EON-XR 9.3 Features

Introduction

This document describes the key features introduced in 9.3 release and how to find and use them in the products. This is meant as an aid for the quality assurance and customer success departments to test drive the features in a pre-release/new version of the products.

New features & improvements

EON-XR APP

- Merged XR
 - Assessment Portals
 - Quiz
 - Locate
 - Identify
 - 3D assessment
 - Knowledge Portals
 - Carousel
 - Multiple language support in Voice Recognition
 - Al Camera Added support for multi media selection (across tabs)
 - o 3D recording will now play back with the avatar instead of the hand
- Spatial Meeting
 - o Auto-alignment at the start
 - Synchronization panel
- Options menu
 - Settings
 - Shadow settings
 - HDR settings
 - o 1:1 scale save
- Edit lesson improvements

- o Associate animation with activities
- Save camera view also save hierarchy
- Rename an activity
- o <u>Improved UI for uploading images/ pdf</u>
- Relocate in AR
- Import 360 images from mobile

WEB Portal

- Playlist
- <u>Packages</u>
- Freemium trial for Merged XR and Spatial Meeting
- Workspace
- <u>Faster download of content using CDN networks</u>
- Added 3D Avatar selection in Portal and App
- <u>LTI</u>
- **Localization**
- Import 3D Asset
- <u>Marketplace</u>
- Admin
 - Settings
 - Dashboard
 - Increase activation email validity from 7 days to 14
 - o Roles management
 - o <u>Reports</u>
- Lesson
- Assets Page

Issues fixed in this release (not exhaustive)

- In play mode, clicking on white space area in activity panels will not dismiss them.
- Orbit center (changed by panning the view with middle mouse button/two finger drag) is now saved when setting the camera view
- Closing a media activity in play mode in 360 lessons won't trigger the playback one more time (bug id 4116)
- On macOS, lessons with single quote characters in name can now be opened correctly (bug id 4176)
- Models with semi-transparency and normal maps (but no roughness or metalness textures) are now correctly rendered
- For a 360 lesson, you can now complete all activities in all 360 scenes, before you get the prompt to exit the lesson (bug id 4256).
- When you edit an audio activity, it remembers which type of audio activity it is so you don't need to choose the type again.
- Improve loading of lesson thumbnail page in main library page
 - Thumbnails now load much faster than before.
- Statistics
 - Fixed lesson user report, where previously it was always showing same attempt
- Create thumbnail / 1:1 settings page.
 - Improved loading of 3D Asset, it now has better support for KTX & DRACO textures.

Known issues

3D Recording activity

- In create mode: No option to return to previous, if you decide to not record.
 You need to restart the lesson.
- Localization missing for some dialogs
- The PDF and Image activity is now visible as 3D portals floating in Spatial meeting
 - These new features are still WIP, so the ability to scroll or resize is an upcoming function.
 - Sometimes the pdf tab is empty, by tapping the image will appear.
- No sound when playing media activities in Spatial meeting
 - In a Spatial meeting when you play video or audio there is no sound.
- If you have multiple 3D Playback activities and toggle there is no sound.

EON-XR App

Merged XR features

Assessment Portals

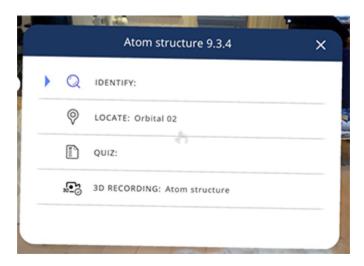
In **AR** it is now possible to do **assessments** using the activity **Identify**, **Locate** and **Quiz**. You create them in Touch mode. The new features are an enhancement that makes the lessons engaging. The assessment portals are a fast way to find out what you have learned and where your lack of knowledge is.

You can follow your progress in the lessons details view under **Statistics**.

×	MICROWAVE 9.2.63				
		Attempt # 4			
		ACTIVITY	DURATION	SCORE	
	2021-11-08 18:44:00	30 Recording	01:42	N/A	
	2021-11-08 18:40:44	Video	00.40	0/0	
	2021-11-08 18:45:24	Image	N/A	0/0	
	2021-11-08 18:45:12	Audio	00:13	0/0	
	2021-11-08 18:47:04	30 Recording	00:04	N/A	
	2021-11-08 18:46:03	Identity	00:26	0/5	
	2021-11-08 18:45:43	Locate	00:12	5/5	
	2021-11-08 18:45:36	Quiz	00:02	5/5	
	2021-11-08 18:40:39	View	N/A	N/A	

Example of statistics view

In Play mode you select the hamburger icon in the lower right corner to find the assessment portals. Select an option in the activity list panel.



