



ELO packages

Introduction



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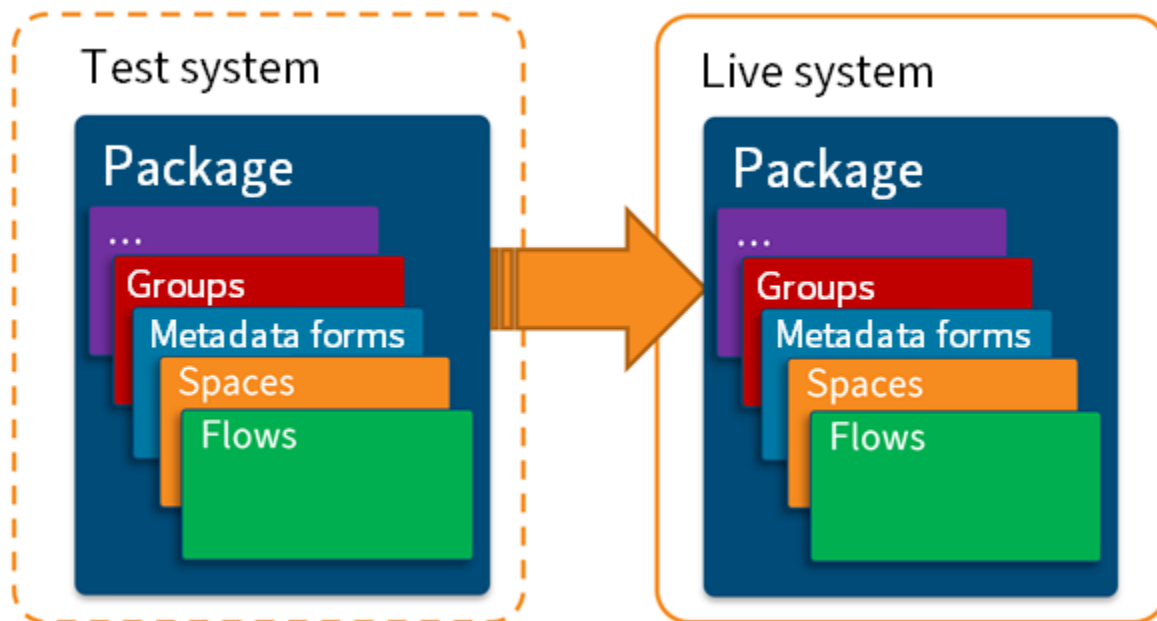
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Overview

