

CONNECT

**Inclusive open schooling
with engaging and
future-oriented science**

D3.2

CONNECT online
platform baseline
implementation

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Executive Summary

The following report which accompanies the demonstrator deliverable D3.2 presents a description of the baseline implementation of the CONNECT platform. This iteration of the platform aims to provide the basic functionalities required for the consortium partners to use. The different areas of the platform are presented along with the various functionalities they support and user requirements they facilitate. Although there is adherence to the CONNECT brand in terms of colour schemes, fonts and more, a focus has been placed on providing functionality.





1. Introduction

At the heart of the CONNECT project lies the multi-actor platform, which aims to support and consolidate the work from other WPs in a virtual environment where teachers can engage with science professionals and collaborate on novel Science-action projects. D3.1 "CONNECT platform design report" laid out a high-level design of the platform, including the various sections, functionalities, users and their requirements.

This report accompanies the demonstrator deliverable D3.2 "CONNECT online platform baseline implementation". It unfolds the platform structure, presenting the different modules in different sections. Relevant user requirements are described in each section. The current state of the platform and envisioned future steps are highlighted.

The first iteration of the platform is a baseline implementation and provides basic functionalities that the consortium partners can employ. The platform has been built using WordPress for the backbone and Content Management System (CMS). At the current stage, the platform functionalities address most of the user requirements described in D3.1. The requirements are also listed in Annex 1 of this report.

Being a baseline implementation, the focus has been placed on building the required functionalities. Effort has been placed to illustrate the CONNECT brand in terms of colours and fonts but this will be fully implemented before the official launch of the platform in M12 as part of D3.3 "CONNECT online platform official launch".





2. Platform breakdown

This section of the report will break down the platform in terms of modules, functionalities they provide and user requirements they address. In D3.1, the six modules that comprise the platform were described. User requirements for each module, first presented in D3.1 are described in the corresponding module section. A list of all requirements is included in Annex 1. It should be noted that some user requirements are only partly addressed and some not at all in the baseline implementation. This is indicated in tables that accompany each module. All functionalities are user requirements, regardless of whether they are addressed or not are subject to amends and improvements.

