

Altova ContractManager



User & Reference Manual

Altova ContractManager User & Reference Manual

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Published: 2022

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1 Altova ContractManager

Altova ContractManager™ (also written as Altova ContractManager or, in short as, ContractManager) provides complete contract lifecycle management with features such as templates for documenting contract details, built in reminders, change logs, and change tracking. A centralized contract repository in the cloud provides numerous benefits, from time savings to efficient management of related contracts and automatic reminders of important contract-related dates



Altova ContractManager provides the following features:

- Centralized contract management
- Unlimited, secure contract file storage
- Links between related companies and contracts
- Granular role and group-based permissions to control access to confidential information
- Automatic reminders for important review dates and deadlines
- Search tools to find contract documents and details instantly
- Printable reports
- Full audit log and change tracking
- Options to customize the app as little or as much as required
- Customize the contract database, forms, fields, reports, and more
- Select from different themes to configure your display colors and fonts

Last updated: 14 June 2022

2 General Information

This section contains basic general information about Altova ContractManager. We recommend that you read through it before you start your ContractManager work. It will help you to get a broad understanding of how the ContractManager system works.

The following topics are included:

- [Getting Started](#)⁷ provides a broad practical outline of how to get started with system configuration and system use.
- [Roles in ContractManager](#)⁹ describes the different kinds of roles that are used in the system.
- [How the App's Data Is Structured](#)¹⁰ describes how the ContractManager data is structured and how relationships between data components are built.
- [How Data Is Stored](#)¹² explains how a network of data relationships is built up in the system from separate individual records.
- [Color Themes](#)¹⁴ provides an overview of how a default color theme can be set by the system administrator and a new theme selected by a user.
- [Audits and Change Tracking](#)¹⁹ summarizes the change tracking system.

2.1 Getting Started

The Start Page of Altova ContractManager provides you with user access to your organization's ContractManager data, and [enables you to edit this data](#)¹³¹. If you want to configure the system or carry out administration tasks, click **Configure ContractManager**. This will take you to the [Configuration Page](#)²⁰, from where you can access the various system administration tasks.

The screenshot shows the user interface for an account administrator. At the top, a blue banner contains the text: "As an account admin user you can change the data structure, fields, filters, forms, user roles, etc" and a "Configure ContractManager" button. Below this, the user is greeted with "Home" and "Welcome Neo". The "ALTOVA" logo and three utility icons (refresh, settings, help) are visible. The main content is organized into three sections: 1. "Contract Database" with a "Contracts" card showing "17 records available". 2. "Company Database" with four cards: "Company Groups" (4 records), "Departments" (16 records), "Companies" (22 records), and "Persons" (8 records). 3. "Contract reminders" section with a "Past Due (3)" header and a list of three items, each with a trash icon, a refresh icon, and the text "Reminder Renewal" followed by the contract name: "C2020/3119 Chestnut Telecom License Agreement", "C2020/3122 Office Cleaning Contract", and "C2020/3121 Doodle Online Advertising".

Getting started with system administration

When you start Altova ContractManager for the first time, it will contain starter contract data that is organized in a simple structure. The starter data enables you explore how ContractManager's data is organized and how the data can be used. You can use the starter data to become familiar with the system. Once you are ready, you can delete the sample data and modify the data hierarchy to suit your requirements. Any changes that you

make will be implemented immediately and will be available to users immediately. As a result, you can start your contract management work (both administration and data entry) as soon as you want.

For information about getting started with system administration, go to the topic [Quick Start: System Administration](#)²².

Getting started with system use

For information about getting started with system use, go to the topic [Quick Start: System Use](#)¹³².

System administration can be concurrent with system use

You can reconfigure the database, add new forms, change settings, and carry out other administration tasks even after users have started working with the system. Any admin changes you make will be reflected on the user side as soon as the user interacts with the system.

2.2 Roles in ContractManager

Each ContractManager user is given one or more roles. These roles define what a user is allowed and not allowed to do. For example, custom roles such as *Legal* or *Personnel* can be created that correspond to specific functions (such as access by the *Personnel* role to personnel-related contracts but not to client or IT contracts). A user can be associated with one or more roles, and would then be authorized to carry out the functions corresponding to those roles.

The roles that are available in ContractManager fall into three categories:

Admin

This role is predefined. It provides a user with all available ContractManager functionality. Users that have this role can:

- modify the ContractManager system's users and roles
- configure the ContractManager database and its components
- modify ContractManager settings
- configure reminder mails
- enter and edit data in the system's database

All Users

This role is predefined.

- Users with this role can enter and edit data in the ContractManager database. They do not have access to admin tasks (*see above*). If you need to perform an admin task, contact your ContractManager system administrator and request an *Admin* role.
- The *All Users* role is given to all users by default. As a result, any user that can access ContractManager will be given this role and can enter data (unless otherwise restricted by custom roles).

Custom roles

ContractManager administrators can define custom roles that can be assigned to users, for example, *Legal* or *Personnel* roles.

- A custom role can provide additional access or can restrict access to different containers of the database
- A custom role can provide access to different functionality within containers (for example, reading rights and writing rights)

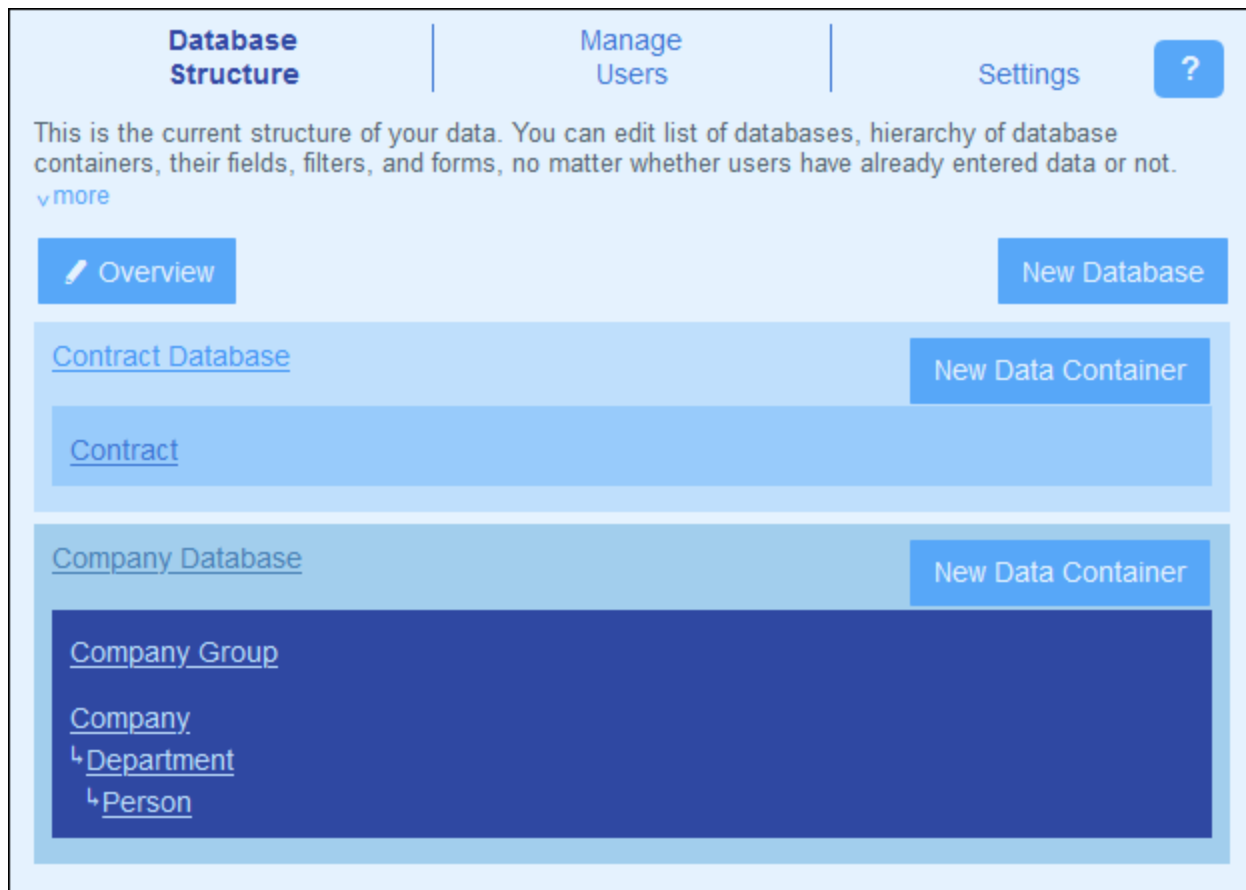
2.3 How the App's Data Is Structured

ContractManager's data structure is described below in terms of hierarchy and the relationships between data components.

Hierarchy

You can customize ContractManager's data structure according to your requirements. The allowed structure is as follows:

- At the root level of the app, you can create as many **databases** as you like. For example, in the structure shown in the screenshot below, there are two databases: (i) *Contract Database*, (ii) *Company Database*.
- Within each database, you can add as many **top-level containers** as you like. In our example database, *Contract Database* has one top-level container (*Contract*), whereas *Company Database* has two top-level containers (*Company Group* and *Company*).
- Within a top-level container (as well as lower level containers), you can add multiple **child containers**. You can continue adding child containers down multiple levels. For example, the *Company* container has a child container named *Department*, which in turn has a child container named *Person*.



The containers are linked together in relationships, which are described below.

Your user's contract data will be stored as the records of containers. Each container is defined by a set of fields, in which the data of records is stored. See the next topic, [How Data Is Stored](#)¹², for an explanation of this.

Relationships

When defining the database structure, you will be building relationships between containers. These relationships will be of importance to the hierarchy and organization of your data, and should therefore be planned well.

There are two types of relationships that can be built between containers:

- Parent–child relationships
- Loose links

Parent–child relationships

These links between containers are considered to be strong links since a child is created from a parent and cannot be created without the parent. A parent container can have multiple child containers. A child, however, can have only one parent container. The following consequences of the parent–child relationship should be noted:

- When a parent record is deleted, all child records are also deleted
- When designing forms, the fields of all ancestor containers will be available for inclusion
- Interdependencies of fields within a hierarchy of strong links are managed automatically
- Child records can be edited within parent forms

Loose links

A second type of relationship is a link that is created between two independent containers. These loose links enable records to be created independently and without reference to each other. The links are manually created during configuration. A single record can thus have multiple loose links to other records. If one record of a loosely linked pair is deleted, the other record is not affected.

Loose links can be set in the following ways:

- Define the [field of a container to be of type](#)³⁴ *Link To*. This field provides the anchor of the link to the other container.
- Child containers can have the strong relationship to their respective parents [converted to a loose link](#)⁹³.

Also see the next topic, [How Data Is Stored](#)¹².

2.4 How Data Is Stored

Data about contracts is stored in multiple containers, each of which represents one component of contract information. These containers can be organized in a hierarchy. For example, your ContractManager app might have a simple hierarchy that contains two databases named *Contract Database* and *Company Database*, as shown below:

```

Contract Database
|
|--Contract
|
Company Database
|
|--Company
| |
| | |--Department
| | |
| | | |--Person

```

Records and fields

In each container, you will enter records. Each record is defined by a number of fields (which are specific to that container). When you enter a record, what you will be doing is entering values for these fields. You can visualize a container as follows:

Container-A				
	Field-1	Field-2	Field-3	Field-4
Record-1	Field-1-Value	Field-2-Value	Field-3-Value	Field-4-Value
Record-2	Field-1-Value	Field-2-Value	Field-3-Value	Field-4-Value
Record-3	Field-1-Value	Field-2-Value	Field-3-Value	Field-4-Value

So when you enter data in the ContractManager app, you will be entering records for the different containers of the app. For example, you could add new company records, or department records, or person records, or contract records. In this way you build up the data in your ContractManager database.

Identity fields

In each container, one or more fields will have been configured (by your system administrator) to be *Identity Fields*. These fields will uniquely identify records. For example, employees will typically have unique ID numbers, so the ID number field can be used to identify records in the *Person* container. In the case of some containers, more than one field might be necessary to come closer to uniqueness (for example, a person's *Name* and *Date of Birth* fields).

Linking records across containers

During database configuration, your system administrator/s will have built links across the containers. For example, a parent-child link might have been created between company and department, and another parent-

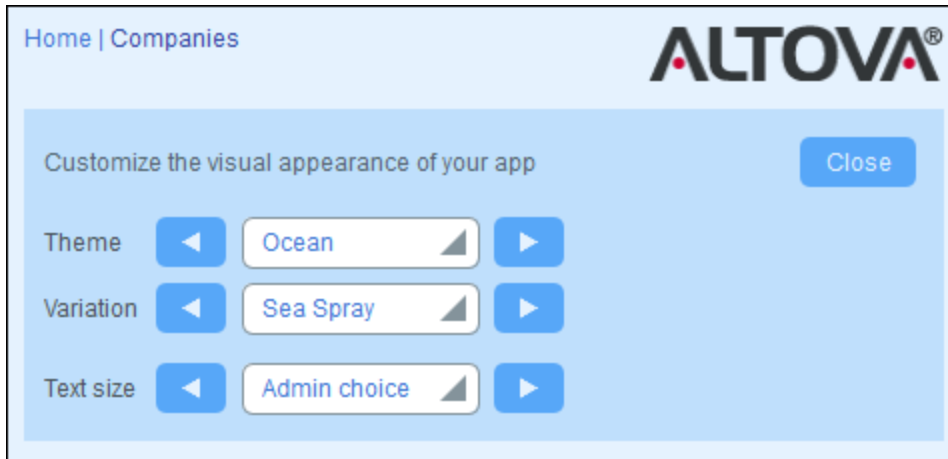
child link between department and person. In this case, when you enter a new record for a child container, one of the field values you would need to add would be for the parent of this (child) record. For example, when adding a new department record (say for a *Legal* department), you will be prompted for this department's company parent (where you could enter, say, a company named *Altova*). By selecting the parent *Altova*, you have established a link between this *Legal* department and the company *Altova*. In this record, then, you are effectively describing the legal department of *Altova*.

In a similar way, your system administrator/s could have built links between containers that are not directly linked in a vertical hierarchy. For example, a link could have been created between a contract and the contracted company. There is no direct hierarchical connection between the *Contract* container and the *Company* container. But if an explicit link is configured between the two, then, while entering, say, the contract data, you will be asked to enter the name of the contracted company. Doing so links the current contract not only with the selected company, but also to that company's (hierarchically descendant) departments and persons.

So, although you are entering data record-by-record for different containers, the ContractManager app is building a network of connections across records in different containers. This networked nature of the data enables you to generate reports and charts about your contracts, contract dates, and the companies and people involved.

2.5 Color Themes

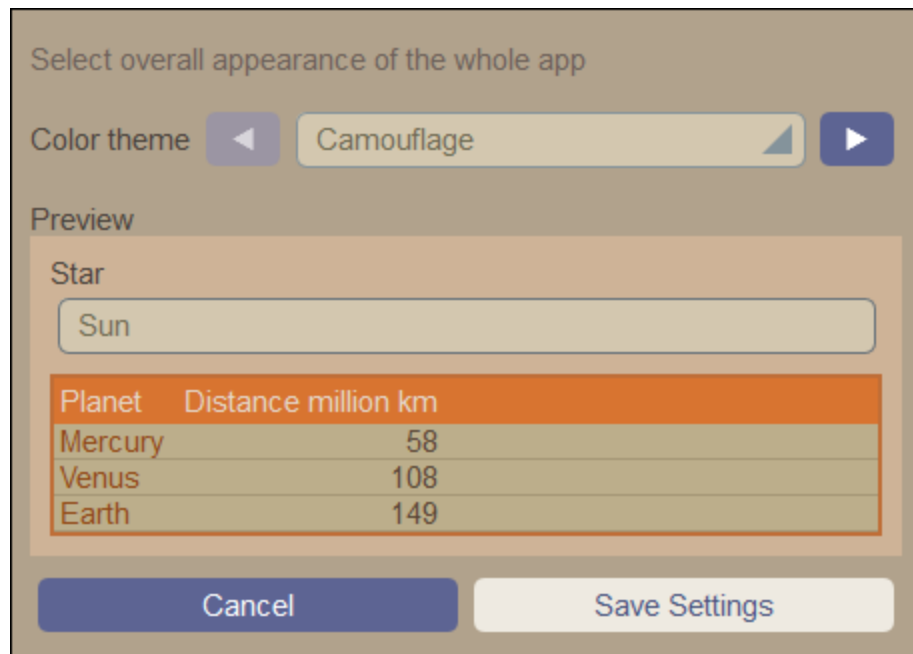
The ContractManager user interface can be set to one of the **themes** shown below. A default theme can be set by the system administrator (the form to set the default theme is shown in the screenshots below and is available in the [Settings](#)¹¹² tab of the Configuration Page). A theme applies to the entire ContractManager app. When a system user opens ContractManager, the app's user interface is displayed in the default theme. The user can [change the theme at any time](#)¹³⁶ by (i) clicking the **Settings** button, and (ii) selecting a theme from the *Theme* combo box (see screenshot below).



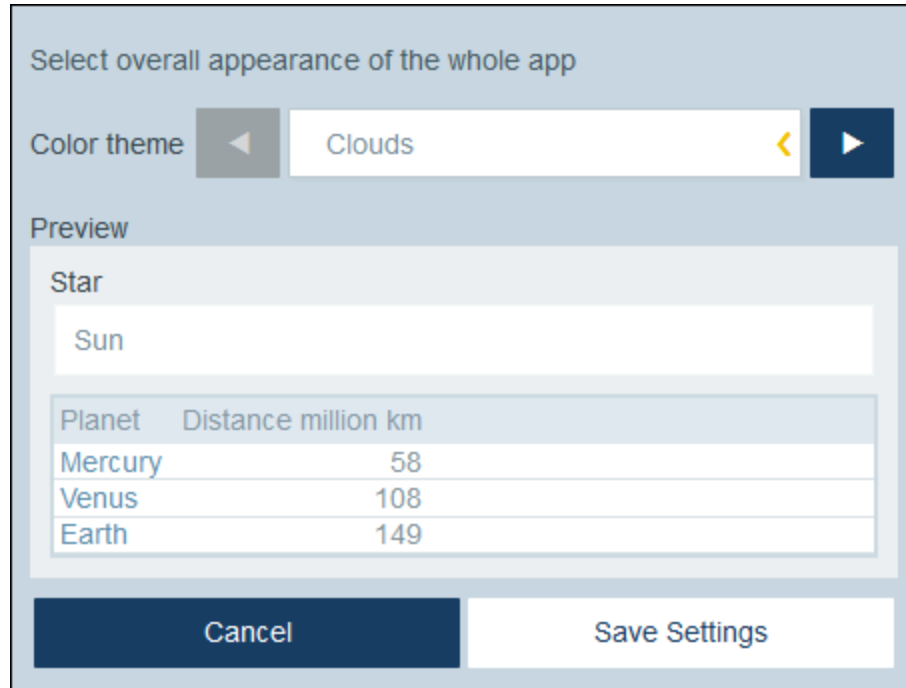
Additionally, each database of the app can be [set to a different variation of the theme](#)¹³⁶. The system administrator can [set the theme's variation](#)²⁶ in the *Coloring* setting of the respective databases. System users can [select the theme's variation](#)¹³⁶ on the top-level container of each database.

The screenshots below provide a sample of the available themes.

Camouflage



Clouds



Desert

Select overall appearance of the whole app

Color theme ◀ Desert ▶

Preview

Star

Sun

Planet	Distance million km
Mercury	58
Venus	108
Earth	149

Cancel Save Settings

Forest

Select overall appearance of the whole app

Color theme ◀ Forest ▶

Preview

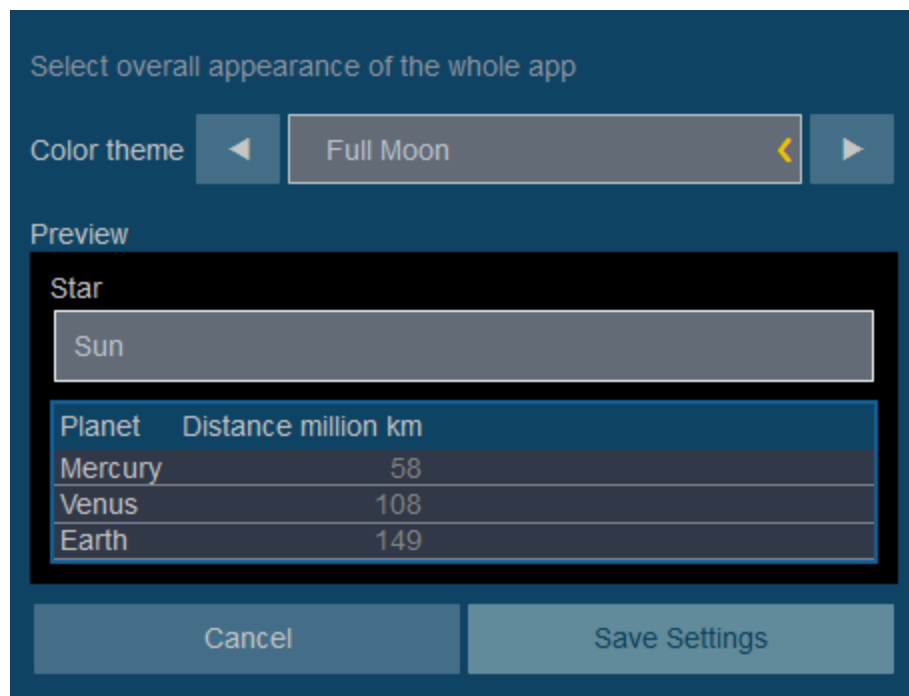
Star

Sun

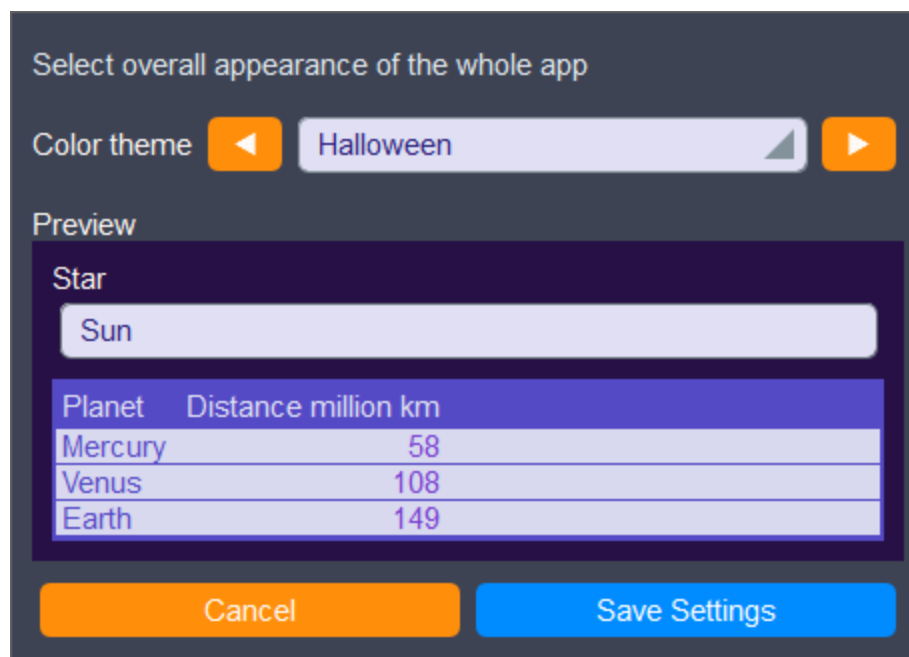
Planet	Distance million km
Mercury	58
Venus	108
Earth	149

Cancel Save Settings

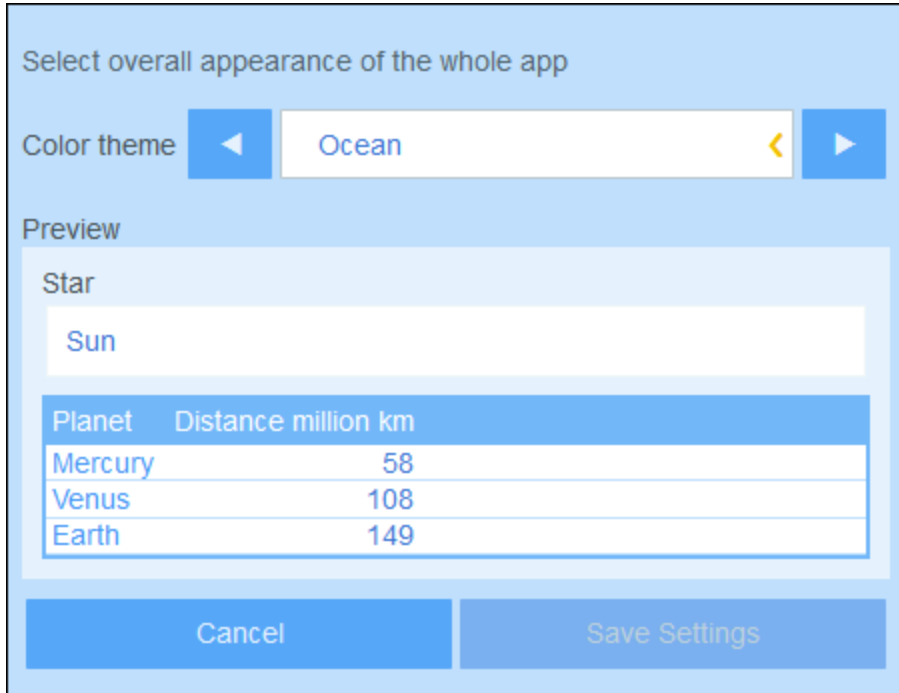
Full Moon



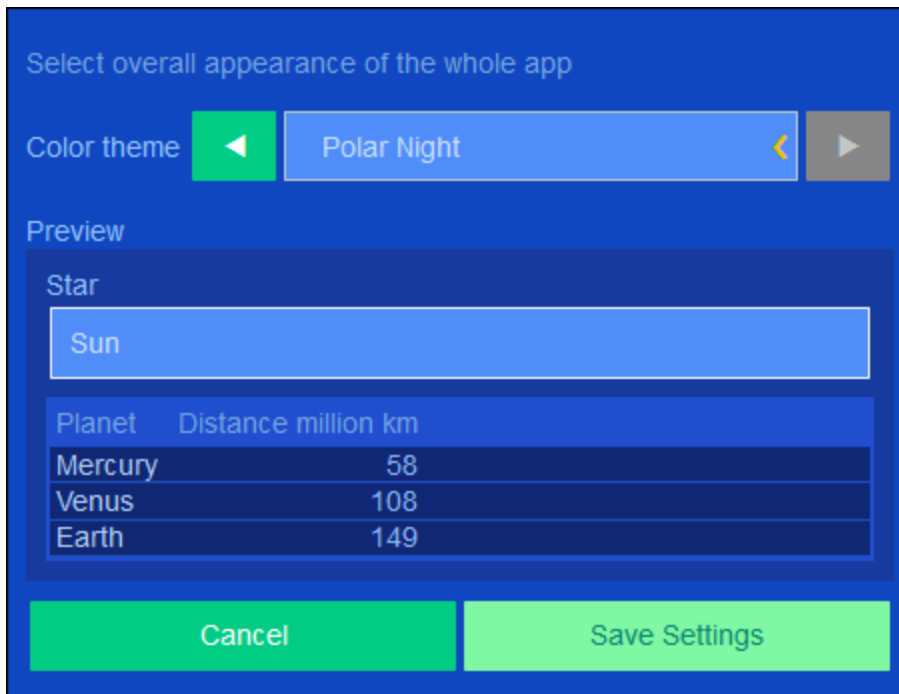
Halloween



Ocean



Polar Night



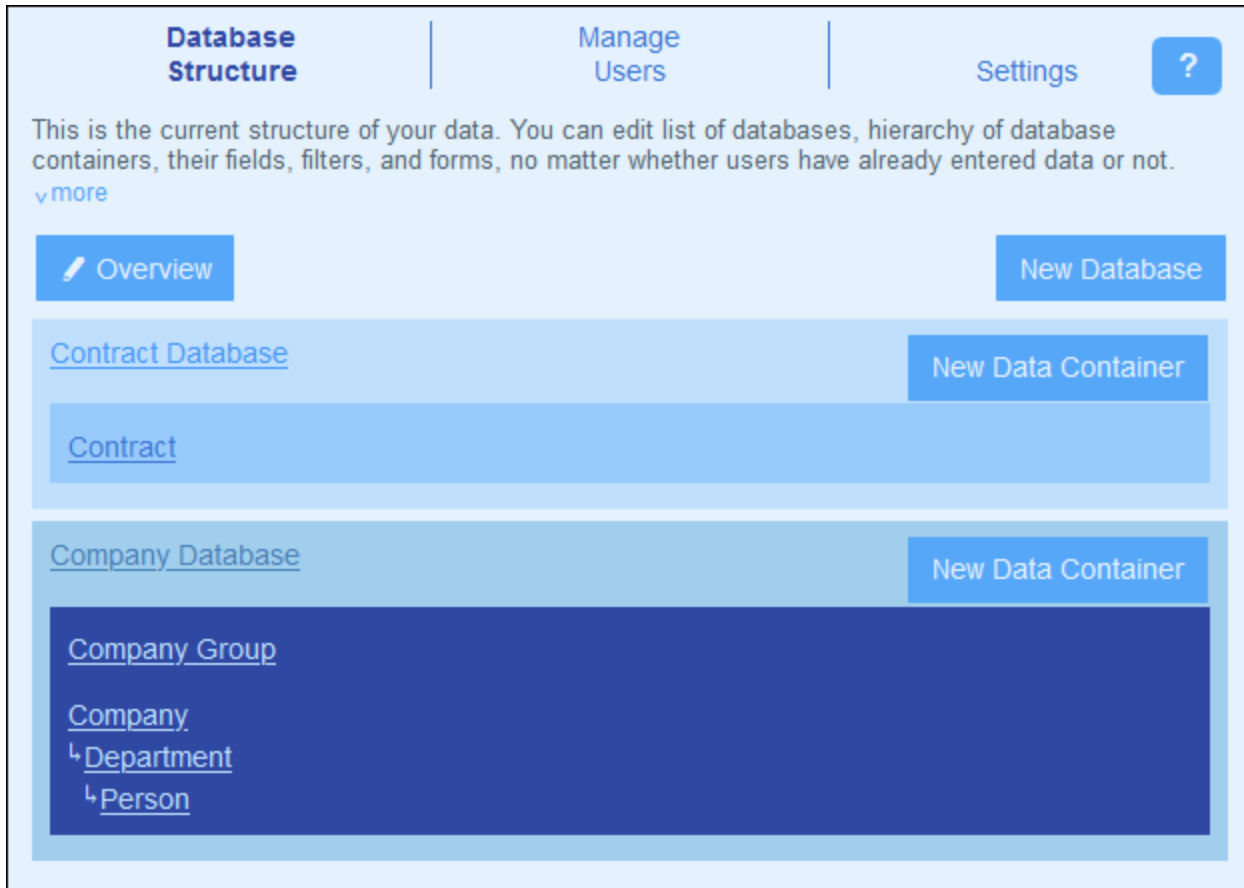
2.6 Audits and Change Tracking

When users edit the data of a container, they can audit previous changes (see what changes have been made and by whom), track changes, and see a historical view of changes. How to do this is described in the section [System Use | Audits and Change Tracking](#)¹⁵¹,

This feature is automatically implemented, and system administrators do not need to explicitly switch it on. A system administrator can, however, add images and files to the change tracking system. The setting for this is in the [Image Settings of the app](#)¹¹⁸.

3 System Administration

The starting point for system administration is the **Configuration Page** (screenshot below).



The Configuration Page has three tabs:

- [Database Structure](#)²⁵, which displays the ContractManager data structure and enables you to edit this structure.
- [Manage Users](#)¹⁰¹ for configuring users and roles.
- [Settings](#)¹¹² for a wide range of system settings.

System administration documentation

The *System Administration* section of the documentation has been organized into the following parts:

- [Quick Start: System Administration](#)²², which provides an outline of how to build your system.
- A description of ContractManager features, organized on the basis of the tabs of the Configuration page.
- A detailed description of [Reminder Emails](#)¹²¹.

We recommend that you read the Quick Start section in order to understand how the system is to be built and then start your work, while using the rest of the documentation in this part as a reference.

3.1 Quick Start: System Administration

This topic lists the main procedures needed to set up a ContractManager system and groups them into categories. The order in which these procedures are listed serve as a rough sequential guideline of how to configure your ContractManager system. Very often, however, you will need to move back and forth among different procedures.

System administration can be concurrent with system use

You can reconfigure the database, add new forms, change settings, and carry out other administration tasks even after users have started working with the system. Any admin changes you make will be reflected on the user side as soon as the user interacts with the system.

Configure the ContractManager data structure and the Start Page

The starting point for database configuration is ContractManager's sample data structure, which is available when you first open ContractManager. If this data structure works for you, you can use it unchanged and start your ContractManager work right away. All you would need to do is delete the sample records stored in the containers. Alternatively, you could modify the data structure as little or as much as you like, and change the formatting to suit your preference.

The main procedures for configuring the database structure are:

▼ Create containers and set up a hierarchy

The app's data structure is built up by creating one or more hierarchies of containers (containers are considered to be strongly linked) and by linking non-hierarchically-linked containers to each other with what we call *loose links*. It is within a container that records relating to that container are stored. For example, a *Department* container will contain department records, whereas a *Company* container and a *Person* container will contain the records of, respectively, companies and persons. In the container hierarchy, the *Department* container could be a child of the *Company* container and the parent of the *Person* container. When entering data for *Department* records, for example, the user of the app can choose the company (from all the available companies) to which this department belongs.

When you create containers and configure the app's data structure, it will be these kinds of relationships and linkages between database components that you will be setting up. As a result, the data structure will provide a network of relationships that enables related data to be listed and reported. For more information about containers and data structure, see the following sections: [How the App's Data Is Structured](#)¹⁰, [How Data Is Stored](#)¹², [Configuring Database Structure](#)²⁶, [Databases](#)²⁶, and [Containers](#)²⁷.

▼ Configure fields

Within each container, configure the fields that will define records of the container. For example, a *Person* container (in which *Person* records are stored) can be defined to have fields such as: *FirstName*, *LastName*, *Email*. You can specify various aspects of each field, such as datatype or an entry list from which the user can choose a value. You can also configure validation rules for individual fields and for records as a whole; this would warn users about possible errors in data entry. See the section [Fields](#)³¹ for details.

▼ Configure forms

Forms are what the user will interact with. These are of the following types: [list forms](#)⁵⁰, [data entry forms](#)⁵⁹, [report forms](#)⁷⁴, [export forms](#)⁸⁴, and [email forms](#)⁸⁷ (for email reminders). Each container has its own set of different forms. So whenever records from a container are displayed, they will be displayed in an appropriate form. One major advantage of using container-based forms is that access to each type of form can be set separately. As a result, you can design some forms to show data that only some users are authorized to see and/or edit. You can also design other forms that do not show certain data. Reports of the data in a container are presented by using a report form of that container. Similarly, other types of forms are used for other types of presentations. The various types of forms are described in the section [Forms](#)⁴⁸.

▼ Configure filters

One or more filters can be defined on each container. A filter restricts the display of records in a container on the basis of some criterion (or criteria) relevant to that container. For example, for a *Contracts* container, you could create a filter that shows only contracts that expire in the current year. Such a filter would be built, for example, by checking the *ExpiryDate* field of records in the container. After a filter has been created, it can be used during configuration as well as data entry, for example, to restrict lists. See the section [Filters](#)³⁸ for information.

▼ Design the Start Page of the user interface

When users log in to the system to either enter data or retrieve information, they see a *Start Page*, which is their entry point into the system. Essentially, the *Start Page* provides access to the various containers of the system. The [Overview Form](#)⁹⁷ is what an administrator uses to design this *Start Page*. See the section [Overview Form](#)⁹⁷ for information about designing the *Start Page*.

Set up system users and their roles

These procedures determine who will use the ContractManager system and in what capacity. You should check whether the roles that are defined in the sample dataset suit your requirements. For the beginning, it might be best to use just the two predefined roles, *Admin* and *All Users*. After you become familiar with your data and its structure, the system, and your users, you can develop roles to suit your requirements.

▼ Set up the users of the system

Besides specifying which users can log in to the ContractManager app and their respective login credentials, you must also define what access rights each user has and the role/s each will play. For example, does a user in the IT Department have access to only technology contracts, or legal contracts as well; or, is a certain user allowed to have an administrator role, which entails access to the app's configuration settings? These access rights are determined by the roles (see *next step*) given to each user. See the sections [Users](#)¹⁰¹ and [Roles](#)¹⁰⁴ for details.

▼ Define roles and assign them to users

Create different roles according to your organization's needs. For each role, define (i) the containers to which access is allowed, and (ii) the forms to which access is allowed and, where necessary, the type of access allowed (for example, read/write or read only), (iii) the reports to which access is allowed, (iv) whether export of data is allowed. After roles have been created, give one or more of these roles to each user (see *previous step*). See the sections [Users](#)¹⁰¹ and [Roles](#)¹⁰⁴ for detailed information.