The concept

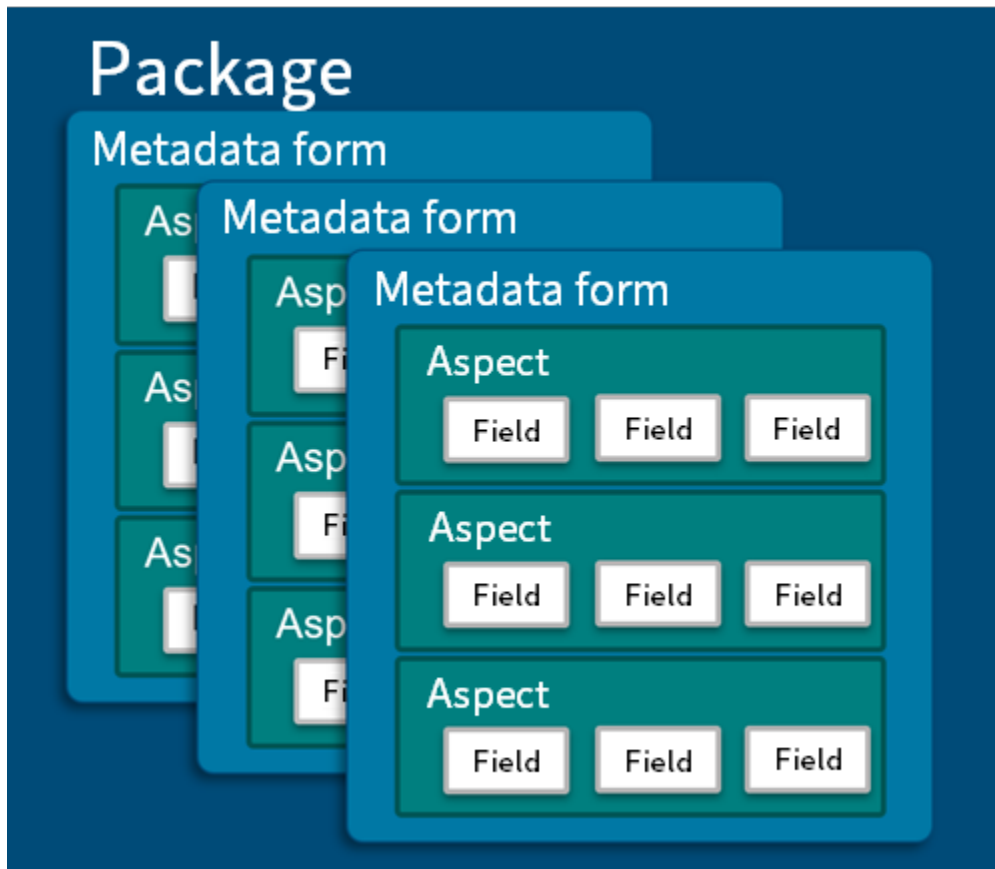
Packages allow you to create and edit related configurations. A package contains all the configurations required for a purpose.

The levels concept allows you to manage and update customizations separately from the default configuration.



ELO packages make it easier to transmit data from one system to another.

Metadata forms and aspects



Metadata are an essential part of the packages. They are represented by metadata forms and aspects.

Metadata forms allow you to classify ELO objects by different types. Metadata forms are the framework that hold the aspects and fields together.

Metadata forms are made up of aspects. Aspects represent the basic properties of an object in ELO.

Aspects are divided into fields that contain the actual metadata and can link to other metadata forms.

First steps

To ensure that your packages are successfully implemented, it helps to consider certain things before you start creating them.

The following steps provide a guide.

1. Define goals and usage context

- What do you primarily want to map?
- What is the package called?
- What is the usage context of the package?
 - Transfer/deployment of an ELO Business Solution
 - Basic solution
 - Customer-side modifications
 - Basis for transferring ELO from the partner to the customer
 - Basis for staging transfer: development system, test system, production system
- Should the package be made available in multiple languages?

2. Plan groups and permissions

- Which people in the system are stakeholders in the package?
- Who is allowed to/must access what?
- Are there external stakeholders?
- Which roles are in place?

3. Plan aspects and fields

- Which aspects are required?
- Which aspects are required in different contexts?
- Which aspects are required multiple times in one metadata form?
- Do the aspect views need to differ depending on the context?
- Which fields do the aspects require?
- Which data types do the fields require?
- Which keyword lists are required?

4. Plan metadata forms

- In which metadata forms can you meaningfully group aspects?
- Are there metadata forms that can be derived from other ones?
- What dependencies with other metadata forms are there?
- Which views for metadata forms are required?

5. Planning automation

- Where does automation make sense?
-

Which ELO modules can be used for automation?

6.

Plan spaces

- Are spaces needed for entire teams?
- Will the package be used for collaboration across teams?
- Which data aggregations are required?
- Which role needs which data?

Define goals and usage context

Which data needs to be mapped depends largely on the requirements of the respective project and should be discussed with the customer. You may find at this point that one package does not cover the whole scenario.

Example: Student administration

This documentation explains how to implement a system for student administration in ELO.

Information

Of course, the documentation cannot cover all aspects of student administration, so some aspects are only addressed superficially.