Assessment list panel

A panel will appear similar to the ones below. It is possible to move the list panel and the assessment panels by selecting the **grab** icon, which appears when you hover the header.

Exit the panels by selecting the **X** in the top right corner.

See Video

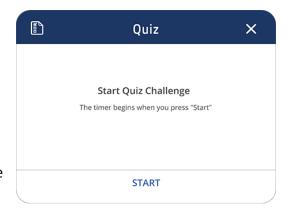
Step by step

Note. If you exit a challenge after you tapped "Start" you will lose the progress you made so far.

Quiz

Play Mode

- 1. Select the **AR** button to enter AR mode.
- 2. Tap to place the object.
- 3. Tap the **Hamburger menu** button to see the activity list.



- 4. Select the **Quiz** button to enter the challenge. A panel appears.
- 5. Tap **Start** to begin.
- 6. The **time starts to count down** and part of the object will be highlighted.
- 7. Select an option. You have **three attempts** to select the correct answer.
- 8. **Return to the menu** when the correct answer is given or time is up.

Locate

Play Mode

- 1. Select the **AR** button are to enter AR mode.
- 2. Tap to place the object.
- 3. Tap the **Hamburger menu** button to see the activity list.
- 4. Tap the **Locate** button to enter the challenge. A panel appears.
- 5. Tap **Start** to begin.
- 6. The **time starts to count down** and yellow pulsing spheres appear on the object.
- 7. **Select** one of the pulsing spheres and **hold for 2 seconds**. You have **three attemps**.

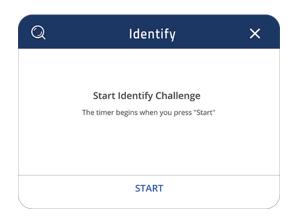
Correct answer will highlight the correct part and the yellow sphere connected to it will turn green. This will also occur if you do not manage to select the right part within the time limit or if you use all your attempts.

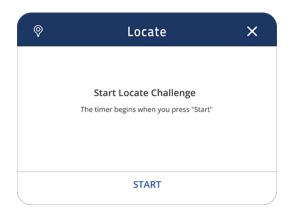
8. **Return to the menu** when the correct part is located or time is up.

Identify

Play Mode

- 1. Select the **AR** button to enter AR mode.
- 2. Tap to place the object.





- 3. Tap the **Hamburger menu** button to see the act
- 4. Tap the **Identify** button \bigcirc to enter the challenge. A panel appears.
- 5. Tap **Start** to begin.
- 6. The **time starts to count down** and part of the object will be highlighted.
- Name the highlighted part. You have three attemps.
 You can use voice recognition or type the correct answer by selecting the keyboard icon.
- 8. **Return to the menu** when the correct part is identified or time is up.

3D assessment

Now you can evaluate learning. You can create instructional assessments.

Create 3D assessments to help and guide. You can see the outcome and you can focus on areas that need more attention.



Performance Summary after an assessment is completed.

In AR, when you play your lesson, you now see an avatar, when you have the 1:1 button

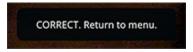


Easy to use. Just select the **3D Recording** activity and check the **Assessment** icon when the recording is done.

In play mode you select **3D Playback** and the **Assessment** button assessment.

Additional information

Toasts or Snackbars will appear in the lower part of the screen to indicate how many attempts have been or if it is the correct answer.



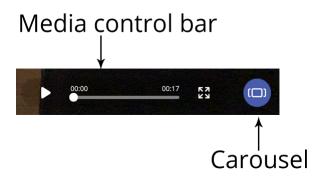
Knowledge Portals

In the previous version (9.2), you can show video as 3D portals floating in space in AR mode. In this version, you can also show **Image**, **PDF** and **Memo** (Audio with closed caption text). If several media activities are associated with one annotation, they will show up as **tabs** on the Knowledge portal. By tapping on one of the tabs, you can go to that media type and playback the media by tapping on the portal screen.