Global settings and reminder mails

At an early stage in the development process, you should have a look at what global settings are available and consider how you can best use them. Reminder emails are probably best left to the end of the configuration process, but it would be useful to at least quickly look through the documentation about reminders in order to see what is involved.

▼ Define global settings for the app

The [Settings](#)¹¹² page provides a number of styling, content-formatting, print formatting, and other settings that can be set for the entire app. We recommend that you go to this page and see what settings are available and how you can use them. The [Image Library](#)¹¹⁸ setting and [Reminder Email](#)¹¹⁹ settings should be noted. Also note that, when you configure certain items, such as forms, you can specify local settings and override the global settings that are defined on the [Settings](#)¹¹² page. You can define global settings at any time: before database configuration, after database configuration, and even after system use has started.

▼ Reminder emails

In systems like a contract management system, it is important to take certain actions before specific dates (say, a contract renewal action before the contract expiry date). The system can automatically send reminder emails to the appropriate person or persons a given number of days before such key dates. See the section [Reminder Mails](#)¹²¹ for information about how to set this up.

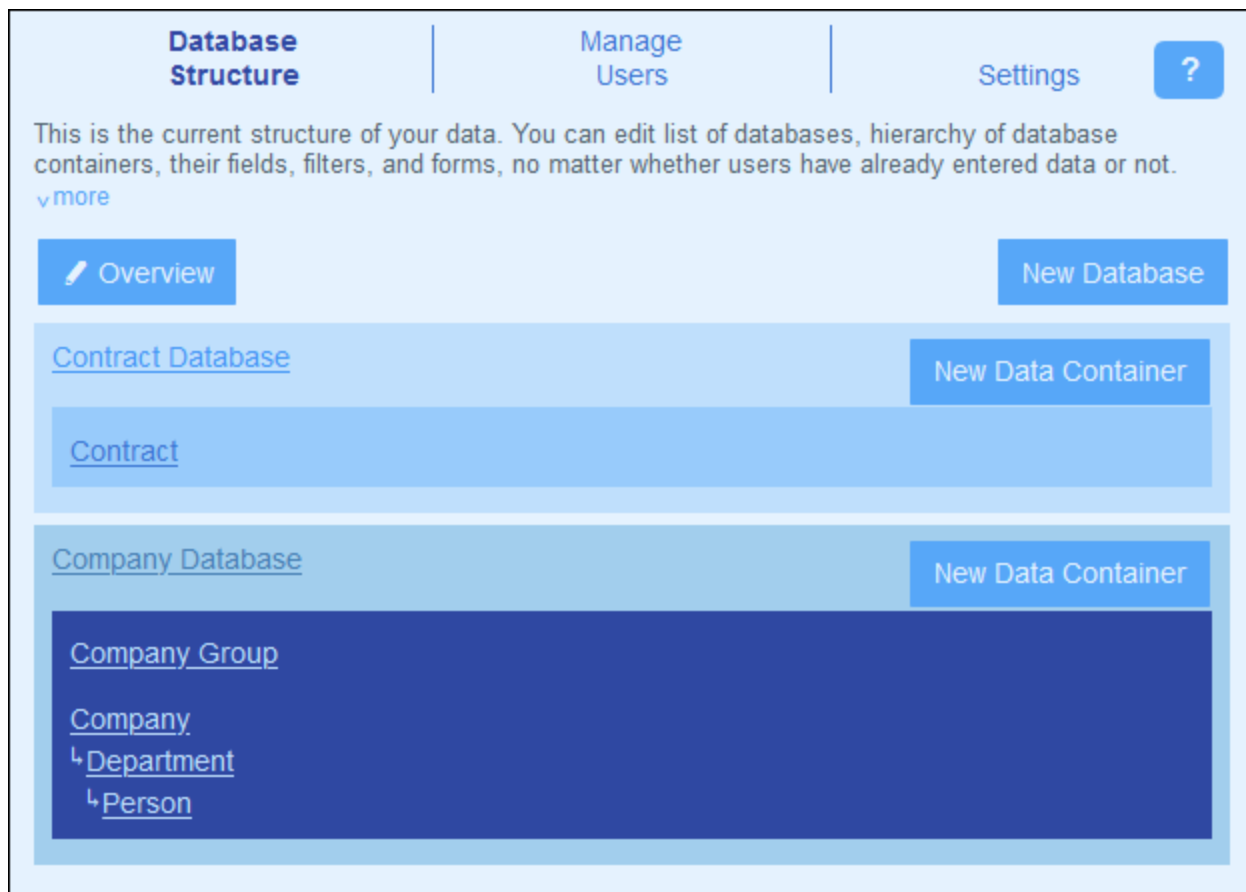
3.2 Database Structure

The app's databases

The app can contain one or more databases at the root level, each of which will contain the data containers of ContractManager. In the sample app, there are two databases (see screenshot below): *Contract Database* and *Company Database*. Within each database you can build a hierarchical structure of containers, and you can link containers across databases via [loose links](#)¹⁰.

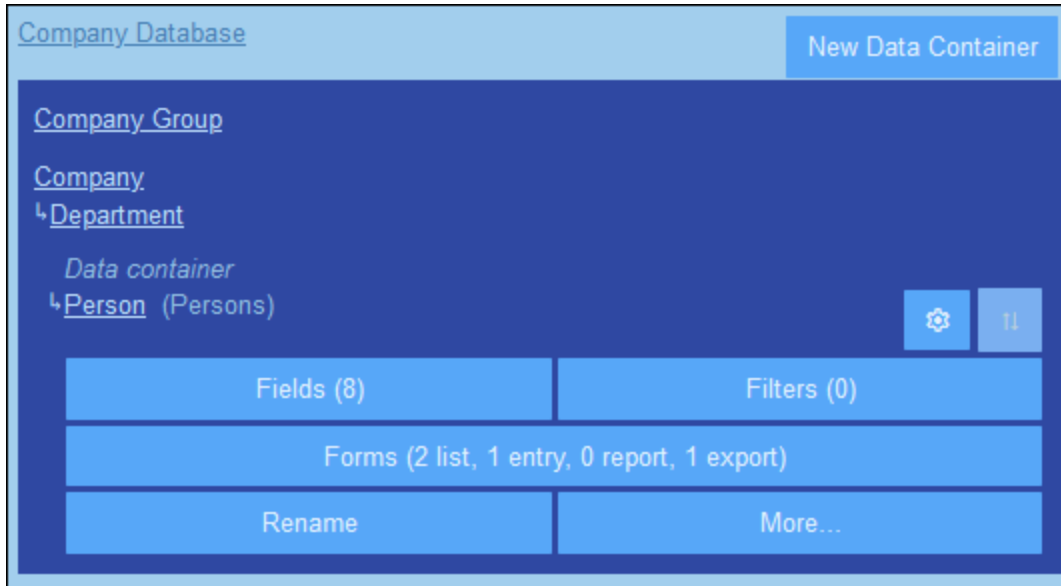
Containers and hierarchy

A hierarchical structure within a database is constructed by creating containers and then defining parent–child relationships between containers. You can add any number of top-level containers. Within each container, you can define one or more child containers. You can use [loose links](#)¹⁰ to link containers across the different hierarchies of a container.



For example, in the screenshot above, there are three top-level containers: *Contract* (in the *Contract Database* DB), and *Company Group* and *Company* (in the *Company Database* DB). Of these three containers, only the *Company* container has a child container (the *Department* container), which itself has a child container (the *Person* container). Note that, while a parent can have multiple child containers, a child can have only one parent.

Each container has a set of definitions (shown below for the *Person* container). The most important of these are: the container's fields, the forms designed for the container, and the filters to restrict data selection. These definitions are described in their respective topics: [Containers](#)²⁷, [Fields](#)³¹, [Filters](#)³⁸, and [Forms](#)⁴⁸.



Records

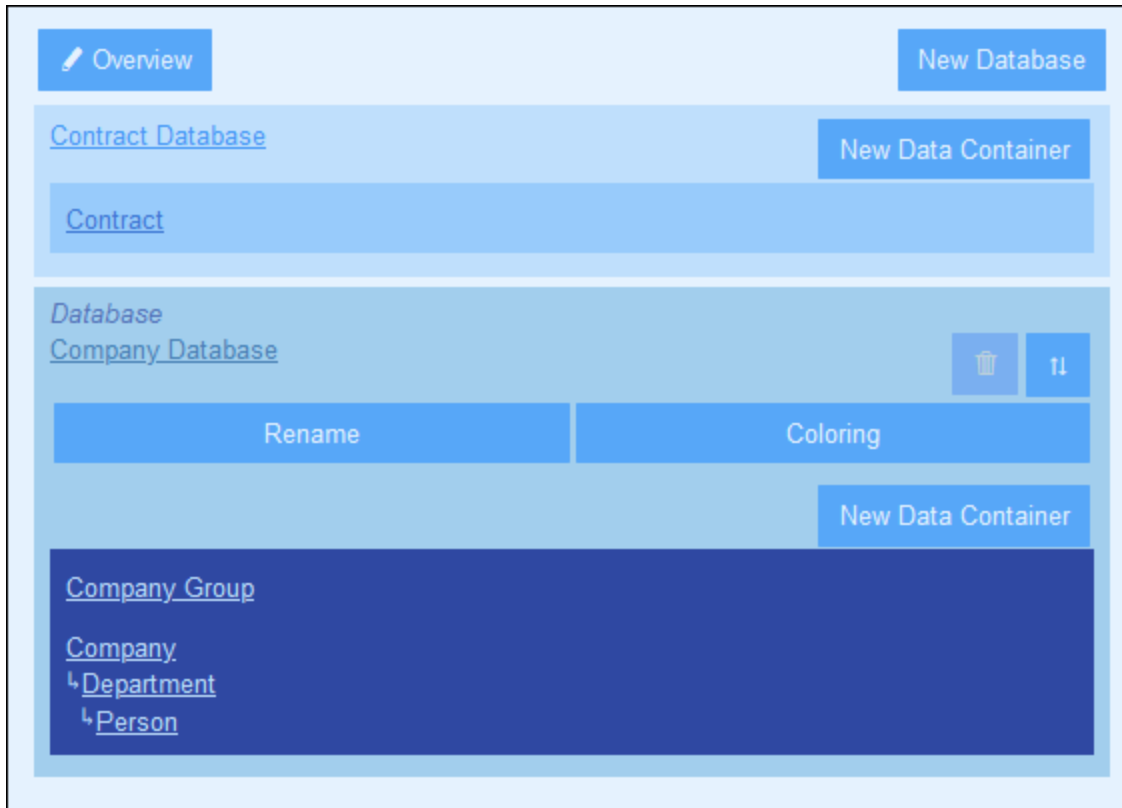
When data is entered, it is entered as a record of a container. For example, records of all persons are entered as records of the *Person* container. These records are entered in a (data) entry form of the *Person* container, which is designed to contain data entry options for fields of the *Person* container (such as *Name*, *ID*, and *Email*). The *Person* entry form would also contain an option to link the *Person* record to a field value of another container (for example, to the *Legal* department, where *Legal* is the value of the *Department* container's *Name* field). In this way, a relationship is built between *Person* records and another container, say the *Department* container. It is through these relationships that records in different containers are linked and the data is available for structuring. For example, it would now be possible to list, say, all the persons in a company's different departments, or all the software contracts that expire in the next quarter.

Also see [How the App's Data Is Structured](#)¹⁰.

3.2.1 Databases

The app can contain one or more databases, each of which will contain the data containers of ContractManager. In the sample app, there are two databases (see screenshot below): *Contract Database* and *Company Database*. Within each database you can build a hierarchical structure of containers, and you can link containers across databases via [loose links](#)¹⁰.

To add a new database, click **New Database**. You can delete the database later if you want to (see below).



To edit the properties of a database, click its name. This expands the database entry to show the database's controls. In the screenshot above, for example, the *Company Database* entry is shown expanded.

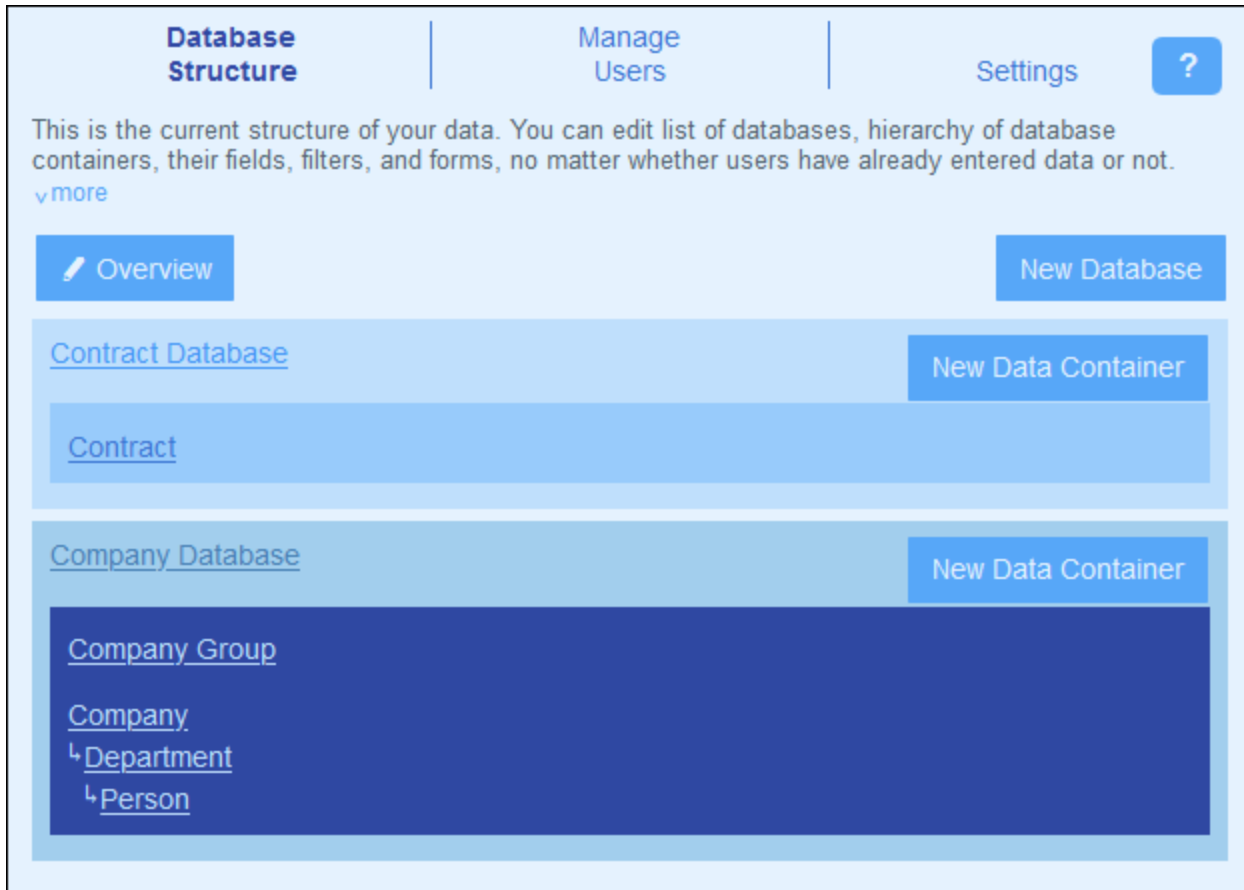
The following properties of a database can be edited:

- Click **Rename** to rename the database.
- Click **Coloring** to set the variation of the default theme for all containers of this database. The theme variation of database can be changed by individual users.
- Click **Move Up/Down** to move the database up or down in the displayed list of databases.
- Click **Delete** to delete the database. Note that a database can be deleted only after all its containers have been deleted.

3.2.2 Containers

Containers are the units with which you build up the structure of your database. Each container will contain the records corresponding to that container. For example, a *Company* container will contain the records of different companies, while a *Person* container will contain the records of persons. The records that are entered in a container are defined by a set of fields, which, as system administrator, will configure for the container.

You can start building a container hierarchy in a database, by first creating a top-level container in that database. You can then add a child container to the top-level container, and add further descendants. The screenshot below shows the containers of the two databases of the ContractManager app's starting database.



Two types of container: top-level and descendant level

There are two types of containers: top-level and descendant level.

Containers can be added to the database structure in the following ways:

- Top-level containers are added by clicking the **New Data Container** button of a database (see *screenshot above*).
- For any container, a parent or child container can be added via the container's [More Operations](#) ⁹¹ button.

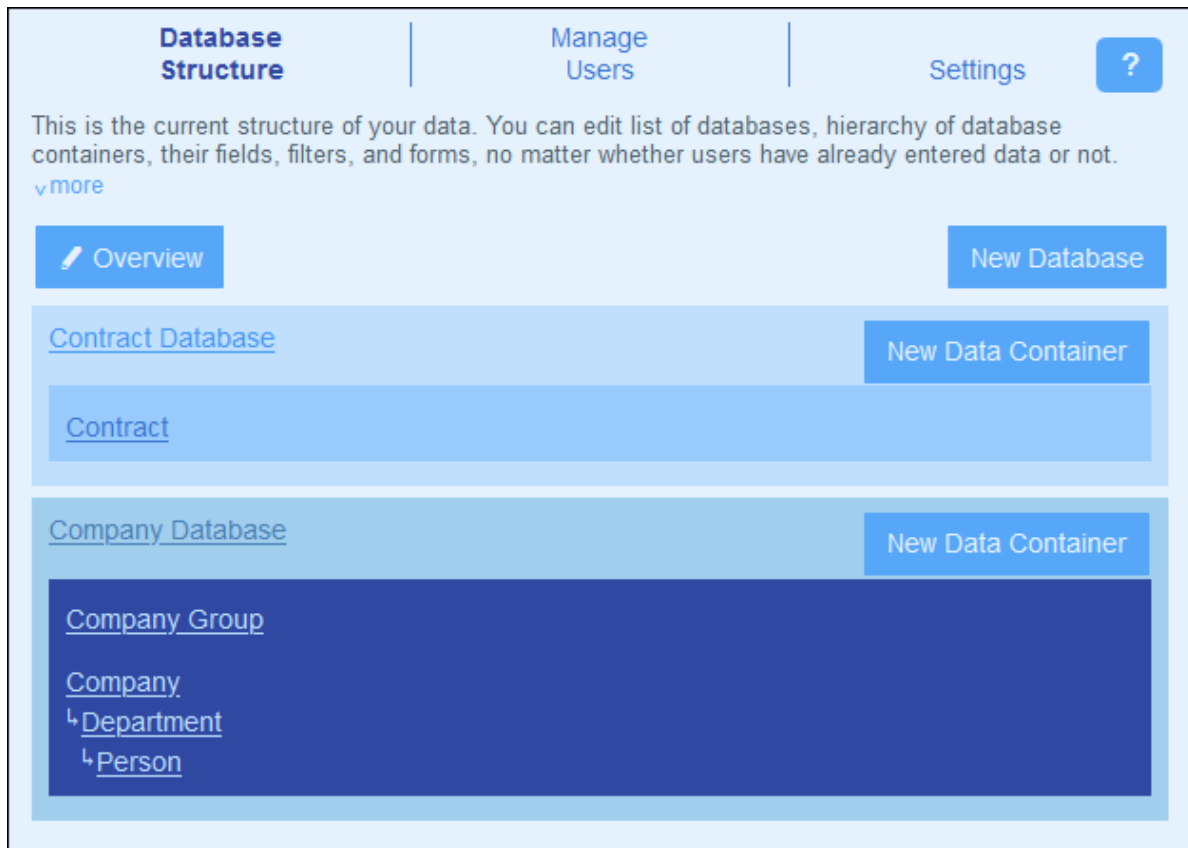
The section [Create/Edit Containers](#) ²⁸ describes how to create new containers (both types). The section [Container Actions](#) ³⁰ describes other container actions.

3.2.2.1 Create/Edit Containers

Add a container

Add a container as follows:

- Top-level containers are added by clicking **New Data Container** (see screenshot below) and then [defining the container's fields and other properties](#) ³⁰.



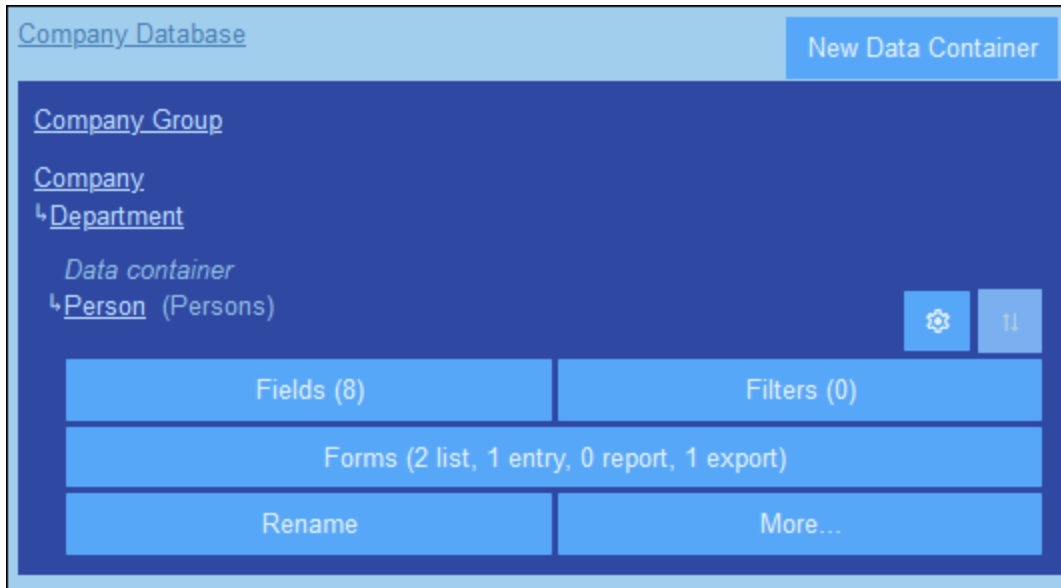
- For any container, a parent or child container can be added: (i) Click the container, (ii) Select **More**, (iii) Click **Add parent data container** to add a parent container or **Add child data container** to add a child container. The addition of a parent or child leads to the creation of either top-level containers or descendant containers of a top-level container. See [More Operations](#) ⁹¹ for details.

Note: A top-level container can also be added by adding a parent container to an existing top-level container. Also see the [Parent/Child operation](#) ⁹¹, which enables you to move a container to a new hierarchy.

Define/edit a container's fields

When you add a container (top-level, parent, or child) you are prompted for the container's name and the plural form of the name. (The plural is needed for use in text strings of the interface and reports. It provides a method to handle irregular plural forms (such as *children* instead of *childs*). On clicking **Continue**, the *Edit Fields* form appears. This form enables you to [create new fields](#) ³¹ for the container, and is described in the section [Fields](#) ³¹.

The same *Edit Fields* form appears when you click a container and then its **Fields** button (see screenshot below). You can then click an existing field to edit it. See the section [Fields](#) ³¹ for a description of how fields are edited.



After you create and save a new field, it is added to the existing fields of the container. For example, you can see that the *Person* container in the screenshot above has eight fields. (You can click **Fields** to add a new field or to edit an existing field.) Once a field has been defined for a new container and saved, the container is displayed in the [Database Structure tab](#) ²⁷ of the [Configuration Page](#) ²⁰.

3.2.2.2 Container Properties and Actions

The most essential property of a container is its set of **fields**. These can be defined at the time [the container is created](#) ²⁸, but can also be edited at any later time. The fields of a container represent the attributes of that container and its records. For example, a *Person* container might have a *Name* field, an *Email* field, and a *Responsibility* field. These fields would then represent the attributes of *Person* records of the *Person* container. See [Fields](#) ³¹ for a complete description.



In addition to configuring its fields, you can also configure a container in the following ways:

- Create filters for the display of the container's records and use of the container's fields. See [Filters](#) ³⁸.
- Create forms that will be used for the entry of container data, for the generation of reports, and for exporting data to other formats. See [Forms](#) ⁴⁸.
- Validate individual fields and/or entire records. See [Validation of Fields and Records](#) ³⁷.
- Rename the container. See [Container Operations](#) ⁹⁰.
- Add a parent container and/or children containers. See [Container Operations](#) ⁹¹.
- Duplicate the container. See [Container Operations](#) ⁹¹.
- Remove the container. See [Container Operations](#) ⁹¹.
- Change the type of link to the parent container (between a parent–child link and a loose link). See [Container Operations](#) ⁹¹.
- Import data from external XML files. See [Container Operations](#) ⁹¹.

Define the components of a container as described in the subsections of this section.

Container icons

All containers have the following icons.

	Container Settings
	Move Up/Down

Container Settings

The container settings form enables you to specify whether the container should contain one record only or multiple records. By default the option is set to multiple records. The record of a single-record container must be explicitly added by the system user. Once added, this record can be edited, but not deleted.

Move Up/Down: Changing the order of sibling containers

If a container has sibling containers (that is, there are other containers at the same level), then the **Move Up/Down** icon on the right is enabled. Click it to change the order of the current container relative to its siblings.

Validation rules for records of the container

You can specify one or more validation rules for records of the container. This will ensure that every record must fulfill certain requirements. For example, the record of a person or company can be validated to ensure that at least a telephone number or an email address is entered in the record before it is saved. If validation fails, then either an error or a warning—according to what you decide—is triggered with an appropriate message. In the case of an error, the record is not saved till the error is fixed and validation is successful.

See [Validation of Fields and Records](#)³⁷ for information about validation.

3.2.3 Fields

The fields of a container represent the attributes of that container and its records. For example, a *Person* container might have a *Name* field, an *Email* field, and a *Responsibility* field. These fields represent the attributes of *Person* records of the *Person* container. Within each container, you can define the fields of that container. The screenshot below, for example, shows the *Edit Fields* form of a *Person* container, which displays all the fields of that container.

The *Edit Fields* form (screenshot below) appears after you start the process to [create a new container](#)²⁸ or when you click a container's **Fields**²⁸ button. See the [Containers](#)²⁸ topic for more information about how to access this form. The *Edit Fields* form provides (i) an overview of the container's existing fields, (ii) a list of the [container's identity fields](#)³³, and (iii) [validation rules for records of the container](#)³⁷.

Edit Person fields ?

Cancel
Save Changes

Test Entry...
Copy...
New Field...

Name	Properties	<input type="checkbox"/>	Show details
First	text, required	↑↓	🗑
Middle	text	↑↓	🗑
Last	text, required	↑↓	🗑
Title	text	↑↓	🗑
Phone	text	↑↓	🗑
Fax	text	↑↓	🗑
Email	text	↑↓	🗑
Notes	multiline text	↑↓	🗑
Department	predefined field, required parent link to Department		

Person identity fields
✎
?

First

Middle

Last

Person validation rules
New Rule...
?




In this form, you can manage and configure the container's fields as follows:

- Add a new field by clicking **New Field**. The *Edit Field* form appears and you can [edit the new field's properties](#) ³³.
- [Edit the properties of existing fields](#) ³³. Click a field's name to edit its properties.
- You can copy one or more existing fields from any other container. Click **Copy**, and, in the form that appears, select the fields you want to copy from some other container. On clicking **OK**, these fields will be copied into the list of the current container's fields. Click the new field's name to [edit its properties](#) ³³.
- Show the field's properties in more detail by checking *Show Details* at top right.
- Change a field's position in the list by moving it to a position above any selected field. To do this, click the **Up/Down Arrows** icon on the right-hand side of the field's listing.
- Remove a field by clicking the **Delete Field** icon on the right-hand side of the field's listing.

- Set one or more fields to uniquely identify records. See [Identity fields of container records](#)³⁶.
- Set [validation rules for records of the container](#)³⁷. Such rules validate the entire record; they are different than validation rules for individual fields and additional to them. See [Validation rules for fields and records](#)³⁷ for details.

Icons of the Edit Fields page

The *Edit Fields* page has the following icons.

	Delete Field
	Move Up/Down
	Edit

Move Up/Down: Changing the order of field

Moves the current field to a position above the field that you select.

3.2.3.1 Field Properties


In the [Edit Fields form](#)³¹, if you click **New Field** or an existing field, the form for editing the properties of that field are shown (*screenshot below*). This form is the same for both new fields and existing fields. Field properties are described below the screenshot.

Edit Company field

Name

Type

Editing

Entry Any Select "AK", "AL", "AR", "AZ", "CA", "CO", "CT",... 

Hint

Auto-fill

Validate ?

Name, Hint

Enter the name of the field and, optionally, a hint. The name of the field is a text string that identifies the field. The hint is a text string that will provide users with a hint about what the field is about and/or what kind of value can be entered for the field. For example, the *State* field shown in the screenshot above takes the abbreviation

of a US state as its value. The hint could indicate this as follows, for example: *Enter the state abbreviation (NY, AL, etc).*

Type

Select the data type of the field (text, number, date, image, etc). For some fields, such as number and date, you must also additionally select a format. The *Auto-increment number* type is a number field that automatically increments the number (by a value you choose) for every new record. A *Files* type enables users to select a file for the field. An *Images* type enables users to select an image for the field. The following types have special system-related uses:

- *Reminders*: Specifies that the field is a reminder field. If a container contains no reminder field, reminders cannot be set for that container. See [Reminder Emails](#)¹²¹ for details of how reminders are used.
- *Link to*: Creates a [loose link](#)¹⁰ to another container in the system. For more information, see [How the App's Data Is Structured](#)¹⁰, [How Data Is Stored](#)¹², and [Database Structure](#)²⁵.

Related features: [Summary values](#)⁷⁹, [Grouping records on a date-type field](#)⁷⁷, [Reminder Emails](#)¹²¹.

Editing

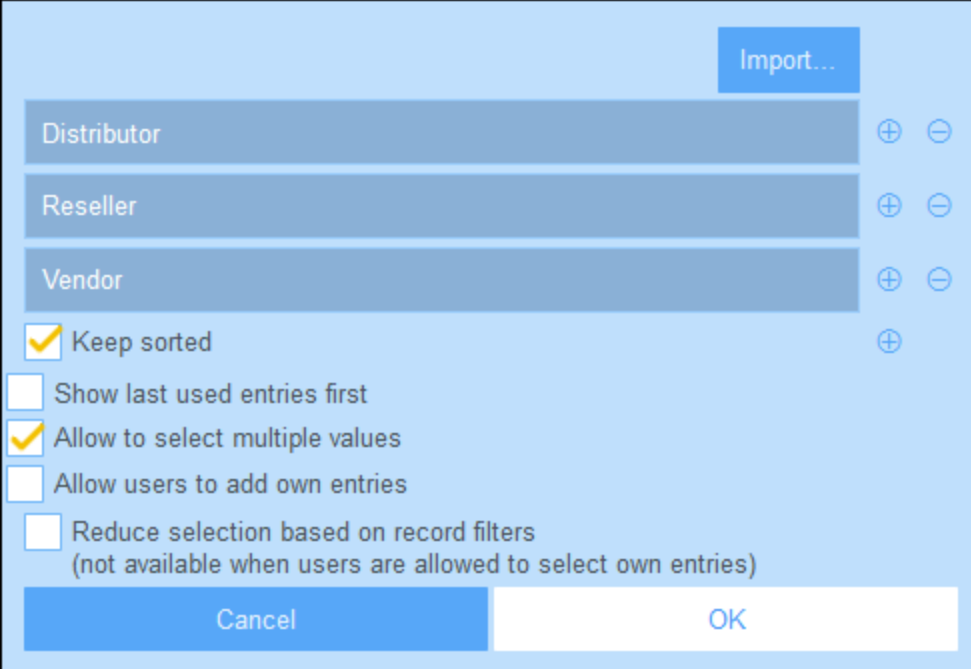
Select whether the field is editable or read-only, and whether the value must be unique. If editing is required, then the field must not be empty: if empty, the record will not be saved. If the field is specified here as read-only, then it is read-only in all [forms](#)⁴⁸. To set the field as read-only in some forms only (not in all forms), leave *Read-only* unchecked here and select *Read-only* in individual forms.

Note the following: (i) multiple editing options are allowed; (ii) if *Unique* is selected, then *Required* is automatically also set.

Entry

Specify whether any entry is allowed for the field or whether the user must select from a list of entries. You can provide a list of entries and, optionally, allow users to enter their own values.

To allow users to enter values freely, choose the *Any* option. To specify a predefined list of entry choices, choose the *Select* option and then click the **Edit** icon. A form similar to that shown below appears. Enter the items of the entry list by adding a new row for each item (by inserting a row above an existing row or appending a row to the last row). In the screenshot below, for example, there are three items (*Distributor*, *Reseller*, and *vendor*).



From the list of options with check boxes, select any options you want:

- The multiple-values option enables the user to select more than one value.
- You can also allow users to enter their own values.
- If you have predefined a list of entry choices (and have not allowed users to enter their own values), then, for each filter of the container, you can define a subset of the predefined list.

Alternatively, you can import the values of the entry list via a CSV file or XML file by clicking **Import** (see *screenshot above*). The CSV file must have a single column (with or without a header), which contains the items of the entry list. The XML file must have a root element and one repeating child element (where each child element contains an item of the entry list):

Auto-fill

Configure one of the following options:

- The value is not filled automatically; users must supply the values
- Values are entered automatically when a record is created or when a record is saved. You can enter a fixed value or you can enter an XPath expression to dynamically calculate the value to enter. To edit the XPath expression, click the option's **Edit** icon (see *note immediately below*).
- Dynamically calculate the value via an XPath expression. This is useful if you wish to calculate the value based on other fields of the record. For example, you could calculate the value of a customer *ID* field by concatenating the values of the *ZIP* field and *VAT-ID* field: `ZIP || VAT`. To edit the XPath expression, click the option's **Edit** icon (see *note immediately below*).

Note about editing XPath expressions: The form for editing XPath expressions has three tabs: (i) *Samples* provides a random example of an XPath expression, such as: (a) the concatenation of three values (two values from other fields and a comma separator); or (b) an `exists` function to test whether a field contains some content; (ii) *Fields* lists the names of all the record's fields in alphabetical order so that they can be correctly entered in the XPath expression; (iii) *Copy* lists a selection of XPath expressions that contain various useful

functions, which you can copy into your expression and modify.

See [Altova's XPath 3.0 and 3.1 Training](#) for information and examples of how to use XPath expressions and functions.

Validate

You can enter one or more predefined or self-defined validation rules. These enable the field value entered by the user to be validated before the record is saved. Note that you can enter multiple validation rules for each field. Additionally, you can set validation rules for the entire record. See [Validation of Fields and Records](#)³⁷ for details.

3.2.3.2 Identity Fields

Each record must be uniquely identifiable on the basis of one or more fields. If the values of a particular field are unique (such as an email address or company tax number), then a single field suffices as the identity field of that container. In some cases, such as a last name, the value of a single field does not by itself ensure uniqueness. In this case, more than one field will be required to achieve a reliable degree of uniqueness (for example: first name + last name + birth date). The certainty of uniqueness does not need to be 100 per cent; a reasonable assurance of uniqueness will suffice. Select as many fields as you think are required to achieve such an assurance. It is up to you determine what will suffice.

To edit the identity fields of a container, click the **Edit** icon of the Identity Fields section of the [Edit Fields](#)³¹ form or click one of the existing identity fields. The *Identity Fields* form (*screenshot below*) appears. It displays the currently selected identity fields as well as a list of the current container's fields. Add fields individually as identity fields. You can also optionally enforce the uniqueness of all selected fields, either across the entire database or only within the parent container of the current container. This would ensure that no two records have the same identity (either within the whole database or the parent container) by displaying warnings to the user.

Person identity ?

Identity fields:

First

Middle

Last

all

Add fields:

[Title](#)

[Phone](#)

[Fax](#)

[Email](#)

Enforce uniqueness of selected fields

only within Department

Note: only text (but not multiline), number, date, and time fields can be part of identity. Also no fields with multiple values.

Cancel OK

Click **OK** when you have finished.

3.2.3.3 Validation of Fields and Records

You can create validation rules at two levels: that of the individual field, as well as that of the entire record. The *Validation Rule* form shown in the screenshot below is displayed when you click **New Rule**; the same form is shown for both field validation and record validation.

In the form, enter an XPath expression that returns Boolean `true()` or `false()`. If the expression is invalid XPath, then the invalidity is flagged with an error message in red. If the expression is valid XPath but returns some other value than Boolean `true()` or `false()`, then the rule is considered to be an error but no XPath error is flagged. It is up to you to ensure that the expression returns a Boolean result. See (i) the screenshot below for an example of such an expression, and (ii) the note below about editing XPath expressions.

Validation rule

XPath

If XPath rule above returns boolean true(), then it is passed, if false(), then it fails and error/warning is triggered. Any other result will be considered as an error in the rule itself.

Failure is an Error a Warning

Please select what will happen if the validation fails. An error will prohibit saving the record. A warning will be shown, but user can skip it.

Error message

The validation rule shown in the screenshot above could be used to validate a record to ensure that at least an email address or a telephone number has been entered for the record. You could add further validation rules at the level of the telephone number field and/or email address fields: for example, to ensure the correct telephone number format and/or email address pattern. Note that a predefined rule to validate email addresses for correct pattern is built-in for field validation.

For each rule, you can specify whether a failed validation is to be considered an error or a warning. In the case of an error, the record will not be saved. You can also enter the text of a suitable error/warning message; this will be displayed if validation fails.

