

# **IP 22**

# **Release**

# **Notes**

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# 1 imc Learning Suite Highlights

## 1.1 Manage equivalences

### In a nutshell

In the IMC Learning Suite, courses can be marked as equivalent. Completing one course grants credit for its equivalents, which are then marked as *optional* for the learner. Combined courses (e.g.,  $C = A + B$ ) allow learners to complete either the combination or the individual parts.

All equivalences are bidirectional and apply to processes like prerequisites and learning paths. A new "Covered" flag indicates courses completed through equivalence, making them optional but not listed in the learning history.

### What can I do?

Define relations among imc Learning Suite courses as being equivalent to each other. Consider equivalences to mark courses assigned to the learner which have already completed equivalent course by the same learner as optional. One course is replaced by another course with updated content and the learners must not be required to re-take similar content. However, they should still be able to re-take it if they wish. ( $A = B$ )

Some courses are a combination of other courses. In this case, the learner can be required to take either the overall course or the courses from that it is combined but not both. ( $C = A + B$ ) Currently, all equivalences are bidirectional, which means, there are no use cases where A is equivalent to B, but B is not equivalent to A. The multiple equivalence relation is possible, meaning that taking course A gives the learners credit for course B and C, taking course B gives the learner credit for both A and C, etc.

Equivalences are valid for all processes and trigger them accordingly, e. g. if a course is used as a prerequisite for another or assigned to a learning path.

However, the course passed by the equivalence is not considered as a course passed directly: it does not appear in the learning history, it can still be started and completed by the learner (but it is optional and never required). Therefore, the new flag "Covered" is introduced.

There are 3 categories of equivalence relations that can be created:

- "This component triggers the completion of": This category allows to define which objects will be considered Covered for the user if he has completed the component for which the relations are being defined. In this category it is not possible to define sets of components. All the components added in this category will be marked as covered when the main component is completed by the learner.
- "The completion of this component is triggered by": This category allows to define which objects the user can complete in order to have the current object considered as covered. In this category it is also possible to add relations as part of a set. This means that the components of a set need to be completed together in order to trigger the coverage of the main component. Objects which are defined outside of the set have an OR relationship between them. This means that by completing any of those components or alternatively the set if a set is available, the main component will be considered Covered.

"The completion is triggered in both directions": Objects in this category define a mutual equivalence rule, meaning that if a learner completes the current element, he will gain coverage status in the components defined in this category, but also the other way around. Completing a component from that category will determine that the current object is set to Covered for the corresponding user.

Moreover, equivalences rules created on course level can be imported or exported.

### Benefit

Learners can take synergy effect of former done course in future learning and avoid redoing similar training just for the sake of completion.

### Configuration

To be able to use this functionality, a new navigation entry needs to be defined.  
 Navigation manager → Expand Admin section → Click on Content → Create NEW Menu option  
 → Select Default menu from Menu type → Select Manage equivalences from Default menu field  
 → Click “OK” → Save  
 On Configuration manager → Edit Equivalences → Enable Equivalences is marked as TRUE  
 After creating the new navigation, make sure that the Enable equivalences option is marked as TRUE in the Equivalences manager via Configuration manager.  
 The Enable Equivalences option is activated by default.

### Migration

No migration needed.

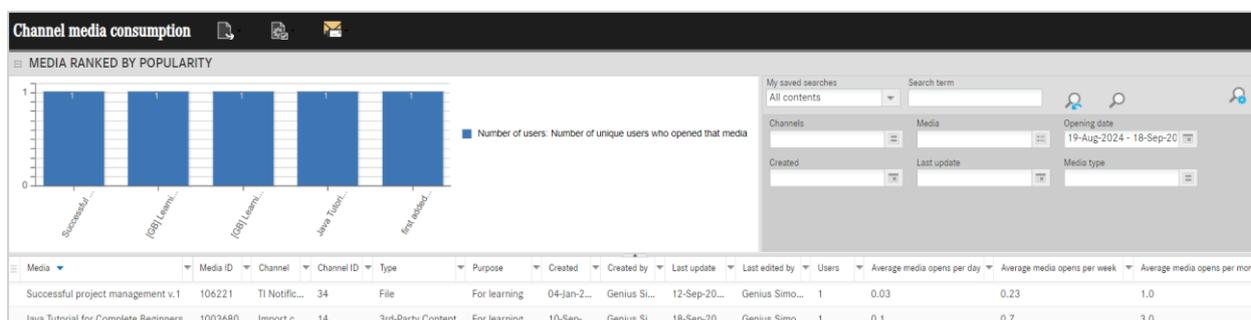
### Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Medium

## 1.2 Media consumption within channels

### What can I do?

A channel administrator can identify with the help of the report “Media consumption within channels“, the popularity of media items within the channels, and how often the media are opened within the channels.



### Benefit

- The channel media consumption report can help the channel administrator to
- monitor the relevancy of media in the channel
  - check whether Information provided through the channel reached the target group
  - conclude what topics are the most relevant within a channel
  - evaluate what media types perform the best

### Configuration

- Channel license must be active.
- Minimum “view” ACLs on the channel is required to view the information on the media included in the channel
- Minimum “view” ACLs on the “Media consumption within channels” report is required to view the report in the Reports.
- By default, “Media consumption within channels” report would be added to the “Activities” category if channel license is active. In case this category is not present, the report needs to be added to another report category to be visible.

### Information/Limitation

- The information for media is aggregated information across all versions of media.
- The name of the media is shown in the administrative language of the latest published version.
- The name of the channel is shown in the platform language.
- The report shows the data from the time-period after the report has been delivered to the customer system. No previous events would be captured.
- Paging and sorting of numerical data is not available.

### Migration

No migration is required

### Further information

- Add-On: yes
- Only available with new Architecture: yes; (Kubernetes, no Windows server supported.)
- Risk of changes: MedChanneium

## 1.3 Automatic subscription to Channels

### What can I do?

It is now possible to specify individual persons, groups or an entire client for automatic subscription to the channel.

Name	ID	Type	Specific authorizations	Automatic subscription
System Administrators	1	Groups	Owner/Unrestricted rights	<input type="checkbox"/>
Leamer	3	Groups	Execute	<input checked="" type="checkbox"/>
47 wbuser	701306	Users	Execute	<input checked="" type="checkbox"/>
Clients	1	Clients	Execute	<input type="checkbox"/>

**Benefit**

If someone has created a “News” channel, for example “Our new products”, and wants to make sure that all relevant people receive the news, this function will ensure that all relevant people who have a subscription to this channel, will be informed by an LMS notification.

**Configuration**

No configuration required.

**Information/Limitation**

- Users can cancel their subscriptions, but it is not possible to automatically re-subscribe these users.
- If a group has been added for automatic subscription and new users are added to this group later on, these users will also be subscribed subsequently.
- Removing users/groups/clients from the automatic subscription (after having them added initially) does not result in the subscription being removed.
- Users who have already a subscription for that channel or are not in any of the groups added to this automatic subscription functionality will not be affected by this
- If the channel was not yet published but will be published at some point in time, then the users/groups/clients will be automatically subscribed
- If users are removed from a group/client the subscription will remain

**Migration**

No migration required.

