



# New in ELO

New in ELO



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## Base technology

### Metadata (gen. 2)

- With aspects, relations, and inheritance, the new second generation metadata model supports efficient modeling of complex scenarios and enables the visualization of large volumes of data.
- Metadata forms in the new metadata module (gen. 2) are made up of aspects.
- Aspects are groups of related fields, such as street, postal code, city, and country for an address.
- The same aspects can be used multiple times in one metadata form.
- There are no quantity restrictions in metadata fields.
- All metadata can be searched.
- Metadata forms can be inherited. This helps you quickly create similar/extended metadata forms based on an existing one.
- Metadata is shown and edited in forms (gen. 2). Different views can be used for different uses. This results in a standardized appearance across all clients.
- The existing and new data models will work in parallel, metadata forms can still be used, and old data does not have to be converted currently.
- In addition to the established field types, the metadata model (gen. 2) also includes the field types User, Relation, URL, E-mail, Selection list, and Check box.
- The metadata model (gen. 2) in version 21.3 features additional data/field types.
- The metadata model now features dashboard views.

### New in ELO 23.0

- Keyword lists with new translation logic are available as packages.
- Parent metadata forms are used.
- Forms (gen. 2) can be used in workflows.

For more information, refer to the [Metadata \(gen. 2\)](#) documentation.

### Forms (gen. 2)

- The forms (gen. 2) offer a flexible, modern interface and enable you to display and edit metadata (gen. 2).
- Forms (gen. 2) are the foundation for a standardized metadata view in all clients.
- The forms (gen. 2) are responsive, automatically enabling different views for different devices (desktop monitor, tablet, smartphone).
- The usual structured layout with headers and tabs is still possible, now complemented with form blocks that can be shown and hidden. You can also easily create lists in the form of a table.
- In the new form designer, you can create different views using drag-and-drop and combine them to build more complex forms.
- Field types (IBAN, URL, e-mail) are validated using regular expressions.
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The new forms will initially remain in parallel to the existing forms but will replace the existing workflow forms in the medium term.

- In addition to the established field types, the forms (gen. 2) also include the field types User, Relation, URL, E-mail, Selection list, and Check box.
- The form designer now includes the option to create dashboards.