Note about editing XPath expressions: The form for editing XPath expressions has three tabs: (i) *Samples* provides a random example of an XPath expression, such as: (a) the concatenation of three values (two values from other fields and a comma separator); or (b) an `exists` function to test whether a field contains some content; (ii) *Fields* lists the names of all the record's fields in alphabetical order so that they can be correctly entered in the XPath expression; (iii) *Copy* lists a selection of XPath expressions that contain various useful functions, which you can copy into your expression and modify.

See [Altova's XPath 3.0 and 3.1 Training](#) for information and examples of how to use XPath expressions and functions.

3.2.4 Filters

A set of filters can be defined for each container. These filters can then be used for one or more of the following purposes:

- To filter data displayed in list forms and report forms
- To limit user access to data
- To preselect users who will get reminder notifications via alert groups
- By users, for detailed searches

Working with filters

The procedure for working with filters is as follows:

1. Plan and create a set of filters for each container as required.
2. Use filters for the purposes listed above.

Edit Filters page

The *Edit Filters* page (screenshot below) appears when you click a container's [Filters](#)²⁵ button.

It provides an overview of the container's existing filters. You can click an existing filter to edit it, and you can [add a new filter](#)⁴⁰ by clicking **New Filter**.

Edit Contract filters ?

Cancel Save Changes

Filters can be used by users as a quick, much more detailed search. Filters can also be used to limit overall user access to data, to filter data displayed in the list forms, and to pre-select users who will get reminder notifications via alert groups. You can hide filters if you only want to use them for one of the purposes listed above and don't want end users to see them as a search tool. ^less

Alert Groups **New Filter...**

Active Contracts other than IP	<input type="checkbox"/> hide		
Active IP, Patents, Trademarks	<input type="checkbox"/> hide		
Expiring in 90 days	<input type="checkbox"/> hide		
New contracts with effective dates < 1 months ago	<input type="checkbox"/> hide		
Review in 60 days	<input type="checkbox"/> hide		

Actions of the Edit Filters page

The *Edit Filter* page has the following icons.

	Copy Filter
--	--------------------



You can carry out the following actions for individual filters:

Hide filters (from users)

Filters are mostly used by administrators for configuring the system. However, there is one use of filters that involves the user. This is when filters are used by users for searches. If you plan to use a filter for configuration only and to not make it available for user searches, then the filter should be hidden from users. To hide a filter, check the filter's *Hide* check box (see screenshot above).

Copy filters

This *Copy Filter* feature is useful if you want to create a new filter by modifying an existing filter. To copy a filter, click its **Copy** icon (see screenshot above). The copied filter will open in a new [Edit Individual Filter](#)⁴⁰ form. You can give the new filter a new name and edit the conditions of the copied filter.

Delete filters

To delete a filter, click its **Bin** icon (see screenshot above).

3.2.4.1 Create Filters

The *Edit Filters* page (screenshot below) provides an overview of the container's existing filters. Create a new filter by clicking **New Filter**.

Edit Contract filters ?

Filters can be used by users as a quick, much more detailed search.
Filters can also be used to limit overall user access to data, to filter data displayed in the list forms, and to pre-select users who will get reminder notifications via alert groups.
You can hide filters if you only want to use them for one of the purposes listed above and don't want end users to see them as a search tool.

^less

Alert Groups

Active Contracts other than IP	<input type="checkbox"/> hide		
Active IP, Patents, Trademarks	<input type="checkbox"/> hide		
Expiring in 90 days	<input type="checkbox"/> hide		
New contracts with effective dates < 1 months ago	<input type="checkbox"/> hide		
Review in 60 days	<input type="checkbox"/> hide		

In the *Edit <Container> Filter* form that appears (*screenshot below*), give the filter a name. Since filters are presented to users by name (without showing the conditions you have defined for the filter), you should select a name that is descriptive enough to indicate what the filter selects. (Note that when you click a filter on the *Edit Filters* page (*screenshot below*) to edit it, the editing will be done in the same form—the one in which the filter was created.)

Edit Contract filter

Filter name:

and or

and

Create the conditions of the filter in one of the following ways:

- Add a new condition by clicking **Add Condition**, then selecting (i) the **field** you want to filter (for example, *Status* in the first condition of the screenshot above), (ii) the **selector** (such as *equal* or *one of* in the screenshot above; see *list of selectors below*), and (iii) the **field value/s** on which to filter (such as *Active* in the screenshot above). The first condition in the screenshot above selects only those records of the container that have a *Status* field with a value equal to *Active*.
- Add multiple conditions so that the filter is a combination of conditions that are all connected by either the logical **AND** operator or the logical **OR** operator. The filter can be composed entirely of new conditions or can be a combination of existing (previously created) filters and new conditions. In the screenshot above, the filter is a combination of two new conditions joined by a logical **AND** operator. The operators become available once a second item (new condition or existing filter) is added to the filter. Note that you cannot combine the **AND** and **OR** operators in a single filter (that is, you cannot create **x AND y OR z**). If you want to combine operators, do the following: (i) Create a filter with one

logical operator, and save it; (ii) Create a new filter which uses the first (existing) filter and combine it with the other operator and the new condition/s. Such a filter—(FILTER-2) in the following—would have a structure something like this: [FILTER-2 = (FILTER-1 = C1 AND C2 AND C3) OR (C4) OR (C5)]

Note: Only those records are displayed for which the overall condition returns Boolean `true()`. So, for example: (i) `true() AND false()` returns `false()`, but `true() OR false()` returns `true()`; (ii) `[true() AND false()] OR [true()]` returns `true()`.

After you have completed editing filters, click **Save Changes** in the *Edit Filters* form (see first screenshot above).

Selectors

The kinds of selectors that are available depends on the data type of the field that is chosen for filtering. The selectors for the different data types are listed below.

Selectors for Text, Multiline Text, and Link-To fields

The table below lists and describes selectors for Text, Multiline Text, and Link-To fields. In the case of the Link-To field, the name of the Linked container is considered to be text and tested in the same way as text.

<i>contains</i>	Contains the specified text
<i>doesn't contain</i>	Doesn't contain the specified text
<i>equal</i>	Equal to the chosen field value
<i>not equal</i>	Not equal to the chosen field value
<i>one of</i>	One of a set of chosen field values; add a new row for each value
<i>not one of</i>	Not one of a set of chosen field values; add a new row for each value
<i>begins with</i>	Begins with the specified text
<i>begins not</i>	Does not begin with the specified text
<i>ends with</i>	Ends with the specified text
<i>ends not</i>	Does not end with the specified text
<i>is entered</i>	A value has been entered for the field
<i>is missing</i>	No value has been entered for the field

Selectors for Date fields

The table below lists and describes selectors for Date fields.

<i>in range</i>	The field's date value lies within the specified range
<i>not in range</i>	The field's date value does not lie within the specified range
<i>past</i>	The field's date value lies in the past. Optionally test whether the date occurred less than or more than a specified number of days ago

<i>future</i>	The field's date value lies in the future. Optionally test whether the date occurs less than or more than a specified number of days into the future
<i>equal</i>	The field's date value is the same as the specified date
<i>not equal</i>	The field's date value is not the same as the specified date
<i>is entered</i>	A value has been entered for the field
<i>is missing</i>	No value has been entered for the field

▣ *Selectors for Time, Number, and Auto-Increment Number fields*

The table below lists and describes selectors for the Time, Number, and Auto-Increment Number fields.

<i>in range</i>	The field's time value lies within the specified range
<i>not in range</i>	The field's time value does not lie within the specified range
<i>equal</i>	The field's time value is the same as the specified time
<i>not equal</i>	The field's time value is not the same as the specified time
<i>is entered</i>	A value has been entered for the field
<i>is missing</i>	No value has been entered for the field

▣ *Selectors for Files, Images, and Reminder fields*

The Files, Images, and Reminder fields take the *Contains* selector, which tests whether the field contains the respective item.

3.2.4.2 Use of Filters

Filters can be used for one or more of the following:

- To filter the records displayed in [list forms](#) ⁵⁰ and [report forms](#) ⁷⁴
- To limit user access to data
- To [choose alert groups for email notifications](#) ¹²³
- By users, for detailed searches

Filter records in list forms and report forms

One major use of filters is to restrict the records that are shown in [list forms](#) ⁵⁰ and [report forms](#) ⁷⁴. The restriction is done on the basis of the field values of records. For example, a filter named *Active Contracts* could be defined to show only those records where the value of a record's *Expiry Date* field lies in the future.

Limit user access to data

By combining the filters and user access properties of [list forms](#) ⁵⁰ and [report forms](#) ⁷⁴, different users can be configured to have different access to data. For example, you could do the following:

- Set up two filters: (i) one named *Software Contracts* to display only those contracts that have a *Category* field equal to the value *Software*, and (ii) another named *Partner Contracts* to display only those contracts that have a *Category* field equal to the value *Business Partners*.
- For a list form named *Software Contracts*: (i) use the filter named *Software Contracts*; (ii) set access to this form for the IT, Legal, and Accounts roles.
- For a list form named *Partner Contracts*: (i) use the filter named *Partner Contracts*; (ii) set access to this form for the Legal and Accounts roles.

In the example above, users that have been given either the Legal role or Accounts role can view both types of contracts (software and partner). However, users that have been given the IT role can view software contracts but not partner contracts.

Choose alert groups for email notifications

For each filter of a container, you can select [alert groups](#)¹⁰⁹. On the [Edit Filters](#)³⁸ page (see *screenshot below left*), select the *Alert Groups* check box and, for each filter, select the alert groups you want to associate with it. Click **Save Changes** to finish. Now, if such a filter is used in the reminder settings of a reminder field definition (see *screenshot below right, last setting*), then email notifications for this reminder will be sent also to the alert groups defined on this filter.

For example, in the screenshot below right, the last setting (highlighted in green) causes reminders to be sent to all records selected by the *Active Contracts other than IP* filter. If you look at the screenshot at left, you will see that the *Active Contracts other than IP* filter has been associated with the alert groups named *Accounts* and *Legal*. As a result, email reminders for this renewal reminder will be sent to all users in these two alert groups.

Edit Contract filters ?

Cancel Save Changes

Filters can be used by users as a quick, much more detailed search.
Filters can also be used to limit overall user access to data, to filter data displayed in [more](#)

Alert Groups ? New Filter...

Active Contracts other than IP
<input checked="" type="checkbox"/> Accounts
<input type="checkbox"/> Department Heads
<input checked="" type="checkbox"/> Legal
Active IP, Patents, Trademarks
<input type="checkbox"/> Accounts
<input type="checkbox"/> Department Heads
<input checked="" type="checkbox"/> Legal
Expiring in 90 days
<input checked="" type="checkbox"/> Accounts
<input checked="" type="checkbox"/> Department Heads
<input type="checkbox"/> Legal
New contracts with effective dates < 1 months ago
<input checked="" type="checkbox"/> Accounts
<input type="checkbox"/> Department Heads
<input type="checkbox"/> Legal
Review in 60 days
<input type="checkbox"/> Accounts
<input checked="" type="checkbox"/> Department Heads
<input type="checkbox"/> Legal

Reminder settings

Category

Description

Recurring

Specific Date | **Calculate Date**

on

before

after

Once time reached, send notification

every day until reminder is processed or snoozed

only once

to

Always add to new records

Only when filter applies

Note: The alert groups selected via the filter are selected in addition to the alert groups selected via the standard reminder settings (see screenshot above right, *Once Time Reached, Send Notification To* setting). If there is an overlap of alert groups between the two settings (as is the case in the screenshot above), duplicates are removed.

Searches by app users

In addition to the configuration uses of filters that are listed above, users of the system can also use filters for searches.

If one or more filters have been defined for a container, then the **Predefined** button will be available when the records of a container are displayed using any of the container's list forms. To return records selected by a filter, the user: (i) clicks **Predefined** (see *screenshot below*), (ii) selects one of the filters in the combo box that appears, (iii) click the **Search** icon at right. All records selected by the filter will be listed.

↑TITLE	ID	STATUS
Green Power	C2020/3133	
Weekly Lunches	C2020/3132	

Also see [System Use | Searches](#) ¹⁵⁷.

3.2.5 Forms

The *Edit Forms* page (*screenshot below*) appears when you click a container's **Forms** ²⁷ button (see the [Containers](#) ²⁸ topic).

Edit Contract forms ?

Cancel Save Changes

Below are all Contract forms. You can control access to the forms via user Roles. List forms are used to view multiple records at once. This can be on the overview [more](#)

New List Form...

List Forms

Contracts alphabetically	<input type="checkbox"/> hide		
Contracts by Company	<input type="checkbox"/> hide		
Contracts by Status	<input type="checkbox"/> hide		
Contracts by Status & Company	<input type="checkbox"/> hide		
New contracts with effective dates < 1 months ago	<input type="checkbox"/> hide		

New Entry Form...

Entry Forms

Legal Entry Form	<input type="checkbox"/> hide		
------------------	-------------------------------	--	--

New Report Form...

Report Forms

By category		
Contract Dollar Amount Report		

New Export Form...

Export Forms

Standard export form	<input type="checkbox"/> hide		
Whole DB	<input type="checkbox"/> hide		

New Email Form...

Email Forms

Contract Reminder Email Form	<input checked="" type="checkbox"/> use		
------------------------------	---	--	--

The *Edit Forms* page provides an overview of a container's currently defined forms and enables you to create new forms.

Types of forms, and their uses

Administrators define forms for various purposes, such as for data entry, reports, and emails. For each container a separate set of forms is defined that use elements specific to that container. A container's forms can then be reused at multiple points in the ContractManager app.

The following types of forms are available:

- [List Forms](#)⁵⁰: Enables the construction of a list of records. The list can be grouped on a field and it can be filtered. List forms can be used in entry forms and report forms.
- [Entry Forms](#)⁵⁹: These are the forms that are used to enter the data of a container. They can be used wherever data for that container can be entered.
- [Report Forms](#)⁷⁴: Enables the design of reports that can be shown on screen and printed.
- [Export Forms](#)⁸⁴: Design the structure of XML and CSV documents to export to.
- [Email Forms](#)⁸⁷: Design the body of emails that are sent as reminders to Alert Groups.

Working with forms: create new, edit, copy, delete, hide/use, create templates

Create the forms you want by clicking the respective **New Form** button. After a form has been created, it will appear in the *Edit Forms* list (*screenshot above*). You can click a form to edit it. You can also: (i) copy a form (by clicking the **Copy** icon on the right-hand-side of the form) to create a new editable form; (ii) delete a form by clicking its **Bin** icon.

Note the following points:

- For all types of forms, you can set which users can access the form. In this way, you can restrict the viewing and editing of specific records, as well as the ability to view reports and export data.
- Forms have a *Hide* or *Use* option on the *Edit Forms* page (*see screenshot above*). If you hide a form, it will be visible only when the form is used in another form. In all other cases, it will not be available. So the *Hide* option enables you to disable the use of the form without deleting it. For example, if a list form is used in an entry form and is marked as hidden, then it will be visible only in the entry form but will not be available as a list form.
- You can create [template forms](#)⁷¹ from any entry form. A template is a data entry form with some starting data filled in. The user can modify this starting data in the entry form. See [Entry Forms](#)⁵⁹ for more information.

After you have finished editing a form, make sure to not only save the form (with **Save Form**) but also to click **Save Changes** on the *Edit Forms* page.

3.2.5.1 List Forms

A list form displays the records of a container in a particular layout. You can define multiple list forms for a single container. When a user clicks on a container, the records of the container are presented in a list form, and the user can choose which one of the available list forms to use.

The screenshot below shows a list form's configuration page. The top part of the page enables you to set properties for the list form, while the bottom part contains the layout of the form. Configuring a list form consists

of (i) designing the layout of the form, (ii) defining its content and styles, and (iii) defining the properties of the form.

Layout of the list form

ID	Title	Categories
Sample group 1		
Sample	Sample	Sample
Sample	Sample	Sample
Sample	Sample	Sample

You can configure list forms using the following design features and settings:

- The [layout](#)⁵² of each list form is defined within a table, which you can structure according to how you want to display the records
- [Select the fields to show](#)⁵⁴ in the columns of the table (or add alternative content)
- Separately [style](#)⁵⁵ the table's header text and its body text
- If you want, you can [group and sub-group records](#)⁵⁶ on the basis of fields
- [Filter the records](#)⁵⁸ to display by using [predefined filters](#)³⁸
- Specify different kinds of [access for different users](#)⁵⁸

After completing your edits, click **Save Form** to finish. See the topics of this section for configuration details.

3.2.5.1.1 Create/Edit a List Form

When you create a new list form (by clicking **New List Form** on the [Edit Forms](#)⁴⁸ page), you are prompted to select the fields (of the current container) that you want to display in the list form. Subsequently, give the form a suitable name (*see screenshot below*) and edit the form as described in the following topics.

Form name

Form access Admin, All Users, Executive, Legal, Sales

Preview

Group by Status

Filter

Show Jump to begins with: Status

Preview on click ?

Print layout Portrait Landscape

Layout of the list form

ID	Title	Categories
Sample group 1		
Sample	Sample	Sample
Sample	Sample	Sample
Sample	Sample	Sample

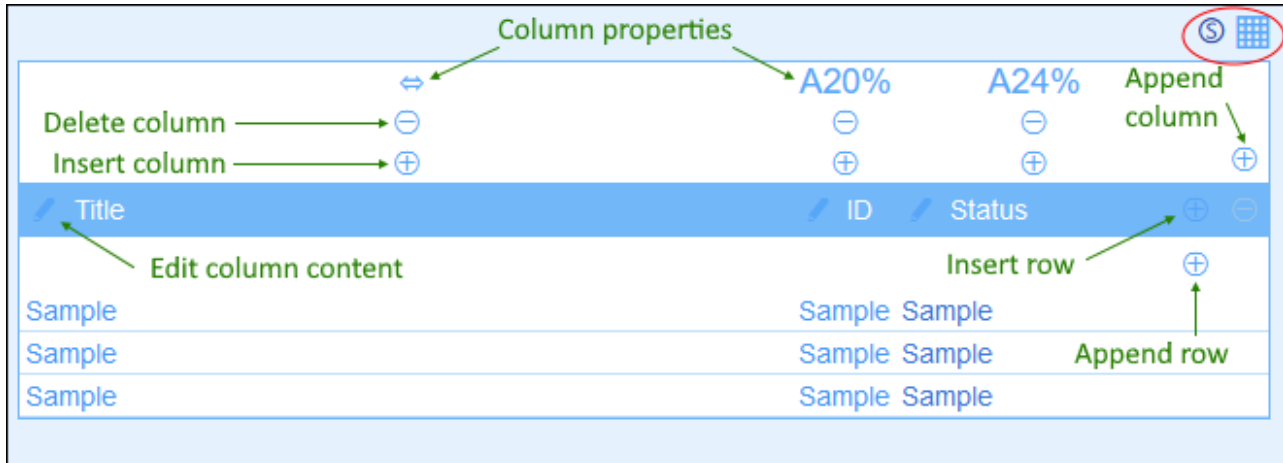
After a form has been saved, it can be edited at any time by clicking its name on the [Edit Forms](#)⁴⁸ page. The list form will be displayed (*screenshot above*) and can be edited.

After completing your edits (for new forms or existing forms), click **Save Form** to finish. This will take you back to the [Edit Forms](#)⁴⁸ page, where you must click **Save Changes** for all changes to be saved to the database.

3.2.5.1.2 List Form Layout and Structure

When the form is open for editing, click the **Table editing** icon (*inside the red ellipse in the screenshot below*). The table will be displayed with its editing entry helpers (*screenshot below*). The table in the list form will contain a header row and multiple body rows for the records of the container. The only part of the table that you

can edit is the table header. The header structure represents both the header and the record. So, for example, if the header is configured to have two rows, then each record will also have two rows. This means that when you design a list form, you simply design the header. (The block of sample rows in the design is a placeholder: the number of rows in this block does not change; the number of columns, however, does.)



You can edit the form's table structure as follows:

- Insert/append columns to left/right of the selected column, and insert/append rows above/below the selected row. Use the respective icons for these operations (see screenshot above). New columns can be inserted to the left of the selected column, and new rows can be inserted above the selected row. Note that there is only one *Append Column* icon: to the right of the rightmost column. Similarly, there is only one *Append Row* icon: below the last row.
- Delete rows/columns by using the respective icons.
- Edit the content in a column by using that column's **Edit** icon/s. You can add one of several components to a column. See [List Form Content](#)⁵⁴ for details.
- When you add a row (to the header), the two-row (or x-row) structure will be applied not only to the header but to every record.

Note: After you complete making changes to the table structure and want to exit the table editing mode, click the **Table editing** icon.

Column properties

You can set the following layout properties on individual columns:

- Column width options: (i) Default column width, where all columns are equally sized; (ii) Fixed width as percent; (iii) Auto-size the column width based on content, with an optional maximum width. Auto-sized columns are indicated by an **A** (see screenshot above). For columns with fixed widths as percent, and for auto-sized columns with a maximum percent width, the percent width is indicated in the column header (see screenshot above).
- Column padding (left and right): Set these with the respective sliders.

3.2.5.1.3 List Form Content

Table content is added column by column. If the table has multiple rows, then, you can add content for each row of each column. The structure that you create for the list form's header is applied to the header and to each record. For example, if the header has three columns, then each record has three columns. The header and records can each be styled separately—as *Labels* and *Values*, respectively (see *screenshot below*).

To select what content goes into each column, click that column's **Edit** icon (see *screenshot in [previous topic](#)*⁵²). The content selection form shown below appears. You can select any of the items listed in the tabs as content. Note that the content does not have to be a field.

The screenshot shows a content selection form for a list form column. The form has five tabs: **Field**, **Calc**, **Text**, **Image**, and **Linked Rows**. The **Field** tab is selected, and a dropdown menu shows 'ID' with a checkmark and a left arrow. Below the dropdown are two checked checkboxes: **Edit label** and **Edit styles**. The **Labels** section includes a **size** slider set to 100%, a **bold** checkbox checked, a **place** dropdown set to 'Above fields (left)', an **italic** checkbox unchecked, and a **text** dropdown set to 'As-is'. The **Values** section includes a **size** slider set to 100%, a **bold** checkbox unchecked, an **align** dropdown set to 'default', and an **italic** checkbox unchecked. A **Preview** section shows a table header with 'ID' and a row with 'Sample'. At the bottom are **Remove Field** and **Change Field** buttons.

To select a content type, click its tab and enter the selection properties as described below.

Note the following, which is common across a number of content types: The label is the text that appears in the header of the table. The values are the values of fields in the records. You can style the labels of a column separately from its values, and you can see a preview in real time at the bottom (see *screenshot above*). Note

that the styles set here are for the selected column. Styles that you specify for a column will override [styles set for the table](#) ⁵⁵.

- **Field:** Select the field to display in this column. Fields that have been selected as content in any column are shown with a tick mark (*see screenshot above*). In the case of fields of certain datatypes, such as dates, you can additionally format the type and set other properties.
- **Calc:** Specify an XPath expression to calculate dynamic values for records of the column.
- **Text:** Specify the text to enter. This will be static text that is entered for all records of the column.
- **Image:** Select either an image from the image library, or choose a new image from a file location.
- **Child Rows:** Available if the container has a child. Select the records of child containers to display in this column, and select which list form of the respective child container to use. You can also select which filters of the respective child container to apply. Child containers, their lists, and their filters are all automatically made available depending on the selections you make.
- **Linked Rows:** Select the records of linked containers to display and select which list form of the respective container to use. You can also select which filters of the respective linked container to apply. Linked containers, their lists, and their filters are all automatically made available depending on the selections you make.

3.2.5.1.4 List Form Styles

You can set styles for the table and for group headers separately. You can also set styles for different columns separately (*see previous section*). To set styles for the table, click the table's **Styles** icon (*inside the red ellipse in the screenshot below*). To set styles for group headers, click the group header's **Styles** icon (*inside the green ellipse in the screenshot below*).

Edit Contract list form

Form name

Form access Admin, All Users, Executive, Legal, Sales

Preview Cancel Save Form

Group by Status
 Filter
 Show Jump to begins with: Status
 Preview on click ?

Print layout Portrait Landscape

Layout of the list form

ID	Title	Categories
Sample group 1		
Sample	Sample	Sample
Sample	Sample	Sample
Sample	Sample	Sample

Table styles

The Styles form for the table looks something like in the screenshot below.

Use styles defined globally Apply globally

Labels

size

bold place

italic text

Values

size

bold align

italic

ID	Title	Categories
Sample group 1		
Sample	Sample	Sample
Sample	Sample	Sample
Sample	Sample	Sample

Note the following points:

- The label is the text that appears in the header of the table. The values are the values of fields in the records. You can set the text properties of each separately, including text placement.
- If you select the *Use styles defined globally* check box at the top of the table, then the [global styles specified in the app's settings](#)¹¹⁷ will be used.
- The **Apply Globally** button applies the current styles to the global settings for all forms and for properties that are specific to list forms. All forms that do not have their own table or field styles will receive the current styles.

Styles of group headers

Click the group header's **Styles** icon to bring up the relevant styling form. Here, you can set the following:

- Text properties of the group header
- Whether the group of records should be shown collapsed or expanded when the list is displayed.

Note: After you have finished making style changes, click **Save Form** and then **Save Changes**.

3.2.5.1.5 List Form Properties

In the *Edit List Form* dialog, the properties of the list form are defined via the settings above the layout part of the design (see screenshot below), and are described below.

Form name

Form access Admin, All Users, Executive, Legal, Sales

Preview

Group by Status

Filter

Show Jump to begins with: Status

Preview on click ?

Print layout Portrait Landscape

Layout of the list form

ID	Title	Categories
Sample group 1		
Sample	Sample	Sample
Sample	Sample	Sample
Sample	Sample	Sample

Set access to list forms

The *Form Access* setting enables you to specify which [roles](#)¹⁰⁴—and, therefore, [users](#)¹⁰¹—may access the form. Note that the *Admin* role has full access to all forms.

Preview

Provides a preview of the form.

Grouping

The records of a list can be grouped on the values of one or more fields, up to a maximum of three. For example, records may be grouped on, say, the *Region* field into US and EU groups. On a second level, they could be grouped into countries, and, on a third (and final) level, into cities.

To set up grouping, check the *Group By* option and select the fields you want to use as grouping criteria. The fields can be text fields, number fields, date fields, and parent links. Multiline fields cannot be used. After grouping has been set up, a new header for groups appears in the layout. Click its **Style** icon to specify its formatting ([see previous topic](#)⁵⁵).

Filtering

A list can be filtered to show only records that meet certain conditions. The filtering is set up by assigning a single filter to the list. To set up a filter, check the *Filter* option and select the filter you want to use from the combo box. Only filters of the current container will be available. For information about creating and using filters, see the section [Filters](#)³⁸.

Show Jump-To

If the *Show Jump-To* option is selected, then a **Jump To** button will be displayed in the list form. On clicking, **Jump To**, the end user can enter a string in the *Jump To* field, following which the display will jump to the first record that matches the string according to the criteria you chose when defining the *Show Jump-To* option of the list form.

On selecting the option, you can select the criteria to be fulfilled by the target records to jump to:

- If the user's text string is the starting string of (i) any field, or (ii) a selected field
- If the user's text string is contained in (i) any field, or (ii) a selected field.

Select the appropriate radio buttons to select the setting you want. To finish, click **OK**.

Preview-on-Click

If the *Preview-on-Click* option has been switched on and the user clicks a record in the list, then the clicked record will be displayed below the list (which is scrollable). If you select this option, then you are prompted to select the [entry form](#)⁵⁹ that will be used to display the record, which the user can edit directly.

Print layout

Select whether the list form, when it is printed by the user, will have a portrait or landscape format.

3.2.5.2 Entry Forms

You can design one or more entry forms for a container (*see screenshot below*) and specify which users have access to each entry form. When users open a container for data entry, they can choose one of the forms to which they have access and enter the required data. By creating different forms, each with a different set of users, you can control which users get to enter which items of data or which users may only read data in the different forms.

Edit Department entry form

Form name

Form access Admin (full), All Users (full), Executive (full), Legal (full), S...

Preview

Read-only

Sections

Print layout Portrait Landscape

Layout of the entry form

Company

Name

Description

Persons

Last	First	M
Sample	Sample	Sample

Design your entry forms using the following broad steps:

1. Decide what fields you want to include in the form, how the fields will be laid out (in a table structure), [which users will have access](#)⁷² to the form for viewing only and/or data entry. Alternatively, [the entire form can be read-only](#)⁷².
2. Decide whether the form should be [divided into sections](#)⁶³ for a better overview, and whether sections should appear one section at a time or all together.

3. [Add sections](#)⁶³ as required. Alternatively, you can also create a form that has no explicitly demarcated section.
4. Modify the [structure of the table](#)⁶⁵ by adding/deleting rows and columns. Note that you can also add an entire table within a table cell.
5. Within table cells, [add content items](#)⁶⁷ (such as fields and text) or structural items (such as tables and child-container rows).
6. [Style individual table contents](#)⁶⁹.
7. Create [templates](#)⁷¹ from an entry form. Templates are entry forms that are partially filled with data when a new record is created using this template. The user can subsequently modify the data. For each entry form, multiple templates can be created, enabling the user to create a new record using any of these templates.

After a form has been saved, it can be edited at any time by clicking its name on the [Edit Forms](#)⁴⁸ page. The entry form will be displayed (*as in the screenshot above*) and can be edited.

After completing your edits (for new forms or existing forms), click **Save Form** to finish. This will take you back to the [Edit Forms](#)⁴⁸ page, where you must click **Save Changes** for all changes to be saved to the database.

3.2.5.2.1 Create/Edit an Entry Form

When you create a new entry form (by clicking **New Entry Form** on the [Edit Forms](#)⁴⁸ page). You will be prompted to select the fields you want to include for data entry. Each selected field will be created in a row of a table (*see screenshot above*). By default, each field will have a label and a data entry device (such as a data-entry box or combo box). Subsequently, you must give the form a name. Subsequently, you can also edit the design of the form—by changing the structure of the table and modifying what goes into the cells of the table. These operations are described below.

Edit Department entry form

Form name

Form access Admin (full), All Users (full), Executive (full), Legal (full), S...

Preview

Read-only

Sections

Print layout Portrait Landscape

Layout of the entry form

Company

Name

Description

Persons

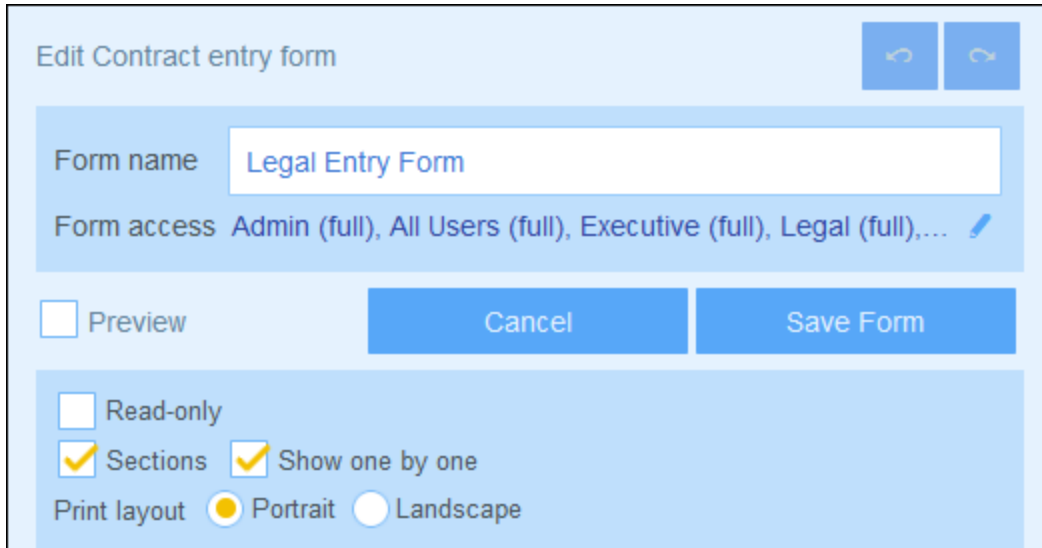
Last	First	M
Sample	Sample	Sample

After a form has been saved, it can be edited at any time by clicking its name on the [Edit Forms](#) ⁴⁸ page. The entry form will be displayed (*screenshot above*) and can be edited.

After completing your edits (for new forms or existing forms), click **Save Form** to finish. This will take you back to the [Edit Forms](#) ⁴⁸ page, where you must click **Save Changes** for all changes to be saved to the database.

3.2.5.2.2 Sections of an Entry Form

To create sections, first check the *Sections* option (see screenshot below). This creates a new section, named *Unnamed Section*, above the first row of the table. If you want to show each section one-by-one (instead of all together on one page), check the *Show One by One* option.



Edit Contract entry form

Form name

Form access Admin (full), All Users (full), Executive (full), Legal (full),...

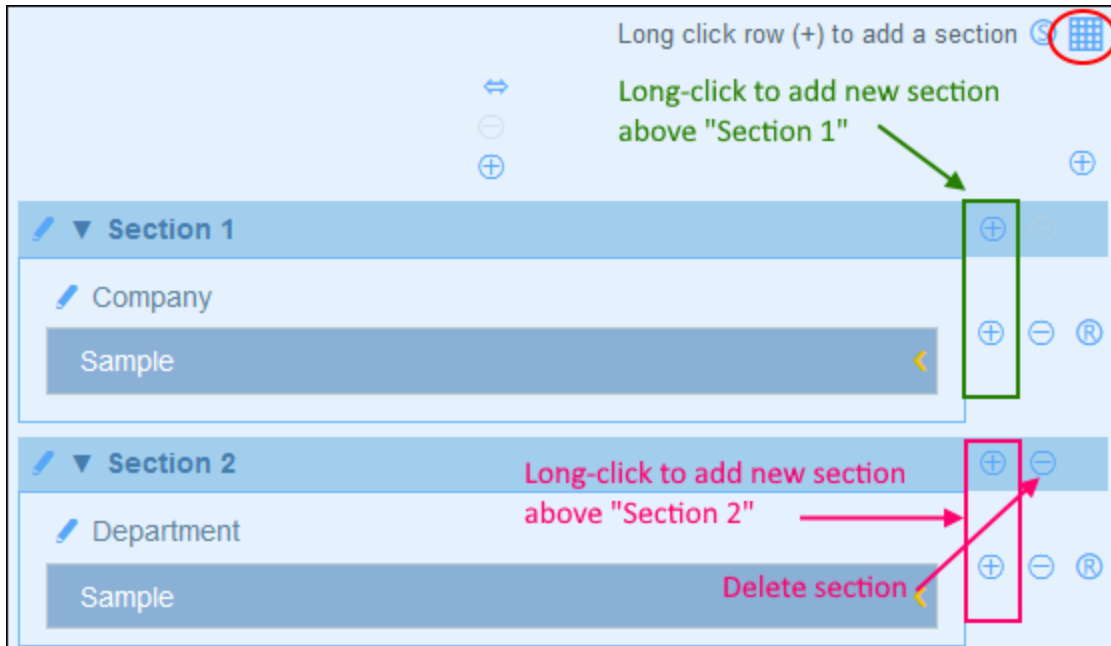
Preview

Read-only Sections Show one by one

Print layout Portrait Landscape

To add new sections, first click the **Table editing** icon (circled in red in the screenshot below). The table editing icons appear. To insert a new section above the current row, long-click the **Add Row** icon of either the current section or the current row (see screenshot below). To append a new section at the bottom of the table, long-click the **Add Row** icon of the last row of the table. Note that a simple click adds a row. You need a **long-click to add a section**; so keep the click depressed till a new section appears.

You can delete a section in one of two ways: (i) Click the section's **Delete** icon; but note that the first section cannot be deleted in this way; (ii) Uncheck the *Sections* option (see screenshot below, top left).



Section properties

To access section properties, click the name of the section.

The screenshot below shows the *Section Properties* form of a section in an entry form where all sections are shown together (that is, not one-by-one). The following options can be set separately for each section:

- To show the section name or to hide it (and, in the latter case, also optionally hide the section line).
- Whether to show the section initially open or closed. If a section is closed, the user must open it (by clicking the section's **Expand** icon).
- Access to the section for individual roles. Whether a role has: (i) full (read and write) access; (ii) read-only access; or (iii) no access.