**Further information**

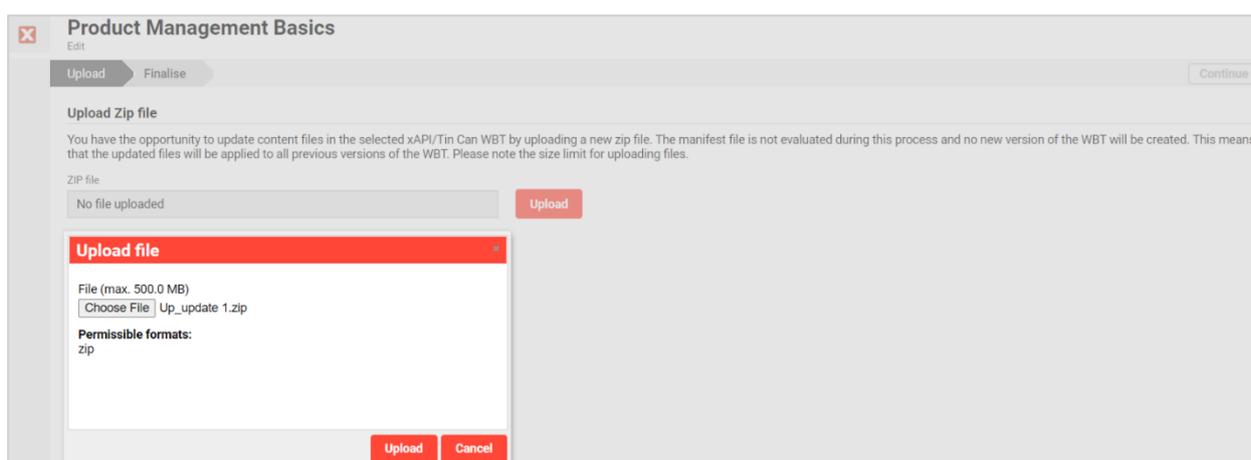
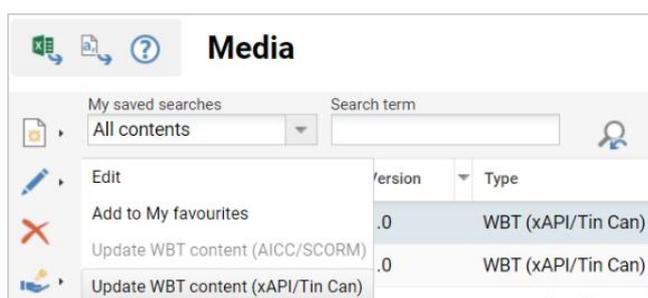
- Add-On: yes, feature is part of the Channels add-on
- Only available with new Architecture: yes
- Risk of changes: Low

## 2 Media

### 2.1 Update xAPI media contents

#### What can I do?

Administrators can update xAPI WBTs in a similar manner like SCORM WBTs by selecting the required xAPI WBT to be updated.



#### Benefit

By uploading the updated content, administrators can provide updated xAPI content to the learner. As no new version is created, the updated content is immediately visible to the learner without impacting their already achieved progress for the component.

#### Configuration

- Navigation rights needs to be configured in Navigation → Media → Access rights → Specific authorisations → Edit/Update WBT content (xAPI/TinCan)

#### Information/Limitation

- This functionality is disabled if xAPI WBT has been marked “Relevant to validation”.
- Only changing content files in data folder. e.g. correcting a typo in html page or exchanging a video/image) is allowed to be changed in the WBT.
- No changes in the structure of the tincan.xml file is allowed.

## Migration

No migration is required

## Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Low

## 2.2 Enable 3<sup>rd</sup> party content media for meta tags on tiles

### What can I do?

Administrators can now display additional information on course tiles for 3rd Party Content (such as from Udemy or Pluralsight) by configuring the metatags provided by the content provider. This allows learners to view important content-related details directly on the course tiles, such as the content provider, running time, degree of difficulty, tags, and languages.

### Benefit

Enhancing the course tiles with this metadata gives learners more detailed and relevant information, improving their experience and helping them make more informed decisions about which courses to engage with.

### Configuration

The display of 3rd Party Content Metatags on course tiles can be configured in the Metadata settings via the Configuration Manager.

Administrators can choose which metatags to display from the following options:

- Content Provider (11868)
- Running Time (10018) with clock-small icon
- Degree of Difficulty (11866) with assessment-small icon
- Tags (11856) with icon-tag icon
- Languages (no specific meta tag, but available information)

The display order of these metatags can be configured, ensuring the most relevant information is prioritised.

### Information/Limitation

This feature is only available for the Catalogue.

## Migration

Low

## Further information

- Add-On:
- Only available with new Architecture: No
- Risk of changes: Low

## 2.3 3<sup>rd</sup> party content provider enhancements (Udemy, Pluralsight)

### What can I do?

As an administrator, you now have the convenience of predefined default values automatically filled in for 3<sup>rd</sup>-party connectors, such as Udemy and Pluralsight, when these providers are selected.

### Benefit

This enhancement saves time and reduces the risk of errors by eliminating the need to manually enter values from documentation into the system. By providing automatic default values for commonly used fields, you streamline the setup process for integrating external learning services, allowing for quicker configuration and a more efficient administration process.

### Configuration

Values are filled in automatically. The prefilled field for Pluralsight is hidden as there is no input needed by the user anymore. Udemy has two selectors available – the default values are prefilled for the “Course” connector. For the “Learning Path” connector the values need to be updated by the user. The connector is selected in “External Service Provider” in the from the field “Connector Selection”.

Following fields are filled in:

- Pluralsight (fields to be not visible in “External Service Provider”):
  - o Hostname
  - o Endpoint Path
- Udemy Courses connector (fields visible in “External Service Provider”):
  - o Hostname\*
  - o Endpoint Path\*
  - o Authentication Endpoint\*
- For both in the xAPI mapping tab (visible field): User Attribute Mapping is EMAIL

### Migration

No, change applies to newly created External Service Providers for Udemy and Pluralsight.

### Further information

- Add-On: yes, for Udemy and Pluralsight
- Only available with new Architecture: yes
- Risk of changes: no noticeable risk

## 2.4 Logo display on 3<sup>rd</sup> party content providers for catalogue and panels

### What can I do?

As an administrator, you can now display the logos of 3<sup>rd</sup> party content providers on the bookshelf panel, catalogue panel and catalogues. An official default logo is automatically assigned to each available external content connector in the system. Additionally, you have the option to manually remove or exchange the logo within the external service provider settings.

**Benefit**

This enhancement improves the learner experience by providing immediate visual recognition of the content source, making it easier for them to identify and select courses based on their preferred providers.

**Configuration**

Upload field has been added to the External Service Provider for 3<sup>rd</sup> party connectors.

**Migration**

Yes, existing 3<sup>rd</sup> party connectors have the field added including the default logo.

**Further information**

- Add-On: yes, depending on 3<sup>rd</sup> party content provider
- Only available with new Architecture: yes
- Risk of changes: Low

## 2.5 Integration to allow JSON.file import for Academia

**What can I do?**

Add metadata from the 3<sup>rd</sup>-party content provider Academia using a JSON file. This enhancement includes functionalities such as pagination (displaying 25 items per page), importing items based on their ID, and conducting content searches using keywords

**Benefit**

This enhancement provides an alternative solution for integrating third-party Academia content when a generic API import is not supported by the 3<sup>rd</sup> party content provider. By allowing JSON file imports, you simplify the process of bringing in external content metadata

**Configuration**

Configuration is done in “External Service Providers” by adding information in the “.JSON file URL” field.

**Migration**

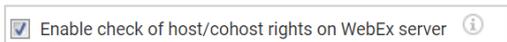
No migration needed

**Further information**

- Add-On: yes, Academia license required
- Only available with new Architecture: yes
- Risk of changes: No noticeable risk

## 2.6 WebEx host/co-host check

With IP 20 the Host/co-host check feature was implemented.



Innovation Pack 22 introduces a check box (see above screenshot) in the external service provider settings. If this check box is activated only these members of the WebExOrganizer group will be displayed in the respective search filters for host and co-host selection, who are eligible (see table below):

Eligibility	Host	Co-Host
Roles (on WebEx server)	Full admin	Full admin or read only admin or user and device admin
Licenses (on WebEx server)	WebEx Meetings Suite	WebEx Meetings Suite
Host select. check (in LMS)		If user selected as host, he cannot be in the list of co host

Without configuring the WebEx-integration with the required Admin API privileges, the host/co-host check feature, which was implemented in a former IP, cannot be used. Following Admin API scope of the WebEx-integration needs to be granted to use the host/co-host check:

- Create a user
- View license usage of an organization
- View available roles of an organization

If the WebEx-integration cannot be set-up with the above Admin API privileges this host/co-host check functionality shall be disabled. In addition, the error message that warns in case a previously selected and saved host/co-host does not have the required rights on WebEx, would not be in place, because it also makes use of the Admin API.

**Migration**

No migration steps are required.

**Further information**

- Add-On: yes
- Only available with new Architecture: No
- Risk of changes: Low

## 2.7 SCORM Player Page Usage in Headless Scenarios

**What can I do?**

Customers who make use of a headless usage of the imc LMS can now use this page to send allow their users to consume SCORM web-based trainings without the need to manage the authentication beforehand. This new page will handle the authentication itself if the user has a valid SSO token.