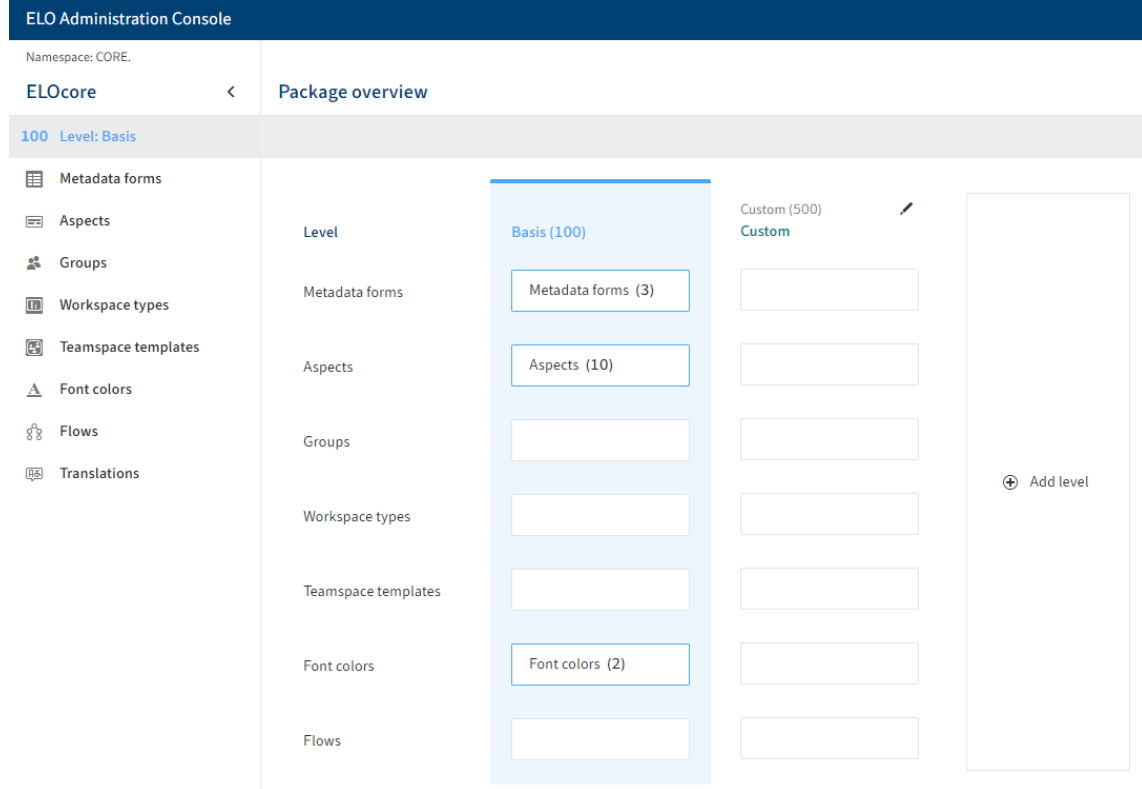
### **New in ELO 23.0**

- Keyword lists with new translation logic are available as packages.
- Parent metadata forms are used.
- Forms (gen. 2) can be used in workflows.

For more information, refer to the [Forms \(gen. 2\)](#) documentation.

### **Packages & transport**

- Related configurations are combined into individual packages, enabling easy installation and transfer between systems, e.g. of an entire ELO Business Solution.
- Packages form the foundation for transferring solutions or custom developments to different systems (development, test, or production system).
- Packages can be created on different levels. Currently, the levels Basic, Custom, and Staging are available.
- Packages can be created, edited, deleted, imported and exported in the ELO Administration Console.
- Packages are based on Metadata forms, Aspects, and Forms. The following components can be added:
  - ELO Flows
  - Workspaces
  - Teamspace
  - Import and export translations
  - Groups with corresponding rights and role management
  - Markers in the ELO Administration Console for adjustments to workspace templates



## New in ELO 23.0

- Keyword lists with new translation logic are available as packages.
- Parent metadata forms are used.
- Forms (gen. 2) can be used in workflows.

For more information, refer to the [Packages](#) documentation.

## Workspaces

- The workspaces use custom dynamic filters to provide access to business objects. Users can also directly access other related objects.
- Workspaces are invisible folders within ELO that contain different object types and are displayed independent of the tree view.
- Different visualizations are available for different user groups, e.g. a table view and Kanban boards.
- Dashboards are available to visualize metadata.
- You can search for objects within a workspace.

## New in ELO 23.0

- The space authorization feature grants users who are not members of a workspace access to entries in the workspace.

For more information, refer to the [Workspaces](#) documentation.

## Teamspaces

- The new ELO Teamspace acts as a separate area for collaboration across teams. Team or project members (ELO users) can be added to different teamspace, documents made available for collaboration, and information communicated via the ELO feed.
- Business Solution ELO Knowledge can currently be integrated and additional ELO Business Solutions will follow.

### New in ELO 23.0

- The space authorization feature grants users who are not members of a teamspace access to entries in the teamspace.