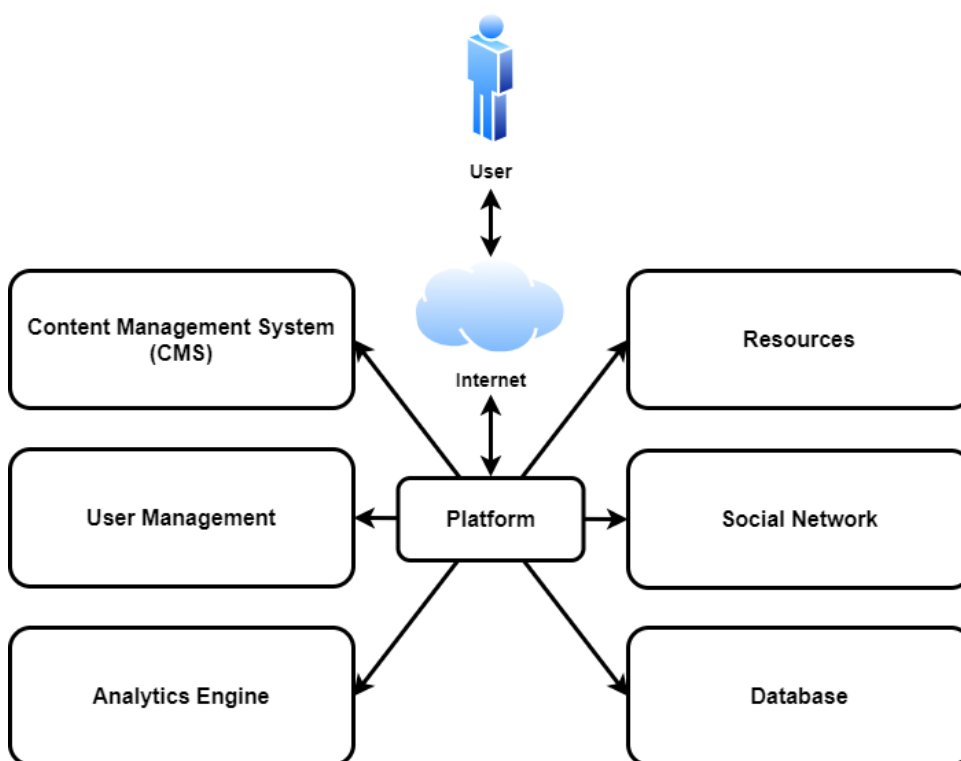


Figure 1 CONNECT platform modules

2.1 Content Management System (CMS)

The platform is built using WordPress as a CMS, which enables most of the functionalities laid out in this report through its own capabilities as a CMS as well as through additional plugins. It is important to note that although WordPress allows for CMS capabilities as a developer or administrator, we are leveraging its capabilities to allow users to manage content as well. Key areas where we see this necessary are in the Resources sections, User profiles and Social Network,





which will be addressed further on. One functionality not supported at the time is the display and reward of performance through Open Badges. This is because an open badge system is yet to be decided by the consortium. The CMS does have the ability to display them, and this will be built in for the next iteration.

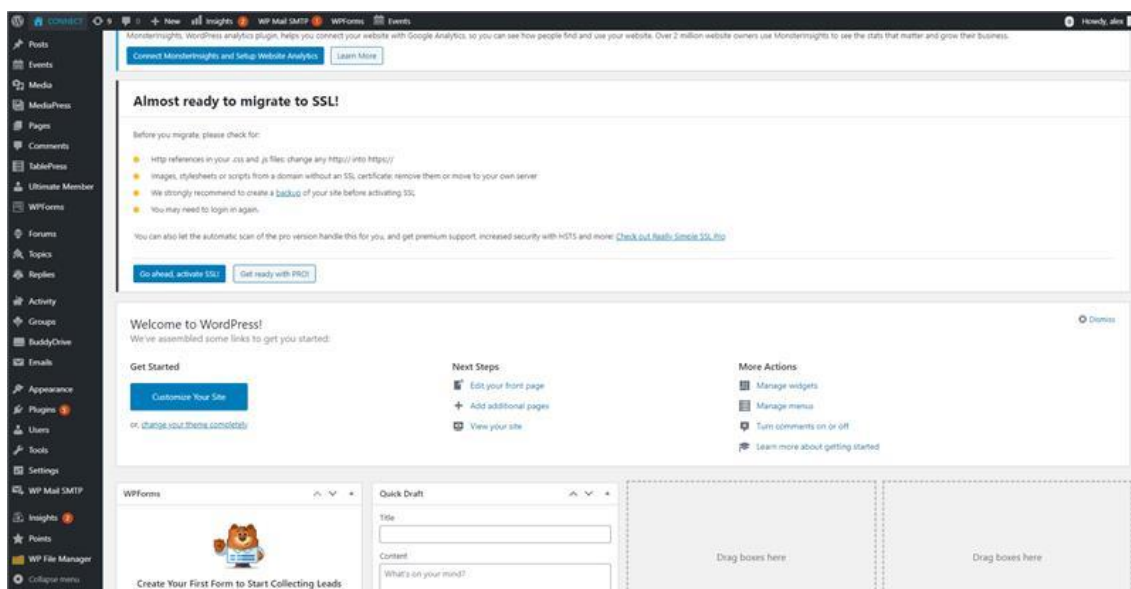


Figure 2 WordPress Dashboard

Some of the plugins that are currently being used are laid out in the table below. These are subject to changes and amendments based on feedback and lessons learned.

Plugin Name	Functionality
BuddyPress	Social Network with user profiles, groups, interactive capabilities (commenting, posting, liking), searching, messaging
BuddyDrive	File and media management (uploading, accessing, downloading, commenting)
PolyLang	Imbed Multiple languages
Calendar	Displays a calendar to which events can be added