Edit section

Name

Hide name

Initially open

Only if there is data in this section

Closed

Always open (user cannot close)

All users can access this section

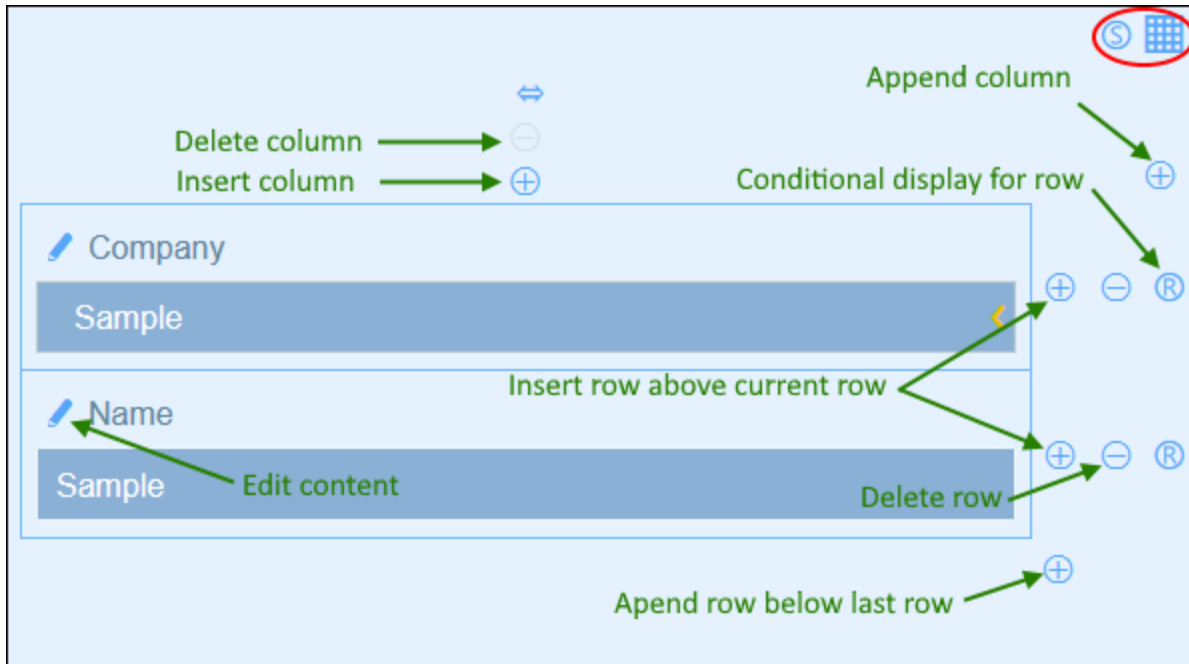
Edit access

Cancel OK

In entry forms where sections are shown one-by-one, a restricted set of properties may be set: (i) the name of the section; and (ii) access rights of different roles.

3.2.5.2.3 Entry Form Layout and Structure

When the form is open for editing, click the **Table editing** icon (*inside the red ellipse in the screenshot below*). The table will be displayed with its editing entry helpers (*see screenshot*). The table contains multiple body rows, each of which contains either a data entry field for one of the container's fields, or a display item such as text, an image, or a table.



You can edit the form's table structure as follows:

- Insert/append columns to left/right of the selected column, and insert/append rows above/below the selected row. Use the respective icons for these operations (see screenshot above). Note that there is only one *Append Column* icon: to the right of the rightmost column. Similarly, there is only one *Append Row* icon: below the last row.
- Delete rows/columns by using the respective icons.
- Edit the content in a cell by using that column's **Edit** icon. See the topic [Entry Form Content](#)⁶⁷ for details about adding content.
- Set a condition to determine whether a row should be visible (*Conditional display for row* in screenshot above). For example, you might want to make a row that holds a contract's date visible only if the contract's ID field contains some value. These conditions are defined in an XPath expression that returns either Boolean `true()` or `false()`.

Note about editing XPath expressions: The form for editing XPath expressions has three tabs: (i) *Samples* provides a random example of an XPath expression, such as: (a) the concatenation of three values (two values from other fields and a comma separator); or (b) an `exists` function to test whether a field contains some content; (ii) *Fields* lists the names of all the record's fields in alphabetical order so that they can be correctly entered in the XPath expression; (iii) *Copy* lists a selection of XPath expressions that contain various useful functions, which you can copy into your expression and modify.

See [Altova's XPath 3.0 and 3.1 Training](#) for information and examples of how to use XPath expressions and functions.

Note: After you complete making changes to the table structure and want to exit the table editing mode, click the **Table editing** icon.

Column properties

You can set the following properties on individual columns:

- Column width options: (i) Default column width, where all columns are equally sized; (ii) Fixed width as percent; (iii) Auto-size the column width based on content, with an optional maximum width. Auto-sized columns are indicated by an **a**. For columns with fixed widths as percent, and for auto-sized columns with a maximum percent width, the percent width is indicated in the column header.
- Column padding (left and right): Set these with the respective sliders.

3.2.5.2.4 Entry Form Content

To add or edit the content of a table cell, click the cell's **Edit** icon (*see screenshot above*). A content selection form like that shown below appears. Select the respective tab to add the appropriate type of content (*see screenshot*). Content is either a data entry device (for a field of the container), or a display item (such as text, an image, or a list of child records). The different content types are described below.

To select a content type, click its tab and enter the selection properties as described below.

Note the following points, which are common across a number of content types:

- A label is the text that describes a field. A value is the value of a field.
- When you style the labels and values of a cell, only that cell is styled and the cell styles override the [styles of the table](#)⁶⁹. You can see a preview of the cell's styles at the bottom of the tab (*see screenshot below*).

After you finish editing the content of a table cell, click **Change Field** and then **Save Form**.

Field | Calc | Text | Table | Image | Button | Child Rows | Linked Rows

Company (parent link) ✓

Offer search instead of simple selection

Add button to view record once selected

Add button to edit record once selected

Allow users to add new Company records

Via entry form Standard entry form

Edit label Hide label

Read-only

Script on edit

Edit styles

Labels

size 100%

bold place Above fields (left)

italic text As-is

Values

size 100%

bold align default

italic

Preview

Company

Sample

Remove Field Change Field

Field

Select the field for which data will be entered. Depending on the field selected, additional settings may be available (*see the top half of the screenshot above*). The name of the selected field will appear as the label of the cell. Settings that are common to all selections are: (i) edit the label; (ii) option to hide the label; (iii) option to make the field read-only (it cannot be edited); (iv) edit styles of the cell; these styles will override the default table styles that are applied to the cell.

The values that you enter are fixed. If you want to enter dynamically determined values for other fields as a consequence of the current entry, check the *Script* option. In the form that appears, click **Add Command**,

select the field you want to update, and enter an XPath expression that calculates the value to enter. For each value you want to calculate, add a new command (via **Add Command**). Once the current value has been entered, the scripts are run and the fields specified in the script's commands are updated.

Other settings are options for the following:

- To let the user search for the field to enter instead of offering the user a selection of fields from which to choose
- To add a button that lets the user view a record once it has been selected
- To add a button that lets the user edit a record once it has been selected
- To allow users to add records for the selected field. If enabled, the entry form to use must be specified.

Calc

Specify an XPath expression to generate a value that will be displayed as the value of the cell. Optionally, you can also specify a label for the cell.

Text

Specify the text string that you want to display in the cell. This text will be displayed as a label and with the formatting assigned to labels.

Table

Inserts a table with the column and row dimensions that you specify. This table can be structured and styled just like the top-level table, and its cells can each have their own content.

Image

Select either an image from the image library, or choose a new image from a file location. The image will be added to the cell.

Button

Adds a geolocation button to the cell. When users click this button, the geolocation data will be entered in the field/s that you set up via this tab. Geolocation data consists of multiple items, such as Address, City, or Geolocation. Each of these can be stored to different fields of the record.

Child Rows

Available if the container has a child. Select which child containers to display and which list form of the respective container to use. You can also apply one or more filters of the selected container. Optionally, child records may also be edited. If the editing option is selected, then you must select one of the container's entry forms. Child containers, their list forms, filters, and entry forms are all made available automatically according to context.

Linked Rows

Select which of the current container's linked containers to display and which list form of the selected container to use. You can also apply one or more filters of the selected container. Linked containers, their lists, and filters are made available automatically according to context.

3.2.5.2.5 Entry Form Styles

You can set styles for each table in the form separately. To set styles for a table, click its **Styles** icon (*inside the red ellipse in the screenshot below*).

The *Styles* form for the table looks something like in the screenshot below.

Note the following points:

- A label is the text that describes a field. A value is the value of a field. You can set text properties for the label and the value separately, including the text placement.
- If you select the *Use global styles* check box at the top of the table, then the [global styles specified in the app's settings](#) ¹¹⁷ will be used.

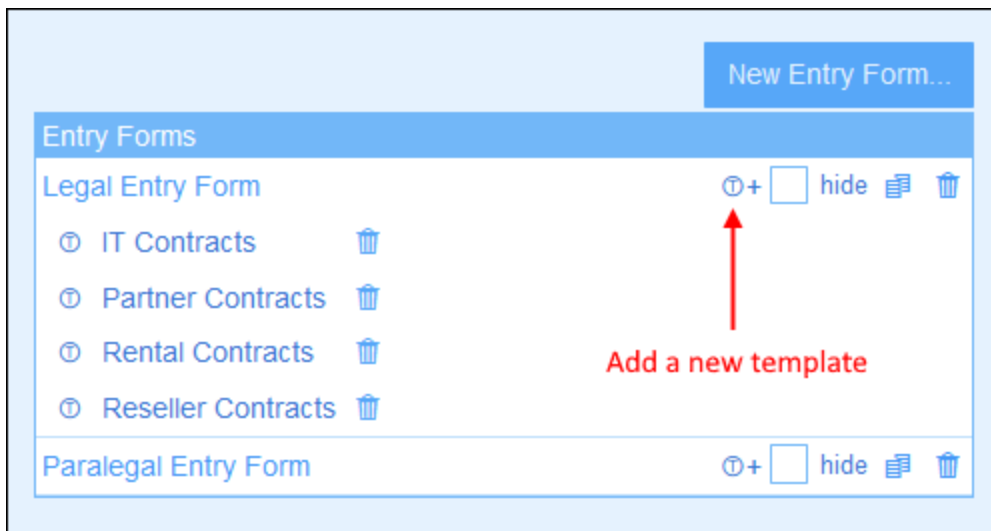
- The **Apply Globally** button applies the current styles to the global settings for all forms and for properties that are specific to entry forms. As a result, all forms that do not have their own table or field styles will receive the current styles.

Note: After you have finished making style changes, click **Save Form** and then **Save Changes**.

3.2.5.2.6 Templates for Entry Forms

Templates are entry forms in which some data is pre-filled. When users create a new record in a container, they are offered the possibility of using one of the templates that have been defined for that container. Templates can therefore help to save time for users if records have repeating data. To take a simple example, in *Department* entry forms, we could fill in a company's name so that the user could skip the *Company* field and continue with the other fields of the *Department* container.

To create a template, go to the [Edit Forms](#)⁴⁸ page and click the **Add Template** icon (see screenshot below).



In the *Edit Template* form that appears, name the template suitably and enter data for the fields you want to fill (see screenshot below).

Edit template for new Department record ↶ ↷

Note: no validation or required fields checks are performed when saving template, because it contains only initial data for new records. But fields which have auto-fill or auto-increment values cannot be edited here and will not be saved as a part of template.

Template name

Script on record create

Cancel
Reset
Save Template

Company

Arbornull, Inc. ⏪

Name

Description

The values that you enter are fixed. If you want to enter dynamically determined values for other fields as a consequence of the current entry, check the *Script* option. In the form that appears, click **Add Command**, select the field you want to update, and enter an XPath expression that calculates the value to enter. For each value you want to calculate, add a new command (via **Add Command**). Once the current value has been entered, the scripts are run and the fields specified in the script's commands are updated.

Click **Save Template** when done. The template will be displayed in the the [Edit Forms](#)⁴⁸ page, under the listing of the entry form that was used as the base form for the template (see *the first screenshot of this topic*).

3.2.5.2.7 Entry Form Properties

In the *Edit Entry Form* dialog, dialog, the properties of the entry form are defined via the settings above the layout part of the design (see *screenshot below*), and are described below.

Edit Department entry form

↶
↷

Form name

Form access Admin (full), All Users (full), Executive (full), Legal (full), S... ✎

Preview

Cancel
Save Form

Read-only

Sections

Print layout Portrait Landscape

Layout of the entry form

↓

✎ Company
⌵

Sample

✎ Name
⌵

Sample

✎ Description
⌵

Sample

✎ Persons
⌵

Last	First	M
Sample	Sample	Sample

Set access to entry forms

The *Form Access* setting enables you to specify which roles (and thereby users) have full access to the form (read and write access) and which users have read-only access. Note that the *Admin* role has full access to all forms.

Preview

Provides a preview of the form.

Read-only entry forms

A form can be defined as read-only by checking this option near the top of the form. No template can be defined for a read-only form.

Sections

Select the *Sections* check box to create sections. If the check box is unselected, then the form is displayed as a single page and without sections. See the topic [Sections of an Entry Form](#)⁶³ for a description of the Sections feature.

Print layout

Select whether the entry form, when it is printed by the user, will have a portrait or landscape format.

3.2.5.3 Report Forms

A report form is designed to present a report of records in a specific container. A report consists of one or both of the following:

- A table, where the columns represent the container fields and/or [loose links](#)²⁵ that were selected for inclusion. Each row of the table holds a record of the container.
- One or more charts. Each chart plots the values of fields assigned to the Y-Axis against a field assigned to the X-Axis.

You can create multiple report forms for a container. The report forms of a container will be available when a user is editing the records of a container and clicks the [Reports](#)¹⁶⁹ button. At this point, if multiple report forms are available for the container, the user can choose the report form to use. For example, you can create forms with different filters to show different datasets. Or different reports could group records on different criteria. This would enable the user to quickly switch report forms to see, for example, reports of different and specific datasets (such as US companies only, or contracts that will expire in the next three months, or contracts valued above a certain amount).

Edit Contract report form

Form name

Form access Admin, Executive, Legal, Sales [✎](#)

Preview Cancel Save Form

Group by Categories [✎](#)
Note: groups in reports are displayed in the first column
 Hide records, show only groups

Filter ◀ ▶

Charts Amounts by Category, Contract Amounts [✎](#)
 Hide the whole table, show only charts

Print layout Portrait Landscape

ID	Title	Type	Expiry [Description	Category	\$ Amount
Sample	Sample	Sample	Sep 22, 20	Sample	Sample	\$1,235
Sample	Sample	Sample	Sep 22, 20	Sample	Sample	\$1,235
Sample	Sample	Sample	Sep 22, 20	Sample	Sample	\$1,235
Sample group 1						Minimum Σ Sum
# Count						Minimum Σ Sum

Amounts by Category

Category	Amount
Categories 1	1.0
Categories 2	1.0
Categories 3	1.0

Contract Amounts

ID	\$ Amount
ID 1	1.0
ID 2	2.0
ID 3	3.0

The screenshot above shows the design page of a report form. The design page has two parts:

- In the upper part, you specify the [properties of the report form](#) ⁷⁷
- In the lower part, you design the layout of the report form: (i) the [report table](#) ⁷⁹, and (ii) the [report charts](#) ⁸¹

How to configure a report form is described in the topics of this section.

3.2.5.3.1 Create/Edit a Report Form

To create a new report form, click **New Report Form** on the [Edit Forms](#) ⁴⁸ page. You will be prompted to select the fields (of the current container) or [loose links](#) ²⁵ that you want to display in the report. Subsequently, give the form a suitable name (see *screenshot above*) and edit the form as described in the topics that follow.

ID	Title	Type	Expiry Date	Description	Categories	\$ Amount
Sample	Sample	Sample	Sep 22, 2020	Sample	Sample	\$1,235
Sample	Sample	Sample	Sep 22, 2020	Sample	Sample	\$1,235
Sample	Sample	Sample	Sep 22, 2020	Sample	Sample	\$1,235
Sample group 1			Minimum			Σ Sum
#	Count		Minimum			Σ Sum

After a form has been saved, it can be edited at any time by clicking its name on the [Edit Forms](#) ⁴⁸ page. The report form will be displayed (*screenshot above*) and can be edited.

After completing your edits (for new forms or existing forms), click **Save Form** to finish. This will take you back to the [Edit Forms](#) ⁴⁸ page, where you must click **Save Changes** for all changes to be saved to the database.

3.2.5.3.2 Report Properties

Important properties of the report are set in the top part of the report form's design page (see *screenshot below*). These properties are described below.

The screenshot shows the configuration interface for the 'Contract report form'. At the top, the title is 'Edit Contract report form'. Below this, the 'Form name' is 'By category' and 'Form access' is 'Admin, Executive, Legal, Sales'. There are 'Preview', 'Cancel', and 'Save Form' buttons. The 'Group by' section is checked and set to 'Categories, Process Status', with a note that groups are displayed in the first column and an option to 'Hide records, show only groups'. The 'Filter' section is checked and set to 'Active Contracts other than IP'. The 'Charts' section is unchecked. The 'Print layout' is set to 'Portrait'.

Set access to report forms

The *Form Access* setting (see *screenshot*) enables you to specify which [roles](#)¹⁰⁴—and, therefore, [users](#)¹⁰¹—may access the form. Note that the *Admin* role has full access to all forms.

Grouping of records

The records of the container can be grouped on a maximum of three fields. For example, you could sort contracts on the basis of their status or you could sort companies by country.

To group records, click the *Group by* option's **Edit** button (see *screenshot*) and then select the fields on which to group (up to a maximum of three fields). The first field you select becomes the first grouping criterion, and so on. In the report, the values of the selected grouping criterion will be shown in the first column of the table. If you have multiple criteria, then the values will be grouped first on the first criterion. Then, within each value of the first criterion, grouping will take place on the second criterion. Next, within each value of the second criterion, grouping will take place on the third criterion. So, it is important to select the grouping criteria (fields) in the order you want them.

For example, the screenshot below shows a report in which grouping is based on the expiry date of contracts, and on two criterion: *Year* is the first criterion, and *Month* is the second criterion. The first value of the first (*Year*) criterion is 2020. Within the set of records for 2020, records are grouped by month. In our case, there are four months (June, August, September, and December), with one record in each month. Records are then

grouped by month for the next *Year* value, which is 2021: there are six records for the month of August (and no other month in 2021). Note also the summary values on the right hand side, where the count of records is given for each month and each year. **Summary values** are created on fields, and are described in the next topic, [The Report Table](#)⁷⁹.

↑ID	Title	Type	Expiry D
C2020/3122	Office Cleaning Contract	Service Con	Jun 08,
June			# 1
C2020/3120	Willow Partners Warehouse Lease Agreement	Lease	Aug 15,
August			# 1
C2020/3121	Doodle Online Advertising	Advertising	Sep 01,
September			# 1
C2020/3119	Chestnut Telecom License Agreement	Vendor Agre	Dec 04,
December			# 1
2020			# 4
C2020/3126	Twitter Terms of Service	Vendor Agre	Aug 13,
C2020/3127	AWS Policies & Permissions - Identity & Acc	Vendor Agre	Aug 10,
C2020/3128	Facebook Advertising Policies	Vendor Agre	Aug 13,
C2020/3129	Microsoft Advertising Policies	Vendor Agre	Aug 14,
C2020/3130	Dropbox Terms of Service September 24, 2	Vendor Agre	Aug 13,
C2020/3131	Dropbox Business Agreement August 19, 2	Vendor Agre	Aug 13,
August			# 6
2021			# 6

Note about grouping of Date-type records: If a field is created that has a type of *Date*³³ (format: *Month Day, year*; for example, *Dec 31, 2020*), then this field will automatically be available for grouping on three criteria: (i) the month part only; (ii) the year part only; (iii) the entire date filed (month, day, and year). This enables you to split the date field into two additional grouping criteria and thus to separately group records on months and years.

If you select the option to hide records, only the summary lines of groups will be shown. The actual records will be hidden. In the screenshot above, for example, the actual records are shown. The summary lines on the right provide a count of the records.

Filtering records

To filter records, select the *Filter* option and then select any one of the filters that have been defined for the current container (see screenshot above).

3.2.5.3.3 The Report Table

The first part of the report consists of the report table. The columns of this table (see screenshot below) represent the container fields and/or loose links that were selected for inclusion in the table. Table rows each hold a record of the container. To edit the structure and content of the table, click the **Table editing** icon (circled in red in the screenshot below)

The screenshot shows a report table with the following structure and content:

ID	Title	Type	Expiry Date
Sample	Sample	Sample	Sep 22, 2020
Sample	Sample	Sample	Sep 22, 2020
Sample	Sample	Sample	Sep 22, 2020
Sample group 2 ← Grouping criterion 2		Summary value for Group 2 → # Count	
Sample group 1 ← Grouping criterion 1		Summary value for Group 1 → # Count	
Summary value of all records →			# Count

Editing icons and options shown in the screenshot include: 'Delete column' (minus icon), 'Insert column' (plus icon), 'Width' (double-headed arrow icon), 'A32%' (width setting), and 'A' (padding setting). A 'Table editing' icon (grid with pencil) is circled in red in the top right corner.

You can edit table structure and content as follows:

- Insert columns to the left of the selected column. To append a new column to the right of the rightmost column, click the *Append Column* icon (which is situated to the right of the rightmost column).
- To delete a column, click its *Delete* icon.
- To change the field or loose link represented in a column, click the column's **Edit** icon and select the new field or loose link. There is one important property named *Summary*, which is described in the subsection named *Summary values* immediately below.
- To set a column's display properties, click its *Width* icon. Column width options are: (i) Default column width, where all columns are equally sized; (ii) Fixed width as percent; (iii) Auto-size the column width based on content, with an optional maximum width. Auto-sized columns are indicated by an **A**. For columns with fixed widths as percent, and for auto-sized columns with a maximum percent width, the percent width is indicated in the column header. Column padding (left and right) is set with the respective sliders.
- To exit the table editing mode, click the **Table editing** icon.

Summary values

It is sometimes useful to have a summary value at the bottom of a column. A summary value applies a calculation to the values of a column and shows the result. For example: the values of a column that is of a number type can be summed up, averaged, scanned for a minimum and/or maximum value; or the values of a column that is of a text datatype can be counted. Summary values are shown: (i) for groups, and (ii) for all records (at the end of the report).

To set up the summary values of a column, click the column's **Edit** icon, and select the kind of summary value (*listed below*). The available options depend on the datatype of the respective field (defined in the [field's Type property](#)³⁴).

- *Count*: For all datatypes. Counts the number of values in the column.
- *Sum*: For the number datatype. Sums the values in the column or group.
- *Average*: For the number datatype. Averages the values in the column or group.
- *Minimum*: For the number datatype. Scans the values in the column or group for the minimum value.
- *Maximum*: For the number datatype. Scans the values in the column or group for the maximum value.

Note: Summary values can be defined for any and all columns. You can set up more than one summary value for a column—if multiple summary values are available, as is the case with numbers. For example, you could show the sum of all values, or the average.

Styles in the report table

To set styles for the table, click its **Styles** icon (*inside the red ellipse in the screenshot above*). The Styles form for the table looks something like in the screenshot below.

Note the following points:

- A label is the column header. Values are the values of the fields of records. You can set text properties for the label and the value separately, including the text placement.
- If you select the *Use global styles* check box at the top of the table, then the [global styles specified in the app's settings](#)¹¹⁷ will be used.
- The **Apply Globally** button applies the current styles to the global setting for all forms. All forms that do not have their own table styles will receive the current styles.
- To exit the styles editing mode, click the **Styles** icon.

Note: After you have finished making structure and style changes to the table, click **Save Form** and then **Save Changes**.

Note: If one or more charts have been created, you can choose to show only charts in the report (and hide the table). See the [Charts topic](#)⁸¹ for information about this.

3.2.5.3.4 Report Charts

You can generate charts in reports to graphically present data held in the records. The Y-Axis of the chart must be a number. This will be the case if, for the Y-Axis, either of the following is available and chosen: (i) a field having a number value, or (ii) a [summary value](#)⁷⁹ of a grouping value (for example, the count of individual years in the data set: say, 3 instances of the year 2020).

Note: Charts can be created only on the basis of fields that have been included in the report form (that is, on the basis of the columns of the table).

The screenshots below show, at left, a report form in which two charts have been defined, and, at right, the actual report with the charts.

Group by Categories [/](#)
Note: groups in reports are displayed in the first column
 Hide records, show only groups

Filter Active Contracts other than IP

Charts Amounts by Category, Contract Amounts [/](#)
 Hide the whole table, show only charts

Print layout Portrait Landscape

ID	Title	Type	Expiry	Description	Category	\$ Amount
Sample	Sample	Sample	Sep 22, 20	Sample	Sample	\$1,235
Sample	Sample	Sample	Sep 22, 20	Sample	Sample	\$1,235
Sample	Sample	Sample	Sep 22, 20	Sample	Sample	\$1,235

Sample group 1

Count Minimum Σ Sum

Amounts by Category **Contract Amounts**

ID	\$ Amount
ID 1	1.0
ID 2	2.0
ID 3	3.0



Note: After a chart has been created, you will have the option to hide the table and show only the charts. Select the corresponding option to do so (see screenshot above left). (You should not delete the table because its columns provide the dataset from which the charts will be created.)

Creating charts

To create a chart, do the following:

1. In the report form, select the *Charts* option.
2. In the Edit Charts form that appears (screenshot below), select the chart type you want (bar chart, line chart, area chart, or pie chart) and give the chart a name. Select the Y-Axis field/s and X-Axis field. For all chart types, except pie charts, you can select multiple fields for the Y-Axis (the Y-Axes combo boxes are outlined in red below). For pie charts you can select only one field for the Y-Axis. Notice, in the screenshot below, that you are not allowed to add new fields for the Y-Axis of the pie chart. The fields that are available for Y-Axis selection are number fields and [summary values](#)⁷⁹ of grouping criteria. For both X and Y axes, the fields available for selection are determined automatically on the basis of the datatypes of fields and grouping criteria, if any.

The screenshot shows the 'Edit Charts' dialog box with two chart configurations. The first chart is a Pie chart named 'Amounts by Category' with Y-Axis 'Categories \$ Amount (Sum)' and X-Axis 'Categories'. The second chart is a Bar chart named 'Contract Amounts' with Y-Axis '\$ Amount' and X-Axis 'ID'. The dialog also includes options for 3D, Change orientation, Replace missing values, and Charts per row.

3. If you want to present more than one chart, add new charts by clicking **New Chart** and defining each chart as described in *Step 2* above.
4. If you want, you can replace any missing value in the datasets with a value of your choice.
5. Specify how many charts should be displayed in a single row of the report. For example, in the report shown in the screenshots above, we have specified that two charts are to be shown per row.
6. After you have finished defining your chart, click **OK** and then **Save Form**.

3.2.5.4 Export Forms

An export form (*screenshot below*) specifies what container-related data (container fields, linked containers, and child containers) to export to XML or CSV. For example, the screenshot below shows an export form of the *Person* container. The *First*, *Last*, *Title*, *Phone*, and *Email* fields of the *Person* container have been selected for export, together with the *Person* container's parent container, *Department*. After the form has been saved (with **Save Form**) and changes to all forms have been saved (with **Save Changes**⁴⁸), the export form is available during data entry of records of this container (in this case, the *Person* container). All users who have been authorized to access this form (*see screenshot*) will be able to export the data specified in this form.

Edit Person export form

↶
↷

Form name Standard export form

Form access Admin, All Users, Executive, Legal ✎

ISO

?
Cancel
Save Form

✎ Department	⊕ ⊖
✎ First <i>Sample</i>	⊕ ⊖
✎ Last <i>Sample</i>	⊕ ⊖
✎ Title <i>Sample</i>	⊕ ⊖
✎ Phone <i>Sample</i>	⊕ ⊖
✎ Email <i>Sample</i>	⊕ ⊖
	⊕

XML format

The exported XML file will have a root element named `<Root>`, and `<Root>` will have a child element that has the same name as the current container (in our example, this is the container named *Person*). This element will have the child elements that you selected as the fields to export. For example, the export form for a *Person* container (as shown in the screenshot above) might generate an XML file that looks like this:

```
<Root>
  <Person>
    <Department>Sales</Department>
    <First>Jim</First>
```

```

<Last>Gridely</Last>
<Title>Executive</Title>
<Phone>123456789</Phone>
<Email>legal.01@redmaple.com</Email>
</Person>
...
<Person>
  <Department>Accounts</Department>
  <First>Jane</First>
  <Last>Locke</Last>
  <Title>Manager</Title>
  <Phone>123789777</Phone>
  <Email>accounts.04@altova.com</Email>
</Person>
</Root>

```

CSV format

The first line of the CSV file will contain the headers of fields. Each subsequent line contains one record, with the values of fields being in the same sequence as the headers. The separator in records is a comma. Note that each record is a flat listing of the rows of the export form. Child records cannot be displayed because of the flat structure of CSV files. Compare with the XML structure above.

```

"Department","First","Last","Title","Phone","Email"
"Sales","Jim","Gridely","Executive","123456789","legal.01@redmaple.com"
...
"Accounts","Jane","Locke","Manager","123789777","accounts.04@altova.com"

```

Note: Among the exported fields in the XML and CSV files, the *Department* parent of the current container (*Person*) is included. Even though *Department* is not a field of *Person*, it is available to be added as a field in the export form because of its parent link to *Person*. Higher-level ancestors are also available and can be added to the form. Although ancestor information is not direct field-level information of a container, it could be important, and, as a result, is made available as parent links.

Create an export form

Create a new export form as follows:

1. On the container's [Edit Forms](#) ⁴⁸ page, click **New Export Form**.
2. Add the fields you want to export from this container, including any parent links, and click **Continue**. (Note that the term *parent links* includes ancestors at a higher level than the direct parent.)
3. Give the export form a suitable name.
4. Specify which roles can access this form. Only users who have been given at least one of the selected roles will be able to export data using this form.
5. Check the *ISO* option if you want data in fields of certain datatypes (date, time, number) to be exported in ISO format.
6. To add a field, click an **Insert** button to insert a row above the current row, or the **Append** button (last button) to add a last row to the table. To delete a field, click the respective row's **Delete** button.
7. To change a field, click the field's **Edit** icon, and make the changes you want.
8. To add child records (for example the *Person* children of *Department*), click the field's **Edit** icon, and (i) select the child containers to export, and (ii) for each child container, select which of that child's export forms to use. The child form will be created as a table within the row to which it was added. Note that

child containers cannot be exported to CSV. This is because CSV has a flat structure and cannot reproduce multilevel hierarchies.

9. Click **Save Form**.
10. Click **Save Changes** (on the container's [Edit Forms](#) ⁴⁸ page).

Points to note

- An export form exports data related to the current container (for example, a *Person* container).
- XML export: The fields of the container that are selected for export will be exported as XML elements that are children of an element that has the name of the current container (so, for example, an element named *Person*). *See the XML listing above.*
- CSV export: The fields of the container that are selected for export will be exported as the columns of a CSV row, where each CSV row corresponds to a record from the database (for example, one *Person* record). *See the CSV listing above.*
- In export forms, it is not only the container's fields that can be added; parents and higher-level ancestors can also be added. As a result, an exported record can also contain the current container's parents and higher-level ancestors. *See the listings above.*
- While data from child containers can be exported to XML files, they cannot be exported to CSV files. This is because of the flat structure of CSV files.

3.2.5.5 Email Forms

An email form (*screenshot below*) automatically generates the body of an email based on the design of the form. The form contains a table within which the design is structured. You can add columns and rows to the table, as well as tables within individual cells of tables. Content is provided by adding, within individual cells, text or one of the container's fields or loose links. Each field value can be set, via the *Email link* option, to be a hyperlink in the email. The link opens the record for viewing. You can also specify that individual rows are created only when certain conditions are met. Additionally, each table can be styled separately and access to the form can be restricted to selected roles.

Edit Contract email form

↶
↷

Form name

Form access Admin ✎

Preview

Cancel
Save Form

Ⓢ 📊 Ⓜ


✎ Title	<u>Sample</u>	
Ⓢ 📊		
✎ ID	Sample	✎ Status Sample
✎ Contracting Part		
✎ Expiry Date	Sep 17, 2020 Due today	
✎ Categories	Sample	

After the form has been saved (with **Save Form**) and changes to all forms have been saved (with **Save Changes**⁴⁸), the email form is available for use. All users who have been authorized (via the roles selected for the form) will get emails sent using this form.

Create an email form

Create a new email form as follows:

1. On the container's [Edit Forms](#)⁴⁸ page, click **New Email Form**.
2. Add the fields you want to appear in the email, and click **Continue**. Parent links and loose links are also available for inclusion.
3. Give the email form a suitable name.
4. Specify which roles can access this form. Only users who have at least one of the selected roles will get emails sent using this form.
5. Click the **Table Editing** icon to modify the table structure and content. Click an **Insert** button to insert a row above the current row, or the **Append** button (last button) to add a last row to the table. To delete a row, click the respective row's **Delete** button.
6. Within each cell, you can add one of the following: a field, a calculation to obtain a dynamic result, static text, or a table. You can edit the styles of labels and values of individual cells separately.
7. Select the *Email link* option of at least one field or calculation. The email link will be used to open the record directly from the email. You can switch on email links on multiple fields/calculations. In this case, the values of these fields/calculations will all be links to the record.

8. For date fields, you can also (i) edit date formats, and (ii) select the *Show Due* option to display the number of days till a contract expires.
9. To change a field, click the field's **Edit** icon, and make the changes you want.
10. Click the **Conditional Display for Row** icon (the  icon that is displayed when table-editing icons are switched on) to set an XPath condition that must be met in order for the row to be displayed. The default setting is to always display the row. *See note about XPath editing below.*
11. Click **Save Form**.
12. Click **Save Changes** (on the container's [Edit Forms](#)⁴⁸ page).
13. Remember to select, on the container's [Edit Forms](#)⁴⁸ page, the *Use* option of the Email form you want to currently use.

Note about editing XPath expressions: The form for editing XPath expressions has three tabs: (i) *Samples* provides a random example of an XPath expression, such as: (a) the concatenation of three values (two values from other fields and a comma separator); or (b) an `exists` function to test whether a field contains some content; (ii) *Fields* lists the names of all the record's fields in alphabetical order so that they can be correctly entered in the XPath expression; (iii) *Copy* lists a selection of XPath expressions that contain various useful functions, which you can copy into your expression and modify.

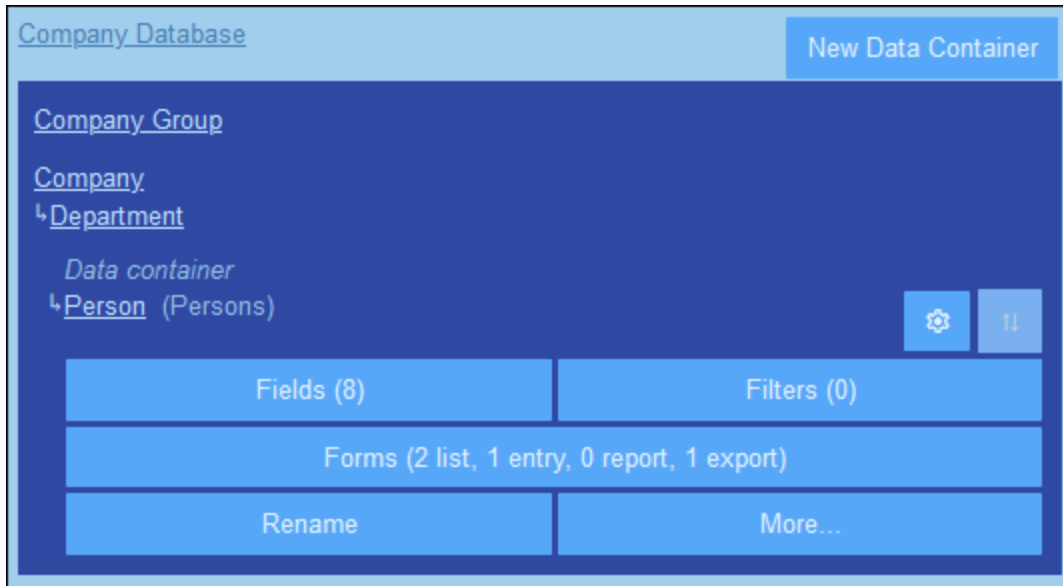
See [Altova's XPath 3.0 and 3.1 Training](#) for information and examples of how to use XPath expressions and functions.

Using email forms

You can define more than one email form for a container, and these will be displayed on the container's [Edit Forms](#)⁴⁸ page. On this page, choose which Email form you want to use by checking its *Use* option. You can change your selection at any time. See the section [Reminder Mails](#)¹²¹ for a detailed description.

3.2.6 Container Operations

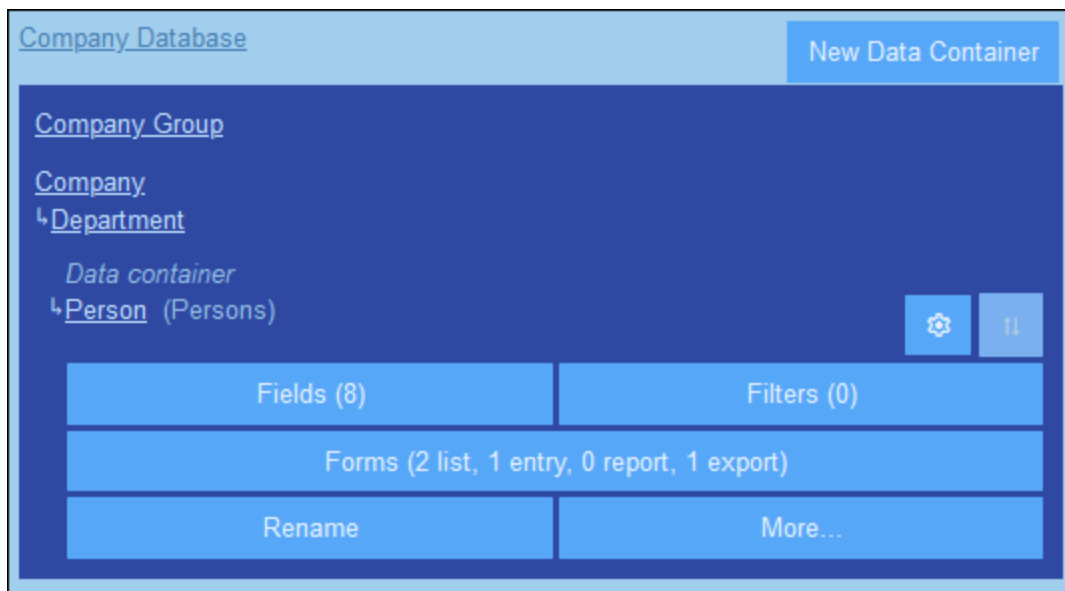
When you expand a container in the [Database Structure tab](#)²⁷ of the Configuration Page (by clicking its name), a number of operations besides configuring the container's fields, filters, and forms becomes available (*see screenshot below*). These operations are available via the **Rename** and **More** buttons, and they are described in the topics of this section: [Rename](#)⁹⁰ and [More Operations](#)⁹¹.