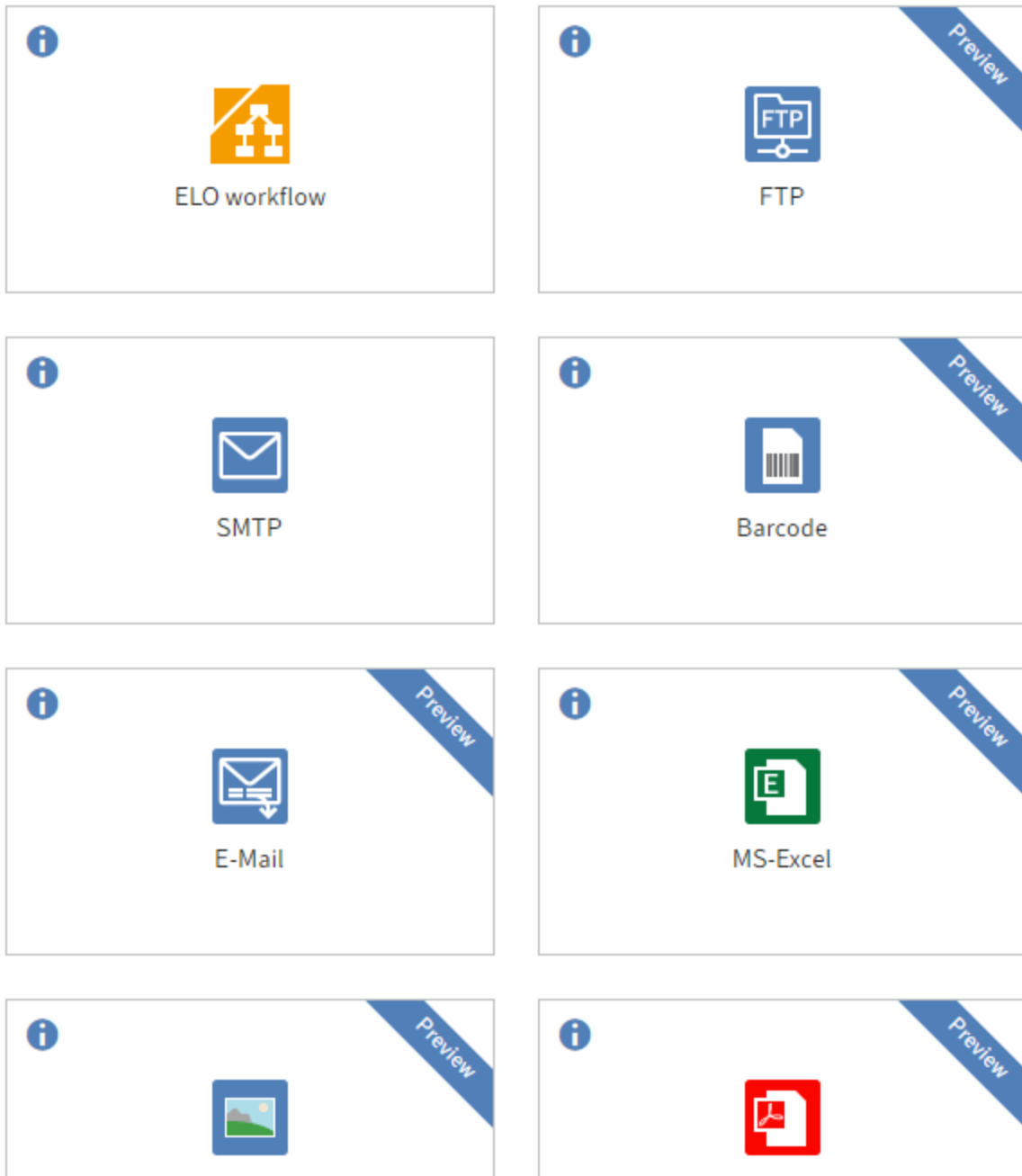
For more information, refer to the [Teamspaces](#) documentation.

## ELO Flows

- The new ELO module implements automation and integration tasks at the service level.
- Automation does not require scripting, offers more configuration options, and is easier to get started with.
- The platform is used to develop custom components.
- An authentication token is available.
- Templates can be imported and exported.
- Monitoring: Execution statistics and execution results can be kept per flow.
- The user ID is transferred to ELO Flows (for authentication, additional actions, or user-specific views).
- ELO Flows administration: the user interface of the home screen has been updated.
- In the template editor, you can save different stages of flow templates as versions.
- You can select, configure, and save a new primary translation of translation keys in the Flows template editor.
- ELO Flows supports queries in JSONata syntax.

### New in ELO 23.0

- Dynamic keyword lists can be created with ELO Flows.
- Improved integration of ELO Flows in the ELO workflow designer.
- A workflow template can be started on multiple entries at the same time.
- Aspect data and changed aspect data are supported by automatic triggers.
- Preview components: Preview components are available in addition to several basic components. These are still in the development stage. They are marked with the *Preview* banner.