**Benefit**

SCORM usage can be embedded into headless scenarios without the need of implementing a SCORM player. No separate authentication is required as this is handled by the LMS.

### **Configuration**

No configuration needed. The page is part of the standard deployment and can be used to integrate into the separate frontend.

### **Information/Limitation**

Usage only with SSO authentication.

### **Migration**

No migration steps are required as this is a new page.

### **Further information**

- Add-On: no
- Only available with new Architecture: yes
- Risk of changes: Low

## 3 Test and Feedback

### 3.1 Proctoring provider integration – Meazure Learning



Integration of one of the leading proctoring providers Meazure Learning that acquired and replaces Examity.

#### What can I do?

By integrating of one of the leading proctoring providers Meazure Learning, which will replace Examity, we enable learners to take proctored online tests in ILS. As a first step the service Record+ is made available, allowing automatic proctored tests.

#### Benefit

Learners can take a proctored test remotely with a seamless integrated proctoring solution. By automating the process of proctoring exams, the effort for manual oversight is minimized. This saves time and reduces administrative burdens.

#### Configuration

The external service provider needs to be set up including API-endpoint and API-Key that will be provided by Meazure Learning after a service agreement. In the test/test template the proctoring solution needs to be selected. Furthermore, the installation of the Guardian browser extension for Chrome is required as well as an activated "Proctoring" license.

#### Migration

No impact to existing customers.

#### Further information

- Add-On: no
- Only available with new Architecture: yes
- Risk of changes: Low

#### Limitation

A live proctoring integration is not implemented

## 4 Notifications and Mails

### 4.1 Download personalised documents

#### What can I do?

From now on managers and learners will have the possibility to download personal documents by clicking a newly created button on the following profiles:

- My profile (1)
- Edit profile (superior) (500)

By personal documents we refer to:

- Course Certificate
- Test Certificate
- Skill Certificate
- Learning Path Certificate
- Course Notification Template

#### Benefit

Users can easily download all required documents instead of being supposed to browse to emails from the past where those documents have been attached to.

#### Configuration

The new person attribute "download personal document" can be added to the following profiles:  
1. Edit profile (Frontend) 2. Edit profile (superior). Once the attribute is added to the profile, the download button will appear on the Edit profile page (superior/ learner view).

#### Migration

No impact to existing customers.

#### Further information

- Add-On: no
- Only available with new Architecture: yes
- Risk of changes: Low

## 4.2 Notification on waiting list users before course start

### What can I do?

Notifying course administrators if at least 1 learner is on the waiting list for a course, X days before the course starts.

main-masterdb.imc-ms-deployment.imc-cs.com/ils/navigation/main\_category/settings\_folder/settings\_communication\_folder/notification\_manager/edit-structure.670.157

### Notifications

Edit ORIGINAL ENGB Notification to administrators if there are participants on the waiting list (Notification 157) saved: 22-Aug-2024

Description Condition Filter Notification Recipient(s)

The following date is approaching: ⓘ

2 Days

before the start of course and at least 1 participant is on the waiting list.

Note: the notification will only work for date-dependent courses.

### Benefit

Improved participant management on course level by either raising capacity per course in time or moving participants to the next relevant course option.

Some customers must check constantly the waiting list and to persuade the learners to book them on the next available courses and this can take a long time.

### Configuration

To be able to use this functionality, the notification needs to be configured on Notifications manager level.

Notifications manager → Edit → Course → Notification related to course start → Notification to administrator about the status of the waiting list → Edit

Notification, if configured, is sent to learners which have either status “Waiting” or “Reserved for waiting list”.

### Limitation

It is only available for courses.

### Migration

Not needed

### Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Low

## 4.3 Mobile update – Push notification for learning nuggets

### What can I do?

Enable learning nuggets compatible with firebase's new API to deliver information without overwhelming learners on mobile apps so that you can help learners engage with content gradually by uploading a JSON file for authentication of the reception of Push notifications.

### Configuration

Navigate to the Configuration manager > Push notification and upload a JSON file provided by imc.

### Information/Limitation

Firebase is used to send push notifications. The existing notification system for mobile, using a server key, has been deprecated by Firebase and will no longer function. Previously firebase used a server key for authentication. To keep using this feature going forward the authentication via JSON file instead is necessary.

### Migration

No migration.

### Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Low

## 5 Courses

### 5.1 Addition of Test and Feedback components to courses via ECC (Easy Course Creation)

#### What can I do?

In this use case, admin roles, specifically learning coaches and live session facilitators, need the ability to create and manage complete courses within the Easy Course Creation (ECC) tool. These roles, which typically interact with the frontend of the Integrated Learning System (ILS), were previously limited in their ability to add only media components to courses. This limitation hindered the ability to create courses that could incorporate tests and feedback forms – critical elements for assessing learner understanding and gathering participant feedback.

#### Benefit

##### 1. Improved Course Design Flexibility:

By allowing learning coaches and live session facilitators to add tests and feedback forms directly through the ECC tool, users can design more comprehensive and engaging courses. This enhancement eliminates the need to rely on backend systems, streamlining the course creation process and enabling quicker iterations.

2. **Increased Efficiency:** The ability to manage all key course components (media, tests, and feedback forms) from a single interface reduces the time and effort required to create and manage courses. This efficiency gain allows users to focus more on content quality and learner engagement.

##### 3. Enhanced User Experience:

Admin roles can now utilize an intuitive frontend tool to build complete courses, which aligns with the initial design intentions of the ECC tool. This change respects the careful role definitions and task requirements established during the extensive implementation phase, leading to higher satisfaction among users.

#### Configuration

No configuration needed. The test and feedback components will be visible out of the box if the user has ACLs on the course template and on the component.

#### Migration

No impact to existing customers.

#### Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Medium

## 5.2 Bypass cancellation approval process

### What can I do?

Determine groups of learners which are not supposed to run to the approval process for cancellations.

### Benefit

Streamline enrolment management by automatized exception handling, e.g. those groups who can bypass enrolment confirmation already can then also bypass the cancellation process if configured.

For some groups, customers do not require an approval process for cancellations even though the cancellation type indicates that such an approval is needed. These groups of users should be able to cancel without restrictions, like the bypassing enrolment process.

### Configuration

To be able to use this functionality, a metatag needs to be added on Course template/Learning path level.

Course template manager → Edit → Meta tags and attributes tab → Click on + button → Search for “Groups for which the cancellation approval process is bypassed” → Go on Course description tab → Add groups on the added field

Not available by default, the meta tag needs to be added on template level

Available for both courses and learning paths.

### Migration

Not needed

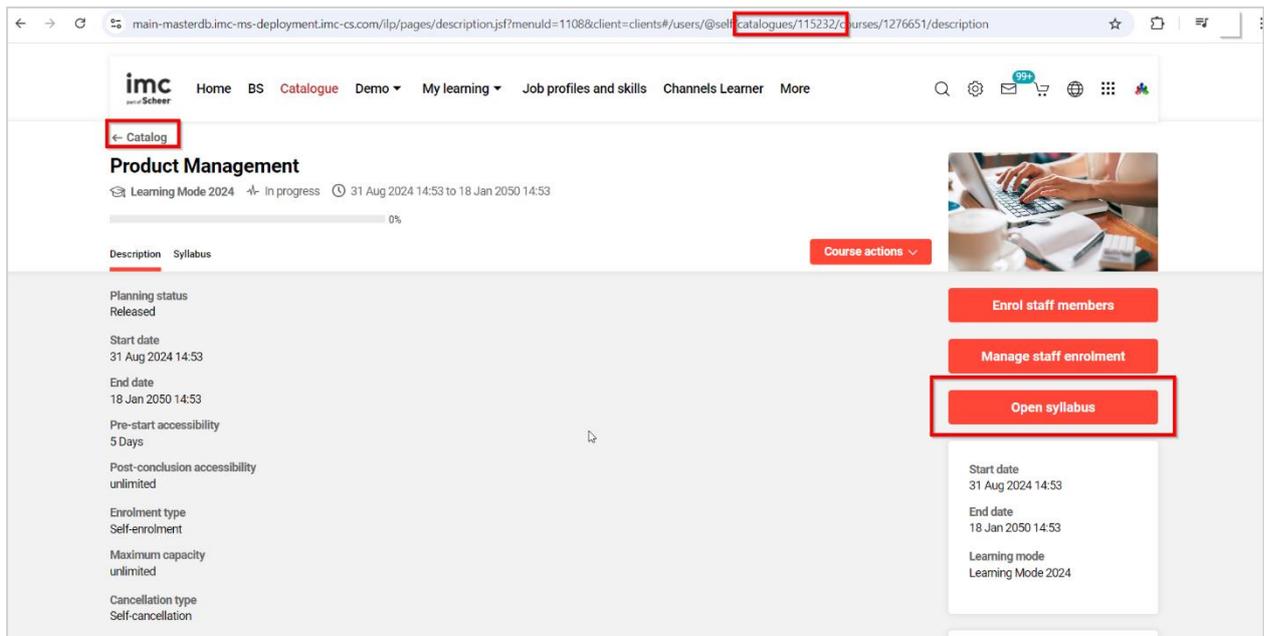
### Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Medium