3.2.6.1 Rename

To rename a container, do the following:

1. In the [Database Structure tab](#)²⁷ of the Configuration Page, expand the container by clicking its name (see screenshot below).

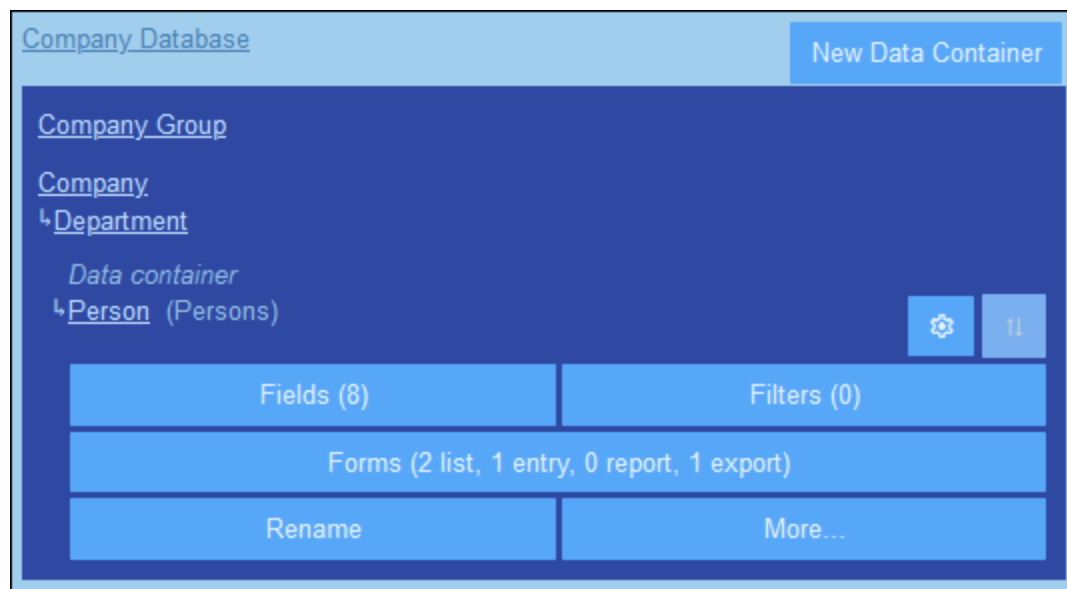


2. Click **Rename**.
3. In the form that appears, enter the new name. Remember to check the plural form for correctness. The plural form appears in text strings of the interface and in reports.

4. Click **Save Changes.** to finish.

3.2.6.2 More Operations

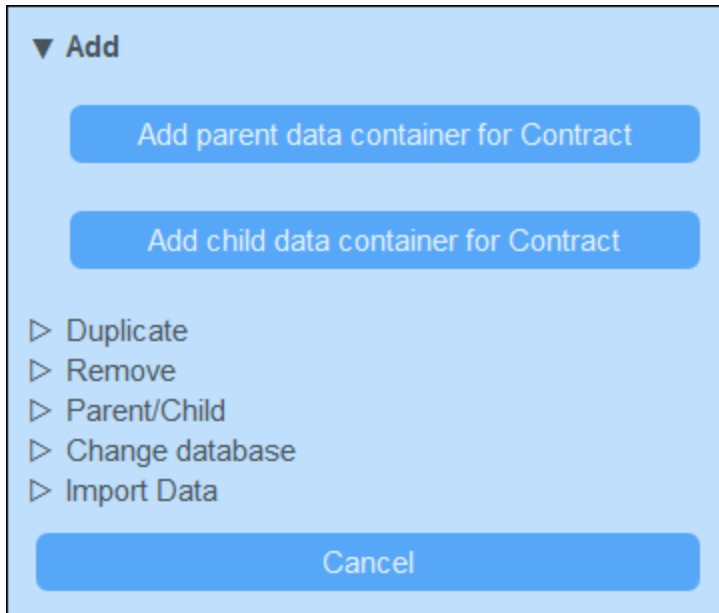
To access the container operations described in this topic, do the following: In the [Database Structure tab](#)²⁷ of the Configuration Page, expand the container by clicking its name (see *screenshot below*).



Then click **More**.

Add (parent/child container to current container)

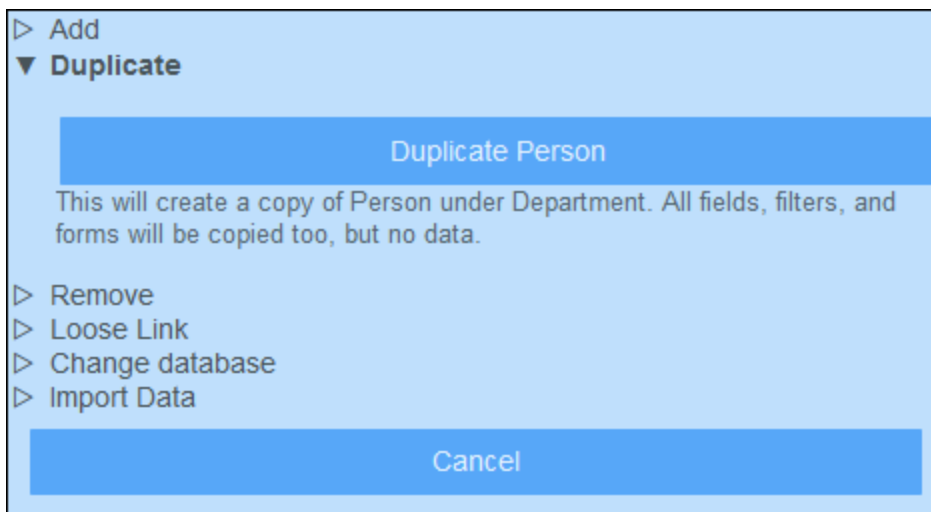
Click **More** (see *first screenshot of this topic*). Depending on the current container, you can add a parent container (with the **Extend Hierarchy** button) and/or a child container (with the **Add Child Data Container** button); see *screenshot below*.



The procedure to create the parent or child container is the same as that for any [new container](#)²⁷.

Duplicate (current container)

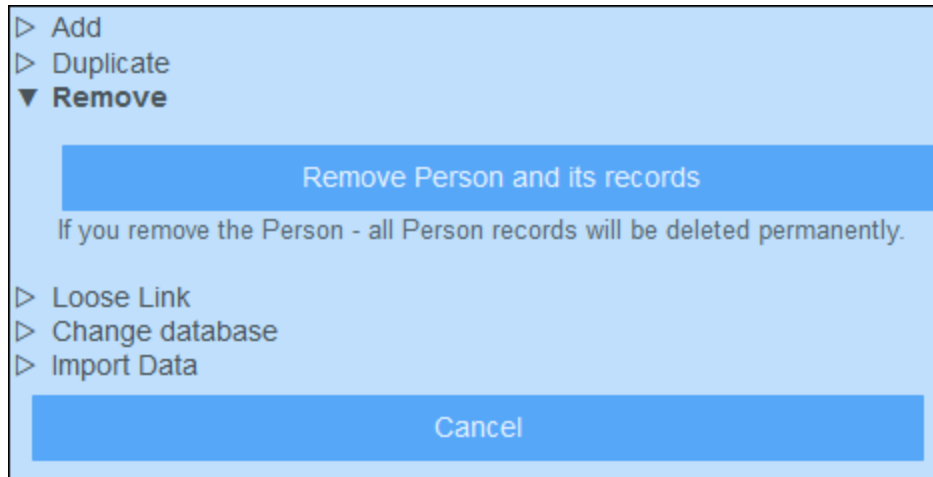
Click **More** (see first screenshot of this topic). The **Duplicate** operation creates a duplicate of the current container with all fields, filters, and forms. The duplicate is created as a sibling of the current container. However, record data will not be copied.



Give the duplicate container a new name and click **Continue**. You can subsequently edit the newly created container in the usual way.

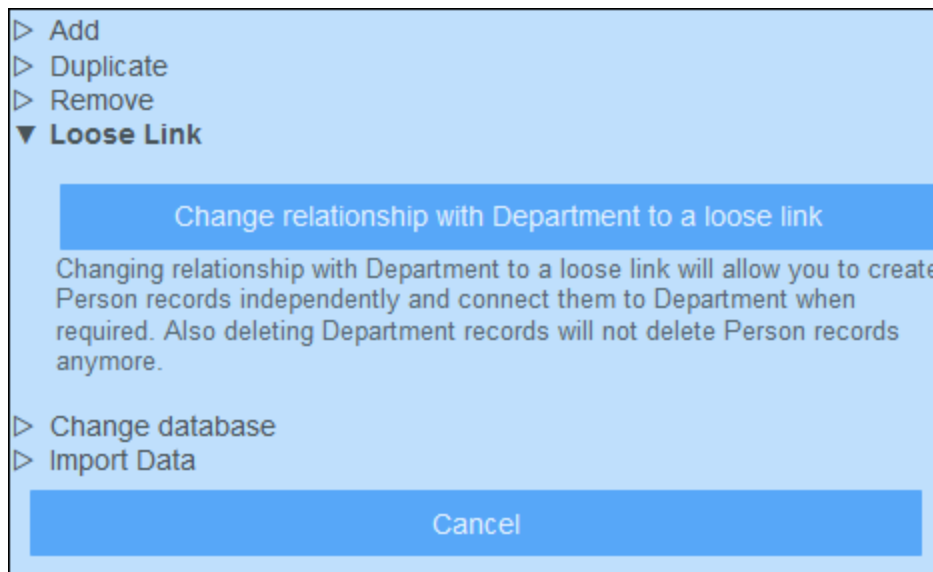
Remove (current container)

Click **More** (see first screenshot of this topic). The **Remove** operation removes the current container and all its records (see screenshot below). If the container contains child containers, these will not be removed, but will be connected to the parent of the current container.



Loose Link

Click **More** (see first screenshot of this topic). The **Loose Link** operation is available for all containers except top-level containers. In these cases, the **Loose Link** operation enables the link to the parent container to be converted to a loose link (see screenshot below). If the relationship is a loose link, records of this container will be created independently of the former parent, and will be linked to the former parent via forms when required.



For more information about hierarchies and links between containers, see the topic [Database Structure](#)²⁵.

Parent/Child

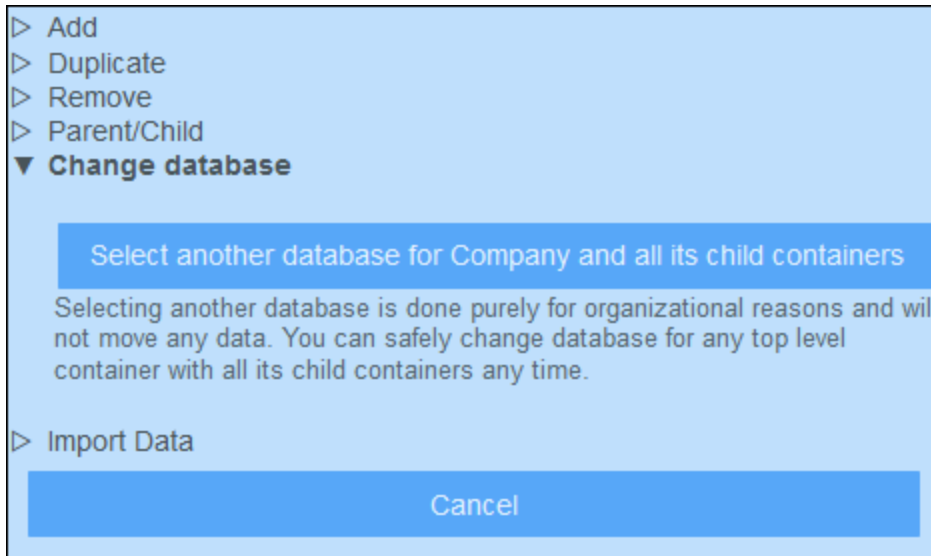
Click **More** (see first screenshot of this topic). The **Parent/Child** operation is available for top-level containers only (see screenshot below). A top-level container can be converted to a child container of another top-level container and moved to the corresponding position in the hierarchy.



For more information about hierarchies and links between containers, see the topic [Database Structure](#)²⁵.

Change Database

Click **More** (see first screenshot of this topic). The **Change Database** operation is available for top-level containers only (see screenshot below). A top-level container and its descendant containers can be organized into another existing database. It will be a sibling of the top-level container/s of the database to which it is moved.

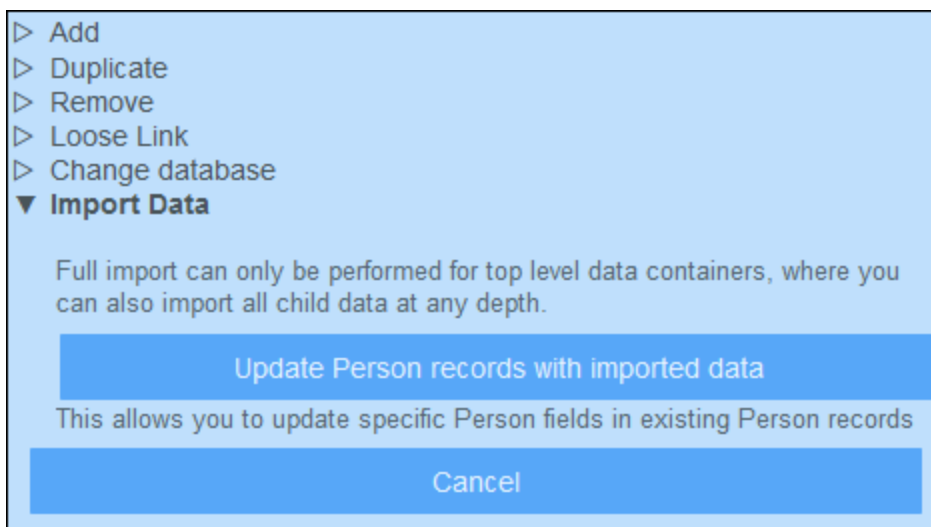


For more information about hierarchies and links between containers, see the topic [Database Structure](#)²⁵.

Import Data

Click **More** (see first screenshot of this topic). The **Import Data** operation enables you to import data from an XML file that has a structure corresponding to that of the current container's hierarchy. Two types of import are possible:

- Import the records of a top-level container, including records of its descendant containers. Click *Import <Container> and child records* to do this.
- Update selected fields of the records of any container. The records to update are selected on the basis of the field/s you select as the key field/s. Click *Update <Container> records with imported data* to do this.



Import records of top-level container

After you create a container, you can import its records and the records of descendant containers from an XML file. The XML file must have a structure that matches the structure of the container and its descendants. After you click *Import <Container> and child records*, generate an XML Schema that defines the structure of the XML file by clicking **Save XML Schema**. The schema file will be downloaded to the *Downloads* folder of your client device.

Note the following points about the import:

- If a field has been defined as a required field of a container, then the element corresponding to this field must be present in the XML file. Otherwise, the import will fail.
- If a field has been defined as a optional field of the container, then the element corresponding to it is optional in the XML file as well.
- Child elements are optional. This means that you can import a top-level container only, or the top-level container plus descendant containers down to any desired depth.
- Date, time, and number fields must be in ISO format (respectively: 2020-12-31, 18:25:26, and 1234.56).
- File fields are imported from an element named `<Files FileName="" />`, and element content must be base64-encoded. The `FileName` attribute is optional.
- Image fields are imported from an element named `<Images FileName="" />`, and element content must be base64-encoded. The `FileName` attribute is optional.
- Reminder fields cannot be imported.
- Link-to fields are imported from an element named `<Link-to />`. It must contain the identity value of the referenced record. For example, if the record of a certain contract links to a department's *Name* field, then the XML file could have: `<Link-to>Accounts</Link-to>` in order to link this contract to the *Accounts* department.

Update records of a container

The records of a container can be updated with data from an XML file. The XML file must have a root element named `root` that has child elements corresponding to the records of the container. For example, a database container named *Person* would have multiple *Person* records. The data in these records can be updated with data in an XML file that has a structure something like this. The child elements of the `Person` element in the XML file must correspond to the fields of the *Person* container.

```
<Root>
  <Person>
    <Department>Sales</Department>
    <First>Jim</First>
    <Last>Gridely</Last>
    <Title>Executive</Title>
    <Phone>123456789</Phone>
    <Email>legal.01@redmaple.com</Email>
  </Person>
  ...
  <Person>
    <Department>Accounts</Department>
    <First>Jane</First>
    <Last>Locke</Last>
    <Title>Manager</Title>
    <Phone>123789777</Phone>
    <Email>accounts.04@altova.com</Email>
  </Person>
```

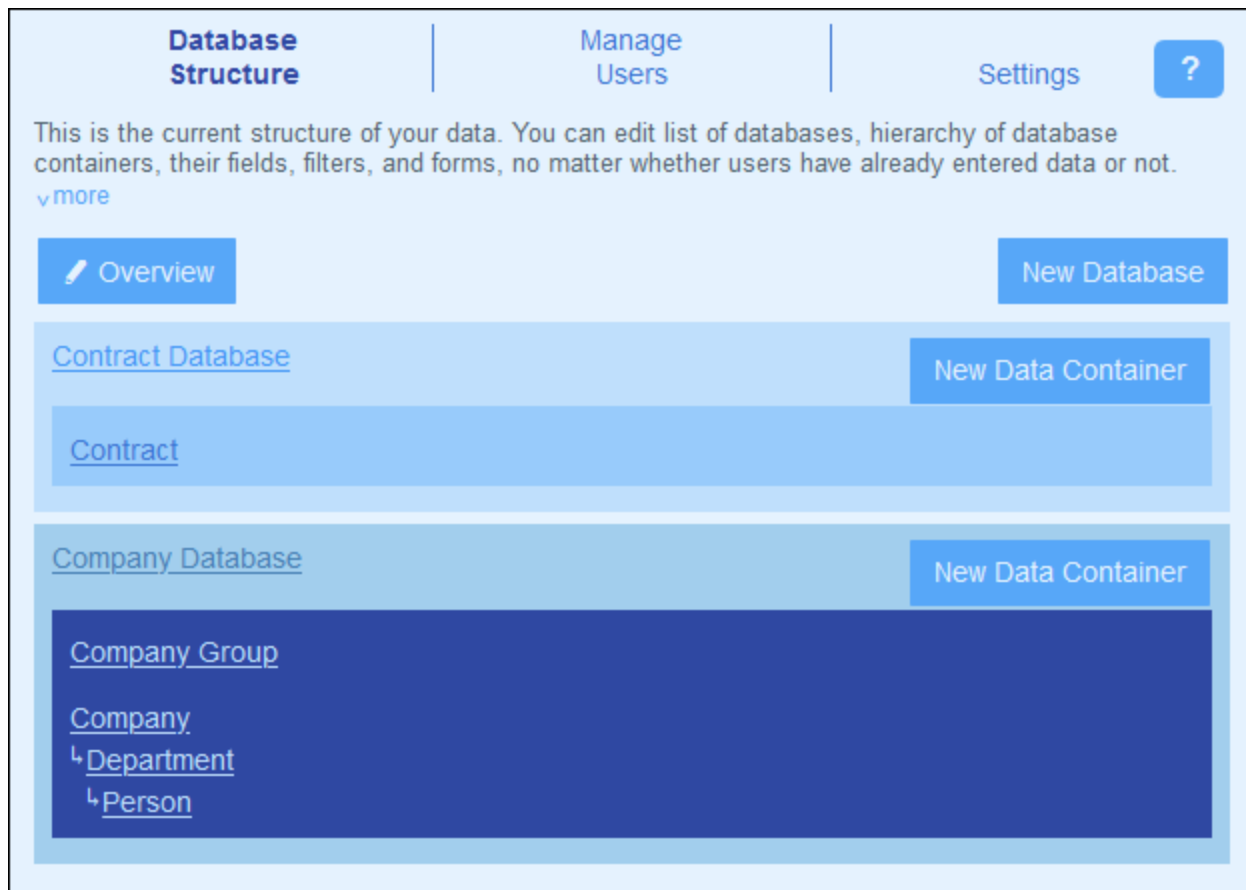

</Root>

The data from the XML file that will be used for the update is selected in two steps:

1. Select the field/s of the record that will be used to uniquely identify the record in the XML file. You can choose any number of fields (from one field to all fields).
2. Select the fields of the record that you want to update. The field/s that were selected as the identifier field/s will not be changed. The data in fields that have not been selected for update can be either (i) kept unchanged, or (ii) removed.

3.2.7 Overview Form

On the Database Structure page (*screenshot below*), click the **Overview** button to go to the Overview Form, where you can design the Start Page of your app.



Designing in the Overview Form

The page that you design in the Overview Form will be the page that users of the app will see when they start the app (its Start Page). This page must provide a well-designed entry point for viewing, editing, and otherwise

processing records. Typically it would provide access to the app's containers. Due reminders will be added automatically to the Start Page below the table that makes up the Overview Form. So you do not have to include a template for due reminders in the Overview Form

The Overview Form is essentially one table, which we call the Overview Form Table. You can add/delete rows or columns to this table. Inside each table cell, you can add a container, text, an image, or another table. It is in this way that the design of the Start Page is built up inside the Overview Form Table. The screenshot below shows the Overview Form of the Altova ContractManager app. The Overview Form Table contains two rows, each of which contains a table. All three tables are indicated by table icons, which are located above right of each table.

Overview is a starting page for users where they can see and open data containers

Use auto-generated overview page
 Manual design

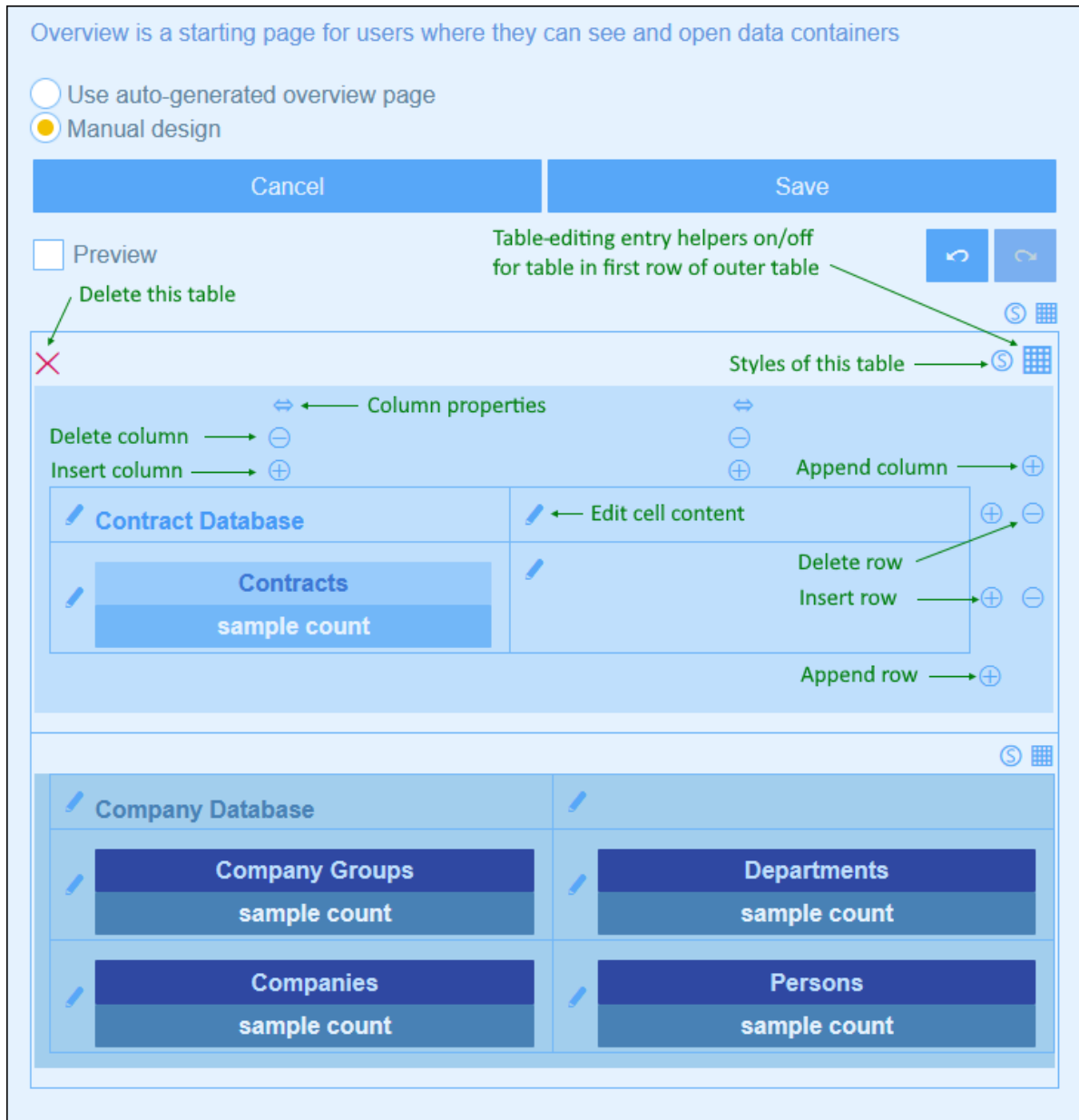
Preview

<input type="button" value="⌘"/> <input type="button" value="⌘"/>									
<input type="button" value="✎"/> Contract Database	<input type="button" value="✎"/>								
<input type="button" value="✎"/> <table border="1"> <tr> <td>Contracts</td> <td><input type="button" value="✎"/></td> </tr> <tr> <td>sample count</td> <td></td> </tr> </table>	Contracts	<input type="button" value="✎"/>	sample count						
Contracts	<input type="button" value="✎"/>								
sample count									
<input type="button" value="⌘"/> <input type="button" value="⌘"/>									
<input type="button" value="✎"/> Company Database									
<input type="button" value="✎"/> <table border="1"> <tr> <td>Company Groups</td> <td><input type="button" value="✎"/></td> </tr> <tr> <td>sample count</td> <td></td> </tr> </table>	Company Groups	<input type="button" value="✎"/>	sample count		<input type="button" value="✎"/> <table border="1"> <tr> <td>Departments</td> <td><input type="button" value="✎"/></td> </tr> <tr> <td>sample count</td> <td></td> </tr> </table>	Departments	<input type="button" value="✎"/>	sample count	
Company Groups	<input type="button" value="✎"/>								
sample count									
Departments	<input type="button" value="✎"/>								
sample count									
<input type="button" value="✎"/> <table border="1"> <tr> <td>Companies</td> <td><input type="button" value="✎"/></td> </tr> <tr> <td>sample count</td> <td></td> </tr> </table>	Companies	<input type="button" value="✎"/>	sample count		<input type="button" value="✎"/> <table border="1"> <tr> <td>Persons</td> <td><input type="button" value="✎"/></td> </tr> <tr> <td>sample count</td> <td></td> </tr> </table>	Persons	<input type="button" value="✎"/>	sample count	
Companies	<input type="button" value="✎"/>								
sample count									
Persons	<input type="button" value="✎"/>								
sample count									

You can choose to auto-generate the Start Page by selecting the *Auto-generate* radio button near the top of the page. In that case, the Start Page is automatically generated on the basis of the database structure. To design a custom page, select the *Manual design* radio button.

To manually design the Start Page, do the following:

1. Click the *Table-editing entry helpers* icon at top right of the table you want to edit (see *screenshot below*). This causes the table editing icons to appear. In the screenshot below, the table-editing icons of the table inside the first row have been switched on. This is done by clicking the table icon. To switch off the table-editing icons, click the table icon again. Callouts in the screenshot indicate the functions of the table-editing icons.

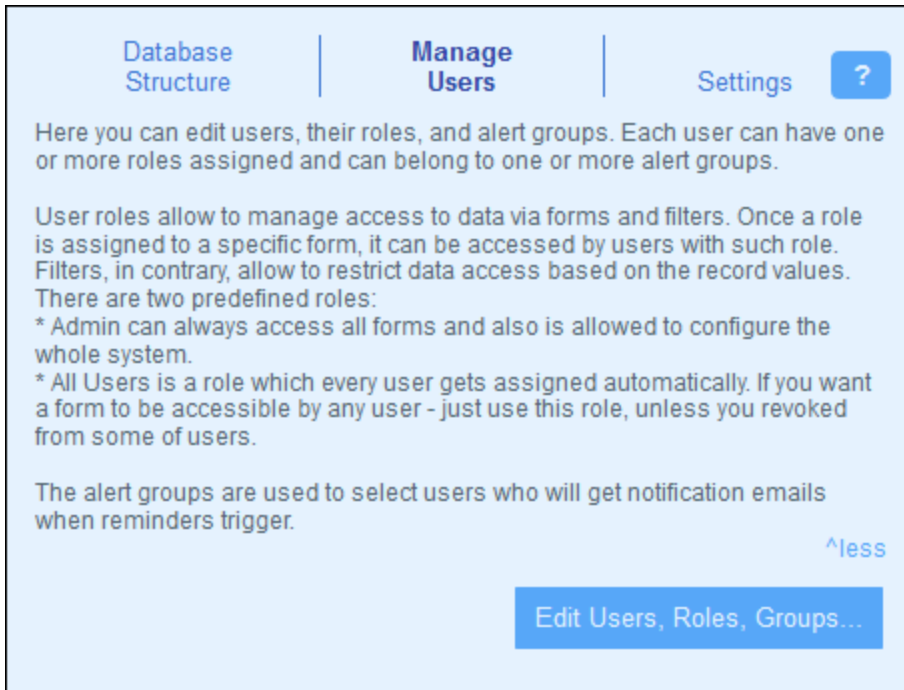


2. Structure the table as you want. You can insert and append columns and rows, as well as delete individual columns and rows. You can also insert sub-tables inside a cell by clicking the cell's *Edit content* icon, then going to the Table tab and defining the table to insert.
3. Set styles for each table as you want. Note that images can also be added to cells.
4. When you have finished, click **Save**.

3.3 Manage Users

The **Manage Users** tab of the Configuration Page (*screenshot below*) is the entry point for defining users, roles, and Alert Groups.

To access these settings, click **Edit Users, Roles, Groups** at the bottom of the **Manage Users** page.



This section is organized into the following topics:

- [Users](#)¹⁰¹, which describes creation of users and how to give them roles
- [Roles](#)¹⁰⁴, which describes how roles are created and assigned
- [Alert Groups](#)¹⁰⁹, which describes how to specify members of Alert Groups (for [reminder mails](#)¹²¹)

3.3.1 Users

A user of the system is defined with the following properties:

- *Login*: A login name, which is used for login and to identify a user within the system
- *Name*: The user name, which will appear in the system; for example, in lists that show the access rights of a [form](#)⁴⁸
- *Email*: The email address at which a user may be contacted and receive information; for example, for [reminder emails](#)¹²¹ about action to be taken
- *Password*: A password is required for a user to log in to the system. A password is assigned to a user by a system administrator when they create the user. The user may change the password on first login. An administrator can change a user's password at any later time (and can let the user change the password on first login with the new password).

A user can be [given one or more roles](#)¹⁰⁴ and [added to an alert group](#)¹⁰⁹. You can edit a user's properties at any time.

The roles that are available in ContractManager fall into three categories:

- *Admin:* Users with this role can: (i) modify the ContractManager system's users and roles; (ii) configure the ContractManager database and its components; (iii) modify settings; (iv) configure reminder mails; (v) enter and edit data in the system's database. In short, this role provides a user with all available ContractManager functionality.
- *All Users:* Users with this role can only enter and edit data in the ContractManager database. They do not have access to admin tasks. This role is given to all users by default.
- *Custom Roles:* ContractManager administrators can define custom roles that can be assigned to users. These roles provide additional access or can restrict access to different containers and different functions within containers. A user can be associated with one or more roles, and would then be authorized to carry out the functions corresponding to those roles.

How to create users and edit their properties is described below. [Roles](#)¹⁰⁴ are described in the [next topic](#)¹⁰⁴.

The Users tab

The *Users* tab (accessed via the [Manage Users tab of the Configuration Page](#)¹⁰¹) shows a list of active users and deactivated users (*screenshot below*). Note that users cannot be deleted; they can only be deactivated.

Users	Roles	Alert Groups
Important: a user, once added, cannot be deleted, but can be disabled from future logins		
New User...		
Active users:		
morpheus	Morpheus morpheus@nanonull.com Admin, Executive, All Users	
neo	Neo neo@nanonull.com Legal, All Users	
root	System Administrator Admin, All Users	
trinity	Trinity trinity@nanonull.com Sales, All Users	
Deactivated users:		
Cancel		Save all

To create a new user, click **New User**. To view or edit user information (of active users or deactivated users), click that user's name.

After creating a new user or editing an existing user, click **Save All** to save the modifications (or click **Cancel** to discard the modifications and return to the [Configuration Page](#)¹⁰¹).

Creating, editing user properties is enabled only for on-site installations, not for cloud users

If you are configuring ContractManager on the Altova Cloud Portal, then you must create users for the Altova Cloud Portal there. In the Altova Cloud Portal, you can define their properties as well as give them access to your ContractManager app in the cloud.

Although you are not allowed to edit cloud user properties in the *Edit User* form, you can modify their roles.

Create a new user

New users can be created only for ContractManager installations on your own network.

In the *Users* tab (for on-site installations), click **New User**. In the *Edit User* form that appears, enter the user's properties (login, name, email, and password), and give it one or more [roles](#)¹⁰⁴.

Note the following points:

- The property fields are mandatory, and their names stay red till the field has a valid entry.
- After you have defined a new user, you can send the user their login details, including the password for logging in. If you want the user to change their password on first login, check this option in the form.
- You can specify what roles the user has by checking the relevant roles from the list of available roles. For information about creating and managing roles in the [Roles](#)¹⁰⁴ tab, see the [next topic](#)¹⁰⁴.
- Click **Access Overview** to see a list of all the forms and records to which the user has access and the type of access that is allowed in each case. The access is determined automatically according to the [roles](#)¹⁰⁴ assigned to the user.
- After you have entered user properties and assigned roles for the user, click **OK** to finish. This takes you back to the *Users* tab. Go to the bottom of the tab, and click **Save All** to save the user information to the database.

Edit user information, and deactivate/activate users

To edit the properties of a user (including deactivating/activating that user), click the user name in the *Users* tab (see [The Users tab](#)¹⁰² above). This brings up the *Edit User* form. Make the changes you want. To deactivate/activate the user, check/uncheck the *Disable user* option. Note that you can change a user's password at any time (and, if wanted, let the user change the password on first login).

When you have completed your changes, click **OK**. On returning to the *Users* tab, click **Save All** to save the changes to the database.

Note: For ContractManager apps on the cloud, user properties must be defined and modified in the Altova Cloud Portal.

3.3.2 Roles

A role defines a set of access and editing rights that can be assigned to a user. Typically, a role will have the access rights associated with a particular function. For example, a finance role would be granted access to all finance-related forms and data. A user who is given such a finance role would have all the access rights granted to the role. A user can be assigned any number of roles, and would have the access rights of all the assigned roles.

Working with the roles mechanism would involve the following:

- Create the roles you want
- Assign users to each role. This can be done: (i) via each role's *Users* tab (see below), or (ii) via a user's [Edit User](#)¹⁰¹ tab.
- Assign access rights to each role for forms and data. This can be done (i) via each role's *Forms* and *Data Access* tabs (see below), or (ii) via the respective *form configurations*.

Note: In addition to the central function of roles described above, roles are also used in [Alert Groups](#)¹⁰⁹.