Table 1 WordPress plugins





2.1.1 User requirements relevant to the CMS:

User requirement	Explanation	Current state
UR01: Accessibility of resources	The CMS allows for the management of digital content, including any resources uploaded onto the platform.	Fully addressed yet subject to amends
UR02: Content Management	The CMS allows for the management of digital content from and administrative and developer perspective but also for platform users. This is facilitated through plugins.	Fully addressed yet subject to amends
UR04: Support of multiple users and languages	Through the use of the CMS and plugins, the platform can host multiple users who can run the platform in their own language.	Partially addressed. Subject to amends.
UR05: Publicizing material	The CMS allows for the uploading of digital content and the use of plugins provide users with these capabilities.	Fully addressed yet subject to amends
UR06: News and events	Users can post updates or news on their profiles. A central area of the platform can host news (currently doesn't) and updates for all users. A calendar plugin currently displays events.	Partially addressed. Subject to amends.
UR07: Secure login	The CMS and different plugins allow for the secure login capabilities of different users.	Partially addressed. Subject to amends.
UR:13 Reward and display performance	The CMS will allow for the display of open badges of different formats. This includes in the Social Network, Groups and User Profiles. Open badges have yet to be defined.	Not addressed. Open Badge system is yet to be defined. CMS capabilities should allow for the display of most Open Badge formats.

Table 2 User Requirements - CMS





2.2 User Management

There are three key areas within the platform where User Management is facilitated: the registration/login windows, user profiles and groups. New users will have to register to enter the platform, whereas existing users will have to log in every time they use the platform or remain logged in.

Register

Registration form fields:

- Username
- First Name
- Last Name
- E-mail Address
- Password
- Confirm Password

Buttons: Register, Login

Login

Login form fields:

- Username or E-mail
- Password

Options: Keep me signed in

Buttons: Login, Register

Link: [Forgot your password?](#)

Figure 3 Registration and Login windows

When a new user enters the platform, they will have to create their profile. They are asked to provide their name, their job title and to add profile and cover pictures. The user's profile will display the user's affiliated groups, media and a personal resource library with searchable content that can be shared. There are also social network capabilities which will be highlighted further on.





Figure 4 User profile and user resource library

Within the platform, users will be able to join and create groups that are either private (an invite must be sent or an access request must be granted) or public. Within these groups, users will be able to converse with each other and share resources. Groups can represent interests such as astronomy or organizations such as schools. An example of a private group could be the teachers of a school. In this group, they would be able to share between themselves resources that are confidential and relevant to their school only.