## 5.3 “Open syllabus” button in Catalogue for enrolled courses

### What can I do?

When Learners browse the catalogue and there are search results that include courses where they are already enrolled, there’ll be a new option ‘Open syllabus’.



### Benefit

Streamlined user experience for learners to access courses they are already enrolled in by different access points. Learners are having no longer trouble with finding the Syllabus because it is not displayed very prominent for them.

### Configuration

To be able to use this functionality, the configuration needs to be activated on Client level. Clients → Select a client → Go on Catalogue settings → Mark the “Display syllabus button when opening the course from the catalogue.

### Limitation

Only available when accessing the courses from the catalogue and the URL has the catalogue ID. If the URL does not contain the catalogue context, the button will not be displayed (eg: Preview functionality will not display the Open syllabus button)

### Migration

Not needed

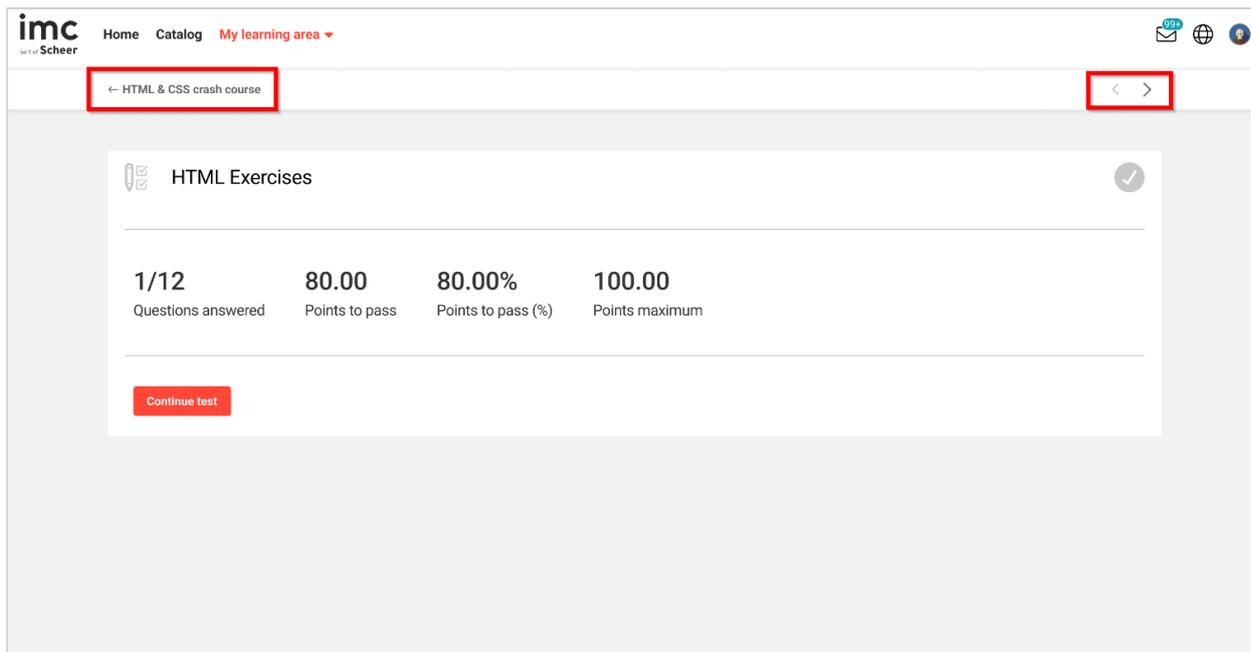
### Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Low

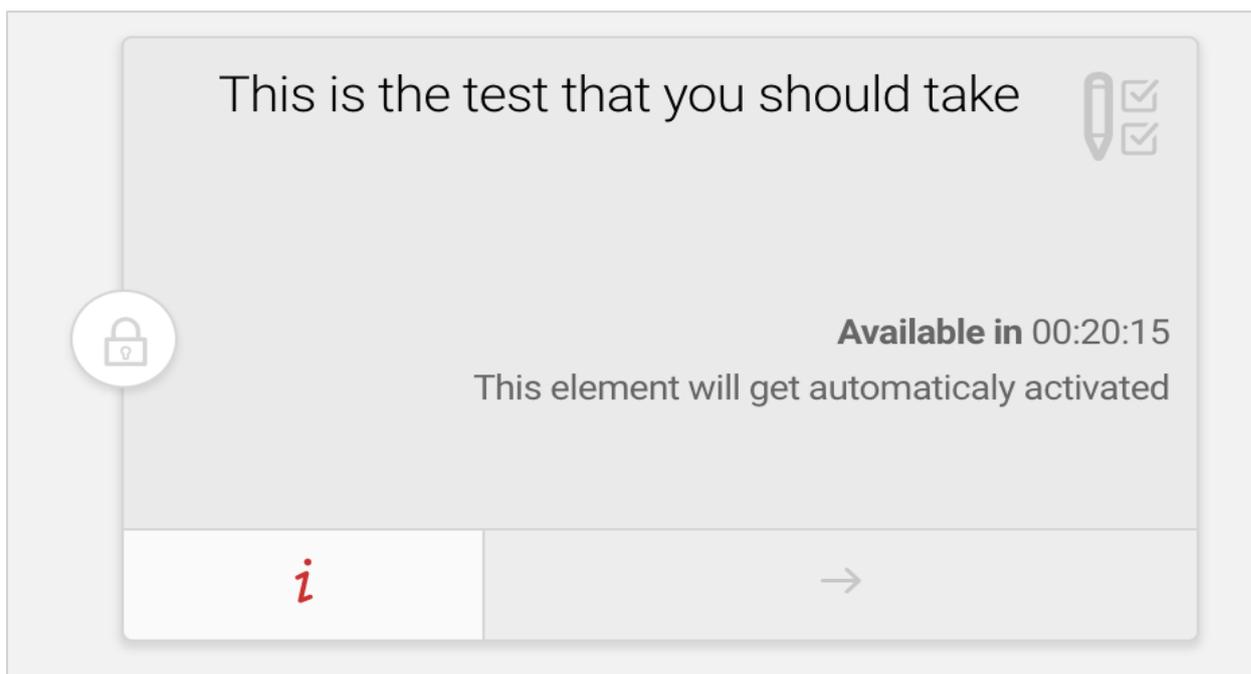
## 5.4 Performance improvements for high number of media and tests in course room

### What can I do?

Course administrators can have more control of configuring the navigation of the media content inside the course room to offer a more performant user experience for the learners.



Picture – Layout for the 'No navigation' option for the position of the media content via Course room



Picture – A countdown together with an informative text are displayed for the scheduled components inside the course room

## Benefit

Learners will have an improved experience by having a simplified course room to access the media components faster.

Learners will be notified if a scheduled component from the syllabus content which takes more time to load will be activated automatically, without the need of refreshing continuously the page.

Learners who have a high number of media components added to the course room are having troubles with the data being loaded very hard causing downtimes.

## Configuration

For activating a more performant course room, the administrator needs to define it from the Position of the media content navigation field.

Course room types manager → Edit Course room → Select “No navigation” option from the “Position of the media content navigation” field → Save changes.