The package in this example is intended to accomplish the following:

- Enter students with different characteristics.
- Assign students to faculties, departments, courses, and exams.
- The usage context is the completely new development of a basic solution.
- Since students from abroad can also enroll at the university, the solution should also be localized into English.

Plan groups and permissions

Depending on the project, different users are involved. Whether they are people from the same team, the same company, or external stakeholders has a significant influence in terms of planning the packages and the associated rights and permissions.

You also need to determine which roles are required so that you can plan the rights concept.

Example: Student administration

In our example, the following groups of people can be identified:

- Student administration
 - Head: Has the role of *Administrator*. Can see, create, edit, and delete all objects.
 - Employees: Have the role of *Employee*. Can see, create, and edit all objects.
- Teaching staff
 - Dean: Has the role of *Faculty management*. Can see, create, edit, and delete all objects belonging to their own faculty.
 - Lecturers: Have the role of *Lecturer*. Can see and edit all objects belonging to their own faculty.
- Students: Have the role of *Student*. Can only see and edit their own objects.

All persons are part of the system.

Based on this information, we can create the following groups:

- Administrative management
- Administrative staff
- Faculty management
- Lecturers
- Students

You can learn how to create groups for a package under Groups.

You can configure additional steps when planning the spaces and the corresponding roles.

Plan aspects and fields

The objectives, the usage context, and the users in the package already provide initial indications of what the structure should be like.

Analyze which data the users need for their roles. This will enable you to define the aspects and fields. You may also recognize possible dependencies with other data sets, and where there are similar data sets.

Example: Student administration

Administrative staff are the main users in the student administration system, but they focus primarily on the students.

For example, the following are some of the aspects that could be defined for students:

- Person
- Addresses
- Contact details
- Faculty
- Subjects
- Courses
- Semester
- Status
- Tickets
- Fees

You can learn how to create these aspects in ELO under Metadata > Aspects > Create aspects.

Since aspects are composed of fields, the next step would be to plan the fields and their data types.

Here are some examples of possible aspects and fields:

| Aspect | Fields | Type | Occurrence |
|---------|-----------------------|-----------------|----------------|
| Person | First name | Text in general | |
| | Last name | Text in general | |
| | Gender | Selection list | |
| | Birthday | Date | |
| | Nationality | Selection list | |
| Address | Street | Text in general | |
| | House number | Text in general | |
| | Postal code | Integer | |
| | City | Text in general | |
| | Country | Selection list | |
| Phone | Telephone number type | Selection list | Multiple times |

| Aspect | Fields | Type | Occurrence |
|-------------|---------------------|----------------|----------------|
| E-mail | Phone number | Integer | Multiple times |
| | E-mail address type | Selection list | |
| | E-mail address | E-mail address | |
| Affiliation | Faculty | Relation | Multiple times |
| | Course | Relation | |
| | Course | Relation | |
| ... | | | |

You can use this kind of table to keep a record of the fields and field types you have defined. However, the table is just one method to help you plan. You should use the method that best suits your project.

To learn how to create fields and get more information on field types, see Metadata > Aspects > Add fields.

The table shows that the *Selection list* type is suitable for many fields, for example, if the number of possible entries must be limited, and/or the values are required for other automated processes.

You can learn how to create, edit, and manage keyword lists under Metadata > Keyword lists.

You can derive other important points from the student aspects. For example, information about faculties, subjects, courses, and exams is essential. We recommend using relations for this. These allow you to establish relationships with other data sets.

You can find more information about relations in the documentation [Configuration and administration > Metadata forms and fields > Create field templates > Field types](#) and under [Configuration and administration > Metadata forms and fields > Metadata forms > Use](#).

You may have already recognized that certain aspects are used in different contexts, and that different views are required. Given that each aspect requires at least one view, the creation of views is an important part of the planning process.

For more information on creating views, see Metadata > Aspects > Create view for aspect.

Plan metadata forms

Metadata forms are used to group aspects and fields in a way that enables you to classify objects in the ELO system. Once you have defined the aspects and fields, it is easy to create the metadata forms.