The following preview components are available:

- FTP: The FTP component provides various services for communication with FTP servers.
- Barcode: The barcode component provides services for working with barcodes. The services read barcodes on documents and separate documents according to barcode pages.
- E-mail: The e-mail component provides services for working with e-mails. There are services for reading the e-mail metadata, exporting e-mail attachments, and converting an e-mail to PDF.
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Microsoft Excel: The Excel component provides services for working with Microsoft Excel documents.

- Image: The image component contains services for working with TIFF files.
- PDF: The PDF component offers a comprehensive set of services for handling PDF documents.
- Microsoft Word: The Word component provides services for working with Microsoft Word documents.
- XML: The XML component provides services for working with XML files. The services can read values out of an XML file and convert XML files to PDF.

For more information, refer to the [ELO Flows](#) documentation.

## Search optimization and Elasticsearch update

- Elasticsearch was updated from version 5.6.3 to 7.15.2. This requires re-indexing of the search index database.
- A new logic for removing special characters in word tokens was implemented as a result.
- Bulgarian, Finnish, Greek, Norwegian, and Russian can now be selected as additional languages for the iSearch.

## ELO Analytics (gen. 2) - Dashboards

- ELO Analytics (gen. 2) is used to visualize metadata in the workspaces.
- ELO Analytics (gen. 2) allows users to create dashboards for visualizing metadata. The dashboard view has so far only been implemented in the workspaces.
- There are three chart types: Bar chart, line chart, and doughnut chart.
- In addition to field values and metrics, you can select different color palettes for improved visualization of data.

## ELO for DocuSign

- This solution enables digital signing with ELO.



## Server modules

The following changes have been made on the server side.

### ELO Indexserver

- The new events `onBeforeTerminateDeleteWorkFlow` and `onAfterTerminateDeleteWorkFlow` are called when closing and deleting workflows.
- The error message in case of failed logon has been changed. If the client application uses a client library from ELO 21, the new error code `ELOIX:3008` is returned.
- The new option `disableCacheSync` disables cache synchronization, which can make sense for development environments.
- The number of registered OCR workers is output on the status page.
- The `DBConnection` class for scripting and plug-ins offers the option to create tables largely independent of a database. This function is provided via `de.elo.ix.jscript.DBConnection.schema()`.
- PDFs with embedded JBIG2 images are supported.
- The ELO Indexserver API is available via REST calls.

### New in ELO 23.0

- ELO Textreader is being replaced by the new ELO Textreader (gen. 2).
- The OCR application and the document preview will be integrated into ELO Textreader (gen. 2).

### ELO XML Importer

- ELO XML Importer supports the X right.

### ELO Replication

- The module assumes, controls, and monitors data transfer between different repositories without requiring permanent, direct, performant availability of the repositories.
- ELO Replication is integrated in the ELO Indexserver (ELOix).
- Parts of the repository are synchronized.
- This module enables centralized data retention or data backup.
- References are replicated transparently when both the folder and the target of the reference is replicated.
- The substitution rules are taken into account, but are not replicated.
- Corrections for replicating document versions: Read-only documents, for example, can be replicated.
- Reliable handling of *timeouts* (may occur if it takes an unusually long period of time to receive the next data/data packages).
- Export errors are logged separately (error log in the repository under *Replication Base* or in the transfer log in the transfer overview).
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BundleExchange enables data transmission between sites that do not share a network connection.

- The time of the next data export is shown for each repository.

For more information, refer to the [ELO Replication](#) documentation.