For displaying the important information (start date/end date of a media component) and make use also of the timer (countdown will be automatically displayed among the informative text if the start date is less than 24 hours)

Course room types manager → Edit Course room → Click on Columns and Panel → Edit Syllabus → Display important information on media tiles TRUE. Timer for the scheduled media components is displayed automatically if the important information on media tiles is marked as TRUE.

## Migration

No migration needed.

## Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Low

## 5.5 Duplication of course types

### What can I do?

Course type can now be duplicated in the course type manager.

### Benefit

Course administrators can save time by using the new course type duplication functionality, instead of creating a new course type and entering the same settings again if they want to have another course type with the same or with similar settings.

### Configuration

No configuration necessary

## **Migration**

Not needed

## **Further information**

- Add-On: no
- Only available with new Architecture: No
- Risk of changes: Low

## **5.6 Cancellation request Object ID enhancement**

### **What can I do?**

The subject of the cancellation request of a mail did not give any information about the uniqueness of the course. Within IP 22 the object ID of the cancelled course has being included in the subject in addition to the cancellation request name and ID.

### **Benefit**

Course administrators can easily identify courses and distinguish between courses with same names in the cancellation request message of a learner.

### **Configuration**

No configuration necessary. Object ID will always be shown.

### **Information/Limitation**

This request is only sent to external mailing and will not be shown in the internal mail monitor.

## **Migration**

Not needed

## **Further information**

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Low

## 5.7 Edit folder names within the prerequisite tab

### What can I do?

You can now edit and rename the titles of prerequisite sets, subsets and alternative sets, for various objects such as Course Templates, Courses, Learning Path Templates, and Learning Paths in the prerequisite tab.

### Benefit

This enhancement allows you to give learners a clearer understanding of the training prerequisites by providing detailed explanations directly within the prerequisite folders. It eliminates confusion caused by vague or misleading prerequisite names, leading to a more intuitive learning experience. By customizing these titles, you help learners prepare adequately for the courses or learning paths they wish to undertake.

### Configuration

No configuration required, use the edit toolbar function.

### Migration

Available in course templates and courses that have already been created as well as learning path templates and learning path.

### Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Low

## 6 Skills and competencies

### 6.1 Parallel expiry of accumulative skills

#### What can I do?

In the previous implementation of accumulative skills (skills that contain integer values ranging from 0-100) only one skill expiry setting specified in a skill of a contributing course was taking effect. Thus, multiple skill expiry settings defined in different courses affecting the same skill could not be taken into account for a correct skill value calculation. A further problem was regarding wrong skill value calculations, because skill values were limited to 100 and values >100 could not be considered when the skill expiry took effect.

To allow the correct computation of accumulative skills that have multiple expiry dates defined in courses, we introduced the option 'Parallel skill expiry' with two major changes:

- 1) Multiple expiry dates taking effect on one skill (previously only the expiry settings of the skill with the latest expiry date took effect)
- 2) Removing the limit of cumulative skill values, which were reduced to 100.

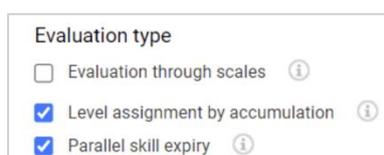
Because skills with the new option are not compatible with the former skills only, newly created skills can be set up with the new option. The progress bar display of the skills will still show 100% even if 100 points are exceeded, but the skill value displayed as numerical values in all occurrences in front-end and back-end will show the actual amount that can exceed 100.

#### Benefit

For skills with this new option, the parallel skill expiry provides correct skill values and skill values over 100 can be handled.

#### Configuration

The new setting can be found in the skill manager when creating or editing a skill and requires the setting 'Level assignment by accumulation' (see in the screen below).



Evaluation type

- Evaluation through scales ⓘ
- Level assignment by accumulation ⓘ
- Parallel skill expiry ⓘ

#### Limitation

Once a skill has been created with the option 'Allow parallel skill expiry' it cannot be undone. Skills, which have been created without the option 'Allow parallel skill expiry' will still remain with the limitation to the value of 100 and they will be treated as before also regarding its expiry.

#### Migration

Not needed. If skill values for accumulative skills without the new option need to be computed for existing course data, only a custom-specific cronjob to recreate the skill history would need to be created. The resulting skill history cannot reflect all past actions and changes like status changes of already completed courses or manual changes on individual course contributions.

### **Further information**

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Low

# 7 Reporting

## 7.1 Learning Path Course SOLR Report includes equivalencies

### What can I do?

Administrators and supervisors can identify in the Learning Path Courses and Learning Path Courses SOLR Report with the help of “Course equivalence status” column which courses of a learning path are already covered for a learner because of equivalence relationship with another course. In addition, indirect relationship via EQS relationship between course templates would also be considered.

First name	Last name	Learning path	Course template ID	Course name	Enrolment status	Enrolment status date	Course equivalence status
3	wbuser	Product Management - Beginner	1273172		No relation		Covered
3	wbuser	Product Management - Beginner		Communication skills - Basic	Enrolled	21-Aug-2024 10:51	Covered
3	wbuser	Product Management - Intermediate		Communication skills - Intermediate	Passed	21-Aug-2024 14:21	-
3	wbuser	Product Management - Intermediate	1273188	Agile Product Management - Intermediate	Passed	21-Aug-2024 14:22	-

### Benefit

Administrators and supervisors would be quickly able to identify the courses which have been covered due to the learner successfully completing another course. This would help administrators in better planning of the trainings and enable the supervisors to follow up on the employees who need to yet do the necessary trainings.

### Configuration

To make the “Course equivalence status” column available in the Learning Path Courses and Learning Path Courses SOLR report, the setting Configuration → Equivalences → Enable Equivalences should be enabled.

In Learning Path Course SOLR Report, the column would be updated additionally when the scheduled job ‘de.imc.clix.core.solr.SolrIndexFullBuildJob’ has run.

### Migration

No migration is needed.

### Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Low

## 8 Channels

### 8.1 Set notification to active/inactive per Channel

#### What can I do?

It is possible to decide per Channel, if subscribers should be notified about changes or not. A new option per Channel is available to “edit notifications” and with that, per notification category (new media available, media update, automatic subscription) it can be decided, if subscribers should receive a notification. The default value (if active or inactive) is taken from the notification manager and per Channel, the values can be overwritten.

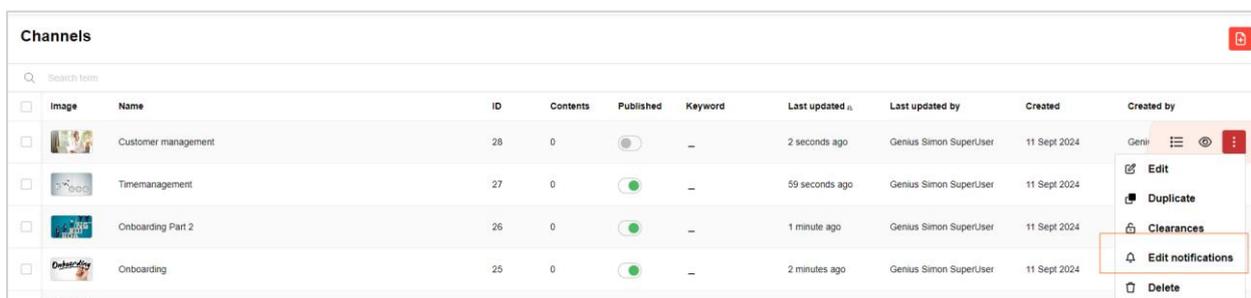


Image	Name	ID	Contents	Published	Keyword	Last updated	Last updated by	Created	Created by
	Customer management	28	0	<input type="checkbox"/>	–	2 seconds ago	Genius Simon SuperUser	11 Sept 2024	Genius Simon SuperUser
	Timemanagement	27	0	<input checked="" type="checkbox"/>	–	59 seconds ago	Genius Simon SuperUser	11 Sept 2024	Genius Simon SuperUser
	Onboarding Part 2	26	0	<input checked="" type="checkbox"/>	–	1 minute ago	Genius Simon SuperUser	11 Sept 2024	Genius Simon SuperUser
	Onboarding	25	0	<input checked="" type="checkbox"/>	–	2 minutes ago	Genius Simon SuperUser	11 Sept 2024	Genius Simon SuperUser

#### Benefit

In case a spelling mistake is found in a content and subscribers should not be informed about this formal update, it is now possible to simply switch off the value for e.g. the ‘update’ notification briefly and switch it on again once the error is corrected & the subscribers will not receive a notification about this small correction.