Note. If an activity is not associated with an annotation, i.e. a **global activity**, you will **not be able to access this in AR mode** in the Knowledge Portals.

Carousel

If you prefer to see all the media activities associated with an annotation at once, instead of inside the tabs, you can tap the **Carousel** button at the right side of the media control bar at the bottom of the screen. This button is only available when you have an annotation with a Knowledge Portal selected and it has more than one media activity.



Tapping the same button one more time will collapse the media panel back to tab mode.

See Video

Multiple language support in Voice Recognition

There is now **multiple language support** in voice recognition. This newly enhanced function lets our users worldwide create lessons faster in their native language.

In AR you tap on the **Voice Recognition** button and create annotations in the desired language.

Note. You change language in profile settings.

Al camera - Added support for multi media selection (across tabs)

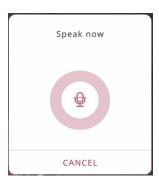
In this release we have enhanced the AI Camera functionality. New user experience and better AI engine. In the creation process you can now add multiple media, i. e. you add a suitable text, image and video at the same time to your activity.

The activities will show up as tabs and they can be pulled-apart. Learn more in the section Knowledge Portals and Carousel

Step by step:

- 1. Open a lesson in Edit mode.
- 2. Switch to AR mode [AR].
- 3. Tap the plus sign on the lower right corner.
- 4. Tap the Al icon
- 5. **Set Annotation Point** by pointing a yellow sphere to the desired location and tap the **AR crosshair** button in the dialog.
- 6. Tap **OK** to continue.
- 7. A dialog with a microphone appears.

 Speak into the microphone to name the annotation.



8. Tap the **Stop** button in the dialog to continue.

You have now created the annotation and the second part is to create the activity/activities.

- 9. Point the **Viewfinder** to the object you have set the annotation point. Make sure to place the object within the frame.
- 10. Tap the **Shutter** button on the right to take the picture.

The app will **try to identify** the picture and show images visually similar to the picture you just took.

Each image suggestion will come with a caption. This text is sourced from the place where this image was found.

- 11. Find an image and caption that **match the best** of what you are trying to annotate, and **tap to select** it.
 - This image will now be used to source additional images that are visually similar, so that you can **refine the search**.
- 12. Optional. If you find a better image or caption, tap on it to continue refine the search.
- 13. Tap **Next**, if you **don't find better images** amongst the suggested ones.

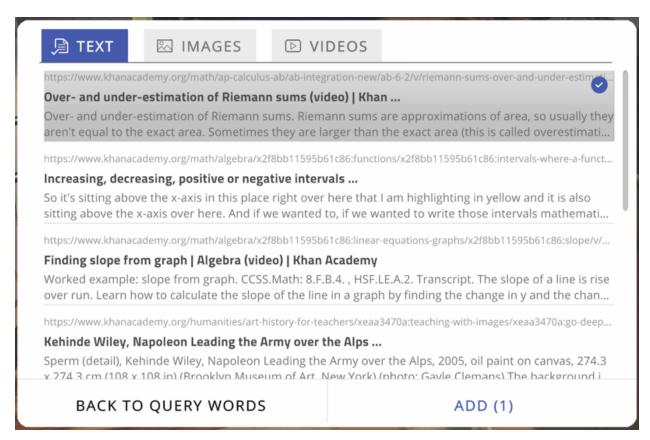
The caption for the selected image will now be expanded out to separate words that you can choose individually to be used as query words when doing the **SERP** (**S**earch **E**ngine **R**esults **P**age) **query**.

If the AI engine has additional knowledge about the image, it will list them as words under the **Tags** section.

If there are texts in the image, the AI engine will recognize them and present them as separate words as well, under the **OCR** section.

Words in **Tags** and **OCR** can also be chosen as **query words**.

- 14. When you have selected the query words you want to use, press **Next**.
- 15. Now the **SERP dialog** will appear, presenting the query results from the words you have used.



SERP dialog

- 16. On the **Text tab**, choose which text you want to be used as **TTS audio activity**. Select none, if you don't want to create an TTS audio activity.
- 17. On the **Image tab**, choose which image you want to be used as Image activity. Select none, if you don't want to create an Image activity.
- 18. On the **Video tab**, choose which video you want to be used as a Video activity. Select none, if you don't want to create a Video activity.
- 19. Press the **ADD** button to add the chosen activities to the lesson.

