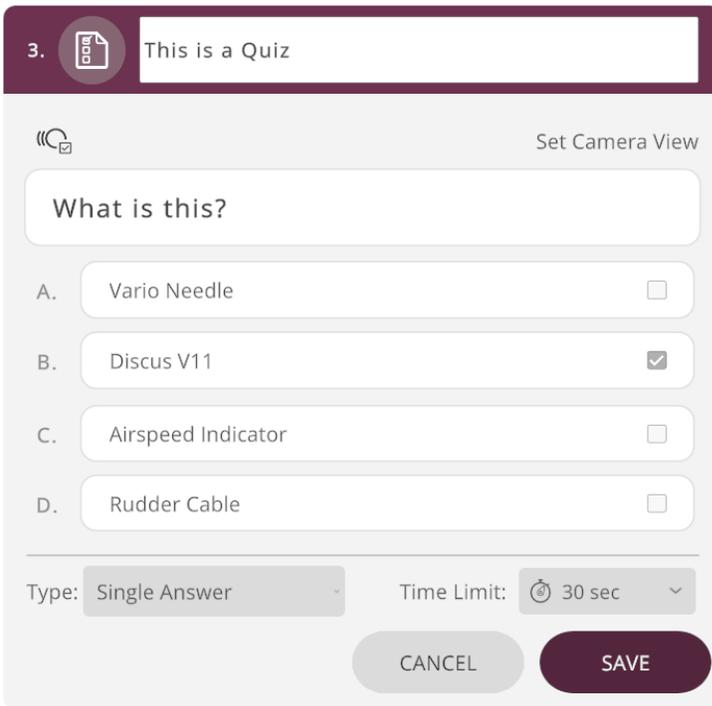
Tapping on the Home button will no longer execute several functions at once

In the previous version, when you tap on the **Home** button, it would both change hierarchy level to the root *and* reset the view to the one you have saved with the **Set Initial View** command.

With this release, the first tap on the **Home** button only changes the hierarchy level. If you want to reset the view, tap the Home button again.

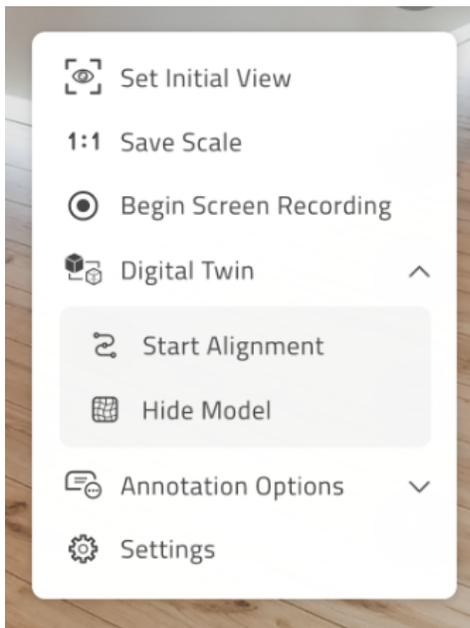
Improved Quiz edit panel

The Quiz edit panel on the side panel is improved with bigger Question text and other usability changes.



Improved Options menu with sub-menus

Some items in the **Options** menu, accessed via the ... button, are now moved into sub-menus, to improve the usability and fit more items on devices with limited screen space.



Important Fixes

No more 1:1 Save Scale and Set Initial View in Options menu in Play mode

The **1:1 Save Scale** and **Set Initial View** are no longer available in Play mode in the **Options** menu, since these are editing functions. You must enter Edit mode to access these functions.