#### Configuration

No configuration is required, the new icon for “edit notifications” is present out of the box. Via this new icon, the value per channel per notification can be changed. The default value is taken from the notification manager (system-wide). Remark: the toggle in Channels controls if the notification manager is allowed to send Channel notifications or not.

#### Migration

No migration required, if the new feature is not used, nothing will change.

#### Further information

- Add-On: yes, feature is part of the Channels add-on
- Only available with new Architecture: yes
- Risk of changes: Low

## 8.2 Language parameter for LTI 1.1 and LTI 1.3

### What can I do?

So far, changing the language on the language flag in the content has only resulted in the title and description of the content changing, but not the language in the content itself. This has now changed so that the language in the content also adapts, if available.

### Benefit

For multilingual LTI content that does not have its own language selection button in the content itself, the language of the content can now be controlled via the language selection of the LMS content.

### Configuration

The available languages for the LMS Media should be set to “translated” in order to display them in the language flag of the content. Furthermore, it needs to be ensured that for the LTI content itself the corresponding languages are available, otherwise the default language of the content will be displayed.

### Migration

No migration required.

### Further information

- Add-On: yes, feature is part of the Channels add-on
- Only available with new Architecture: yes
- Risk of changes: Low

## 8.3 Topic-related trainings improvement

### What can I do?

Instead of using the component ID in the table of topic-related trainings, now the Object ID is used.

### Benefit

Templates will no longer disappear when they are updated, the same content cannot be added twice to a Channel.

### Configuration

No configuration required.

### Migration

No migration required.

## Further information

- Add-On: yes, feature is part of the Channels add-on
- Only available with new Architecture: yes
- Risk of changes: medium

## 8.4 New interaction pattern for Channel-Icons

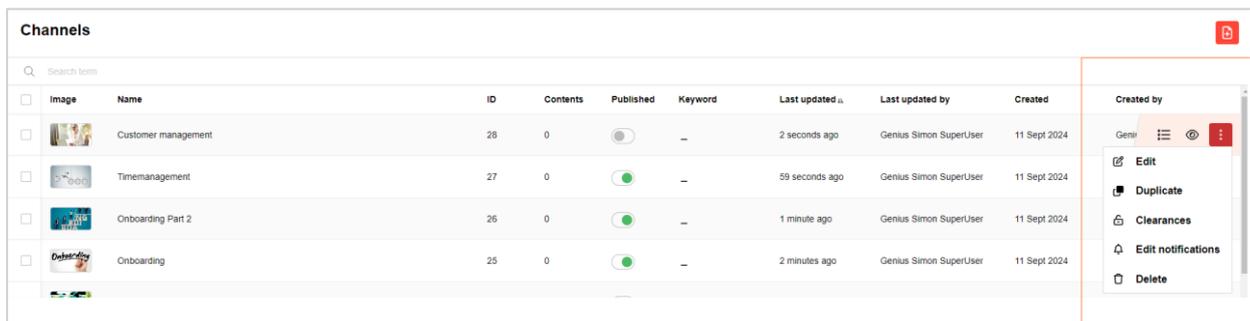


Image	Name	ID	Contents	Published	Keyword	Last updated	Last updated by	Created	Created by
	Customer management	28	0	<input type="checkbox"/>	–	2 seconds ago	Genius Simon SuperUser	11 Sept 2024	Genius Simon SuperUser
	Timemanagement	27	0	<input checked="" type="checkbox"/>	–	59 seconds ago	Genius Simon SuperUser	11 Sept 2024	Genius Simon SuperUser
	Onboarding Part 2	26	0	<input checked="" type="checkbox"/>	–	1 minute ago	Genius Simon SuperUser	11 Sept 2024	Genius Simon SuperUser
	Onboarding	25	0	<input checked="" type="checkbox"/>	–	2 minutes ago	Genius Simon SuperUser	11 Sept 2024	Genius Simon SuperUser

### What can I do?

New interaction pattern in the administrative part of Channels, icons are arranged in one central place.

### Benefit

Some icons were only visible when the checkbox of a particular channel was ticked. Most of the other icons were already visible when hovering over the channel. Now all icons are accessible through the hover action, a bulk deletion can be achieved by ticking the checkboxes of several channels.

### Configuration

No configuration required.

### Migration

No migration required.

### Further information

- Add-On: yes, feature is part of the Channels add-on
- Only available with new Architecture: yes
- Risk of changes: Low

## 9 Systemwide setup

### 9.1 E-Signature with SAML

#### What can I do?

E-signature is applicable for validated systems. E-signature means the user electronically signs an action that the user did in the system authenticating again like saving the course. The e-signature for validated systems is now implemented for SAML.

#### Benefit

The E-signature security functionality for validated systems can now be used not only for local systems but also for SAML.

#### Configuration

Clients → Access and security - Checkbox 'SAML authentication' = true/checked

Clients → Access and security - SAML entity ID (If the checkbox for SAML authentication is ticked, a SAML Entity ID can be entered here.)

Configuration → Audit log - validation and e-signature needs to be checked

#### Migration

Not needed

#### Further information

- Add-On: no
- Only available with new Architecture: yes
- Risk of changes: Medium

### 9.2 Meta tag refactoring

#### What can I do?

You can now assign meta tags to courses, learning paths, media, and resources more reliably by having updated areas for availability as well as updated i-button texts.

#### Benefit

This enhancement ensures a more streamlined and meaningful meta-tagging process, reducing the assignment of irrelevant tags significantly. Furthermore, the updated meta tags may not be added where they were not intended to be so that unexpected behaviour can be mitigated.

## Configuration

Configuration is done as usual while setting up courses, learning paths, media and resources.

## Migration

The meta tags that were previously assigned to courses, learning paths, media, and resources will not be affected by the changes. The update only applies to new meta tag assignments.

From now on, some meta tags that were available in too many places before will be restricted. For example, the meta tag "upload file" (ID 10002) used to be applicable to all types of media. Going forward, it will only be available for the "file" media type. However, any existing media that already has this meta tag will keep it, but new media (other than "file" types) will not be able to use this meta tag anymore.

Other meta tags are available in more places e.g. the meta tag "Start date" which can be added to media.

Updated availability of meta tags					
Name	ID	Course	Learning Path	Media	Resource
Upload file	10002			File	
Start date	10004	y	y	y	
End date	10005	y	y	y	
Tutor	10006		y	Virtual class-rooms	
Administrator	10007	y		y	
Source (URL)	10011			Multimedia	
Welcome text	10013	y	y	y	
Creator	10017	y	y	y	
Contact	10040	y	y	y	
City	10042	y	y	y	
Granularity Level	10046			WBT	
Version	10047			WBT	
Status	10048			WBT	
Interactivity Type	10049			WBT	
Learning Resource Type	10050			WBT	
Difficulty	10051			WBT	
Learning Time	10052			WBT	
Structure	10053			WBT	
Position of pop-up window: X-coordinate	10055			WBT	
Position of pop-up window: Y-coordinate	10056			WBT	
Width of pop-up window	10057			WBT	
Height of pop-up window	10058			WBT	
Post-conclusion accessibility	10065	y	y		
Pre-start accessibility	10074	y	y		
Resource is participant-specific	10111				y
User-specific resource booking	10118	y			y
Author	10137	y	y	y	

Allow thread creation	10187			Forum	
Access to recordings	10188			Adobe Connect Meeting	
Access before meeting starts	10189			y	
Adobe Connect Recording ID Identifier	10190			Adobe Connect Meeting	
Image in chat	10193			Forum	
Allow rating	10770	y	y	y	
Author email	10965	y	y	y	
Create appointment in the participants' calendars	11050	y		y	
Meeting organiser (GoToMeeting/ GoToWebinar)	11206			GoToMeeting	
Conference information of a GoToMeeting	11207			GoToMeeting	
GoToMeeting Type	11208			GoToMeeting	
External LTI content provider	11420			LTI	
LTI launch mode	11422			LTI	
Share name of the user	11423			LTI	
Share e-mail address of the user	11424			LTI	
Accept grades, points of external LTI content provider	11425			LTI	
Mastery score	11426			LTI	