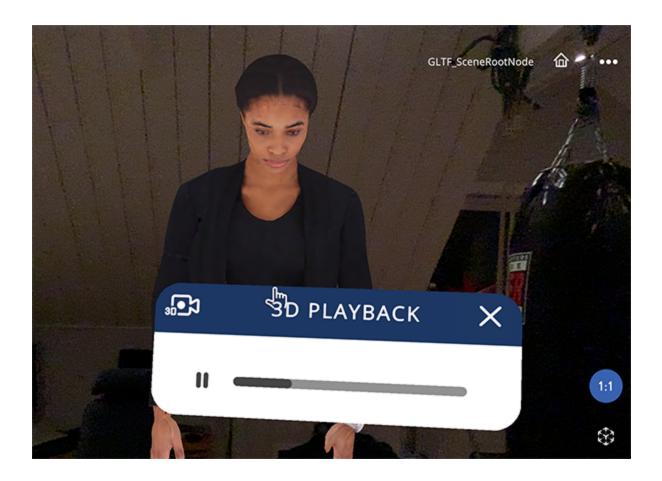
This will complete the whole process of adding an annotation with activities.

See <u>Video</u>

3D recording will now play back with the avatar instead of the hand

If you **set the model to 1:1** scale and are in AR mode, when you tap **3D Playback**, you will see an avatar instead of the hand at the start of the laser beam.

If you are not in AR mode, or your model is not set to 1:1 scale, the playback will show the hand as the starting point of the laser beam.



Moving annotation points in AR mode

You can move an annotation point in AR mode in the following way:

- 1. Tap an annotation.
- 2. It will become blue and you see additional icons appear to the right of the annotation.
- 3. Tap on the **Move** button .
- 4. A "Set Annotation Point" dialog with a **center crosshair** appears.
- 5. Aim the AR marker (**reticle**) to the desired new location with your device to set the annotation point. The **center crosshair** turns red, if it's possible to place.
- 6. Tap the **center crosshair** to set the new location and press **OK** to confirm.

Deleting an annotation in AR mode

You can now delete an annotation while in AR mode.

- 1. Tap an annotation to select it.
- 2. It will become blue and you see additional icons appear to the right of the annotation.
- 3. Tap on the **Delete** button
- 4. The annotation will be deleted. If any activities are connected to the annotation a confirmation dialog will appear.

Spatial Meeting

Do auto-alignment at the start of a Spatial meeting

You can now perform an auto-alignment to fit the digital twin into the environment at the start of a Spatial meeting. Note that the alignment will relocate the virtual object in your view only. The other participants will still see the virtual object, but with your avatar correctly located relative to the virtual object.

Synchronization panel

In a Spatial meeting we have improved the visual quality. The presenter can play a video and it will be synchronized with the other participants.

Settings 🛱

We have added settings options for users to make adjustments to the 3D object.

Shadow

In the option menu ••• on the top right you can toggle the **shadow casting by 3D model** on/off per lesson.

You can override the settings in the Asset page, by toggling the shadow on/off per lesson, using the new **Settings** in the options menu ••• .

If the user owns the lesson, the change is permanent, but otherwise the setting is not persisted and on the next session it will follow whatever setting is set on the asset.

For spatial meetings, when the presenter toggles the shadow, it will be applied to all users.

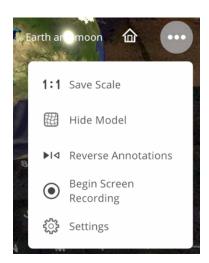
HDR

In the option menu ••• on the top right you can toggle the **High Dynamic Range lighting on 3D Model** on/off per lesson. This settings is meant to be used when you have a model with materials that reflect too much of the environment and you want to tune it down a little.

See Video

1:1 Save Scale

In the app you can rescale an asset by using the pinch gesture (if it's not in 1:1 mode) while in AR mode. Another way to scale an asset is by doing an auto-alignment (which is also available in Spatial Meeting). When you want to persist this scale, you can use the function in the Options menu ••• in the app to save this new scale so you will get the same scale next time you open this lesson.



This functionality is only available in the options menu ••• if the asset has not been set to 1:1 scale. Once you set 1:1 scale in the app, a 1:1 button 1:1 is visible in the right panel of the app.