Known Issues

Extra copy of an annotation when it's being relocated

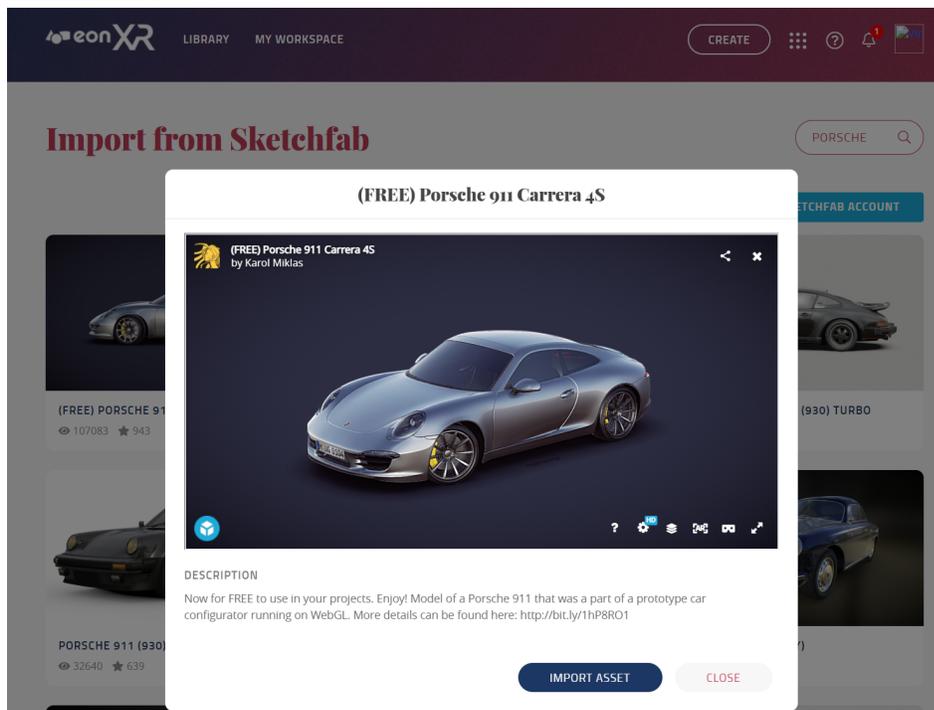
If you relocate an annotation immediately after it has been created, using the Move dongle , it sometimes leaves behind an extra copy of the annotation in the original position. This issue is resolved by reloading the lesson or temporarily switching to another 360 scene and back (if it's a 360 lesson).

Web Portal

New Features

Import Sketchfab models on Windows and MacOS

In the previous version, we introduced the import of Sketchfab models on mobile devices. This function is now available on the desktop platforms. Select the **Create** and choose **Import from Sketchfab**, to access this function.



Delete your EON-XR account

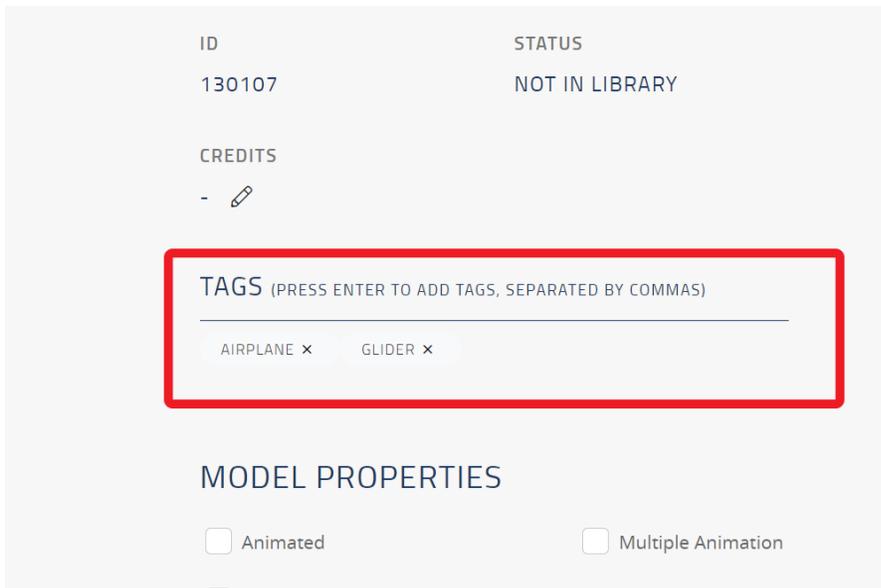
It is now possible to delete your own account by going to the **Profile Settings**, either in the mobile app or on the web portal, and select **Delete Account**. If you confirm the delete operation, your account will be deleted and removed from all the institutions you have joined.

Set tags on assets to improve the searchability

On the asset page, you can now set words to describe your asset in the **Tags** section. These words are then included in search operations performed by the user on the web portal.