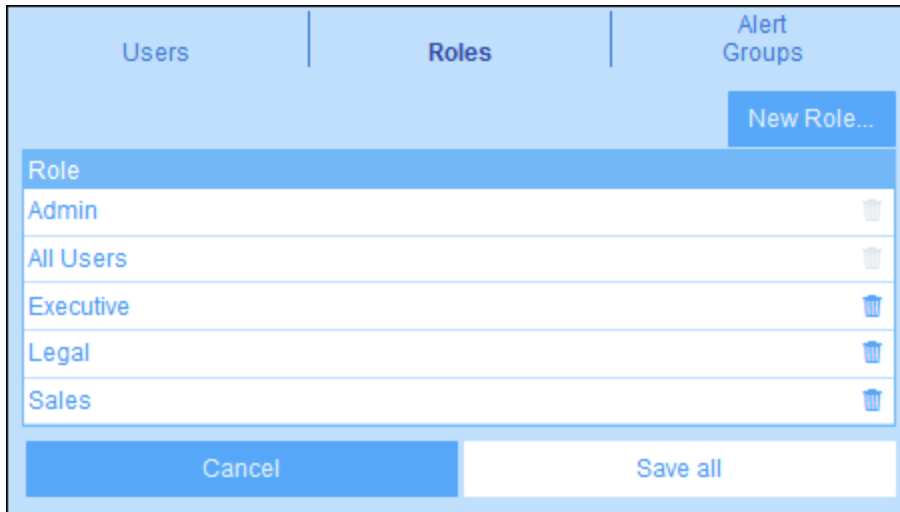
Two roles are predefined:

Admin	Admin has access to the entire system. It can both configure the system as well as enter data. This role cannot be deleted.
All Users	All Users is assigned to all users automatically. You can edit the role's access rights. A user would receive additional rights if the user were given an additional role and this role had more rights than the All Users role. This role cannot be deleted.

This topic describes how to create and edit a role, how to assign roles to users, and how to define the access rights of a role.

The Roles tab

The *Roles* tab (accessed via the [Manage Users tab of the Configuration Page](#)¹⁰¹) shows a list of the current roles (screenshot below).

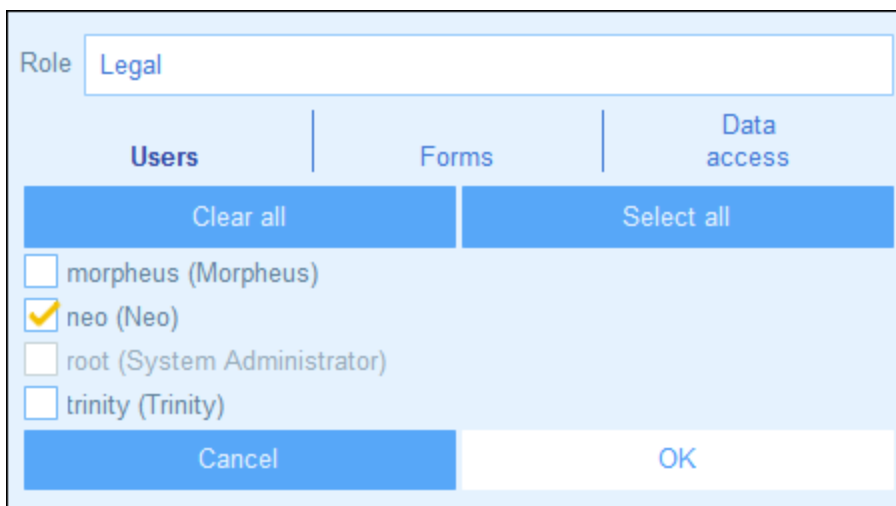


To create a new role, click **New Role**. To view or edit an existing role, click that role. To delete a role, click its **Bin** icon. Note that the predefined *Admin* and *All Users* roles cannot be deleted (see *screenshot*).

After creating a new role or editing an existing role, click **Save All** to save the modifications (or **Cancel** to discard the modifications and return to the [Configuration Page](#)¹⁰¹).

Create and edit a role, and assign a role to users

In the *Roles* tab (screenshot above), click **New Role**. In the form that appears (screenshot below), enter a name for the new role, assign the role to any of the current users (see *screenshot*), [define the role's access rights](#)¹⁰⁶, and then click **OK** to finish. [Access rights](#)¹⁰⁶ are defined in the [Forms tab and Data Access tab](#)¹⁰⁶.



Note the following points:

- The same form is displayed if you click an existing role in the *Roles* tab. This enables you to edit the role (its name, users, forms, and data access) at any later time.

- To assign a role to any of the current users, check the respective user/s. You can use the **Clear All** and **Select All** buttons for faster selection of users. Note that you can also assign roles to individual users via [each user's properties](#) ¹⁰³.
- After you have edited a role's properties, click **OK** to finish. This takes you back to the *Roles* tab. Go to the bottom of the tab, and click **Save All** to save the user information to the database.

Define the access rights of a role

The access rights to forms and data of a role are defined in the role's *Forms* tab (*screenshot below left*) and *Data Access* tab (*screenshot below right*).

Role

Users	Forms	Data access
Contracts		
List Forms		
	Contracts alphabetically	<input checked="" type="checkbox"/> Allow
	Contracts by Category	<input checked="" type="checkbox"/> Allow
	Contracts by Company	<input checked="" type="checkbox"/> Allow
	Contracts by Status	<input checked="" type="checkbox"/> Allow
	Contracts by Status & Category	<input checked="" type="checkbox"/> Allow
	Contracts by Status & Company	<input checked="" type="checkbox"/> Allow
	New contracts with effective dates < 1 months ago	<input checked="" type="checkbox"/> Allow
Entry Forms		
	Legal Entry Form	<input checked="" type="checkbox"/> Full <input type="checkbox"/> Read-only
	Paralegal Entry Form	<input checked="" type="checkbox"/> Full <input type="checkbox"/> Read-only
Report Forms		
	By category	<input checked="" type="checkbox"/> Allow
	Contract Dollar Amount Report	<input checked="" type="checkbox"/> Allow
Export Forms		
	Standard export form	<input checked="" type="checkbox"/> Allow
	Whole DB	<input checked="" type="checkbox"/> Allow
Company Groups		
List Forms		
	Standard list form	<input checked="" type="checkbox"/> Allow
Entry Forms		
	Standard entry form	<input checked="" type="checkbox"/> Full <input type="checkbox"/> Read-only
Export Forms		
	Standard export form	<input checked="" type="checkbox"/> Allow
	Whole DB	<input checked="" type="checkbox"/> Allow

Role

Users | Forms | **Data access**

Contracts

<

<

Company Groups

<

<

please define filters to restrict view or edit

Companies

<

<

please define filters to restrict view or edit

Departments

<

<

please define filters to restrict view or edit

Persons

<

<

please define filters to restrict view or edit

In each of these tabs, forms and data containers, respectively are ordered by the containers of the app. In the case of forms, you can select the items to access. In the case of data access to containers, data access for the role is granted via filters, so you must previously have [defined filters on the containers](#)³⁸.

Note that a role's access to a form can also be specified in the [properties of individual forms](#)⁴⁸; changes that are made there and saved in the form will be reflected in the *Forms* tab (screenshot below left).

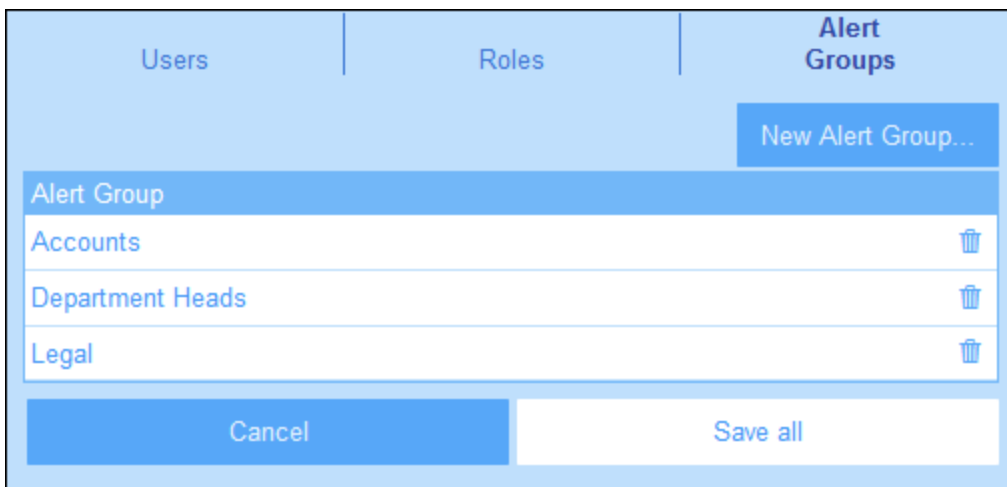
3.3.3 Alert Groups

An Alert Group defines a group of users. Any number of Alert Groups can be defined. Reminder emails concerning a particular contract can then be sent to all members of one or more Alert Groups.

This topic describes how to create Alert Groups. For information about how to send reminder email notifications, see the section [Reminder Mails](#)¹²¹.

The Alert Groups tab

The *Alert Groups* tab (accessed via the [Manage Users tab of the Configuration Page](#)¹⁰¹) shows a list of the current Alert Groups (*screenshot below*).



To create a new Alert Group, click **New Alert Group**. To view or edit an existing Alert Group, click that Alert Group. To delete an Alert Group, click its **Bin** icon. After creating a new Alert Group or editing an existing Alert Group, click **Save All** to save the modifications (or click **Cancel** to discard the modifications and return to the [Configuration Page](#)¹⁰¹).

Adding roles/users to Alert Groups

The form to define an Alert Group is shown with different options in the screenshots below. It appears when you click **New Alert Group** (to create a new Alert Group) or an existing Alert Group (to edit the group).

Alert Group Alerts Legal & Executives

Allow users to opt-in/-out from this group

Roles

- Admin
- All Users
- Legal
- Executive
- Sales

Users

- morpheus (Morpheus)
- neo (Neo)
- (neo user)
- root (System Administrator)
- trinity (Trinity)

Cancel OK

Alert Group

Allow users to opt-in/-out from this group

Roles

Admin

All Users

Legal

Executive

Sales

Users

morpheus (Morpheus)

neo (Neo)

root (System Administrator)

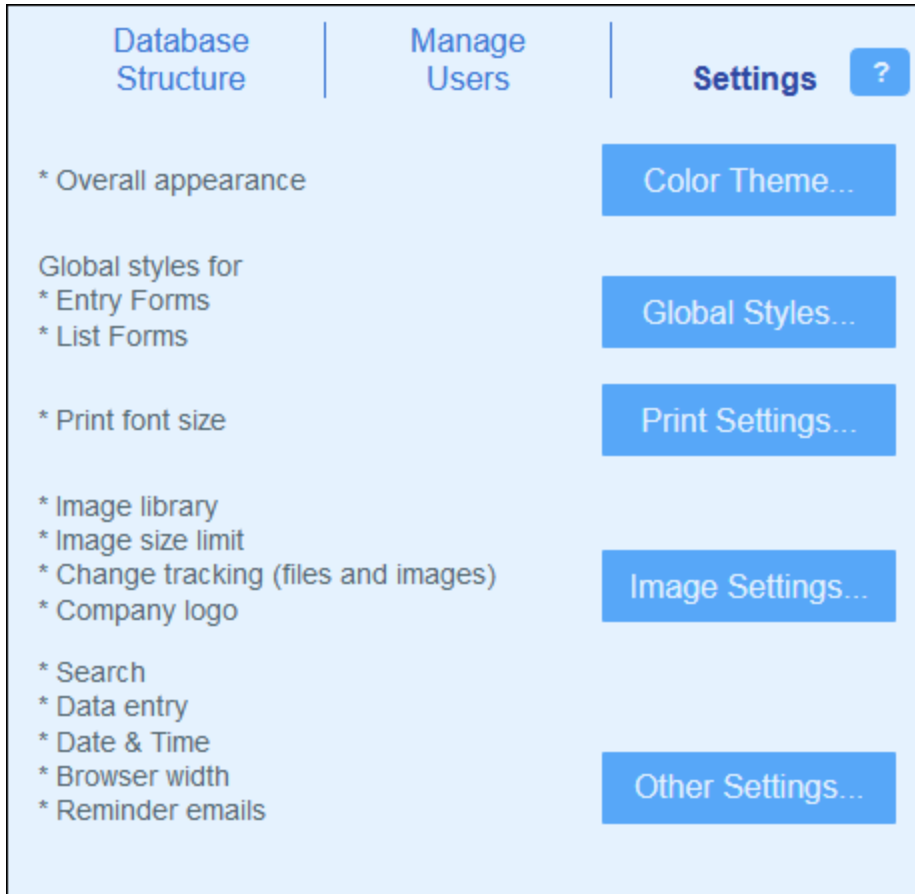
trinity (Trinity)

The following points explain how to define an Alert Group:

- The name of an Alert Group can be edited at any time.
- If you assign a role to the group, then all the users that are associated with this role automatically become members of the group. Individual users can be added to the group (on top of the users selected by role). In the screenshot at top left above, for example, the user named *Trinity* has been added to the set of users selected via the *Legal* and *Executive* roles.
- Instead of adding users via roles, you can add users directly to the group as has been done in the screenshot at top right above.
- Individual users can be allowed to opt out of or in to a group. If this option (located at the top of the form; see screenshots above) is selected, then individual users of the group can themselves choose, during data entry, to exit the group. They can return to the group at a later time. How to do this is described in the section [System Use: Reminders](#)¹⁵². Note that this option is not available if the group definition includes a role.

3.4 Settings

The **Settings** tab of the Configuration Page (*screenshot below*) is the entry point for defining various system settings. Click the relevant button to access the respective settings.



The available settings are organized into the following groups:

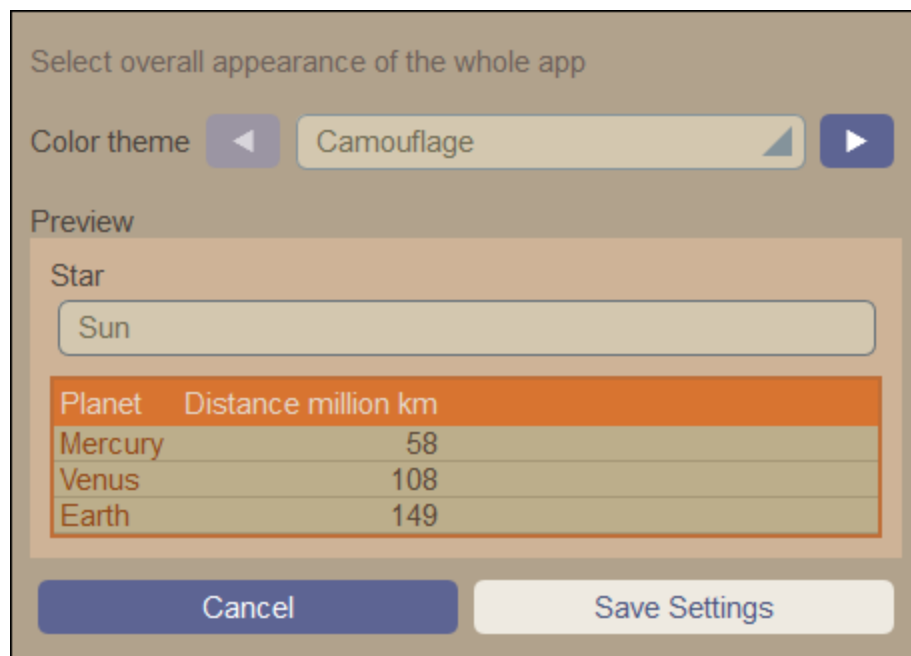
- [Color Theme](#) ¹¹²
- [Global Styles](#) ¹¹⁷
- [Print Settings](#) ¹¹⁸
- [Image Settings](#) ¹¹⁸
- [Other Settings](#) ¹¹⁹

3.4.1 Color Theme

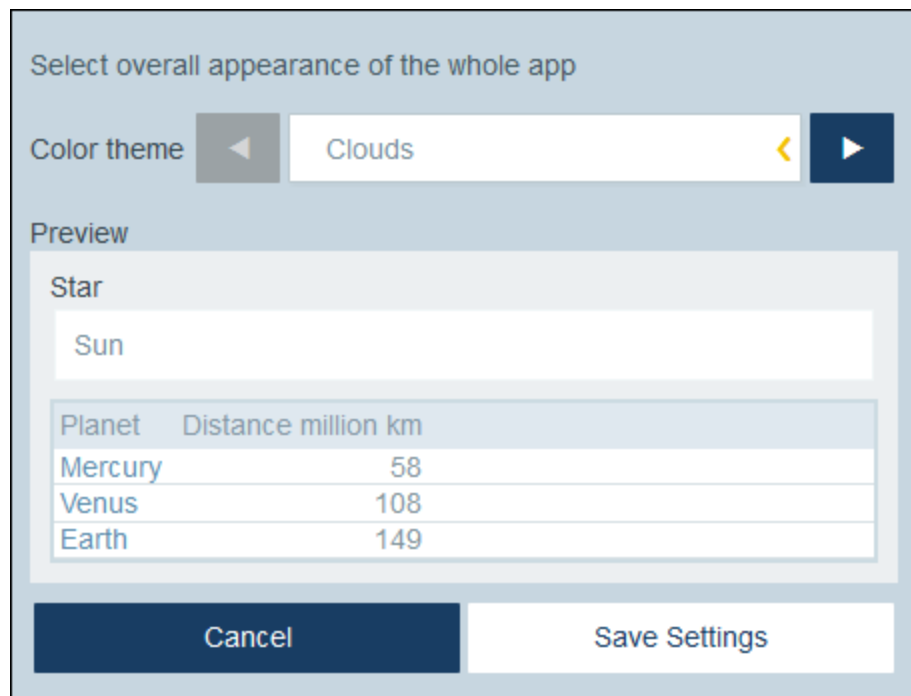
In the *Color Theme* combo box (*see screenshots below*), select the theme you want to set as the default color theme of ContractManager. A preview of the selected theme will be shown in the *Preview* pane.

The screenshots below show the available color themes.

Camouflage



Clouds



Desert

Select overall appearance of the whole app

Color theme ◀ Desert ▶

Preview

Star

Sun

Planet	Distance million km
Mercury	58
Venus	108
Earth	149

Cancel Save Settings

Forest

Select overall appearance of the whole app

Color theme ◀ Forest ▶

Preview

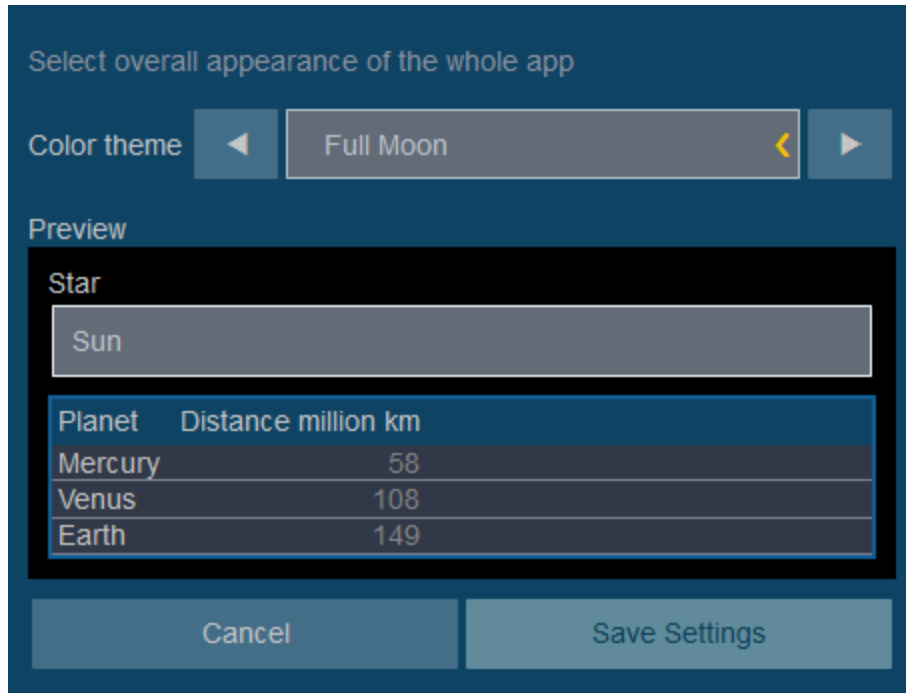
Star

Sun

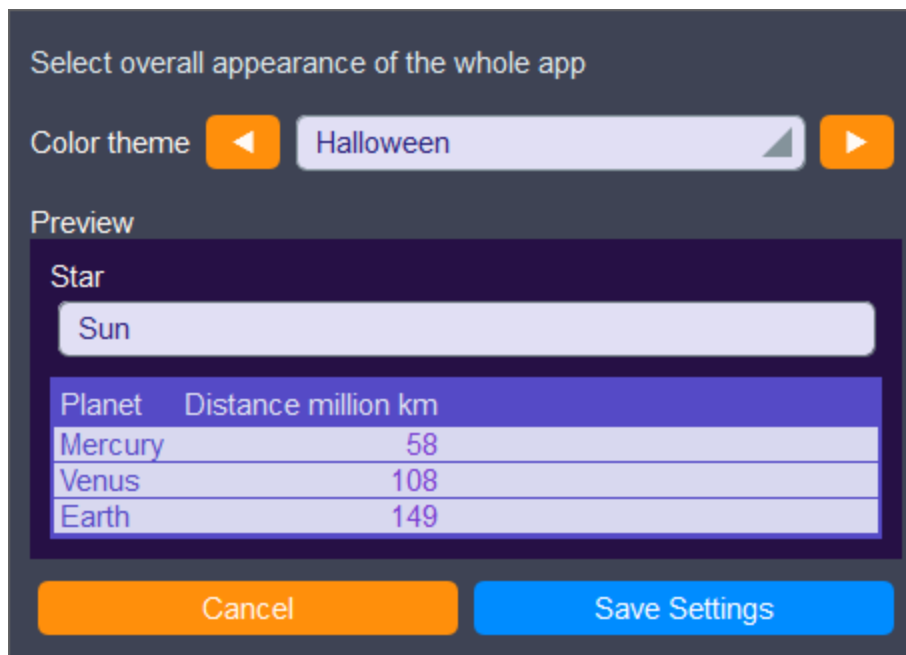
Planet	Distance million km
Mercury	58
Venus	108
Earth	149

Cancel Save Settings

Full Moon



Halloween



Ocean

Select overall appearance of the whole app

Color theme ◀ Ocean >

Preview

Star

Sun

Planet	Distance million km
Mercury	58
Venus	108
Earth	149

Cancel Save Settings

Polar Night

Select overall appearance of the whole app

Color theme ◀ Polar Night >

Preview

Star

Sun

Planet	Distance million km
Mercury	58
Venus	108
Earth	149

Cancel Save Settings

3.4.2 Global Styles

Global Styles (*screenshot below*) provide a base set of styles for data entry forms. This set of styles can be modified locally on [individual forms](#)⁴⁸, either for the whole form or for individual tables within the form.

Edit here styles, which apply to all forms automatically. You can overwrite these styles in specific forms or their parts.

[Reset to default](#)

Labels

size

bold place

italic text

Values

size

bold align

italic

Entry Forms | **List Forms**

Preview

Label

Sample

[Cancel](#) [Save Settings](#)

The following global styles can be set for [Entry Forms](#)⁵⁹, [List Forms](#)⁵⁰ and [Report Forms](#)⁷⁴. The styles for labels and values apply to all three types of forms.

- *Label*: Properties apply to the text formatting and position of label text within a table cell of the form. After editing a style, you can check the effect in the preview at the bottom of the form.
- *Values*: Properties apply to the text values of fields within a table cell of the form. Changes are reflected in the preview at the bottom of the form.

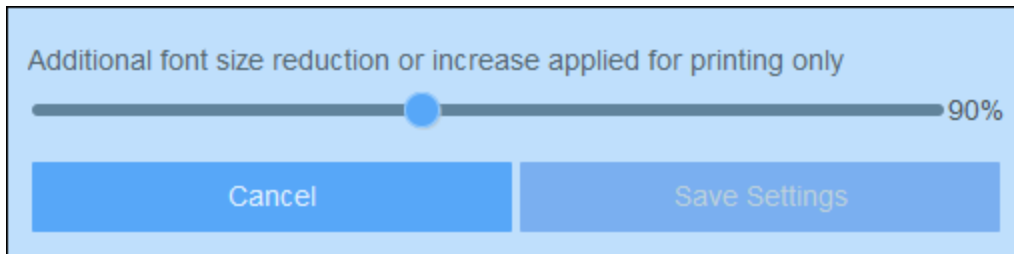
The preview changes as you edit. It shows the styles of the currently selected tab (entry form or list form).

You can go back to the default settings by clicking **Reset to Default**.

Click **Save Settings** to finalize your changes.

3.4.3 Print Settings

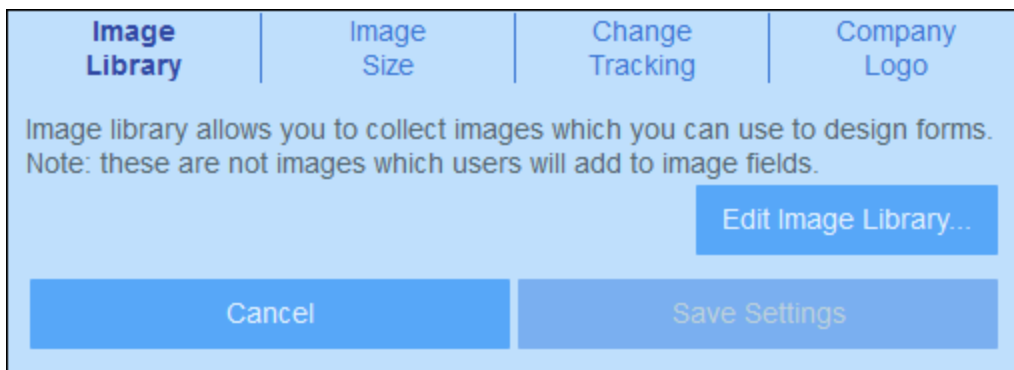
Print Settings (*screenshot below*) enable you to set the size of text in the printed reports of the solution. Screen text size is not affected.



Click **Save Settings** for your changes to take effect.

3.4.4 Image Settings

Image Settings (*screenshot below*) enable you to organize your images and to set the properties of images that you use in [forms](#)⁴⁸.



The available image settings are:

- *Image Library*: Click **Edit Image Library** to go to the library of images that are used for designing forms. Here you can add new images to the library and edit design-related properties of the image, such as image size and alignment. The properties you set for an image will apply to all usages of that image.
- *Image Size*: Sets the maximum size of images when these are imported into the library. The size limit applies to new imports only.

- *Change Tracking*: This setting applies not only to images but to files as well. If the tracking of changes is enabled, then the effect is as follows. For images, those images used in the past will be tracked and will be available for use. For files, not only will past files be available, but previous states of edited files will also be available.
- *Company Logo*: Select the image from the Image Library that you want to set as the company logo. This image will appear on all pages of the ContractManager app.

Click **Save Settings** when done.

3.4.5 Other Settings

The Other Settings tab (*screenshot below*) provides access to a number of miscellaneous settings, which are described below.

To change one of these settings, click its tab (*see screenshot above*).

- *Search*: Select whether searches are performed on the fields currently in *memory* (of the client device) or on all fields in the *database*. Memory searches are faster but are limited to the fields currently loaded in memory. Database searches are more extensive but slower (the slowness is because the look-up is done on the database; the search itself is limited to the fields being used currently in forms).
- *Data Entry*: If a [filter](#)³⁸ restricts a user's access to data the user has entered, then this setting determines whether to prevent the saving of this data or to allow saving after warning the user.
- *Date & Time*: These are global settings for all date and time fields (*see screenshot above*): (i) Date format for date fields; (ii) Date-editing buttons to include for date fields; (iii) Time format for time fields.
- *Browser Width*: Sets the maximum width of forms when these are shown in browsers. This serves to stop the width expanding to the entire width of very wide browser windows.
- *Reminder Emails*: Specifies (i) the URL of the ContractManager app as a link in reminder emails, and (ii) the email address that will appear in the email's *Sender* field.

Click **Save Settings** for your changes to take effect. The button is enabled after any of the settings above is edited. A single save applies to edits across all settings.

3.5 Reminder Emails

Reminder emails are an important feature of ContractManager. They can be sent automatically to the concerned people when events related to contracts (such as verification, renewal, or cancellation) become due.

The mechanism for setting up reminder emails is as follows:

1. In the [Alert Groups](#)¹⁰⁹ tab, set up alert groups on the basis of roles and/or users. Members of an alert group will be the recipients of reminder mails sent to the group. See the topic [Alert Groups](#)¹⁰⁹ for information about this.
2. In the containers where reminders are required, [set up one or more Reminder fields](#)³⁴. These fields enable reminders and contain the container's reminder settings.
3. An administrator can specify that one or more reminders be automatically added to every new record created in that container. A user can subsequently [modify the automatically added reminders](#)¹⁵².
4. Within a container, create an [email form](#)¹²¹ for the design of the reminder mails that will be sent. If you create more than one email form, go to the [Edit Forms page](#)⁴⁸ to choose which one you want to use at any given time.
5. In a [reminder's settings](#)¹²³, set the recipients of that specific reminder.
6. Set the app's URL and the email sender's email address ([see here](#)¹²³).
7. During data entry, a user can modify reminder settings and manage reminders. See [User Actions \(User\)](#)¹²⁷.

3.5.1 Configuration (Admin)

To set up reminder emails, the administrator must configure the database and system as follows:

1. In the [Alert Groups](#)¹⁰⁹ tab (of [Manage Users](#)¹⁰¹), set up alert groups. Members of an alert group will be the recipients of reminder mails sent to the group. See the topic [Alert Groups](#)¹⁰⁹ for information about this.
2. In the containers where reminder mails are required, [set up one or more reminder fields](#)³⁴. Two important properties of reminder fields are the *Categories* and *Auto-fill* properties. See *Reminder fields* below.
3. Within a container, create an [email form](#)⁸⁷ for the design of the reminder mails that will be sent. If you create more than one email form, go to the [Edit Forms page](#)⁴⁸ to choose which one you want to use at any given time. You can change your selection at any time.
4. In a [reminder's settings](#)¹²³, set the recipients of that specific reminder. To access a reminder's settings, click the reminder's **Edit** button (see *Reminder fields* below).
5. Set the app's URL and the email sender's email address ([see below](#)¹²³).

Reminder fields

When [defining the fields of a container](#)³³, you can add a reminder field to enable reminders and reminder emails. If no reminder field has been created for a container, then it is not possible to set up reminders for that container.

Note the following points about reminder fields:

- To add a reminder field, [add a new field](#)³³ and set its type to *Reminders*. The Reminder field's properties form will look something like in the screenshot below.

Edit Contract field

Name

Type reminders

Categories "Renewal", "Cancellation", "Verification"

Editing Not required or read-only

Hint

Auto-fill

Cancellation on Dec 31, 2020

Renewal 6 weeks before Expiry Date only when Has Expiry Date

Validate no rules defined yet

- A reminder field must have at least one *Categories* value (see screenshot below). The category specifies what kind of reminder this field will be. For example, a reminder could be for a contract verification, contract renewal, or contract cancellation. Reminders can then be sent for each of these events separately (contract verification, renewal, or cancellation). To add a category, insert or append a new row and enter a name for the category. Alternatively, import categories from a CSV or XML file.

Renewal

Cancellation

Verification

Keep sorted

Show last used entries first

Allow users to add own entries

Reduce selection based on record filters
(not available when users are allowed to select own entries)

- An administrator can specify that one or more reminders be automatically added to every new record created in that container. To do this, in the *Auto-fill* property of the reminder field (see *first screenshot*

above), click **New Reminder** for each reminder. The settings of a reminder are specified in the [Reminder settings](#)¹²³ form (which is described in the [next topic](#)¹²³). The user can, during data entry, [modify or delete any of the automatically added reminders](#)¹⁵².

- After you have completed defining the reminder field, click **OK** and then **Save Changes** to save the reminder field to the database.
- Reminder fields can also be used as the content of columns in the [forms of a container](#)⁴⁸, where they will display a record's reminders (together with a summary value that is the count of the record's reminders).

Set the app URL and sender's email address

Go to [Settings | Other Settings | Reminder Emails](#)¹¹⁹ to set:

- The URL of the ContractManager app so that the email recipient can click the URL and go to the app
- The email address of the sender of the reminder email.

Debugging reminder email errors

If reminder emails are not being correctly sent, check the following:

- Check whether [emails have been set to be sent to the intended alert group/s](#)¹²³. If yes, then check (with your system administrator) that users belong to the correct alert groups. Note that alert groups can be selected in two ways: (i) directly in the [reminder's settings](#)¹²³, and (ii) via the [alert groups defined for a filter that the reminder is using](#)¹²³. If there is a problem, contact your system administrator.
- Check that the [reminder settings](#)¹²³ are correct.
- Check that the reminder is a [due reminder](#)¹²⁵; if the reminder has any other status, no email will be sent

3.5.2 Reminder Settings (Admin, User)

Reminder settings can be set in the following situations:

- When an administrator [configures a reminder field](#)¹²¹, they can define, via the [Auto-fill](#)¹²¹ property, one or more reminders that are automatically added to every new record. When an automatic reminder is added, the administrator can specify its settings (*see screenshot below*).
- When [a user enters the data of a record](#)¹²⁷, they can add a new reminder for that record or modify an existing reminder. The reminder's settings are specified in its *Reminder Settings* form (*screenshot below*).

In both cases, the reminder is defined via its settings (*see screenshot below*). The last setting shown in the screenshot below appears only in the cases where an administrator is configuring a reminder field. It is not available to users when they are entering records.

Reminder settings

Category

Description

Recurring

Specific Date | Calculate Date

on

before

after

Once time reached, send notification

every day until reminder is processed or snoozed
 only once

to

Always add to new records
 Only when filter applies

Define the reminder with the following settings:

- *Category*: Select the category of the reminder. Reminder categories were defined when the [reminder field was configured](#)¹²¹.
- *Description*: Provide a description to help users to understand how this reminder will apply.
- *Recurring*: Select this option to define the reminder as a recurring reminder. A recurrence is defined in terms of a period that follows a selected date. For example, a reminder can recur monthly after the selected date. *Also see Status of Reminders below.*
- *Reminder start time*: There are two alternatives: (i) Select a specific date; or (ii) Calculate a date relative to one of the record's [date fields](#)³⁴ (such as an expiry date). In the screenshot above, for example, the start time has been set to one week before the date in the *Expiry Date* field.
- *Notification frequency*: Send email notifications every day till the reminder is processed or snoozed by

the user, or send email notifications once only. *Also see Status of Reminders below.*

- *Notification recipients:* Specify the alert groups to which notifications about this reminder will be sent. If no group is specified, then no recipient is selected. Note, however, that [alert groups can also be chosen via filters](#)⁴⁴ (see next list item also).
- *Add to new records:* This setting is available only when an administrator is configuring a reminder field; it is **not available to users** when they are editing records. You can choose whether to add the current reminder to all new records or only to records to which the selected filter applies. For example, in the case of the screenshot above, the reminder will be added only for those records where an *Expiry Date* field value exists (which is what is defined in the *Has Expiry Date* filter). Note that if this filter [has alert groups defined for it](#)⁴⁴, then notifications will be sent to users of these alert groups.

Status of reminders

The status of reminders is defined in the following terms (also see screenshot below, which assumes a current date of 16 September 2020):

- *Start date:* The date from which the reminder becomes *active*. If the start date is in the past, then the reminder stays active if: (i) it is not processed, or (ii) it recurs. If the start date is in the future, then the reminder is an active reminder.
- A *processed reminder* is one for which the reminded event has been carried out and because of which the reminder has been *stopped*.
- *Action date:* (i) For one-time reminders, the same as the start date; (ii) For recurring reminders, the next recurring date after a reminder is processed. An action date can lie in the past or in the future.
- *Active reminder:* (i) A one-time reminder that has a start date in the past and which has not been processed; (ii) A recurring reminder that has a start date in the past (and may have been processed); (iii) (i) A reminder (one-time or recurring) that has a start date in the future. (Note: If the action date of an active reminder is in the past and the reminder has not been processed, then the reminder is a due reminder.)
- *Due reminder:* An active reminder with a start date in the past. Due reminders are a subset of active reminders. Once a reminder becomes due, the possibility to snooze the reminder becomes available.
- A *snoozed reminder* applies to due reminders only. Snoozing a reminder cancels the current action date and selects an action date in the future. The snooze period is specified from the current date.
- *Inactive reminder:* A non-recurring reminder which has a start date in the past and which has been processed.

▼ Reminders	
CONTRACT REMINDERS NEW REMINDER...	
<i>Cancellation</i> on Dec 31, 2020	Active: one-time, start date in future   
<i>Cancellation</i> on Sep 01, 2020	Due: one-time, start date in past, not yet processed    
<i>Renewal</i> recurring weekly starting on Aug 01, 2020	Due: recurring, start date in past, not yet processed    
<i>Renewal</i> recurring weekly starting on Sep 26, 2020 (next on Sep 26, 2020)	Active: recurring, start date in future   
<i>Verification</i> on Jun 20, 2020 (snooze until Dec 24, 2020)	Active: one-time, start date in past, was due but now snoozed   
<i>Verification</i> recurring yearly starting on Jul 10, 2020 (next on Jul 10, 2021)	Active: recurring, start date in past, processed   
<i>Verification</i> on Jul 27, 2020	Inactive: one-time, start date in past, processed   

The example uses a current date of 16 September 2020.