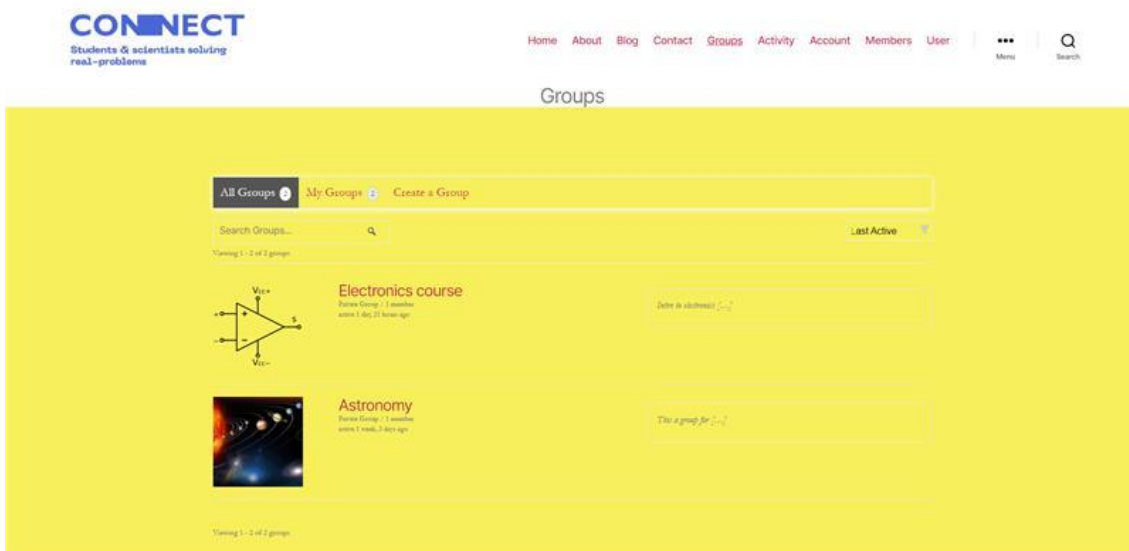


Figure 5 List of Groups



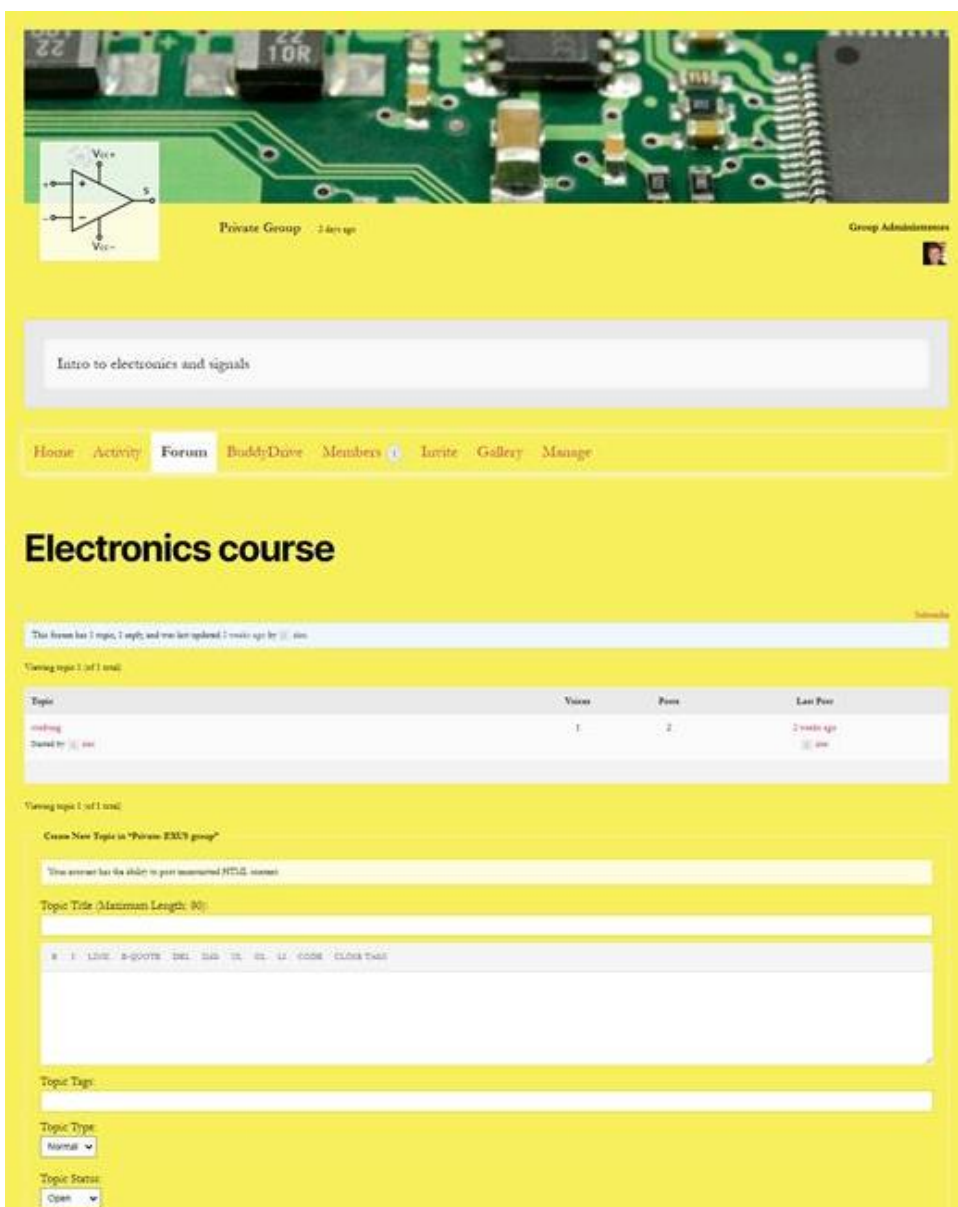


Figure 6 Example of a public Group

Although not built in yet, the user profiles and groups will be able to display open badges based on different performance and engagement metrics.

2.2.1 User requirements relevant to User Management:

User requirement	Explanation	Current state
UR04: Support of multiple users and languages	Users that have registered on the platform can create and customize their own profiles.	Partially addressed. Subject to amends.