Y = available for assignment, when specific media type is listed then only for that type and not media in general available for assignment

### Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: High

# 10 New user interfaces

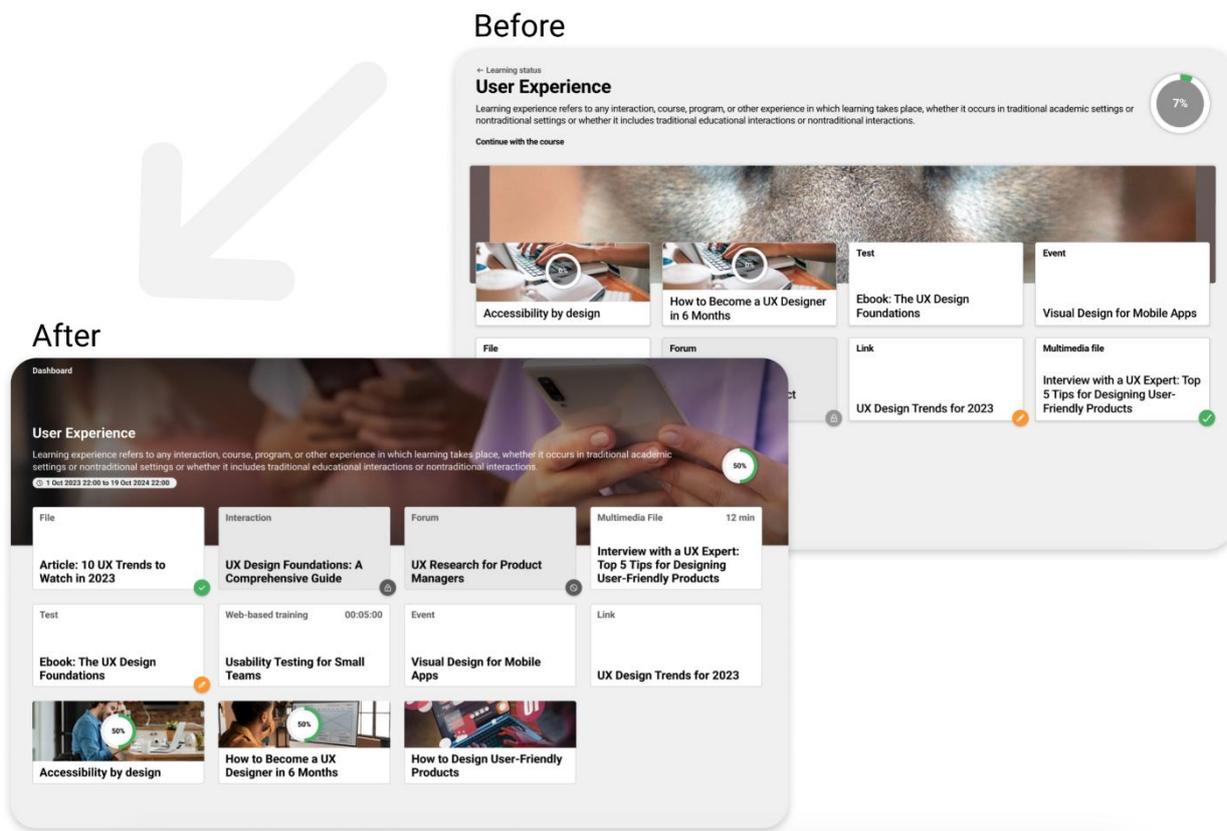
We are continuously improving our LMS by redesigning all pages in React to offer a more modern and user-friendly experience. This transition not only enhances the usability of the platform, making it easier for users to navigate, but also strengthens our system’s security by leveraging [React's](#) robust architecture. These improvements are part of our ongoing commitment to providing a secure and seamless learning environment.

## 10.1 React facelift – Course room layout → “Syllabus only” view

### What can I do?

The LMS already provided a configuration to display a course room without having the detailed information in the description tab. The setting is available via “Course room type” → “Course room layout” → Syllabus only. This configuration can be used to provide learners with an easy-to-use course room, where they don’t need to take care about learning logic, scheduling etc.

### Comparison before and after



### Benefit

#### – Strategic Use of Imagery

In the new design, imagery plays a crucial role in enhancing the user experience. Larger and more strategically placed images not only make the interface visually appealing but also improve content recognition and accessibility. This helps users quickly identify key materials and makes the learning environment more engaging.

**– Enhanced Visual Hierarchy**

The new design introduces a well-defined visual hierarchy, making the interface more intuitive. Distinct card titles, clearly differentiated resource types, and visible time estimates contribute to a smoother user experience. This improved structure guides users' attention, ensuring they can easily navigate through the content and focus on what's most important.

**– Improved Navigation**

Navigation has been significantly upgraded in the new design. A more prominent back button and clearer navigation paths within course folders streamline the user journey, reducing confusion and enhancing overall flow. Users can move through the course content with greater ease and confidence.

**– Refined Aesthetic and User Experience**

The overall aesthetic has been elevated in the new design. The interface is now cleaner and more polished, which reduces clutter and improves content discoverability. The enhanced layout, strategic use of imagery, and improved interactions combine to create a more engaging and user-friendly experience, making it easier for users to stay focused and enjoy their learning journey.

**Configuration**

No configuration necessary, the new layout will be displayed by default.

**Migration**

Not needed

**Further information**

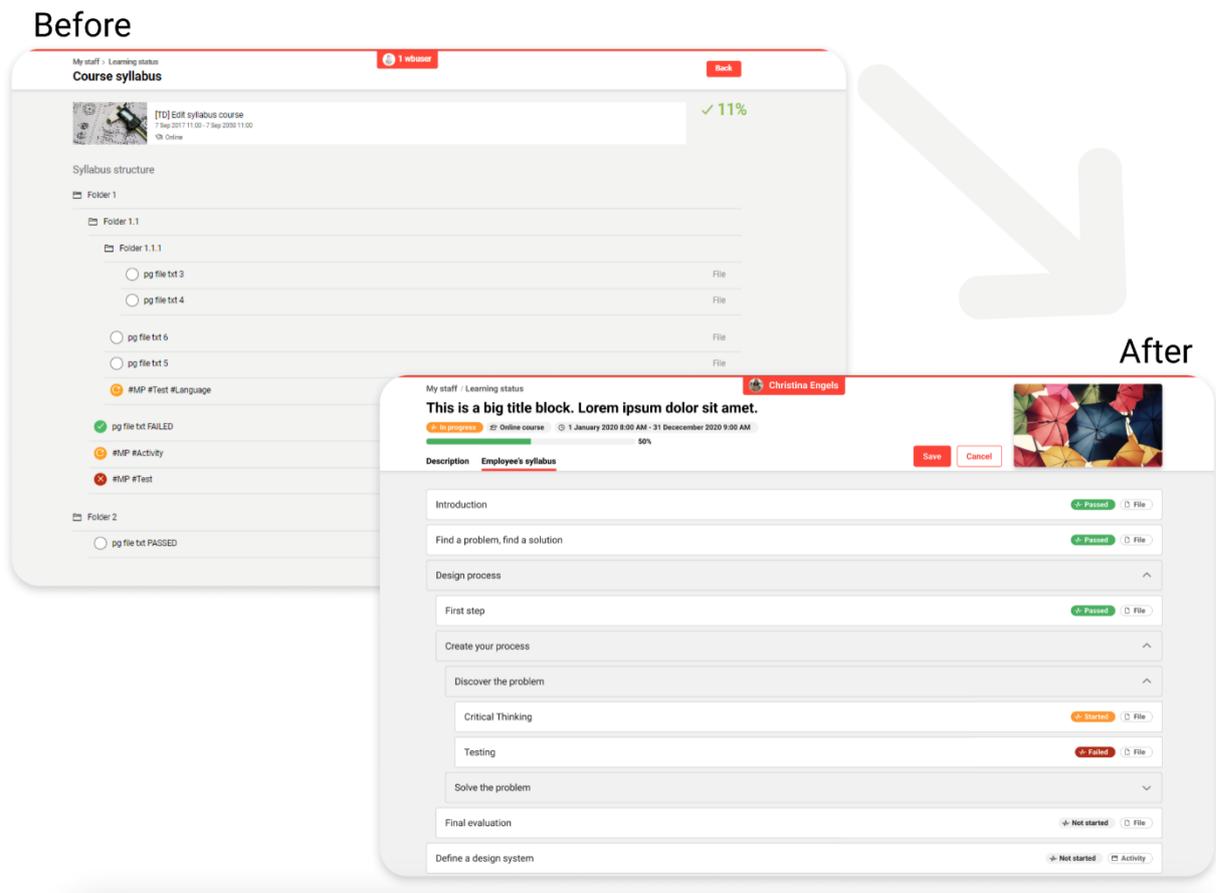
- Add-On: no
- Only available with new Architecture: yes
- Risk of changes: Low

## 10.2 React facelift – User syllabus page

### What can I do?

As a manager I have the possibility to view or edit the syllabus page of learner. This can be done under the condition that the course has the metatag **Enable Individual Course Syllabus (11700)** active.