Enter multiple tags by using comma separation.

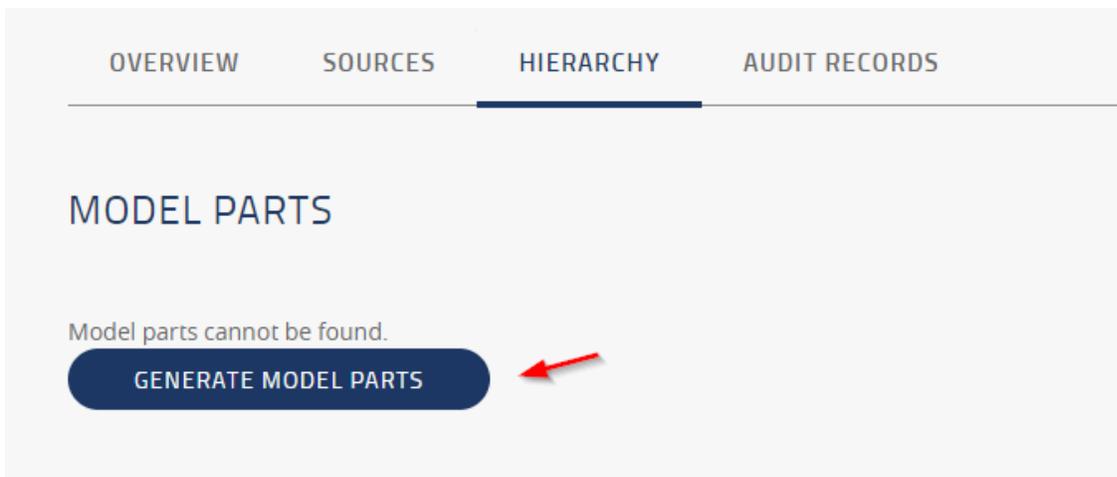
Select the **x** after the tag to remove a tag.



When you import an asset from Sketchfab, the tags from the Sketchfab model are automatically transferred over to the imported asset.

Model parts generation

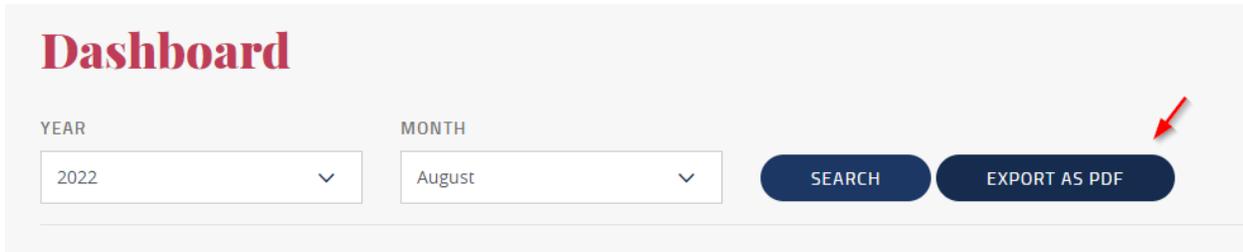
We have added an option to generate **Model parts** for 3D objects that were missing these. After these parts are generated, you can easily rename the part names on the asset page (on the web portal).