## ELO XC

- A new log viewer is available.
- The test tools have been improved and integrated in the configuration area.
- The connection parameters for Microsoft Exchange on-premises and Microsoft 365 have been optimized and simplified.
- The Microsoft 365 mailbox catalog is connected via the PowerShell EXO 2.0.4 module from Microsoft.
- The repository folder for configurations is created as *Administration/XC Base*. It was previously called *Administration/ELOxc Base*.
- It is now possible to configure custom message classes in an instance.
- Aspect forms can be used as an alternative to the standard metadata form for e-mails.
- There is now an option to set a memory limit.
- As of version 21.16, ELO XC will be maintained as a standardized version for ELO 21, ELO 20, and ELO 12. Patches or extensions for ELOxc 20 and ELOxc 12 are no longer provided.

## New in ELO 23.0

- It is now possible to search for metadata (gen. 2) with the metadata search.

For more information, refer to the [ELO XC](#) documentation.

## ELOauth plug-in

- Previously available as a beta version, this plug-in has now been officially released.

For more information, refer to the [ELOauth plug-in](#) documentation.

## ELO Administration Console

- Additional ELO server components such as ELO Bot have been integrated.
- Packages have been introduced.
- Forms (gen. 2) can be edited.
- Aspects have been added to the metadata.
- The migration to OSGi services has been completed.
- The group and user management functions have been separated.

## New in ELO 23.0

- The user manager has been redesigned.
- Keyword lists were added to the packages.
- The dashboard designer is available in the metadata.

You can find more information in the [ELO Administration Console](#) documentation.

## **ELO for Microsoft 365**

### **Check out to OneDrive**

- On check-out, the documents are temporarily copied to Microsoft OneDrive and deleted again on check-in.
- The function allows users to collaborate on documents.

### **Search optimization and Elasticsearch update**

- Elasticsearch was updated from version 5.6.3 to 7.15.2. This requires re-indexing of the search index database.
- A new logic for removing special characters in word tokens was implemented as a result.
- Bulgarian, Finnish, Greek, Norwegian, and Russian can now be selected as additional languages for the iSearch.
- With the update of Elasticsearch, ELO Analytics (first generation) will no longer work as of version 21.2 and is therefore unavailable.
- The ELO iSearch port (default: 9200) is secured with TLS/SSL.

### **ELO Web Forms Services (ELOWf)**

- ELO Flows can be integrated in workflows.
- The languages Indonesian, Spanish (Latin America), and Portuguese (Brazil) were added.

### **ELO feed**

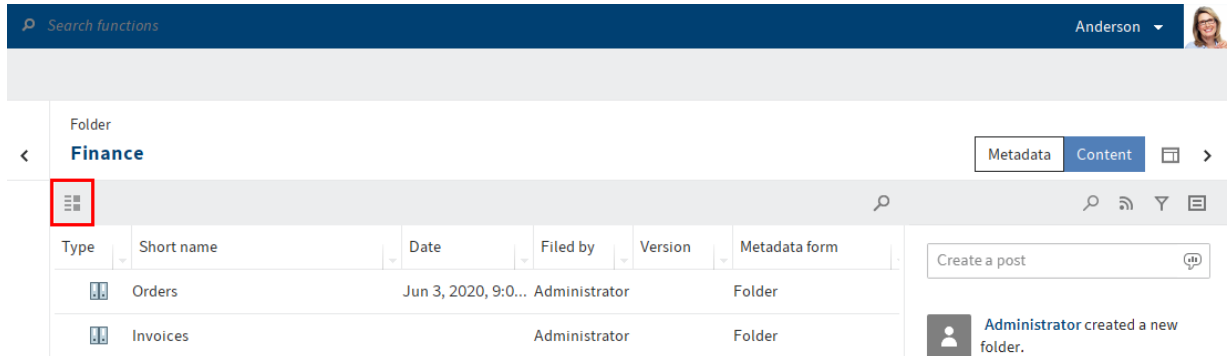
- The ELO feed plug-in performs several ELOWf tasks.
- ELO feed provides the document feeds, hashtag overviews, My ELO, the profile pages and profile images, and the teamspace feed.