You can also set the 1:1 scale from the desktop, in the Assets page on the EON-XR web portal. By clicking on that button, it will open up an Asset editor on the web page so

you can adjust the scale and elevation of the asset. The scale you set there is the same scale you set in the app.

See Video

Screen recording

You can now record the lesson and share it with anyone using the following procedure:

- 1. Go to the options menu ••• and select **Begin Screen Recording**.
- will appear in the upper center of the screen, to state when 2. A counter the recording will start.
- 3. If this is the first time you use this function, a prompt will appear to ask whether you want to record the screen only or with audio as well.
- 4. Now everything you do will be recorded, even your voice if you have chosen to allow this.
- REC (5. When you are finished, press the stop button screen (where the counter was displayed). You can also stop the recording, by going to the options menu ••• and choose **End Screen Recording**.
- 6. The recording can now be exported to a supported app on the device, by choosing **Share**, or you can discard the recording with the **Discard** button.
- 7. If you choose Share, you will be presented with a list of apps and location where to send the recording.

Edit lessons improvements

Associate animation with activities



Now you can **link an animation** to your activity. You can create a lesson that helps students to learn, train, and perform easier. As a teacher, you can create engaging lessons. No more boring meetings. Use animations to catch your audience's eye. Movements trigger and increase focus.

The activities that support linking to animation are **Audio**, **Image**, **Pdf**, **Video**, **Identify** and Quiz.

Animations are easy to link when you create a lesson. Add an activity that supports linking animation and check the animation icon . If there are multiple animations you select one in the list that you want to play when the activity starts.

Rename an activity

Instead of something you do not understand or irrelevant, the user can now in create/edit mode tap on the activity's header and enter a suitable title. The new name will not affect the original part name.



Tap on the activity's header to change the title.

See Video

Save camera view also save hierarchy

Now it is possible to add an activity on a higher level and save camera view on a lower level. Previously this was not possible. The user decides how to set the camera view without any limitations. However it is good to select a view that makes sense for the chosen activity.

See Video

Improved UI for uploading images/ pdf

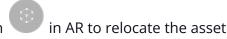
Now we have improved the workflow for image and pdf activity.

See <u>Video</u>

Relocate in AR

Now in AR mode you can move the asset by using a two finger gesture.

Previously you only had the option to tap the move icon



This feature is needed when you have a big environment 3D model you want to use in AR mode.

It's hard to anchor correctly. Secondly, it's not possible to reach every location of the 3D environment model simply because it's so big and you run out of physical space.

Below is the gesture to hold down two fingers and move in different directions:

- Left: move the model to the left (sidestepping yourself to the right)
- Right: move the model to the right (sidestepping yourself to the left)
- Down: move the model towards you (which means you are advancing forward in the environment)
- Up: push the model away from you (which means you are walking backward in the environment)

See Video

Import 360 images from mobile

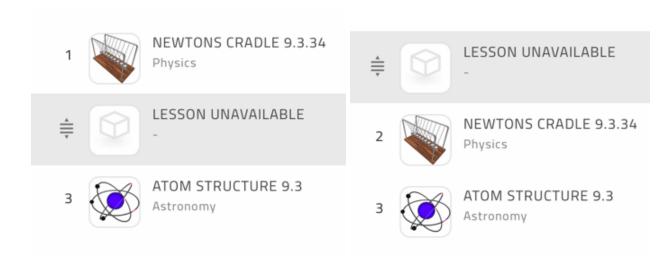
In the previous version, on mobile devices, you can create 360 lessons from existing 360 images (assets), but you cannot import new 360 images from the phone. Now in 9.3, you can access the import of 360 images from your mobile devices.

See Video

Web Portal

Playlist

Now you can arrange your lessons in your playlist both on mobile and on the web portal. We have optimized and stabilized the loading of playlist thumbnails.



Now you can reorder your playlist.

Packages

Now you can launch Unity or Unreal apps using EON-XR. You create a package and include a Unity or Unreal project Windows build. You can share it with other EON-XR members.