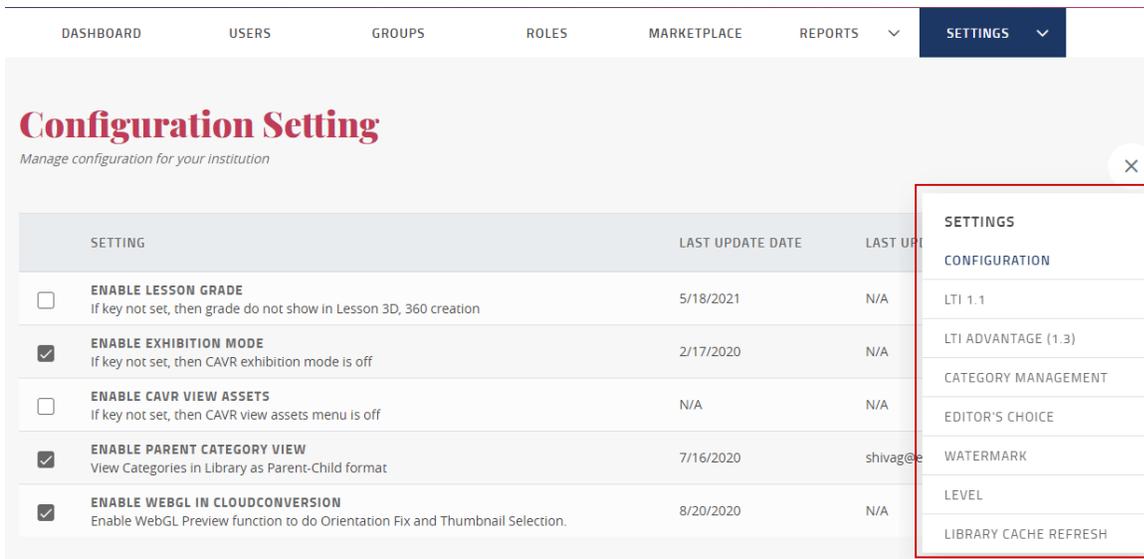
New functions on Admin page

In Dashboard we have added the following:

- Export report as PDF
- Added a new chart to indicate
 - Lesson shared internally or externally
 - EON Merged XR and EON Spatial Meeting licenses are used
 - Top 10 Shared Lessons
 - Lesson Creation Spent Time By Week
 - Time spent in lesson editing
- The Dashboard report will now be automatically emailed to Lead Admin monthly.



In admin we have also added sub menu at sidebar to make navigation easier:



In the **Export users** function, we have included 'Group' & 'IsActive' fields.

New functionality in 3D lessons

- In Lesson Statistics, we have added a filter by group:

OVERVIEW ABOUT **STATISTICS** AUDIT RECORDS

LESSON STATISTICS

FILTER BY GROUP All Groups ▼

All Groups
 1A1
 1B1
 1B2
 1C1
 1C2
 1D1
 1F1
 1G1
 1H1
 1I1
 1J1

DATE	NAME	ATTEMPT	TIME SPENT	SCORE	STATUS
7/26/2022, 6:01:47 AM	William King III	23	03:40		N
3/25/2022, 8:44:26 PM	William King III	22	01:45		N
3/25/2022, 8:43:16 PM	William King III	21	00:24		N

- The results you get from performing a 3D assessment are now available in the lesson statistics section in the lesson page. Furthermore, the lesson score will now include this score, when final score is sent to LMS via LTI 1.3 (if configured):