### Comparison before and after



User syllabus page

### Benefits

#### – Enhanced Visual Hierarchy and Clarity

The new design brings a cleaner, more organized layout that greatly improves usability. Pronounced icons and clearly visible status labels such as "Not started," "Passed," and "Failed" make it easier for managers to quickly assess the progress of each item. This clarity ensures that key information is immediately accessible.

#### – Integrated Progress Indicator

The progress bar is now seamlessly integrated into the overall layout, positioned directly under the course title. This strategic placement makes it easier for users to track their progress in real-time, providing a more contextual and intuitive experience.

#### – Effective Use of Status Labels and Icons

In the redesigned syllabus, status labels are clear and accessible, accompanied by well-placed icons that enhance understanding without cluttering the interface. This careful use of visual elements improves comprehension and reduces cognitive load.

- **Streamlined User Interface**

The introduction of a more streamlined folder structure with collapsible sections allows managers to focus on specific areas without being overwhelmed by information. This simplification enhances the user experience by making navigation more intuitive and less cluttered.

- **Refined Colour and Typography**

The updated design features a more sophisticated colour palette that provides clear contrasts between different elements. Improved typography makes the text more legible, and color-coded statuses allow for quick identification of key information, making the interface more user-friendly.

- **Improved Content Organisation**

Content is now more logically organized, with clear labels and distinctions between different types of content. The addition of status tags next to content items enables managers to quickly identify the completion status, facilitating easier tracking and decision-making.

- **Elevated Aesthetic and User Experience**

Overall, the new design significantly enhances usability by focusing on clarity, reducing visual clutter, and making critical information easily accessible. These improvements allow managers to assess progress more efficiently and manage their team's learning experience with greater ease.

## **Configuration**

No configuration necessary, the new layout will be displayed by default.

## **Migration**

Not needed

## **Further information**

- Add-On: no
- Only available with new Architecture: yes
- Risk of changes: Low

# 11 Technical improvements

## 11.1 Unsupported Kava chart in old reports

### What can I do?

“Individual test assessment report” can be downloaded and bar charts can be visualized.

### Benefit

With the help of bar charts, the performance of a learner pertaining to a test can be quickly and more easily interpreted. The detailed gap-analysis will support the learner in choosing the personal education path and enable him/her to close the gaps identified quickly and in a targeted manner.

### Configuration

No configuration needed.

### Migration

No migration needed.

### Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Low

## 11.2 LCP (large contentful paint) optimisations

### What can I do?

Optimisations were done in the area of API (by implementing caching mechanisms to reduce loading times) and JSF. Lazy loading was introduced for pages in the mono repo, where not everything has to be loaded immediately, but only when it is necessary.

### Benefit

Better user experience due to performance improvements.

### Configuration

No configuration required.

### Migration

No migration required.

### Further information

- Add-On: yes and no, depending on the area
- Only available with new Architecture: yes
- Risk of changes: High

## 11.3 Restrictions of XML Upload

### What can I do?

When the LMS is started, the deployed XML files are now compared with the source version of the uploaded files. In addition, a warning is displayed when a new XML file is uploaded.

### Benefit

If the deployed XML file differs from the source version of the uploaded files, the uploaded file is replaced in order to avoid possible inconsistencies or errors.

In addition, a warning should make it clear that uploaded XML files are not permanent and can be overwritten at any time by an update of the software.

### Configuration

No configuration needed.

### Migration

Migration not possible. The comparison only takes place after the first XML upload was done with IP 22. Existing uploads are deleted when IP 22 is deployed.

### Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Medium

## 11.4 New Audit Log Event for User Deletion

### What can I do?

Inside the existing audit log file (which logs security related events like logins, user data changes, reports access and export, system configuration changes etc.), I can see whenever a user is deleted or anonymised.

### Benefit

The user deletion can be monitored to register malicious or abnormal deletion process or to identify the targets and those responsible for accidental deletion.

### Configuration

Configuration available in the existing audit log configuration parameter. Activated by default.

## Migration

No migration needed. Only future events will be logged.

## Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Low

## 11.5 Schema extension in SOLR index

### What can I do?

The schema of the following 4 SOLR reports has been extended to allow customised use of additional columns in the schema / index:

- Course Progress
  - coursecertificate
  - learningpathIds
  - learningpathBatchNumbers
- Course Learning History
  - learningpathIds
  - learningpathBatchNumbers
- Course Attendance
  - userdefinedId
  - typeUserdefinedId
  - learningpathIds
  - learningpathBatchNumbers
- Learning Path Courses
  - coursecertificate
  - courseBatchNumber
  - courseStartDate
  - courseEndDate
  - courseDepartmentNameEN
  - courseDepartmentNameCN

### Benefit

It is now possible to make use of the above fields in the listed schemas for custom values.

### Configuration

No configuration needed

### Migration

No migration needed

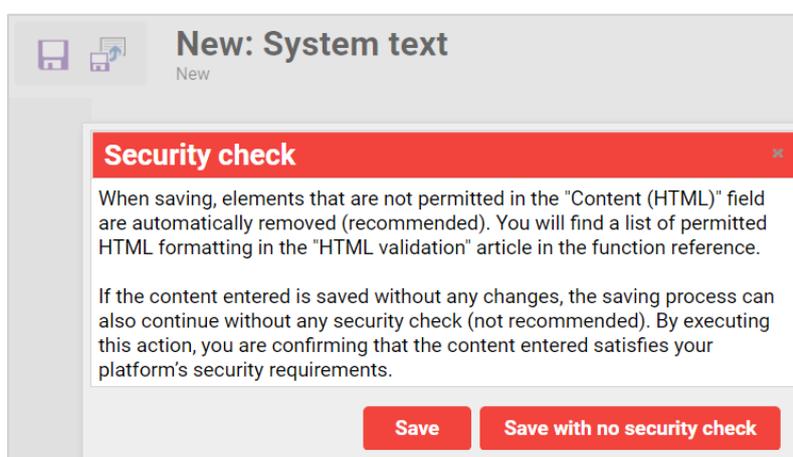
### Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: Low

## 11.6 Sanitizer improvements

### What can I do?

As administrator you can skip the HTML sanitization of system texts like it is possible for enrolment messages.

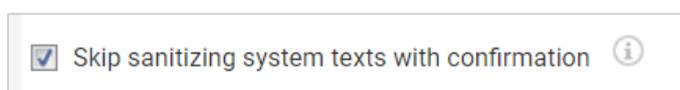


### Benefit

HTML in system texts, can be displayed as intended after saving the system text using the backend, which enormously improves the ease of use for administrators.

### Configuration

In the security configuration, there is the new option "Skip sanitizing system texts with confirmation", that needs to be selected to be able to use the skip functionality.



### Migration

No migration required.

### Further information

- Add-On: no
- Only available with new Architecture: no
- Risk of changes: High, because harmful HTML code could be inserted into the LMS; as such this setting is recommended only for HTML text that is checked to be secure.

## **11.7 Security findings**

There have not been any security fixes in Innovation Pack 22 that created an impact to existing functionality.