## Clients

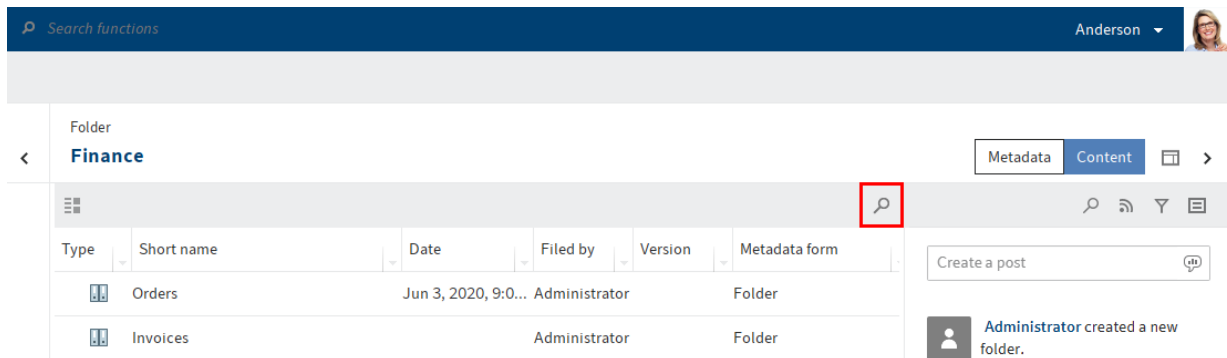
The following changes have been made to the ELO clients.

### ELO Java Client

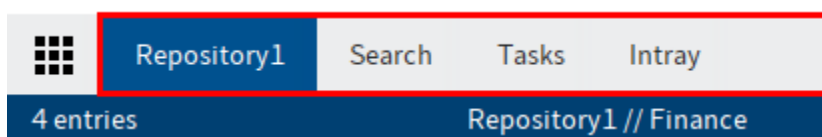
- Layout: The display settings, for example for tables, tiles, and lists, can now be reached faster. They were previously located on the ribbon, and can now be accessed via an icon in the viewer pane.



- Display mode: Light and dark contrast modes as well as dark mode are now available. The contrast modes are an accessibility feature.
- *Most recently used* list: This list contains a text field for filtering the entries starting with ten entries. Folders are now also included in the list. Selected entries can be added after a specific display time that can be set in the configuration.
- Filter: A new filter field for searching the short name in tables is available in the viewer pane.



- Views: The buttons for the views in the navigation bar can be moved via drag-and-drop.

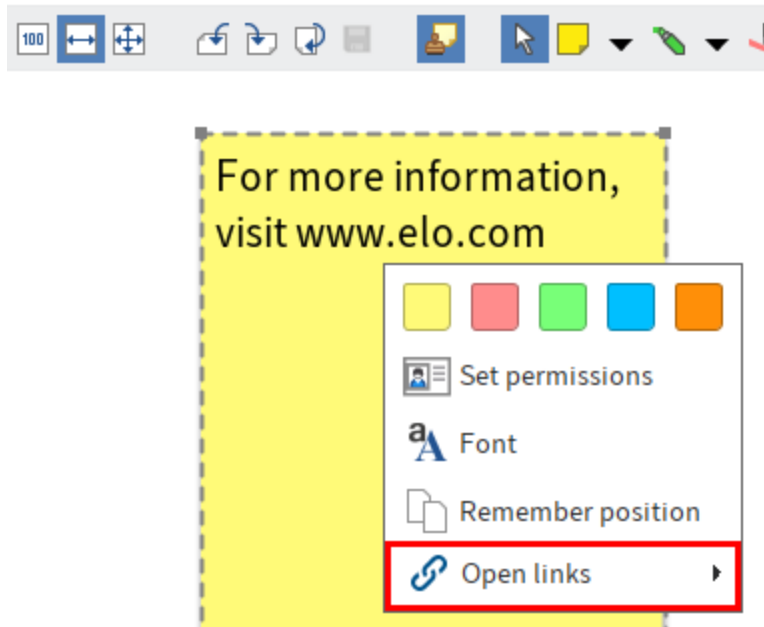


- ELO Flows has been integrated.

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In the version dialog box, the date of the most recent change can be set as the document date when checking in a new version.