We recommend that you conduct an analysis and record the results so that you can identify and document possible dependencies between metadata forms and/or metadata forms and fields. This makes it easier to plan which metadata forms are based on other information.

It also allows you to see which aspects need to be used multiple times in a metadata form.

Inheritance and relations are important concepts. Inheritance enables you to apply aspects to other metadata forms so that you only have to create them once. With relations, you can map whole data sets to fields in other metadata forms.

Depending on the user groups and roles as well as the different applications, you should also think about what uses you will have for the metadata forms and which views you will need.

You will find more information on creating, editing, and managing metadata forms under Metadata > Metadata forms.

Example: Student administration

In our example, we can derive the following metadata forms based on the information collected:

- Students
- Faculties
- Subjects
- Classes
 - Lab
 - Lecture
 - Seminar
 - Tutorial
- ...

You could create a simplified overview of the metadata form in tables in the following way:

Students

Metadata form Usage

Students Folder, documents, relation No

Inheritance Aspects

Person
Addresses
Phone
E-mail
Faculty

Metadata form Usage**Inheritance Aspects**

Courses
Semester
Status
Tickets
Fees

Faculty**Metadata form Usage****Inheritance Aspects**

| | | |
|---------|------------------|--|
| Faculty | Folder, relation | Basic data (title, building) Person (management) Person (deputy) |
|---------|------------------|--|

Subject**Metadata form Usage****Inheritance Aspects**

| | | |
|---------|------------------|--|
| Subject | Folder, relation | Basic data (title, building) Person (management) Person (deputy) |
|---------|------------------|--|

Course**Metadata form Usage****Inheritance****Aspects**

| | | | |
|--------|------------------|-----------------------|--|
| Course | Folder, relation | For multiple subtypes | Basic data (title, description) Person (instructor) Room Schedule |
|--------|------------------|-----------------------|--|

└ All courses

Lab

Lecture

Seminar

Tutorial

The *Course* metadata form acts as a parent category for all courses. Multiple metadata forms (for example Lab, Lecture, and Seminar) inherit all their settings from this metadata form.

These subtypes are used for new entries in the workspace. The *Course* metadata form can be used for filters but is not used as a metadata form for entries.

Planning automation

- Where does automation make sense?
- Which ELO modules can be used for automation?

During planning, you can consider which processes are common for the department/team and how they can be simplified. ELO offers different options for automating processes, either completely or in part.

- ELO Flows: ELO Flows presents a new customization platform for ELO. It is intended to help non-experts to create flows and offer ELO Business Partners a new platform for developing custom modules for use in these flows. For more information, refer to [Configuration and administration > Processes and automation > ELO Flows](#)
- ELO workflows: ELO workflows can map complex company processes. For more information, refer to [Configuration and administration > Processes and automation > ELO workflows](#)
- ELO Automation Services: ELO Automation Services are used to automate tasks within ELO. Rule sets are used for this purpose. For more information, refer to [Configuration and administration > Processes and automation > ELO Automation Services](#)

Plan spaces

- Are spaces needed for entire teams?
- Will the package be used for collaboration across teams?
- Which data aggregations are required?
- Which role needs which data?

ELO Teamspaces

ELO Teamspaces is intended for collaboration in groups made up of different divisions, departments, or teams.

In ELO Teamspaces, you can share information with members of the teamspace and edit it.

The screenshot shows the ELO Teamspace interface. The top navigation bar includes 'ELO', 'Teamspace', and a search function. The main content area is titled 'Course planning' and contains sections for 'Pinned documents' and 'Latest documents'. The 'Latest documents' section includes a table with the following data:

| Type | Short name | Date | Filed by | Form | Filing date |
|---------------|----------------------------|------------|---------------|-------------|-------------|
| Document icon | Overall plan for next year | 05/04/2023 | Administrator | Basic entry | 05/04/2023 |

The right sidebar features a 'Create a post' input field and a message 'No news in teamspace'.