UR08: User Management	The groups functionality controls access to certain groups and their resources.	Fully addressed yet subject to amends
UR09: Parent Organization	Groups can be made for a parent organization. This can be a school, a research or scientific institute that users can be a part of.	Fully addressed yet subject to amends
UR10: Engaging partnership and project database	It is possible to search for users and groups. Users can be searched by name or profession. Groups can be searched by name.	Fully addressed yet subject to amends
UR11: User Profiles	Users can create their own profiles where they can upload relevant information and materials.	Fully addressed yet subject to amends

Table 3 User Requirements - User Management

2.3 Social Network

The Social Network capabilities can be found through the user profiles and groups. User profiles support messaging, posting of content, interactions (commenting, liking sharing) and joining groups. Within the groups, users can share content with each other. The various types of interactions between users will be important for measuring engagement

2.3.1 User requirements relevant to the Social Network:

User requirement	Explanation	Current state
UR02: Content Management	The Social Network capabilities will allow for users to share content.	Fully addressed yet subject to amends
UR03: Fostering Communication	The Social Network plugin allows for messaging between members but also communication through interactions like commenting and liking posts or publicized materials.	Fully addressed yet subject to amends





UR05: Publicizing material	Users will be able to publicize content in their groups, on their profiles or on the more public spaces.	Fully addressed yet subject to amends
UR11: User Profiles	Users will be able to post their own relevant resources and content on their profiles. From here they can interact with other users.	Fully addressed yet subject to amends
UR:13 Reward and display performance	Users will be able to post when they earn open badges/ Performance will be measured based off of engagement with other users.	Not addressed. Open Badge system is yet to be defined. CMS capabilities should allow for the display of most Open Badge formats.

Table 4 User Requirements - Social Network

2.4 Database

The purpose of the database is for users to be able to find different projects and content but also for partners to collaborate on projects or simply just to engage with each other. Currently, the implemented search functionalities allow to search for groups, as well as for content uploaded by a user.



Figure 7 List of groups and search bar





Figure 8 User profile and search bar for uploaded content

2.4.1 User requirements relevant to the Database:

User requirement	Explanation	Current state
UR01: Accessibility of resources	Different types of resources can be searched, based off titles of category.	Fully addressed yet subject to amends
UR10: Engaging partnership and project database	Partners and projects can be searched and will appear in a more dynamic form than just a list.	Partially addressed. Subject to amends.

Table 5 User Requirements - Database





2.5 Resources

Resources can be found in the public resources section, the user profiles and within groups. As mentioned earlier, different resources will have different levels of user access. Public resources can be viewed by all and will include open scenario materials, generic coaching materials, etc. Users will be able to display any types of resources they wish, such as projects that they have previously worked on (this depends on the format of the project and the materials associated with the project e.g. PDFs, images, Word and PowerPoint files). Group resources may have restricted access to members within the group and be specific only to that group, such as coaching material made specifically for a certain school.



Figure 9 Resources on a user profile

2.5.1 User requirements relevant to the Resources:

User requirement	Explanation	Current state
UR01: Accessibility of resources	Different types of resources can be searched, based off titles of category.	Fully addressed yet subject to amends
UR02: Content Management	The various resources sections on the user profiles, groups and on the public space will allow for users to store, search, use and download resources.	Fully addressed yet subject to amends
UR10: Engaging partnership and project database	Partners and projects can be searched and will appear in a more dynamic form than just a list.	Partially addressed. Subject to amends.

Table 6 User Requirements - Resources





2.6 Analytics Engine

The current platform does not include the advanced analytics engine described in D3.1. Given that there will be numerous improvements made to the platform until it's official launch in M12, it was deemed more appropriate to implement the analytics engine when a more complete version of the platform is ready and more input is gained from partners in order to understand what statistics to measure. Nevertheless, it is possible to measure traffic and users from the backend through plugins such as Google Analytics. Moreover, interactions on the Social Networks can be measured in terms of comments and "likes".

2.6.1 User requirements relevant to the Analytics Engine:

User requirement	Explanation	Current state
UR12: Measuring Engagement	Engagement can be measured based off of interactions on the Social Network and use of the different types of resources.	Partially addressed. Subject to amends.
UR:13 Reward and display performance:	Reward will be measured through "performance" metrics such as levels of engagement between users. Currently, this user requirement is not fully addressed.	Not addressed. Open Badge system is yet to be defined. CMS capabilities should allow for the display of most Open Badge formats.