- Task view: It is possible to make multiple entries and separate them with a pilcrow for the *Name*, *Workflow step*, and *Status* filters. AND links are also possible for these filters.
- Tree view: When you expand a node, the tree view scrolls automatically so that the last entry is in the visible area.
- Creating new folders: The document or object date now defaults to the current time. Drag-and-drop actions use the date a file was changed from the file system.
- Metadata: The fields *File name*, *Entry type*, and *Document path* are no longer overwritten with *F3*.
- Notes:  
The context menu can be used to open URLs/e-mail address links/ELO links in a sticky/margin note.



- Sorting via multiple columns: When a refresh is performed, the system now also saves changes to the sort order of a table made by holding down the CTRL key and applies the changes to other sessions.
- Workflow designer: When selecting the node start/end scripts, it is now possible to filter via the script name.
- ELO Connect: The configured devices can now be managed in a dialog box.
- Aspects and flow enhancements: Aspect forms and fields are available in the metadata dialog box and the search.
- The evaluation of flow integration was extended to include actions after execution.
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The *Teamspaces* function is now available.

- Workspaces are supported.
- Optimization of the duplicate check for the *Go to* function for all entries shown.
- The double-click behavior in the ELO Java Client can now be configured.
- Editing in Microsoft OneDrive: Documents can now be checked out to Microsoft OneDrive and edited there when using the plug-in. The function requires ELOauth.
- A check box for serial filing like in the *drag-and-drop* dialog box for multiple files is also displayed in the dialog box for the *Insert file* function.
- OCR now uses the system language of the server as the default language, and no longer defaults to *German*.
- Language regions are now transferred to web interfaces instead of the language.
- PDFs can now remain permanently rotated in the Intray.
- When the *Go to* function is used to access the contents of a space, e.g. from the search, ELO switches to the associated space and shows the object there.

### New in ELO 23.0

- In the *New task view* dialog box, it is possible to select whether the fields are linked with *and* or *or*.
- The *Add stamp* dialog box contains clickable examples of additional time and date formats.
- Aspect lines are now also offered for decision nodes in the workflow designer.
- When searching with a metadata form filter, any existing dashboards for the metadata form are available as buttons.

You will find more information about this in the [ELO Java Client](#) documentation.

### ELO Web Client

- ELO Flows has been integrated.
- Version comments can now be edited in the *Document versions* dialog box
- A task can be marked as *unread* again in the context menu.
- A new option *Use simple ribbon* has been added to the configuration.
- Forms (gen. 2) are supported.
- If configured, logon is authenticated via the plug-in `de.elo.ix.plugin.auth`.
- Editing in Microsoft OneDrive: Documents can now be checked out to Microsoft OneDrive and edited there when using the plug-in. The function requires ELOauth.

### New in ELO 23.0

- Workspaces and teamspace including teamspace functions are supported.
- The *Search space* function now runs in its own search tab.
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When searching with a metadata form filter, any existing dashboards for the metadata form are available as buttons.

You will find more information about this in the [ELO Web Client](#) documentation.

## ELO Desktop Client/ELO Desktop Client Plus

- Optimizations for interaction with Microsoft Outlook:
  - The ELO Client for Microsoft Outlook is being replaced. The e-mail-only variant will be part of the ELO XC license.
  - A combined search is available in Microsoft Outlook and ELO with shared results.
  - E-mails are filed from Microsoft Outlook.
  - A preview is available for e-mails.
  - E-mails can be replied to and forwarded from within the ELO Desktop Client.
  - Entire folders can be filed from Microsoft Outlook.
- Interaction with Microsoft OneNote is possible.
- The Outlook security dialog box has been updated.
- ELO Flows has been integrated.
- Various improvements in terms of accessibility have been implemented.
- Editing in Microsoft OneDrive: Documents can now be checked out to Microsoft OneDrive and edited there when using the plug-in. The function requires ELOauth.
- Files/e-mails can be inserted with the CTRL+V.
- In accessibility mode, the area for the *drag-and-drop* function in the *Link* dialog box is now identical to that of normal mode.
- The *Enable accessibility support* setting is available in the configuration.
- Other accessibility features in the ELO Desktop Client:
  - The contrast for task priorities was improved.
  - The client automatically adjusts if a contrast theme is enabled in Windows.
  - The color contrast accessibility feature was improved.
  - The keyboard control in the ELO Desktop Client was optimized in various places, including search, filter settings, tables. F6 (and Shift+F6) can now be used to switch between areas of the client more quickly.
  - Display of validation errors was improved.
  - In accessibility mode, only readable fields are treated as tab stops.