In our example, this could be a group that meets to plan classes and coordinate session dates and rooms. Participants come from different faculties and departments.

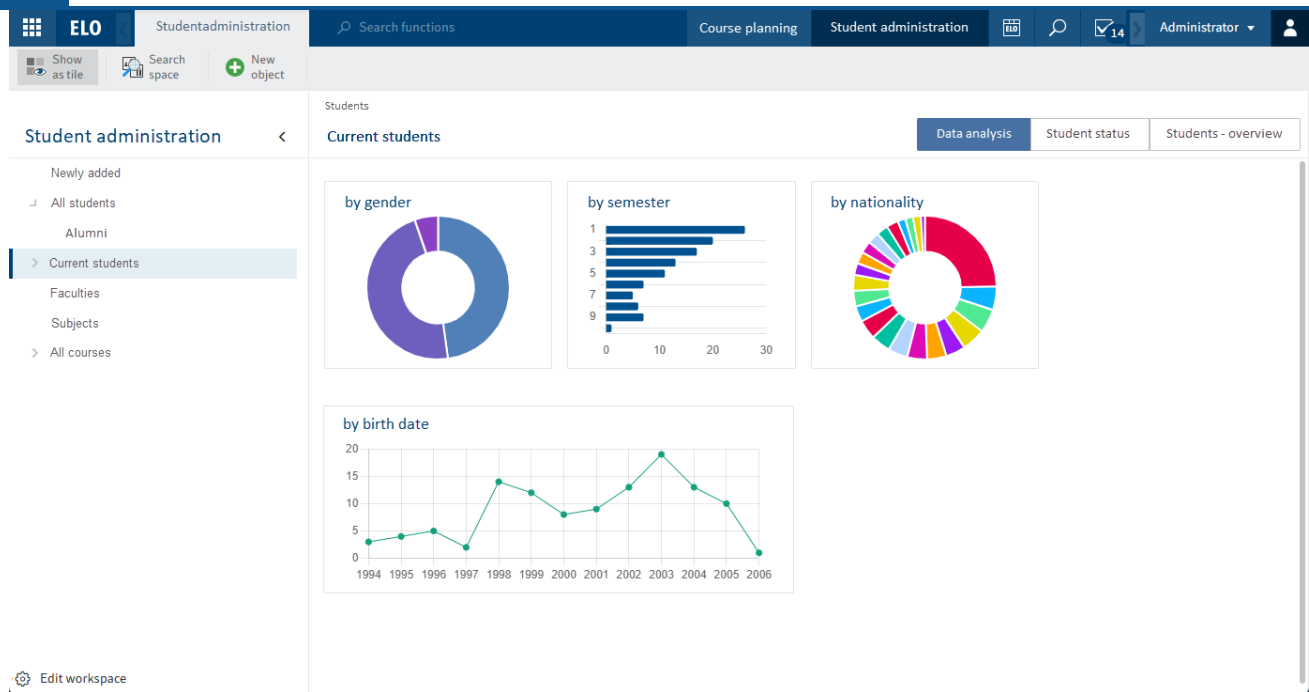
To create and work with a teamspace, you will find more detailed information on the following pages:

- Create templates for ELO Teamspaces
- [Working with ELO Teamspaces in the ELO Java Client](#)
- [Working with ELO Teamspaces in the ELO Web Client](#)

ELO Workspaces

A workspace is suitable as a work environment for a group of users working on the same topic.

All information for the work group is collected and processed in the workspace.



In our example, one possible workspace is one for the *Student Administration* department. There, department members create new students, manage existing students, and view overviews and charts related to the students.

To create and work with a workspace, you will find more detailed information on the following pages:

- Create types for ELO Workspaces
- [Working with ELO Workspaces in the ELO Java Client](#)
- [Working with ELO Workspaces in the ELO Web Client](#)