Color codes indicate reminder status

During data entry, the text color of reminders indicate their status to the user:

- *Blue*: Active reminders that are not due reminders
- *Red*: Due reminders
- *Gray*: Inactive reminders

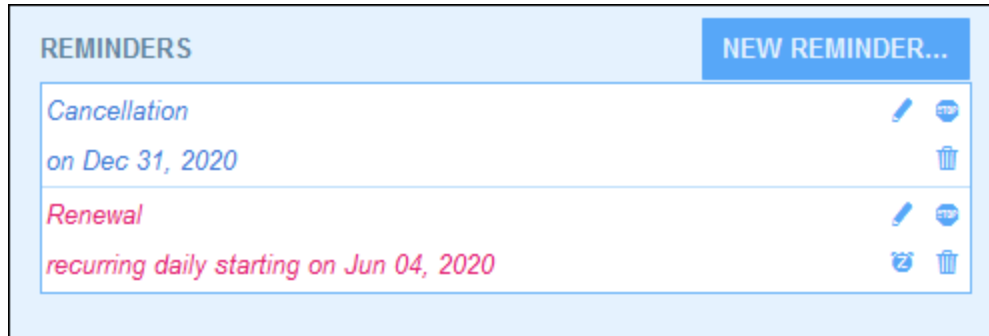
Debugging reminder email errors

If reminder emails are not being correctly sent, check the following:

- Check whether [emails have been set to be sent to the intended alert group/s](#) ¹²³. If yes, then check (with your system administrator) that users belong to the correct alert groups. Note that alert groups can be selected in two ways: (i) directly in the [reminder's settings](#) ¹²³, and (ii) via the [alert groups defined for a filter that the reminder is using](#) ¹²³. If there is a problem, contact your system administrator.
- Check that the [reminder settings](#) ¹²³ are correct.
- Check that the reminder is a [due reminder](#) ¹²⁵; if the reminder has any other status, no email will be sent

3.5.3 User Actions (User)





Reminders and reminder emails are configured by system administrators. However, users have the final decision about what reminders are sent, when, and to whom. Users can manage reminders by deleting or modifying reminders and by creating new reminders. Typically, access to reminders will be made available to users in a form, such as an entry form. The screenshot below, for example, shows part of a data entry form for contracts.



A user can do the following:

- Add a new reminder or edit an existing reminder. Clicking either of these commands takes the user to the *Reminder Settings* form, where the reminder can be configured (see below).
- The user can snooze an existing due reminder. See *Status of Reminders* below.
- The user can stop a reminder (which is equivalent to marking the reminder as processed). See *Status of Reminders* below.
- The user can delete a reminder.

Icons for reminder management

	Edit Reminder
	Snooze Reminder
	Stop Reminder
	Delete Reminder

Reminder settings

The *Reminder Settings* form is shown below.

Reminder settings

Category

Description

Recurring

Specific Date | Calculate Date

on

before

after

Once time reached, send notification

every day until reminder is processed or snoozed

only once

to

Define the reminder with the following settings:

- **Category:** Select the category of the reminder. Reminder categories were defined when the [reminder field was configured](#)¹²¹.
- **Description:** Provide a description to help users to understand how this reminder will apply.
- **Recurring:** Select this option to define the reminder as a recurring reminder. A recurrence is defined in terms of a period that follows a selected date. For example, a reminder can recur monthly after the selected date. *Also see Status of Reminders below.*
- **Reminder start time:** There are two alternatives: (i) Select a specific date; or (ii) Calculate a date relative to one of the record's [date fields](#)³⁴ (such as an expiry date). In the screenshot above, for example, the start time has been set to one week before the date in the *Expiry Date* field.
- **Notification frequency:** Send email notifications every day till the reminder is processed or snoozed by the user, or send email notifications once only. *Also see Status of Reminders below.*
- **Notification recipients:** Specify the alert groups to which notifications about this reminder will be sent. If no group is specified, then no recipient is selected. Note, however, that [alert groups can also be chosen via filters](#)⁴⁴ (see next list item also).
- **Add to new records:** This setting is available only when an administrator is configuring a reminder field;

it is **not available to users** when they are editing records. You can choose whether to add the current reminder to all new records or only to records to which the selected filter applies. For example, in the case of the screenshot above, the reminder will be added only for those records where an *Expiry Date* field value exists (which is what is defined in the *Has Expiry Date* filter). Note that if this filter [has alert groups defined for it](#)⁴⁴, then notifications will be sent to users of these alert groups.

Status of reminders

The status of reminders is defined in the following terms (also see screenshot below, which assumes a current date of 16 September 2020):

- ***Start date***: The date from which the reminder becomes *active*. If the start date is in the past, then the reminder stays active if: (i) it is not processed, or (ii) it recurs. If the start date is in the future, then the reminder is an active reminder.
- A ***processed reminder*** is one for which the reminded event has been carried out and because of which the reminder has been *stopped*.
- ***Action date***: (i) For one-time reminders, the same as the start date; (ii) For recurring reminders, the next recurring date after a reminder is processed. An action date can lie in the past or in the future.
- ***Active reminder***: (i) A one-time reminder that has a start date in the past and which has not been processed; (ii) A recurring reminder that has a start date in the past (and may have been processed); (iii) (i) A reminder (one-time or recurring) that has a start date in the future. (Note: If the action date of an active reminder is in the past and the reminder has not been processed, then the reminder is a due reminder.)
- ***Due reminder***: An active reminder with a start date in the past. Due reminders are a subset of active reminders. Once a reminder becomes due, the possibility to snooze the reminder becomes available.
- A ***snoozed reminder*** applies to due reminders only. Snoozing a reminder cancels the current action date and selects an action date in the future. The snooze period is specified from the current date.
- ***Inactive reminder***: A non-recurring reminder which has a start date in the past and which has been processed.

▼ Reminders	
CONTRACT REMINDERS NEW REMINDER...	
<i>Cancellation</i> on Dec 31, 2020	Active: one-time, start date in future   
<i>Cancellation</i> on Sep 01, 2020	Due: one-time, start date in past, not yet processed    
<i>Renewal</i> recurring weekly starting on Aug 01, 2020	Due: recurring, start date in past, not yet processed    
<i>Renewal</i> recurring weekly starting on Sep 26, 2020 (next on Sep 26, 2020)	Active: recurring, start date in future   
<i>Verification</i> on Jun 20, 2020 (snooze until Dec 24, 2020)	Active: one-time, start date in past, was due but now snoozed   
<i>Verification</i> recurring yearly starting on Jul 10, 2020 (next on Jul 10, 2021)	Active: recurring, start date in past, processed   
<i>Verification</i> on Jul 27, 2020	Inactive: one-time, start date in past, processed   

The example uses a current date of 16 September 2020.

Color codes indicate reminder status

During data entry, the text color of reminders indicate their status to the user:

- *Blue*: Active reminders that are not due reminders
- *Red*: Due reminders
- *Gray*: Inactive reminders

Debugging reminder email errors

If reminder emails are not being correctly sent, check the following:

- Check whether [emails have been set to be sent to the intended alert group/s](#) ¹²³. If yes, then check (with your system administrator) that users belong to the correct alert groups. Note that alert groups can be selected in two ways: (i) directly in the [reminder's settings](#) ¹²³, and (ii) via the [alert groups defined for a filter that the reminder is using](#) ¹²³. If there is a problem, contact your system administrator.
- Check that the [reminder settings](#) ¹²³ are correct.
- Check that the reminder is a [due reminder](#) ¹²⁵; if the reminder has any other status, no email will be sent

4 System Use

When you open Altova ContractManager, it will have been configured by a system administrator for use in your organization. Typically, the system administrator will be a person in your organization who has set up the app on your network for use among multiple users. If you have questions about how the app has been configured or how it works, contact your system administrator.

The app provides you with the following functionality:

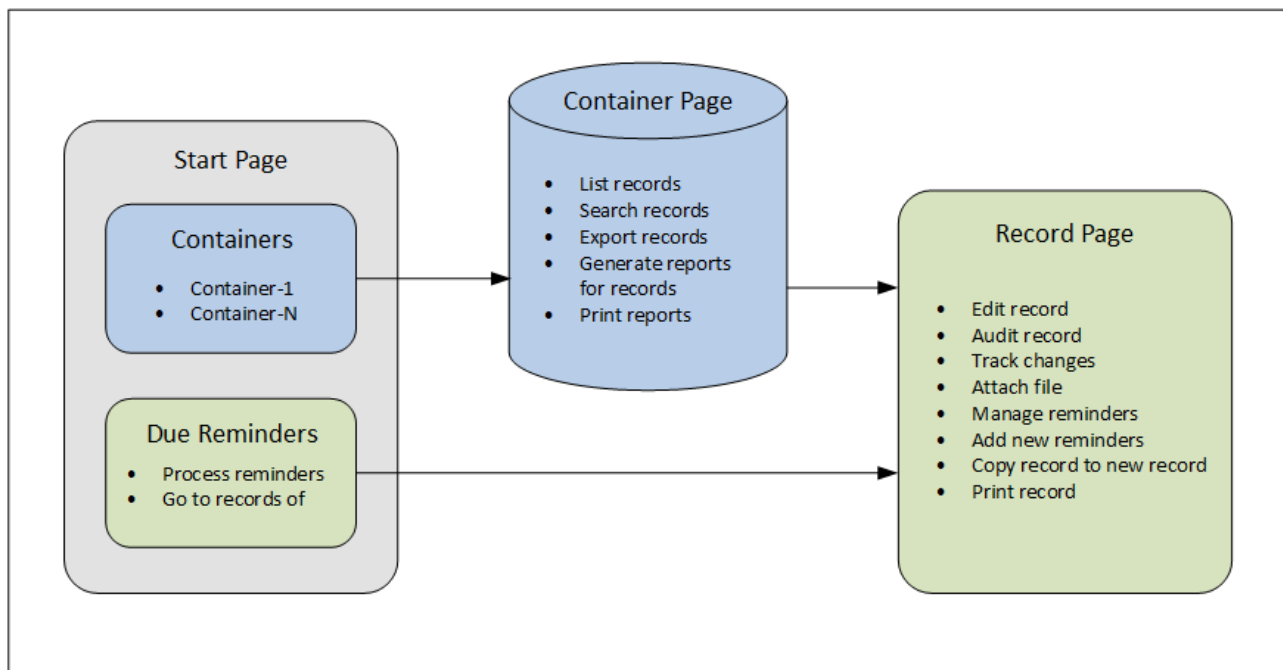
- Enter and edit data about your organization's contracts. You might have the responsibility for maintaining records of all contracts or of only a subset of contracts. Typically, multiple users would be entering and editing data about the contracts. How to enter and edit records is described in the topics [Record Listings](#)¹⁴² and [Record Data](#)¹⁴⁴.
- You can [audit changes and track changes](#)¹⁵¹ made to records.
- Create and edit reminders when significant contract dates come due (for example, a contract renewal). A reminder is used to send notifications to the appropriate persons in your organization. See the topic [Reminders](#)¹⁵².
- Export a container's contents (that is, its records) to XML and/or CSV files. This is described in the topic [Export to XML, CSV](#)¹⁶⁶.
- Generate charts and reports about a container's records. For example, in a Contracts container, you could generate charts and reports showing the cost of contracts by contract categories, and how these have changed over a period of time.
- Print charts, reports, and record listings.

The subsections of this section describe the ContractManager functionality that is available to you.

4.1 Quick Start: System Use

Before you read this section and get started, we recommend that you read the [General Information](#)⁶ section, especially the section [How Data Is Stored](#)¹², which explains how the ContractManager database is structured into the containers in which your data records will be stored. As a user of the ContractManager app, a large part of your work will involve working with these containers. You will be adding new records and editing existing records.

The Start Page of the app serves as your navigational base. It provides access to the individual containers, within each of which you can edit the records of that container. The due reminders on the Start Page also take you to the record of a particular reminder.



How to use the app

Data entry

- From the **Start Page** select a container to which you want to add records (or a container whose records you want to edit)
- On a **Container Page**, you can view records according to the different listing possibilities available for that container
- On a Container Page, you can search for specific records
- On the data entry form of a record (its **Record Page**), edit the record
- On a Record Page, you can track changes made to the record and audit the record (that is, see who made changes to the record)
- On a Record Page, you can copy the current record to a new record
- On a Record Page, if reminders have been enabled for that container, you can set new reminders and edit existing reminders

Data processing

- From a Container Page, you can export the records of that container to XML and CSV data formats
- From a Container Page, you can generate reports about the records of that container and print those reports
- From a Record Page, you can print the details of a record according to the format of that page

Note: You can also [work offline](#)¹⁷². Your changes will be synchronized automatically when you come back online.

Help

The **Help** button is available on [Container Pages](#)¹⁴² and [Record Pages](#)¹⁴⁴. Click **Help** on any of these pages to open the online user manual of Altova ContractManager in a new browser tab.

4.2 Start Page

The Start Page (*screenshot below*) has two parts:

- The upper part contains an overview of the system's databases and their respective containers. Each container displays a count of the container's records. Click a container to see its record listings and edit records
- The lower part shows due reminders. Each list item is the reminder of a specific record. Click a reminder to go to its record. Click **Snooze** or **Stop** (located at the left of each reminder) to, respectively, snooze or stop the reminder.



There are two types of editing page:

- [Container Page](#)¹⁴². You get to this page by clicking a container on the Start Page (*shown in the screenshot above*). From the [Container Page](#)¹⁴², you can edit existing records, add new records, generate reports and charts, and print record listings. See the respective topics for information about these features.

- [Record Page](#)¹⁴⁴. This page displays the data (the fields) of a record, enabling you to edit that record's data. You get to this page by clicking a record on the [Container Page](#)¹⁴².

The pages are arranged in the following hierarchy, and you can navigate with the help of the navigation links at the top left of the page and your browser's **Back** button.

[Home \(Start Page\)](#) | [Container Page](#)¹⁴² | [Record Page](#)¹⁴⁴

For more information about how to edit data, see the respective topics of this section.

Help

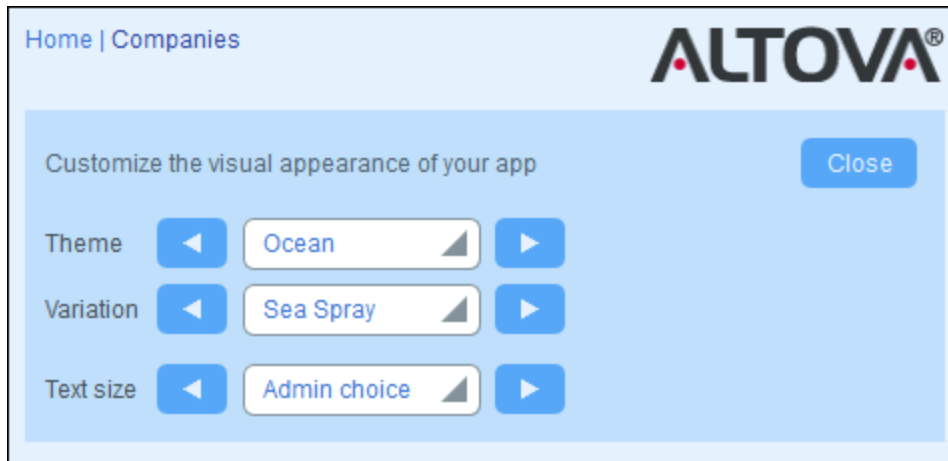
The **Help** button is available on [Container Pages](#)¹⁴² and [Record Pages](#)¹⁴⁴. Click **Help** on any of these pages to open the online user manual of Altova ContractManager in a new browser tab.

4.3 Themes and Text Size

Themes

The user interface of the app will be displayed with the default color theme and theme variations that your system administrator has set. The theme applies to the entire app, whereas different variations of the theme can be set for different databases. To change the color theme and/or theme variation, click the **Settings** button.

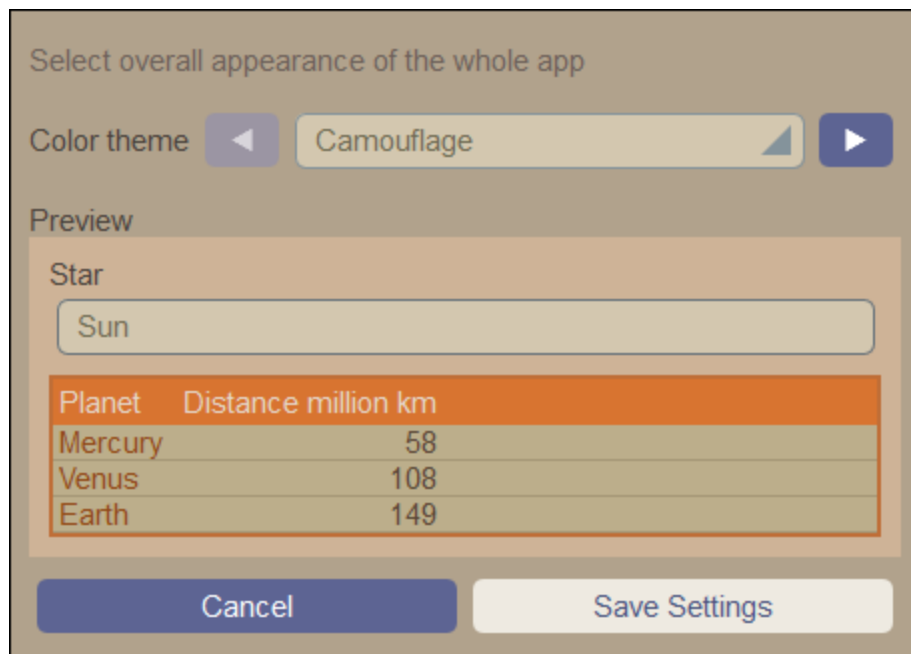
- In the *Theme* combo box, select the theme that you want.
- The *Variation* combo box is displayed only in the top-level container of a database, and sets the variation for this database. For example, in the screenshot below, all containers in the *Contracts* database have been given an *Ocean* theme with the *Sea Spray* variation.



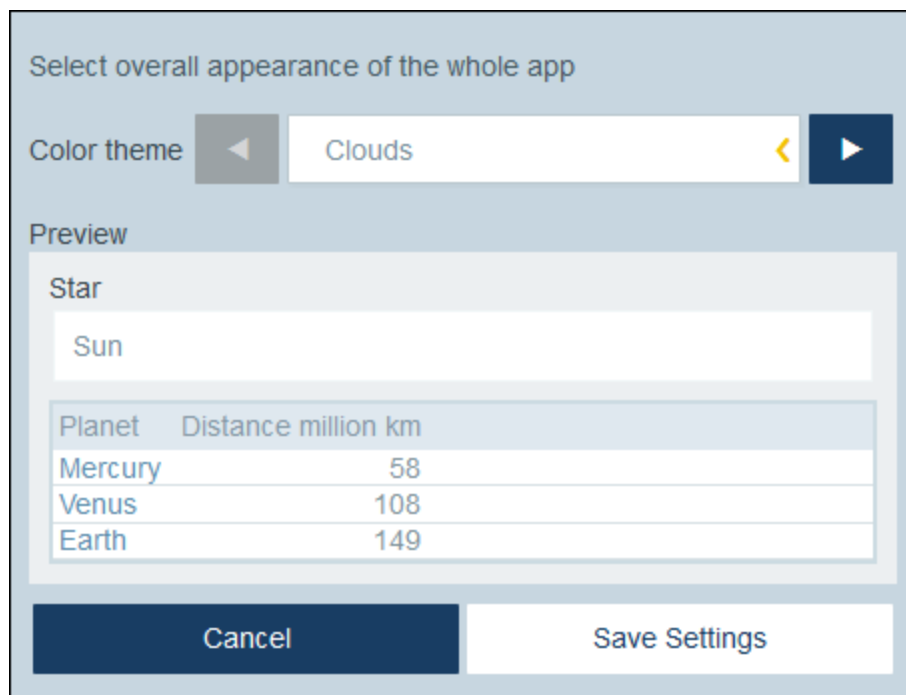
Once you change a theme and/or variations, your ContractManager will be displayed with your changed theme and/or variations till you make another change or till your administrator changes the default theme and/or variations.

[Click here for samples of available themes](#)

Camouflage



Clouds



Desert

Select overall appearance of the whole app

Color theme ◀ Desert ▶

Preview

Star

Sun

Planet	Distance million km
Mercury	58
Venus	108
Earth	149

Cancel Save Settings

Forest

Select overall appearance of the whole app

Color theme ◀ Forest ▶

Preview

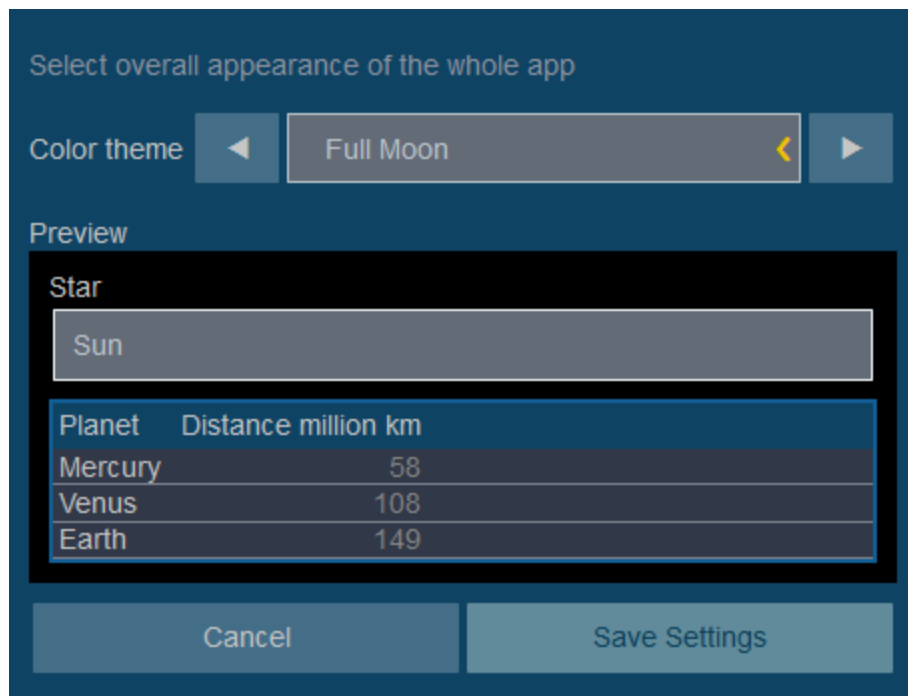
Star

Sun

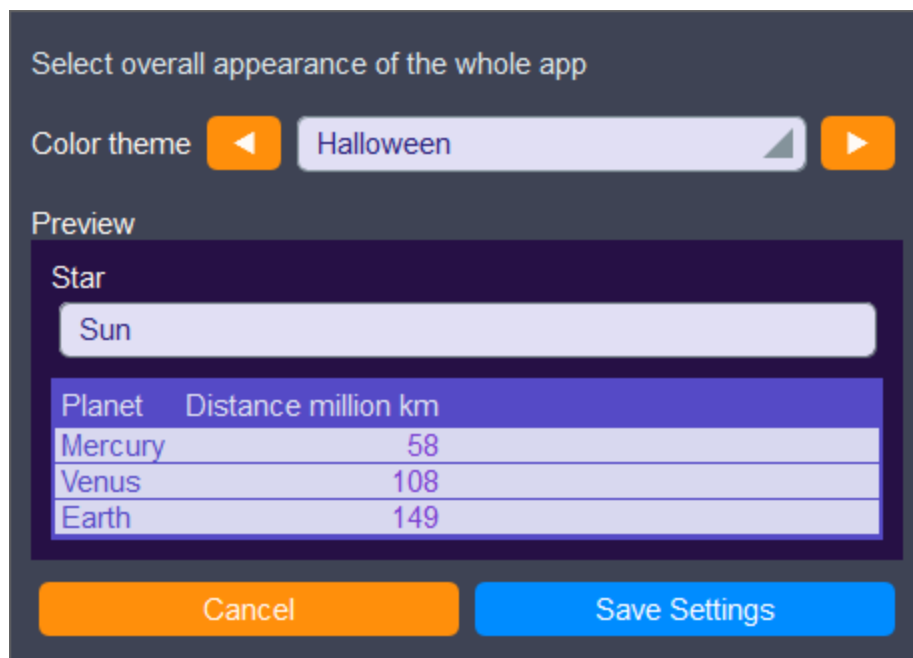
Planet	Distance million km
Mercury	58
Venus	108
Earth	149

Cancel Save Settings

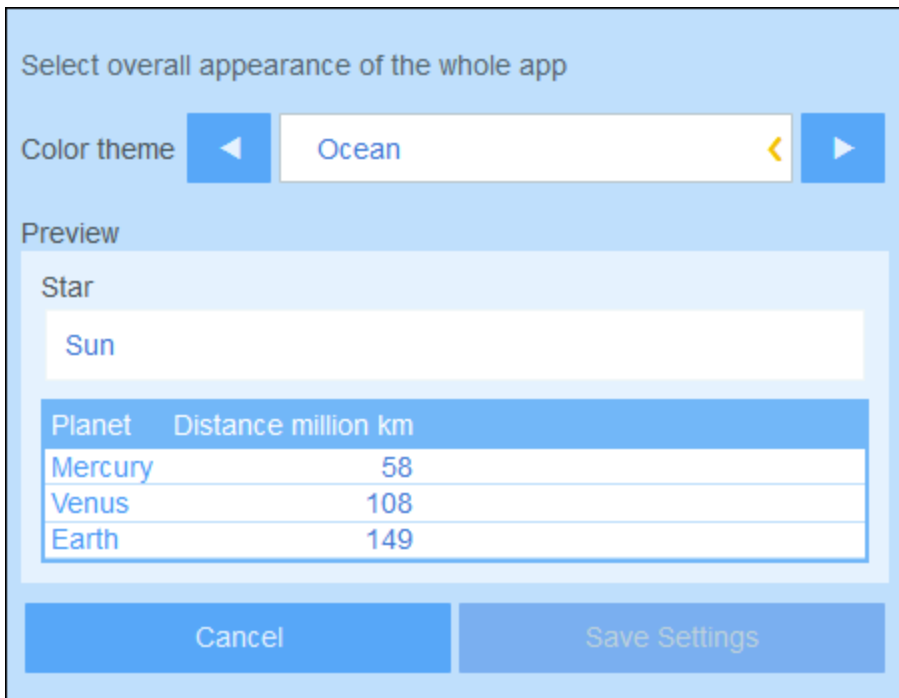
Full Moon



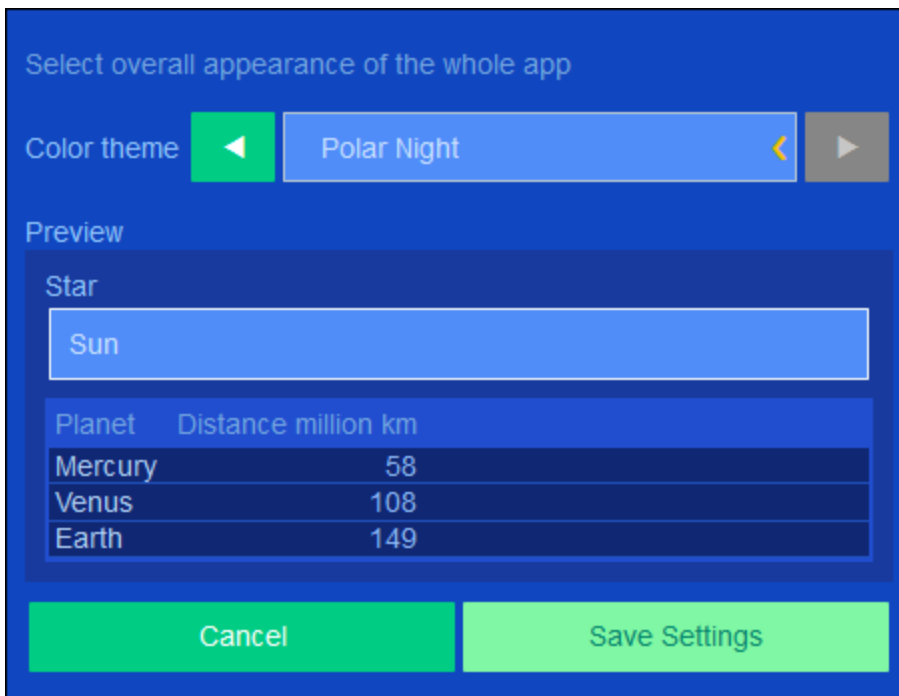
Halloween



Ocean



Polar Night



Text size

The text size of labels and values will, by default, be displayed in the sizes defined by your system administrator. You can change both sizes together in the *Text Size* combo box (*see screenshot above*), with available choices being sizes relative to the admin-defined sizes.

4.4 Container Page

The Container Page (*screenshot below*) displays an overview of a container: the container's records and the functionality available for that container. To go to a specific container's Container Page, click the container's name on the [Start Page](#)¹³⁴.

@ | Home | Contracts

Contract Database

Contracts
17 records

New Contract...

View **Contracts by Status**

All Search Detailed Predefined Jump to

ID	Title	Categories
▶ Active (14)		
▼ Canceled/Terminated (1)		
C2020/3118	Pineable Software Purchase	Sales Agreement
▼ Expired (1)		
C2020/3123	Sycamore Cleaning Contract	Operations
▼ Pending (1)		
C2020/3115	PBP	Partner Agreement







The central feature of the Container Page is its listing of the container's records. If your system administrator has created multiple listing options for this container, then you will be able to select which one to use (see *screenshot*). The listings will have descriptive names to enable you to choose. You can switch between these listing options. Lists will be different from each other in one or more of the following ways: (i) they have different layouts; (ii) they show different record fields; (iii) they restrict the number of records shown (for example, show only US companies).

The Container Page provides the following functionality: most of which are available via the icons at top right:

- In the *View* combo box, select a list from the available viewing lists. You can switch between lists at any time.
- To add a new record, click **New <Container>**. For information about data entry, see the topic [Record Data](#)¹⁴⁴.
- To edit an existing record, click that container's **Edit** icon. For a description of how to edit records, see the topic [Record Data](#)¹⁴⁴.

- To delete a record, click its **Bin** icon.
- If alphabetic sorting on a column is possible, such columns are indicated with a vertical arrow (*circled in red above*). The arrow direction indicates the current sorting order (up = ascending; down = descending). Click the arrow to sort in the opposite order.
- To search for specific records, select the *Search* check box. See [Record Searches](#)¹⁵⁷ for details.
- To jump to a specific record. See [Jump To](#)¹⁶² for details.
- Export the records of the container in CSV and XML formats. See [Export to XML, CSV](#)¹⁶⁶ for details.
- [Generate reports](#)¹⁶⁹ about the container's records and print these reports.
- [Print](#)¹⁷¹ the currently selected listing. See the section [Print](#)¹⁷¹ for details.

☰ *Icons of the Container Page*

	Offline Mode ¹⁷²
	Settings ¹³⁶
	Refresh ¹⁶⁴
	Export to XML/CSV ¹⁶⁶
	Generate Report ¹⁶⁹
	Print ¹⁷¹
	Help ¹³³

Help

The **Help** button is available on [Container Pages](#)¹⁴² and [Record Pages](#)¹⁴⁴. Click **Help** on any of these pages to open the online user manual of Altova ContractManager in a new browser tab.

4.5 Record Page

The Record Page (*screenshot below*) displays the data of a single record of a container. You can select different data entry forms to view and edit the record's data in different layouts. Note that different data entry forms not only have different layouts, but could also show or hide different fields.

@ | Home | Contracts | Edit

Contract Database ↶ ↷ ☰ 📄 ?

Contracts

View ◀ Legal Entry Form ▶

◀◀ Cancel Changes Save ▶▶

ID	Title
C2020/3122	Office Cleaning Contract

▼ Contracting Party

Contracting Party
American Hornbeam ◀ 👁 ✎

Contracting Department
 ◀ 👁 ✎

▼ Type, Status, Categories, Signee

Type
Service Contract ◀

Status Active ◀ Process Status ◀

Categories
Operations ◀

Signee
Elizabeth Jones ◀

\$ Amount
\$2,100

▶ Description and comments

▼ Key dates

Effective Date
-1Y -1M 📅 February 08, 2019 +1M +1Y Today Clear

The following points describe the main features of record pages:

- A [new record](#)¹⁴⁶ can be created for a container by going to the [Container Page](#)¹⁴² and clicking **New <ContainerName>**. This brings up the Record Page.
- If templates have been defined for the container, you will be given the option of [selecting a template](#)¹⁴⁶ instead of starting with a blank record.
- A Record Page essentially displays a [data-entry form](#)¹⁴⁷. If multiple data-entry forms have been defined for the container, then you can switch data-entry forms at any time during editing of the record.
- Your system administrator might have divided long data-entry forms into [sections for ease of navigation](#)¹⁴⁸.
- Every record can be viewed in Changes Mode, where [changes can be tracked and audited](#)¹⁵¹.

The sub-sections of this section describe these features in detail.

Help

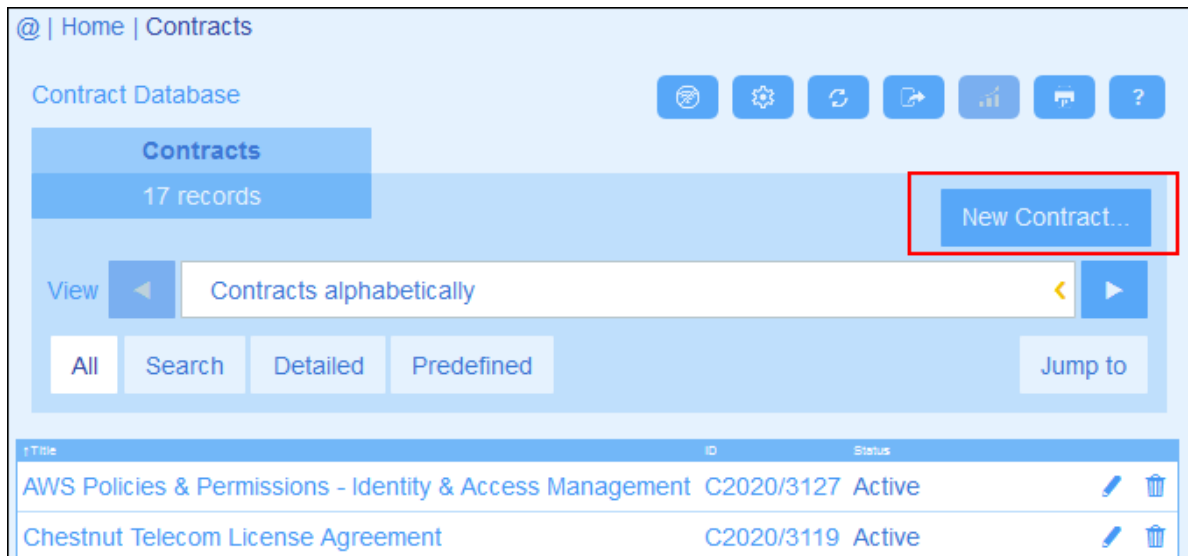
The **Help** button is available on [Container Pages](#)¹⁴² and [Record Pages](#)¹⁴⁴. Click **Help** on any of these pages to open the online user manual of Altova ContractManager in a new browser tab.

4.5.1 New Records and Templates

Creating new records

To create a new record in a container, do the following:

1. Go to the [Container Page](#)¹⁴² of the relevant container. The existing records of the container will be displayed (*screenshot below*).



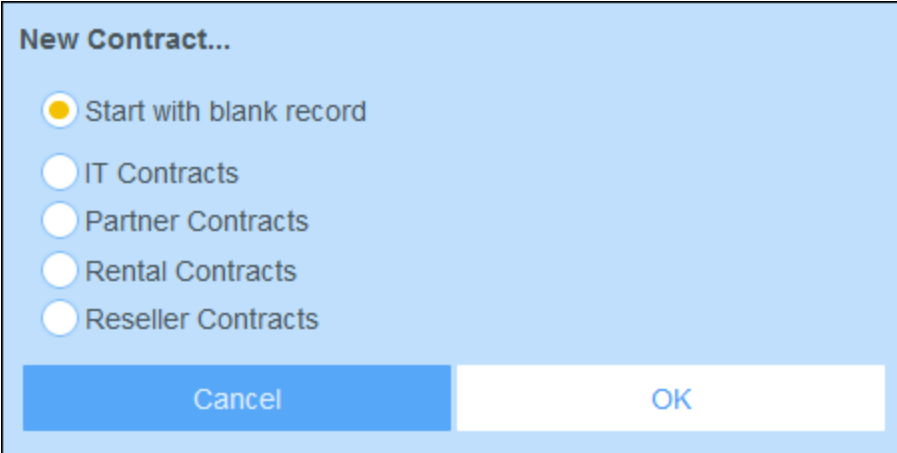
2. To create a new record, click **New <Container>**. The container's data-entry form appears, and you can enter data for the record.

Note: To edit an existing record, click the record's **Edit** icon. The record's data will be displayed in a data-entry form and can be edited.

Templates

Some containers might have templates defined for them. A template is a new record in which some fields are pre-filled to save you work. When you create a new record in a container that has one or more templates defined, you can choose to use one of these templates or to start with a blank record. If you use a template, you can edit any of the pre-filled fields at any time.

On a [Container Page](#)¹⁴², when you click **New <ContainerName>** to create a new record in that container, you are presented, if templates have been defined for this container, with a form to select a template. For example, in the screenshot below, the user is creating a new record in the *Contracts* container, and is presented with five entry form options: four templates and a blank record. If you are given such a choice of templates, select the option you want, and click **OK**. The data-entry form appears.



New Contract...