Table 7 User Requirements - Analytics Engine

2.7 Homepage

Although not one of the aforementioned modules, the homepage is an integral part of the platform as it acts as a landing page when accessing the platform and provides access to other areas. WordPress plugins have added functionalities such as a calendar and Statistics tools that tracks certain activities on the platform. It is important to note the EU Banner and project number at the bottom of the homepage, as is required for project websites and similar online platforms.



The CONNECT Platform



Figure 10 Preview of the homepage

3. Current state and future actions

As previously mentioned, this is the first iteration of the platform, providing basic functionalities that the consortium partners can employ. The current state of the platform and its envisioned journey until the official release in M12 is briefly laid out in this section.

3.1 Current state

The platform is currently hosted internally in private EXUS servers. On **connect-eu.exus.co.uk**. Due to the nature of the current hosting and the purpose of the platform itself, it is currently not publicly viewable.

3.2 Future actions

The 8 months following the baseline implementation of the platform until its official release will be a transitional period, building all functionalities and tools, using lessons learned and user feedback, and fully implementing the CONNECT brand in terms of aesthetics and appearance. Key milestones (internal milestones that are not laid out in the GA) are presented below:



1. **CONNECT platform workshop:** A workshop will be held at the end of M5 or beginning of M6 to show partners how the platform works. Initial feedback and comments will be taken for the development of the platform.
2. **Feedback and improvements:** After the first workshop, two feedback sessions are foreseen, in which partners can provide comments over their experience using the platform. User comments will be consolidated and corresponding requirements will be implemented into the platform.
3. **Platform and website integration:** The platform and website will be integrated close to the official launch of the platform. Although the website will launch in M6, since this iteration for the platform is for the consortium use only, there is no need to integrate the two just yet.
4. **Aesthetics and appearance:** The platform aesthetics and appearance will be improved incrementally throughout the period between M4 and M12 and will be finalised before M12 once all feedback and functionality has been defined.

4. Conclusion

This report accompanies the demonstrator deliverable D3.2, which is the baseline implementation of the CONNECT platform. An overview is provided of the various modules and areas of the platforms, the functionalities they provide and the user requirements they address. Most user requirements have been addressed fully or to some extent. The next steps involve implementing feedback from partners, building in all functionalities, fully adhering to the CONNECT brand and integrating to the website.





Annexes

Consolidated list of User Requirements

ID URNo	Name	User Need	Source ID
UR01	Accessibility of resources	Resources must be available for users to view, download and use. This includes Science action materials, Open Scenario tools and Coach Resources. Certain resources will only be available to certain users based on their respective organizations and level of user access. Moreover, said resources must have demonstrations available on the website.	UR_DOW_1
UR02	Content Management	Users must be able to manage digital content on the platform (text, videos, images, PDFs). The management of said content includes the storing, searching, retrieving, sharing and downloading content	UR_DOW_2
UR03	Fostering communication	Users must be able to communicate and engage with each other	UR_DOW_3
UR04	Support of multiple users and languages	The platform must support multiple users in multiple languages	UR_DOW_4
UR05	Publicizing material	Users must be able to publicise different materials (Science action resources, case studies, evaluation evidence and policy recommendations)	UR_DOW_5





UR06	News and events	Users must be able to view news and events related to the community which can be linked to their calendar	UR_DOW_6
UR07	Secure login	There must be secure login capabilities that supports a large number of users	UR_DOW_7
UR08	User Management	The platform must be able to support different levels of users and access on the platform. This does not refer restricting access of capabilities and functionalities but rather allowing an organization or user to make certain information or material private (accessible to themselves and their organization only) and publicly accessible (accessible to all on the platform)	UR_DOW_8
UR09	Parent organization	Users must be able to register their profile under a "parent organization if they choose to (Schools for teachers and respective organization for partners). This is to provide representation for the respective organization and to help them sort their various users and resources	UR_WSM_1
UR10	Engaging partnership and project database	The partner and project database or means of finding partners and projects should be more	UR_WSM_2





		engaging than a simple list	
UR11	User profiles	Users must have a profile that displays key information about them and their activity on the platform	UR_WSM_3
UR12	Measuring Engagement	It must be possible to measure (in a quantitative manner) engagement on the platform in terms of interactions between users, use of resources and the progression of the educational projects	UR_WSM_4
UR13	Reward and display performance	Users must be able to reward and display good performance practices.	UR_WSM_5



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