OVERVIEW ABOUT **STATISTICS** AUDIT RECORDS

LESSON STATISTICS

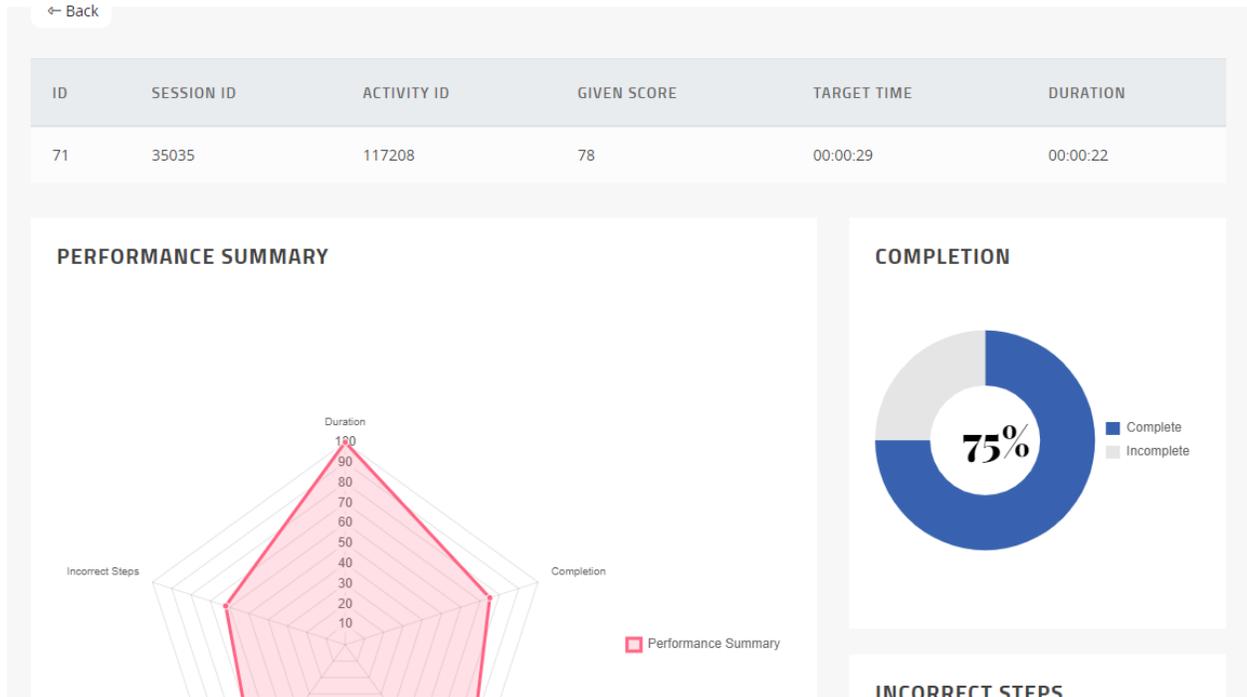
FILTER BY GROUP All Groups ▼

EXPORT CSV

DATE	NAME	ATTEMPT	TIME SPENT	SCORE	STATUS
8/2/2022, 6:47:39 PM	William King III	1	01:01	N/A	Complete

DATE	ACTIVITY	TIME SPENT	SCORE	STATUS
8/2/2022, 6:47:53 PM	3D Recording	N/A	View	Incomplete
8/2/2022, 6:47:39 PM	View	01:01	N/A	N/A

Lesson 3D Assessment



- 1:1 settings are now retained, for Copy-By Reference, 3D Asset and Duplicated Lessons. Previously the 1:1 setting was not retained.

Workspace has been improved

- In Workspace the following settings: paging, number of records in a page, tab selection, filters settings and search keyword are remembered when you return back to the workspace page.
- Workspace search now support lessonID for both Assets and lesson

Important Fixes

Thumbnails are not cropped anymore on high DPI display mode

Previously if you are creating a thumbnail of an asset on the asset page, the thumbnail will come out cropped if you are on a high DPI screen or the web browser is scaled. Now the thumbnail is correctly saved no matter what DPI or web browser scaling you have set to.

Improvement to Lesson Duplicate function

Previously when a lesson was duplicated, the audio, PDF and image resources were not duplicated. With this release, we have resolved this issue. Also when you duplicate a lesson, a message appears

on the new lesson to inform the user to wait for the duplication to finish before launching the lesson.

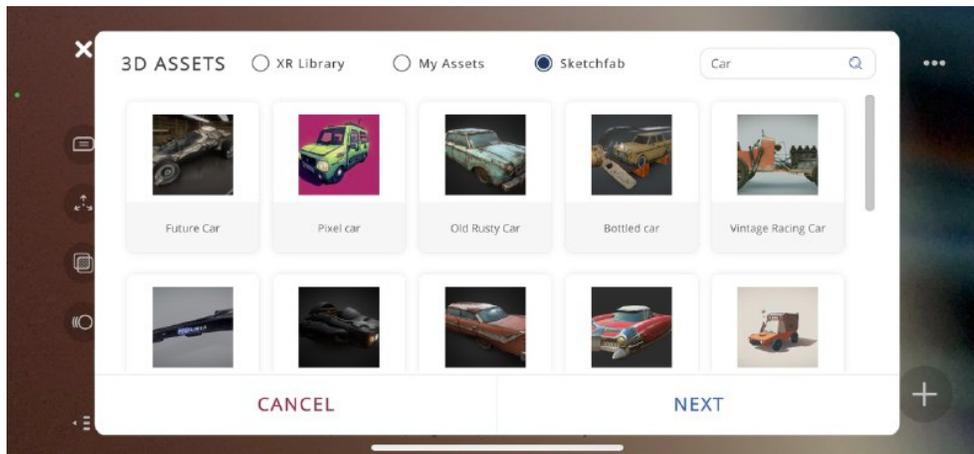
Appendix

EON Metaverse Builder Quickstart

With the 9.5 release of EON-XR, we are introducing a new product called **EON Metaverse Builder**. It offers a new experience where you can browse and compose multiple 3D objects together in 3D and AR, and then easily inject knowledge into them. Furthermore, while in 3D and AR mode, you can continue to add assessments using the new Assessment Portal, optimized for the new experience.