Follow these steps to create a Package in EON-XR:

- 1. Go to **My Workspace**.
- 2. Select **Package**.
- 3. Select Create Package button.
- 4. Fill in the **Title** and **Category**.
- 5. **Upload** your **Unity** or **Unreal projec**t. Make sure it is an .exe file and that it is built for Windows.
- 6. Select the **executable program**. If you have multiple files, you need to select **in the correct order**.
- 7. Select **Next** to create the package.

Now you should be in the package details page. Here you can update your thumbnail, manage assignees, enter package objectives, delete packages and more.

8. Select **Launch Package** and now you have created your package for distribution.

Note. You find your created packages in My Workspace.

See Video

Freemium trial for Merged XR and Spatial Meeting

It is **FREE**. Try out EON-XR's add-ons: **Merged XR** and **Spatial Meeting**.

Learn - Perform - Train - Collaborate - all in one package.

In 14 days:

- You have access to the EON-XR library.
- Explore assisting content or upload your own.
- Create lessons in AR with our knowledge portals and assessment portals.
- Share your lessons with team members using Spatial meetings.

New and existing users will be prompted when they load the EON-XR app

If the user chooses "Skip for now", the user can still access it via pressing the "hamburger" menu on the top left and selecting the "Merged XR & Spatial Meeting Two Week Free Trial" link.

Best way to learn is to share your knowledge with others!

Workspace

We have made improvements when fetching lessons and also made the layout of the workspace page on the tablet responsive.

Faster download of content using CDN networks

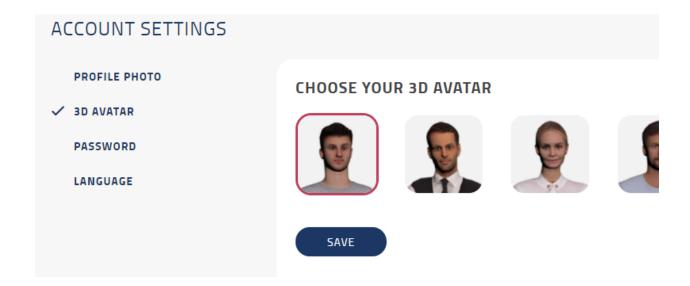
The asset and lesson files are now cached on CDN to make it even faster to download and start your lessons.

We utilize CDN service to speed up the downloading/ delivery of files. With multiple Edge servers, all users will experience this improvement.

Added 3D Avatar selection in Portal and App

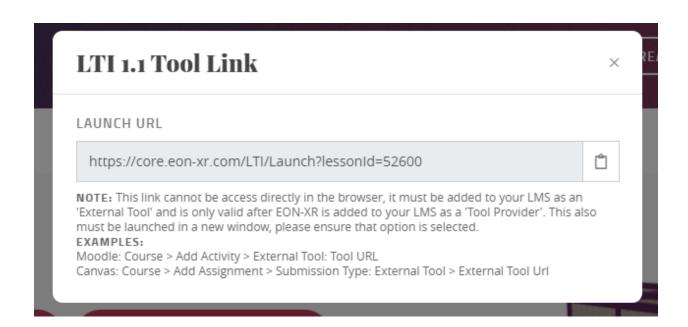
In profile settings the user can set their avatar and will not be prompted to select an avatar when starting a spatial meeting.

Also playback of the user's 3D recording will load the selected 3D avatar.



LTI

We have added instructions in the LTI link popup to make it clearer what it is and how to use it.



- Added support for sharing unpublished Lesson via LTI link
- Added Support for LTI 1.3 (Advantage)
 - We have finished implementing LTI 1.3 which will also send grades back to LMS, Deep linking and improved Integration. The function is now in BETA

testing, more information and guide will be provided with 9.4 release.

Localization

We have added more languages to EON-XR.

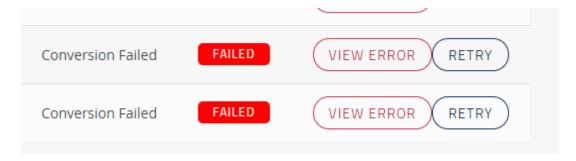
We welcome all Germans, Bulgarians and Romanians. We also support **Cyrillic** characters and **Right to Left languages** such as Arabic and Hebrew.

In profile settings you will find all the other languages we support.

See Video

Import 3D asset

Added "Retry" if conversion fails. This was added as there are cases where retrying the conversion helps to resolve the issue.