## New in ELO 23.0

- The accessibility features have been improved.
- The languages Spanish (Latin America) and Portuguese (Brazil) were added.
- When searching with a metadata form filter, any existing dashboards for the metadata form are available as buttons.

You will find more information about this in the [ELO Desktop Client](#) documentation.

## ELO for Microsoft 365

### ELO Integration for Microsoft Teams

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The *Integrate in Microsoft Teams* button is available in the ELO Java Client and ELO Web Client, also with the Microsoft Teams web app.

- The ELO Integration Client and ELO Web Client can be integrated in Microsoft Teams.
- The solution ELO Knowledge can be integrated.

For more information, refer to the [ELO for Microsoft Teams](#) documentation.

### **ELO Bot for Microsoft Teams**

- The ELO Bot allows you to perform searches in ELO right in Microsoft Teams.
- Access to object-independent functions of the ELO Business Solutions is possible. Object-independent functions are actions that can be performed without selecting an entry in the repository, e.g. *Create new contact*.
- Functions can be accessed via ELO Flows. ELO Flows allows you to map and initiate processes, such as submitting a request for leave.
- You can now receive notifications of new ELO tasks in Microsoft Teams.

For more information, refer to the [ELO Bot for Microsoft Teams](#) documentation.

### **ELO for Mobile Devices**

#### **ELO app (iOS)**

- Ad hoc workflows are supported.
- iOS widgets are available to enable quick access to ELO tasks.
- App onboarding has been optimized.
- The read-aloud function (beta version) is supported for accessibility.
- The app has been adapted to the new ELO design.
- Rendering of the task list has been optimized.
- On the iPad, users can now expand the preview with a single click via a new icon.
- No more numbering of versions.

You will find more information about this in the [ELO app \(iOS\)](#) documentation.

#### **ELO app (Android)**

- Ad hoc workflows are supported.
- ELO Flows is supported.
- The app has been adapted to the new ELO design.
- Rendering of the task list has been optimized.
- The functions *Delegate workflow* and *Postpone workflow* have been optimized.
- No more numbering of versions.

You will find more information about this in the [ELO app \(Android\)](#) documentation.



## Integrations

Here is an overview of the new features in ELO integration solutions.

### ELO for SAP® ERP

#### ELO Toolbox for SAP® ERP

- The ELO Integration Client (in combination with ELO Connectivity Pack for SAP® ERP – Indexdownload) has been integrated in the ELO Toolbox.
- The ELO Integration Client is available in *SAP Screen Personas*.

For more information, refer to the [ELO Toolbox for SAP® ERP](#) documentation.

#### ELO Connectivity Pack for SAP® ERP - Indexdownload

- The structure is event-based.
- The metadata are refreshed automatically.
- The ELO Integration Client is available in combination with ELO Toolbox for SAP® ERP.

For more information, refer to the [ELO Connectivity Pack for SAP® ERP – Indexdownload](#) documentation.

### ELO Integration Service for SAP Business One®

- This integration is available as a *feature stable* solution.

For more information, refer to the [ELO Integration Service for SAP Business One®](#) documentation.

### ELO Integration Service for Business Central

- Currently, the *feature preview* is only available to the ELO Innovation Partner Program.
- The configuration interfaces are available in the ELO Administration Console.
- Write actions are possible in an administrative context so that no *user count* takes place in case of read calls.

### ELO Output Link for Business Central

- Currently, the *feature preview* is only available to the ELO Innovation Partner Program.
- The configuration interfaces are available in the ELO Administration Console.