Building your first Metaverse Experience

1. Select **Create** in the EON-XR mobile app.
2. Select **Metaverse Builder**.
3. The app launches in AR mode and you can add your first object by describing what you want to create and selecting the  icon. This brings up the voice recognition panel, where you can input the search word(s) either by voice or keyboard.
4. Based on the search words, the app presents the 3D objects matching these words, in the 3D Assets dialog:



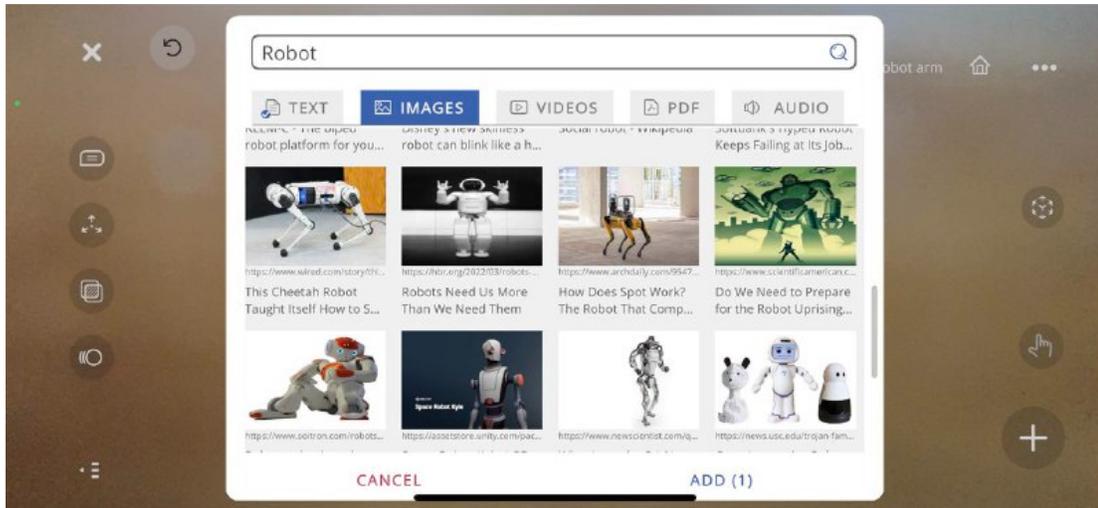
XR Library - display assets from the public XR Library

My Assets - display assets from your own assets (that you have previously imported by other means)

Sketchfab - display assets from Sketchfab, an external 3D repository with many models to choose from. Note: When you choose an asset from this group, it is imported into the public XR Library in the background while it's being added to the current scene.

5. Choose one object and select **Next** to proceed.
6. Anchor the object to a surface location.

7. The object is downloaded to the anchored location, indicated by a spinning object.
8. It's possible to cancel the ongoing download by selecting the **x** in the progress label.
9. After the object has been added to the scene, the app will automatically prompt you to add a Knowledge Portal to the object. If you want to skip this part, select **Cancel** in the **Set Annotation** dialog. Otherwise, continue the steps below.
10. Choose a point on the object by targeting with your device and select the **Set Annotation Point** button. This creates the annotation point that the Knowledge Portal is linked to. Select **OK** to confirm the annotation point location.
11. The **SERP Knowledge** panel appears.



12. You can search for texts, images and videos and add them to the Knowledge Portal.
13. By default the search words are taken from the same you used when searching for an object to add, but you can change this in the text field at the top of the SERP Knowledge Panel.
14. You can also add a PDF file or audio recording either by creating a new recording or using an existing recording from your device, to the Knowledge Portal.
15. Select **Add** to add the selected items to the Knowledge Portal. The number of items are displayed in the parentheses next to the **Add** button. You can add up to one item from each category.

Adding additional objects to the scene

If you want to add additional objects, just repeat the steps outlined in the section above.