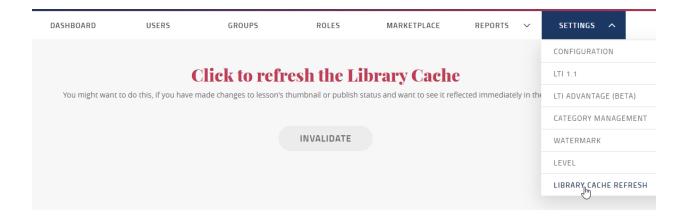
Marketplace

User-purchased Marketplace assets now appear in **My Assets**. Previously the user could only locate it in the marketplace.

Admin

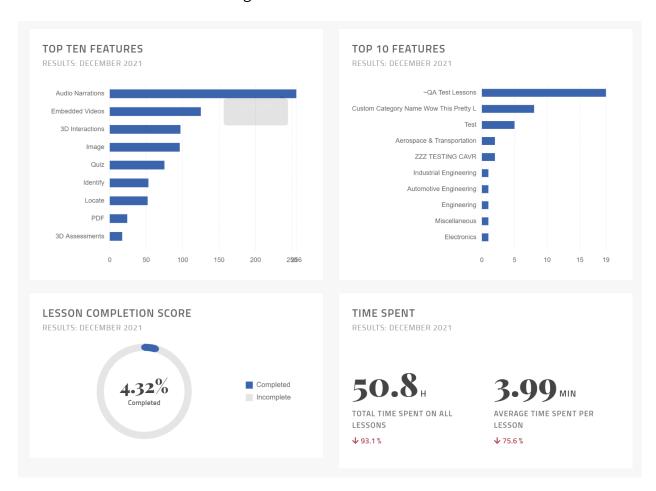
Settings

Select **Refresh the Library Cache** to regenerate, invalidate cache or library Lessons in the library are cached to improve the loading speed, sometimes changes made to a published lesson may not immediately show, to resolve this, you can manually invalidate the cache.



Dashboard

As an administrator of an institution, you can now survey, analyze and digest various statistics based on the lesson usage.



Learn more the **Dashboard** guide

Increase activation email validity from 7 days to 14

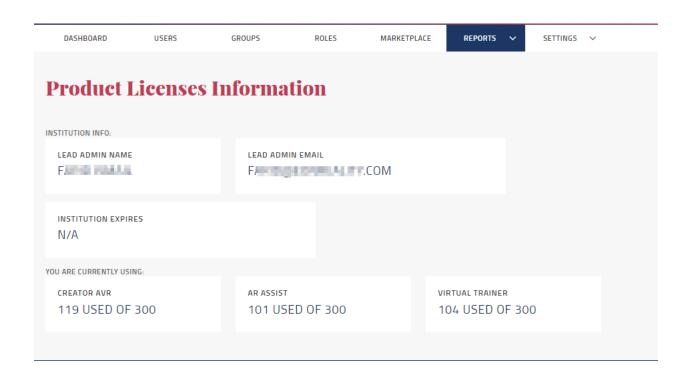
Users who get the activation email will now have more time before the email is invalid.

Roles management

Added **modify roles** permission so the lead admin can assign roles management to other users.

Reports

Institution information has been added to the **Product license** page.



Lesson

Audit events

Added new audit events for lessons which includes:

1:1 settings change

- asset version change
- update thumbnail changes
- update lesson materia
- duplicate lesson

OVERVIEW ABOUT STATISTICS AUDIT RECORDS

LESSON AUDIT RECORDS

⊕ EXPORT CSV

DATE	EVENT NAME	USER NAME	ADDITIONAL INFORMATION
09/12/2021, 14:03:48	Updating Lesson	Sedenoralis on	Updated Lesson Thumbnail
09/12/2021, 14:03:18	Updating Lesson	for the discovered by the second	Updated Lesson 1 to 1 Setting
10/12/2020, 14:56:21	Create Lesson	Selfdenovalgous	LessonID: 52600

Enhanced permission checks in the lesson details page

Users with **Assign Content Created By Any User** rights, can only assign **Edit** rights if the user has **Edit rights** to the lesson, else they can only assign **View** rights.

Assets Page

Now there is a new property in 3D assets named **Disable Shadow**. You can disable shadows in AR mode. This would be useful especially for **environment** type assets where you might not want to have shadows.