Adding a Knowledge Portal to an existing object

If you have skipped adding a Knowledge Portal while adding the object, you can add it afterwards by using either the **Voice Annotation** or **AI Camera** tools. These can be found by selecting the **+** button in the lower right hand corner.

Please refer to the EON Merged XR for more information on how to use these tools.

Adding a Memo to an object

A **Memo** is a text element that you can create via speech or keyboard input, and then let the app read back the text out loud using synthesized voices. Depending on the language chosen, there are usually at least two voices to choose from (male and female).

To create a Memo:

1. Select the object you want to attach the memo to.
2. Select **+** button.
3. Select **Memo portal** button.
4. On the Memo portal, select the **Microphone** button to start recording the memo. (If there are memos created already, you need to select **+** button to create a new one, before you can see the Microphone button).
5. The words you speak now will be interpreted live and appear in the text field on the Memo portal.
6. If you want to speak in another language, change it in the **Voice Input** list. Note that the available languages in the list are the ones that you have installed currently in the system. If you want to use additional languages, select the **+** button beside the Voice Input list, which will take you to a system settings dialog where you can add additional voice input languages.
7. When you are done, select the **Stop** button.
8. If you need to adjust the recognized text, select the text field to edit it using the onscreen keyboard.
9. Choose a voice from the **Voice Output** list. This will determine how the memo sounds like when it is read back loud by the voice synthesizer. The list will vary depending on voice input language.
10. Finally, select the checkmark button to add the memo.

Adding assessments using the Assessment Portal

An assessment is an activity that assesses how well the learner has acquired the knowledge embedded in the object. There are several types of them and you can create all of them in the Assessment Portal, by following these steps:

1. Press **+** in the lower right corner.
2. Select **Assessment Portal** icon.
3. In the Assessment Portal, choose the type of assessment you want to create by selecting the corresponding tab.
4. Select **+** button on start creating a new assessment.
5. Depending on the assessment type, you will be required to fill in various information for the assessment.
6. Except for the 3D assessment type, the first thing you need to do is to select the *target* of the assessment. This is the part in the object that the assessment should be associated with:

- a. For Quiz, the target will be outlined when the quiz is running
 - b. For Locate, the target will be the part that the learner has to locate
 - c. For Identify, the target will be the part name that the learner states as the answer
7. To select the target part, choose one of the annotations in the 3D view and select the **Check** button to continue.
8. For objects imported from external sources such as Sketchfab, there is usually no annotation created to represent the parts in the object. In that case, you need to manually create an annotation:
 - a. Select the **New Annotation** button.
 - b. Use the device to aim and set a location on the object representing the part.
 - c. Select **OK** to confirm the annotation point location.
 - d. Give the name for the annotation by saying it.
 - e. You can also select the **Keyboard** icon and type in the name using the onscreen keyboard.
 - f. Select the **Stop** button to finish the voice input and finalize the creation of the annotation.
 - g. This newly created annotation will be selected automatically as the target of this assessment and you will be returning back to the Assessment Portal.
9. Fill out the rest of the parameters for the assessment in the Assessment portal.
10. Select the **Check** button to finalize the creation process.

Notes:

- Assessments that you have created will be listed on the left side. If you go to the **All Assessments** tab, you will see every assessment created for the currently selected object.
- You can preview each assessment by selecting it in the list.
- To edit a selected assessment, select the **Pen** icon.
- To delete a selected assessment, select the **Trashcan** icon.
- Select the **Pin** button to make the Assessment Portal stick to the camera, which means no matter where you go, the portal will be right in front of you. Select it again to unpin it.
- The moment you unpin the portal, it will be pushed forward some distance in front of you (in 3D space), but inheriting the orientation you have on the device. This means that if you want to put the portal in an angle to your right, rotate first yourself to the right (with the device), and then select the Pin button. When you rotate back, the portal will stay put where it was.
- The same behavior applies also when you toggle the portal on and off using the Assessment portal button in the + button row at the bottom of the screen.
- This Pin is available for the Memo Portal as well, and works exactly in the same way.

Getting help

If you have forgotten or need to get a reminder of what each button does in the Metaverse Builder, select the **?** button in the upper right corner. This will reveal a description for each button in the user

interface. If you first select the + button and then select the ? button, it will show you the description of the creation tools hidden inside the + button.