- Start with blank record
- IT Contracts
- Partner Contracts
- Rental Contracts
- Reseller Contracts

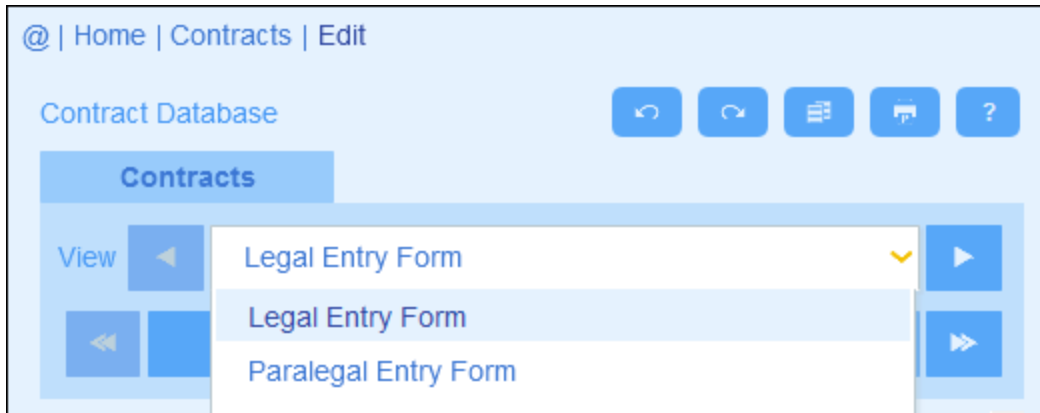
Cancel OK

Note: If no template has been defined for a container, then the choice described above is not given to you and the data-entry form appears directly after you click **New <ContainerName>**.

4.5.2 Data-Entry Forms

A container's data-entry form appears when you either create a new record or edit an existing record.

If multiple data-entry forms have been defined for a container, then these will be available in the *View* combo box (see *screenshot below*). Select the form you want to work with. Each form provides a different layout for data entry, so you can change forms at any time. But be sure to save your data before changing forms. In the screenshot below, for example, *Legal Entry Form* might provide a layout that displays basic legal information; whereas *Paralegal Entry Form* might show specific fields related to auxiliary legal matters.



Note: If only one data-entry form has been defined for a container, then that form is displayed directly and the *Select View* combo box does not appear.

For information about editing a record, see the next topic, [Editing Data](#)¹⁵⁰.

4.5.3 Sections

Your data-entry form might be designed as a single page or might be divided into sections (see *screenshots below*). The following possibilities exist:

- Single page
- Single page divided into sections (each of which may initially be open or closed, independent of each other)
- Sections (open or closed) that appear one after another (not on a single page)

The screenshot below shows the first three sections of a data-entry form, where all sections are on the same page. The first three section names are: (i) *Contract Header*, (ii) *Contracting Party*, (iii) *Type, Status, Categories, Signee*. When the form is initially displayed, the first and third sections are open, while the second is closed. To open/close a section, click the arrow to the left of its name.

@ | Home | Contracts | Edit

Contract Database

Contracts

View Legal Entry Form

Cancel Changes Save

Contract Header

ID Title

C2020/3122 Office Cleaning Contract

Contracting Party

Type, Status, Categories, Signee

Type

Service Contract

CMDDataEntry

In the screenshot below, the data-entry form has nine sections, of which the second is shown. Each section appears one after the other; they are not on the same page. The section number and the total number of sections are given next to the section's name. To navigate between sections, click the **Previous/Next** arrows on either side of the section's header. Note that when sections are shown one after another, they are always shown open and cannot be closed.

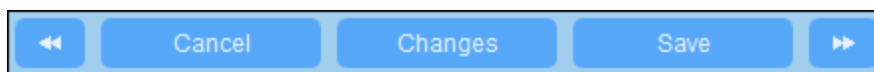
The screenshot shows a web interface for editing a record in the 'Contract Database'. At the top, there is a breadcrumb trail: '@ | Home | Contracts | Edit'. Below this, the title 'Contract Database' is displayed with several utility icons (undo, redo, list, print, help). A 'Contracts' tab is active. The main view is 'Legal Entry Form', indicated by a dropdown menu. Below the view selector are navigation buttons: a left arrow, 'Cancel', 'Changes', 'Save', and a right arrow. The record details are shown under the heading 'Contracting Party 2/9'. There are two fields: 'Contracting Party' with the value 'American Hornbeam' and 'Contracting Department' which is currently empty. Each field has a dropdown arrow, an eye icon for visibility, and a pencil icon for editing.

4.5.4 Editing Data

Data for each field of the record is entered via a data-entry device such as a text field, combo box, or date picker, and data entry is straightforward. Click **Save** when you finish editing a record.

Note the following points:

- If your system administrator has set validation rules for a field value, then the field name stays red till a valid value is entered.
- If your system administrator has set validation rules for the record, errors/warnings will be displayed when you click **Save**.
- When you are entering data for a new record, the **Save++** button is available (in addition to the **Save** button). Click **Save++** to save the record and create a new record.
- The arrow buttons (see screenshot below) enable you to navigate to the previous and next records.



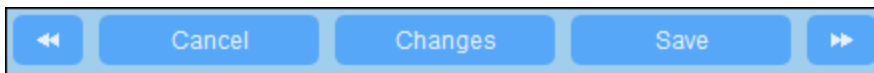
- When you edit data of an existing record, the **Changes** button (see screenshot above) is available. Click it to see past and current changes that have been made to the record being edited. When you are in Changes Mode, you cannot edit the record. To leave Changes Mode, click **Hide Changes**. Changes Mode is described in the next topic, [Audits and Change Tracking](#)¹⁵¹.

- The icons at the top of the form provide additional functionality: *Undo*; *Redo*; *Copy Current Record to New Record*; *Print*. (For Print setup, see the [Print](#)¹⁷¹ topic); *Help* (links to the ContractManager user manual).

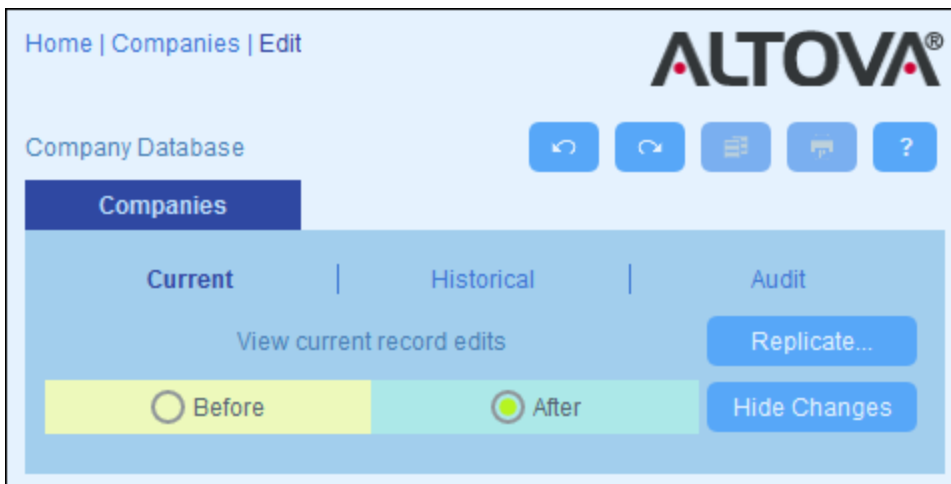


4.5.5 Audits and Change Tracking

Changes Mode (switched on when you click the **Changes** button; see *screenshot below*) enables you to audit changes (see who has made what changes), to track changes, and to see a historical view of changes.



Changes Mode has three tabs:



- Current:** Shows changes made during the current editing session. Select *Before* to see field values before the changes, Select *After* to see the latest changes. Click **Replicate** if you want the changes you made to the current record to be applied to all records of the container's current record listing. In this case, you will be cycled through the records of the listing. The **Save** button will be enabled when the changes can be applied. To move to the next record, click the **Next** navigation arrow button (see above).
- Historical:** Shows past changes. Cycle through the change events of the past by clicking the **Previous Event** and **Next Event** icons. For each change event, you can see the field values before and after the change. Next to each changed field, the name of the user who made the change is displayed.
- Audit:** Shows, next to each field, who was the last user to have made the previous change.

To leave Changes Mode, click **Hide Changes**.

4.6 Reminders

Reminders on the Start Page

Due reminders are displayed at the bottom of the Start Page (see screenshot below). (See [Status of Reminders](#)¹⁵⁵ below for the meaning of due reminders.)

Contract reminders		
Past Due (4)		
	Reminder Renewal	"C2020/3119 Chestnut Telecom License Agreement"
	Reminder Renewal	"C2020/3122 Office Cleaning Contract"
	Reminder Renewal	"C2020/3121 Doodle Online Advertising"
	Reminder Cancellation	"C2020/3127 AWS Policies & Permissions - Identity & Access Management 7/22/2020"

There are 1 alert group(s) available.
You are currently member of 1 alert group(s) [Participate...](#)

You can carry out the following reminder-related actions on this page:

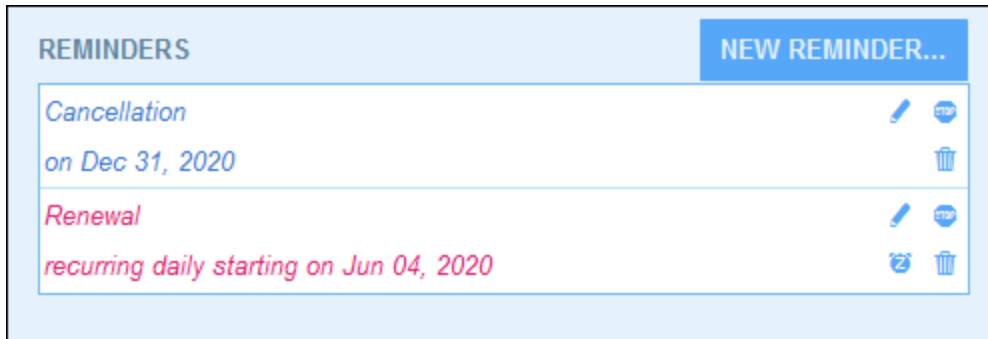
- Snooze or stop a reminder. (See [Status of Reminders](#)¹⁵⁵ for information.)
- Click a reminder to go to the relevant record's data entry form, where you can edit the reminder and/or add new reminders.

Opting in/out of alert groups

If you have been given the option to opt in/out of a reminder alert group by your system administrator, you will be informed that you are a member of one or more alert groups, and you can decide whether you want to be part of the alert group. If you opt in, you will receive the reminder emails of this group; otherwise you will not. You can opt in/out of the different groups of which you are a member whenever you like. To opt in/out, click **Participate**.

Reminders in data entry forms





Reminders and reminder emails are configured by system administrators. However, users have the final decision about what reminders are sent, when, and to whom. Users can manage reminders by deleting or modifying reminders and by creating new reminders. Typically, access to reminders will be made available to users in a form, such as an entry form. The screenshot below, for example, shows part of a data entry form for contracts.



A user can do the following:

- Add a new reminder or edit an existing reminder. Clicking either of these commands takes the user to the *Reminder Settings* form, where the reminder can be configured (see below).
- The user can snooze an existing due reminder. See *Status of Reminders* below.
- The user can stop a reminder (which is equivalent to marking the reminder as processed). See *Status of Reminders* below.
- The user can delete a reminder.

Icons for reminder management

	Edit Reminder
	Snooze Reminder
	Stop Reminder
	Delete Reminder

Reminder settings

The *Reminder Settings* form is shown below.

Reminder settings

Category

Description

Recurring

Specific Date | Calculate Date

on

before

after

Once time reached, send notification

every day until reminder is processed or snoozed

only once

to

Define the reminder with the following settings:

- **Category:** Select the category of the reminder. Reminder categories were defined when the [reminder field was configured](#)¹²¹.
- **Description:** Provide a description to help users to understand how this reminder will apply.
- **Recurring:** Select this option to define the reminder as a recurring reminder. A recurrence is defined in terms of a period that follows a selected date. For example, a reminder can recur monthly after the selected date. *Also see Status of Reminders below.*
- **Reminder start time:** There are two alternatives: (i) Select a specific date; or (ii) Calculate a date relative to one of the record's [date fields](#)³⁴ (such as an expiry date). In the screenshot above, for example, the start time has been set to one week before the date in the *Expiry Date* field.
- **Notification frequency:** Send email notifications every day till the reminder is processed or snoozed by the user, or send email notifications once only. *Also see Status of Reminders below.*
- **Notification recipients:** Specify the alert groups to which notifications about this reminder will be sent. If no group is specified, then no recipient is selected. Note, however, that [alert groups can also be chosen via filters](#)⁴⁴ (see next list item also).
- **Add to new records:** This setting is available only when an administrator is configuring a reminder field;

it is **not available to users** when they are editing records. You can choose whether to add the current reminder to all new records or only to records to which the selected filter applies. For example, in the case of the screenshot above, the reminder will be added only for those records where an *Expiry Date* field value exists (which is what is defined in the *Has Expiry Date* filter). Note that if this filter [has alert groups defined for it](#)⁴⁴, then notifications will be sent to users of these alert groups.

Status of reminders

The status of reminders is defined in the following terms (also see screenshot below, which assumes a current date of 16 September 2020):

- ***Start date***: The date from which the reminder becomes *active*. If the start date is in the past, then the reminder stays active if: (i) it is not processed, or (ii) it recurs. If the start date is in the future, then the reminder is an active reminder.
- A ***processed reminder*** is one for which the reminded event has been carried out and because of which the reminder has been *stopped*.
- ***Action date***: (i) For one-time reminders, the same as the start date; (ii) For recurring reminders, the next recurring date after a reminder is processed. An action date can lie in the past or in the future.
- ***Active reminder***: (i) A one-time reminder that has a start date in the past and which has not been processed; (ii) A recurring reminder that has a start date in the past (and may have been processed); (iii) (i) A reminder (one-time or recurring) that has a start date in the future. (Note: If the action date of an active reminder is in the past and the reminder has not been processed, then the reminder is a due reminder.)
- ***Due reminder***: An active reminder with a start date in the past. Due reminders are a subset of active reminders. Once a reminder becomes due, the possibility to snooze the reminder becomes available.
- A ***snoozed reminder*** applies to due reminders only. Snoozing a reminder cancels the current action date and selects an action date in the future. The snooze period is specified from the current date.
- ***Inactive reminder***: A non-recurring reminder which has a start date in the past and which has been processed.

▼ Reminders	
CONTRACT REMINDERS	NEW REMINDER...
<i>Cancellation</i> on Dec 31, 2020	Active: one-time, start date in future
<i>Cancellation</i> on Sep 01, 2020	Due: one-time, start date in past, not yet processed
<i>Renewal</i> recurring weekly starting on Aug 01, 2020	Due: recurring, start date in past, not yet processed
<i>Renewal</i> recurring weekly starting on Sep 26, 2020 (next on Sep 26, 2020)	Active: recurring, start date in future
<i>Verification</i> on Jun 20, 2020 (snooze until Dec 24, 2020)	Active: one-time, start date in past, was due but now snoozed
<i>Verification</i> recurring yearly starting on Jul 10, 2020 (next on Jul 10, 2021)	Active: recurring, start date in past, processed
<i>Verification</i> on Jul 27, 2020	Inactive: one-time, start date in past, processed

The example uses a current date of 16 September 2020.

Color codes indicate reminder status

During data entry, the text color of reminders indicate their status to the user:

- *Blue*: Active reminders that are not due reminders
- *Red*: Due reminders
- *Gray*: Inactive reminders

Debugging reminder emails

If reminder emails are not being correctly sent, contact your ContractManager system administrator to verify that the system has been correctly set up.

4.7 Searches

The Search functionality is enabled at the container level. It enables you to search a container's records. You can search for: (i) a term within all fields of the container's record or a selected field, or (ii) records returned by a filter.

To run a search, do the following:

1. In the *View* combo box of a container, choose a record listing form for displaying the records of the container. For example, the screenshot below shows the records of a *Departments* container, with the records being listed in a listing form named *Standard list form*.

@ | Home | Departments

Company Database

Departments
16 records

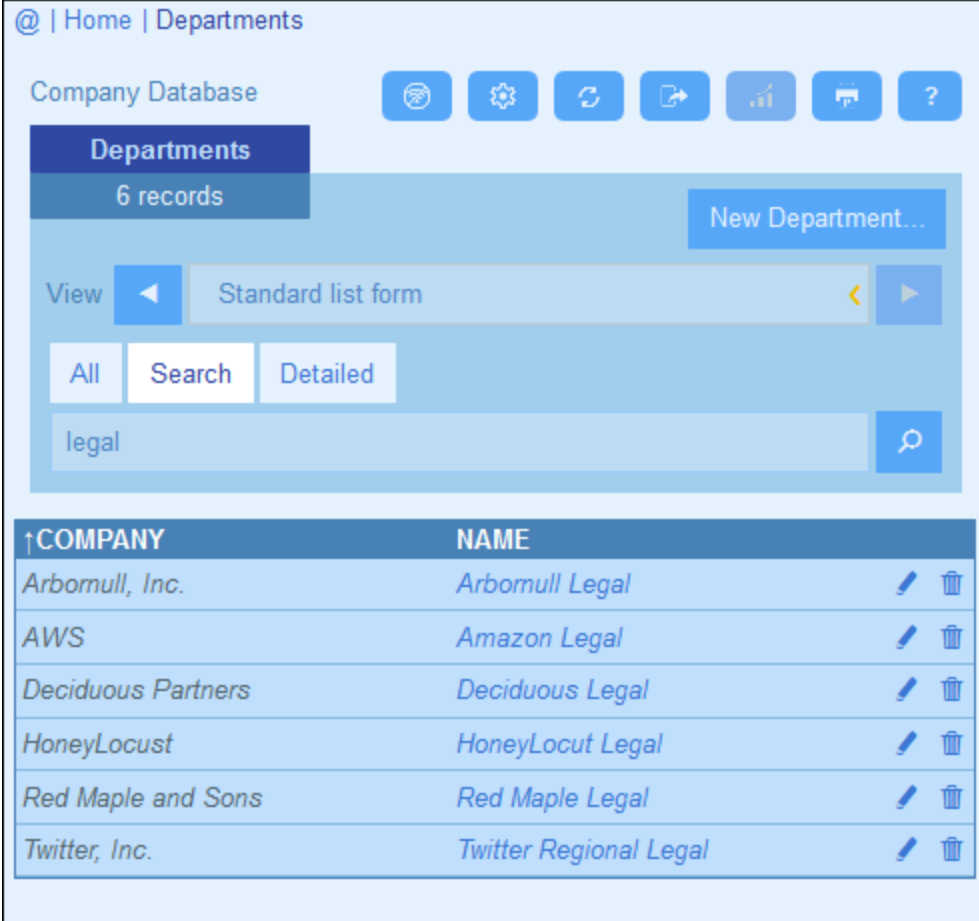
New Department...

View Standard list form

All Search Detailed

↑COMPANY	NAME		
Arbomull, Inc.	Arbomull Legal		
AWS	Amazon Legal		
Chestnut Group	Chestnut Corporate Sales		
Deciduous Partners	Deciduous Legal		
Dropbox Corporation	Dropbox Enterprise Sales		
HoneyLocust	HoneyLocust Legal		
Microsoft Corporation	Microsoft Enterprise Licensing		
Pineable	Pineable Partners		
Red Maple and Sons	Red Maple Legal		
Salesforce	Salesforce Regional Sales New Englands		
Sycamore	Sycamore Sales		
Tulip, Walnut, and Willow, LLC	TWW Marketing		
Twitter, Inc.	Twitter Florida Regional Sales		
Twitter, Inc.	Twitter Regional Legal		
White Pine Partners	White Pine Operations		
Willow Properties, Inc.	Willow Sales		

- To search for a term across all fields of all the container's records: (i) click **Search** (see screenshot below), (ii) enter the search term (searches are case-insensitive), (iii) click the **Search** icon at right. All records will be listed that contain the search term in any of their fields.



@ | Home | Departments

Company Database

Departments
6 records

New Department...

View Standard list form

All Search Detailed

legal

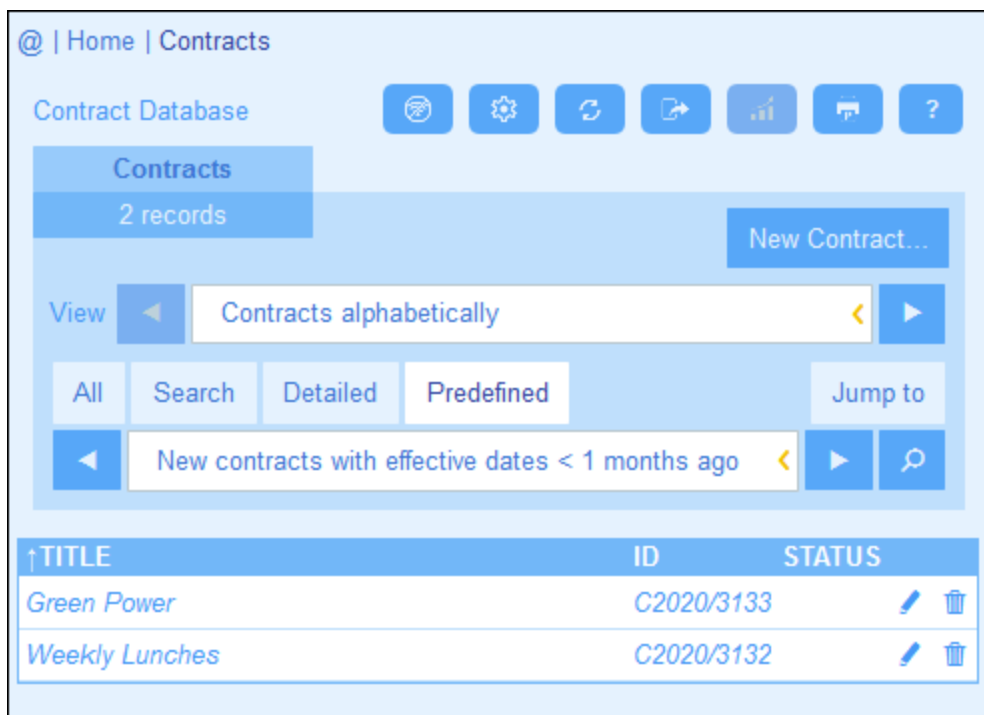
COMPANY	NAME		
Arbomull, Inc.	Arbomull Legal		
AWS	Amazon Legal		
Deciduous Partners	Deciduous Legal		
HoneyLocust	HoneyLocut Legal		
Red Maple and Sons	Red Maple Legal		
Twitter, Inc.	Twitter Regional Legal		

- To search for a term across a single field of all the container's records: (i) click **Detailed** (see *screenshot below*), (ii) enter the search term (searches are case-insensitive), (iii) select the field you want to search (in the screenshot below this is the *Description* field), (iv) click the **Search** icon at right. All records will be listed that contain the search term in the selected field.

The screenshot shows a web application interface for a 'Company Database'. At the top, there is a navigation bar with '@ | Home | Departments' and a 'Company Database' header. Below the header, there are several icons for navigation and actions. The main content area is titled 'Departments' and shows '3 records'. A 'New Department...' button is visible. The 'View' dropdown is set to 'Department Names & Descriptions'. Below this, there are tabs for 'All', 'Search', and 'Detailed'. The 'Description' column is selected, and a search filter 'legal' is entered in the search bar. The results are displayed in a table with columns 'NAME' and 'DESCRIPTION'.

NAME	DESCRIPTION
Amazon Legal	Include legal on all sales and agreement discussions
Sycamore Sales	We've worked with both the sales and legal teams at Sycamore
Twitter Regional Legal	Legal discussions

4. If one or more filters have been defined for a container, then the **Predefined** button will be available. To return records selected by a filter: (i) click **Predefined** (see screenshot below), (ii) select one of the filters in the combo box that appears, (iii) click the **Search** icon at right. All records will be listed that match the conditions of the filter.



Icons of the Container Page

	Offline Mode ¹⁷²
	Settings ¹³⁶
	Refresh ¹⁶⁴
	Export to XML/CSV ¹⁶⁶
	Generate Report ¹⁶⁹
	Print ¹⁷¹
	Help ¹³³

4.8 Jump To

The Jump To functionality enables you to jump to a record that begins with or contains the text string you enter. The look-up for the text string is carried out in either one field of the container's records or all fields. What fields are being looked up and whether the text string occurs at the beginning of the field or is contained anywhere in the field would be indicated by the name of the list form (or should be made clear to you in some other way by your administrator).

For example, in the screenshot below, when the list form named *Contracts by Status & Company* is selected, the **Jump To** button becomes available, thereby indicating that the Jump To feature is available for this list form. Since the list form is based on status and company, it is reasonable to assume that a jump-to would look up status and/or company. On typing *Amer*, the first company name that begins with *Amer* moves to the top of the list.






The screenshot shows the 'Contract Database' interface. At the top, there are navigation icons and a 'New Contract...' button. Below that, the 'Contracts' section shows '19 records'. The 'View' dropdown is set to 'Contracts by Status & Company'. Below the view selector are tabs for 'All', 'Search', 'Detailed', and 'Predefined'. A 'Jump to' button is circled in red. Below the search bar, the text 'Amer' is entered. The list of records is filtered, with 'American Hornbeam (1)' at the top, followed by 'AWS (1)' and 'Chestnut Group (1)'. Each record shows a contract ID, description, and status.

To use the Jump To feature: click **Jump To**, and then enter the text string you want to look up. The record that you want will move to the top of the list.

Note: If the **Jump To** button is not available, it means that your system administrator has not activated the Jump To setting for the current list form.

Icons of the Container Page



	Settings ¹³⁶
	Refresh ¹⁶⁴
	Export to XML/CSV ¹⁶⁶
	Generate Report ¹⁶⁹
	Print ¹⁷¹
	Help ¹³³

4.9 Refresh

When a container is opened and its records are listed (as in the screenshot below, which shows a list of *Department* records), you can refresh the data by clicking the **Refresh** button.

The screenshot shows the 'Departments' container in the ContractManager application. The interface includes a header with navigation icons, a 'Company Database' title, and a 'Departments' section with 16 records. A 'View' dropdown is set to 'Department Names & Descriptions'. Below the view selector are buttons for 'All', 'Search', and 'Detailed'. The main content area displays a table of department records with columns for Name and Description, and edit/delete icons for each row.

↑Name	Description		
Amazon Legal	Include legal on all sales and agreement discussions		
Arbornull Legal			
Chestnut Corporate Sales			
Deciduous Legal			
Dropbox Enterprise Sales			
HoneyLocut Legal			

This is useful since the ContractManager app is a distributed system that can be updated by multiple users. Clicking Refresh ensures that you are viewing the latest data in the database.

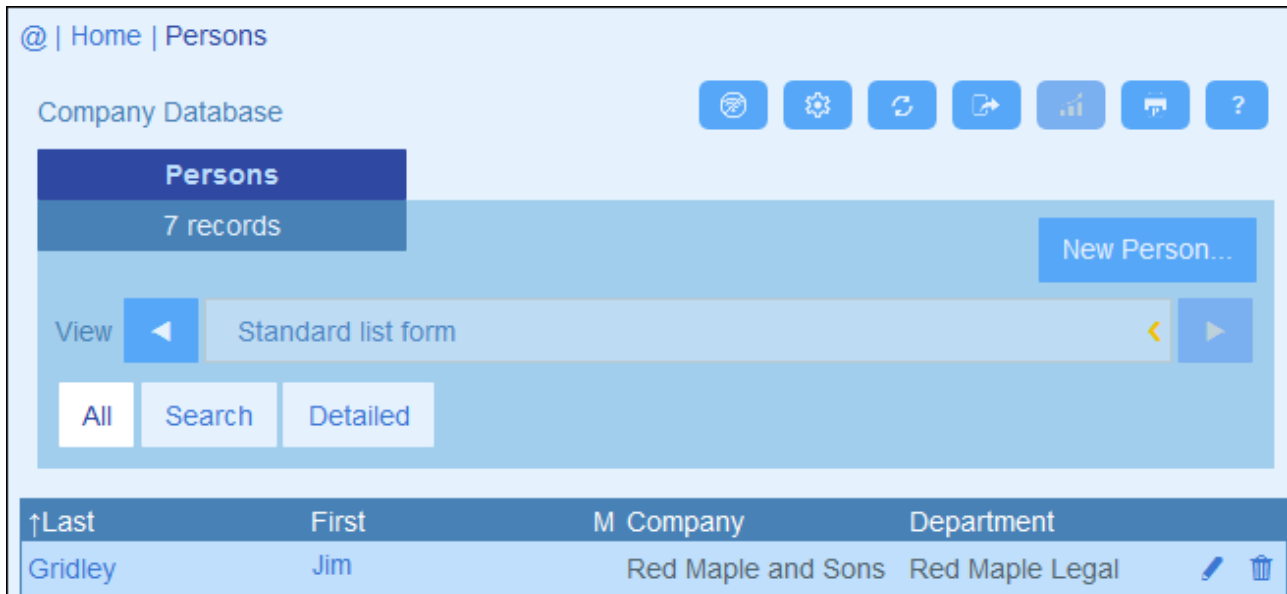
☐ Icons of the Container Page

	Offline Mode ¹⁷²
	Settings ¹³⁶
	Refresh ¹⁶⁴
	Export to XML/CSV ¹⁶⁶
	Generate Report ¹⁶⁹
	Print ¹⁷¹






	Help ¹³³
---	-------------------------------------

4.10 Export to XML, CSV

When a container is opened and its records are listed (as in the screenshot below, which shows a list of *Person* records), you can export the data of these records to an XML and/or CSV file. Your system administrator will have defined one or more export forms for each container. Each export form defines a separate set of data fields (of that container) to export. An export form could include not only the fields of the container, but also the name of the parent container and higher-level ancestor containers. In the case of XML exports, child containers and a selection of their fields could also be included. The different export forms will typically have suggestive names, and the multiple options will give you a choice of datasets to export. If you need another dataset for a container, contact your system administrator.



Icons of the Container Page

	Offline Mode ¹⁷²
	Settings ¹³⁶
	Refresh ¹⁶⁴
	Export to XML/CSV ¹⁶⁶
	Generate Report ¹⁶⁹
	Print ¹⁷¹
	Help ¹³³

XML and CSV formats

XML format

The exported XML file will have a root element named `<Root>`, and `<Root>` will have a child element that has the same name as the current container (in our example, this is the container named *Person*). This element will have the child elements that you selected as the fields to export. For example, the export form for a *Person* container (as shown in the screenshot above) might generate an XML file that looks like this:

```
<Root>
  <Person>
    <Department>Sales</Department>
    <First>Jim</First>
    <Last>Gridely</Last>
    <Title>Executive</Title>
    <Phone>123456789</Phone>
    <Email>legal.01@redmaple.com</Email>
  </Person>
  ...
  <Person>
    <Department>Accounts</Department>
    <First>Jane</First>
    <Last>Locke</Last>
    <Title>Manager</Title>
    <Phone>123789777</Phone>
    <Email>accounts.04@altova.com</Email>
  </Person>
</Root>
```

CSV format

The first line of the CSV file will contain the headers of fields. Each subsequent line contains one record, with the values of fields being in the same sequence as the headers. The separator in records is a comma. Note that each record is a flat listing of the rows of the export form. Child records cannot be displayed because of the flat structure of CSV files. Compare with the XML structure above.

```
"Department","First","Last","Title","Phone","Email"
"Sales","Jim","Gridely","Executive","123456789","legal.01@redmaple.com"
...
"Accounts","Jane","Locke","Manager","123789777","accounts.04@altova.com"
```

Export data

To export to an XML file or a CSV file, do the following:

1. Click **Export to XML/CSV** (see screenshots above).
2. The form that appears (screenshot below) has two parts: (i) the top part lists the export forms that are available for the current container; these will have been defined by your system administrator; select the form you want to use; (ii) in the bottom part, select the export format you want (XML or CSV).

Export 7 Person records

Export data:

Standard export form

Whole DB

File format:

XML

CSV (can be used in Excel)

Cancel Export now

3. Select **Export Now**.
4. In the Save dialog that appears, select the file location where you want to save the exported file, and click **Save**.

Points to note

- An export form exports data related to the current container (for example, a *Person* container).
- XML export: The fields of the container that are selected for export will be exported as XML elements that are children of an element that has the name of the current container (so, for example, an element named *Person*). See *the XML listing above*.
- CSV export: The fields of the container that are selected for export will be exported as the columns of a CSV row, where each CSV row corresponds to a record from the database (for example, one *Person* record). See *the CSV listing above*.
- In export forms, it is not only the container's fields that can be added; parents and higher-level ancestors can also be added. As a result, an exported record can also contain the current container's parents and higher-level ancestors. See *the listings above*.
- While data from child containers can be exported to XML files, they cannot be exported to CSV files. This is because of the flat structure of CSV files.

4.11 Reports

Reports can be generated for the records of a container, separately for each container. The content and layout of reports is defined by your system administrator in a report form. If a report form exists for a container, then the **Reports** button on the container's [Record Listings page](#)¹⁴² is enabled (see screenshot below).

@ | Home | Departments

Company Database

Departments

16 records

New Department...

View Department Names & Descriptions

All Search Detailed

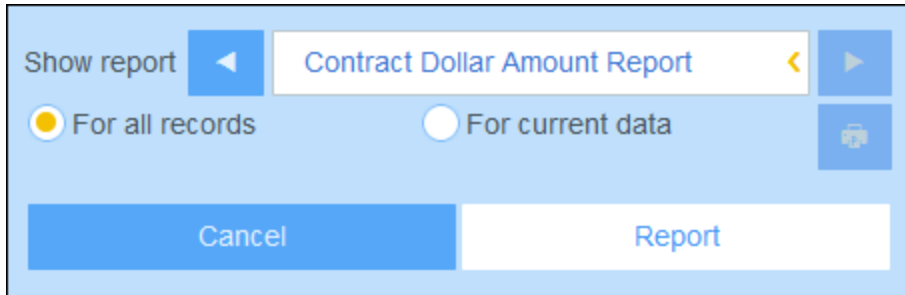
↑Name	Description	
Amazon Legal	Include legal on all sales and agreement discussions	
Arbornull Legal		
Chestnut Corporate Sales		
Deciduous Legal		
Dropbox Enterprise Sales		
HoneyLocut Legal		

Icons of the Container Page

	Offline Mode ¹⁷²
	Settings ¹³⁶
	Refresh ¹⁶⁴
	Export to XML/CSV ¹⁶⁶
	Generate Report ¹⁶⁹
	Print ¹⁷¹
	Help ¹³³

Report options

On clicking the **Reports** button, the *Report Options* form appears (*screenshot below*).



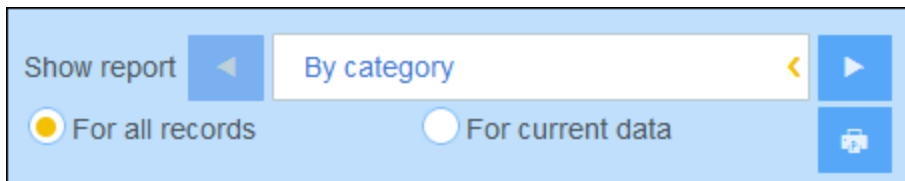
The screenshot shows a light blue dialog box titled "Report Options". At the top left, it says "Show report" followed by a left arrow button, a text field containing "Contract Dollar Amount Report", a right arrow button, and a print icon button. Below this, there are two radio buttons: "For all records" (which is selected) and "For current data". At the bottom, there are two buttons: "Cancel" and "Report".

You can set the following options:

- If multiple report forms have been defined for the container, then set the *Show report* option to the report form you to want to use. If only one report form is available, then this option is not displayed.
- Select whether the report should be generated for all records in the container or only the records in the current record listing (for example, the record listing *Standard list form* that is shown in the first screenshot of this topic, has four records, which may not be the full record count of this container).

The generated report

After the report has been generated, you are once again given the report options (*see above*), but this time within the generated report (*see screenshot below*).



The screenshot shows a light blue dialog box titled "Report Options". At the top left, it says "Show report" followed by a left arrow button, a text field containing "By category", a right arrow button, and a print icon button. Below this, there are two radio buttons: "For all records" (which is selected) and "For current data".

Additionally, you can print the report by clicking the **Print** icon (*see screenshot above*). The report will be created as a PDF, which you can save to file.

4.12 Print

On a [Container Page](#)¹⁴², click the **Print** icon (at top right) to print the current record listing of the current container. The report will be created as a PDF, which you can save to file.

The screenshot shows the 'Departments' container page. At the top, there is a navigation bar with icons for Offline Mode, Settings, Refresh, Export to XML/CSV, Generate Report, Print, and Help. Below the navigation bar, the page title is 'Company Database' and the current view is 'Departments' with 16 records. A 'New Department...' button is visible. The view is set to 'Department Names & Descriptions'. Below the view selector, there are buttons for 'All', 'Search', and 'Detailed'. The main content area displays a table with the following data:

↑Name	Description		
Amazon Legal	Include legal on all sales and agreement discussions		
Arbornull Legal			
Chestnut Corporate Sales			
Deciduous Legal			
Dropbox Enterprise Sales			
HoneyLocut Legal			

Icons of the Container Page

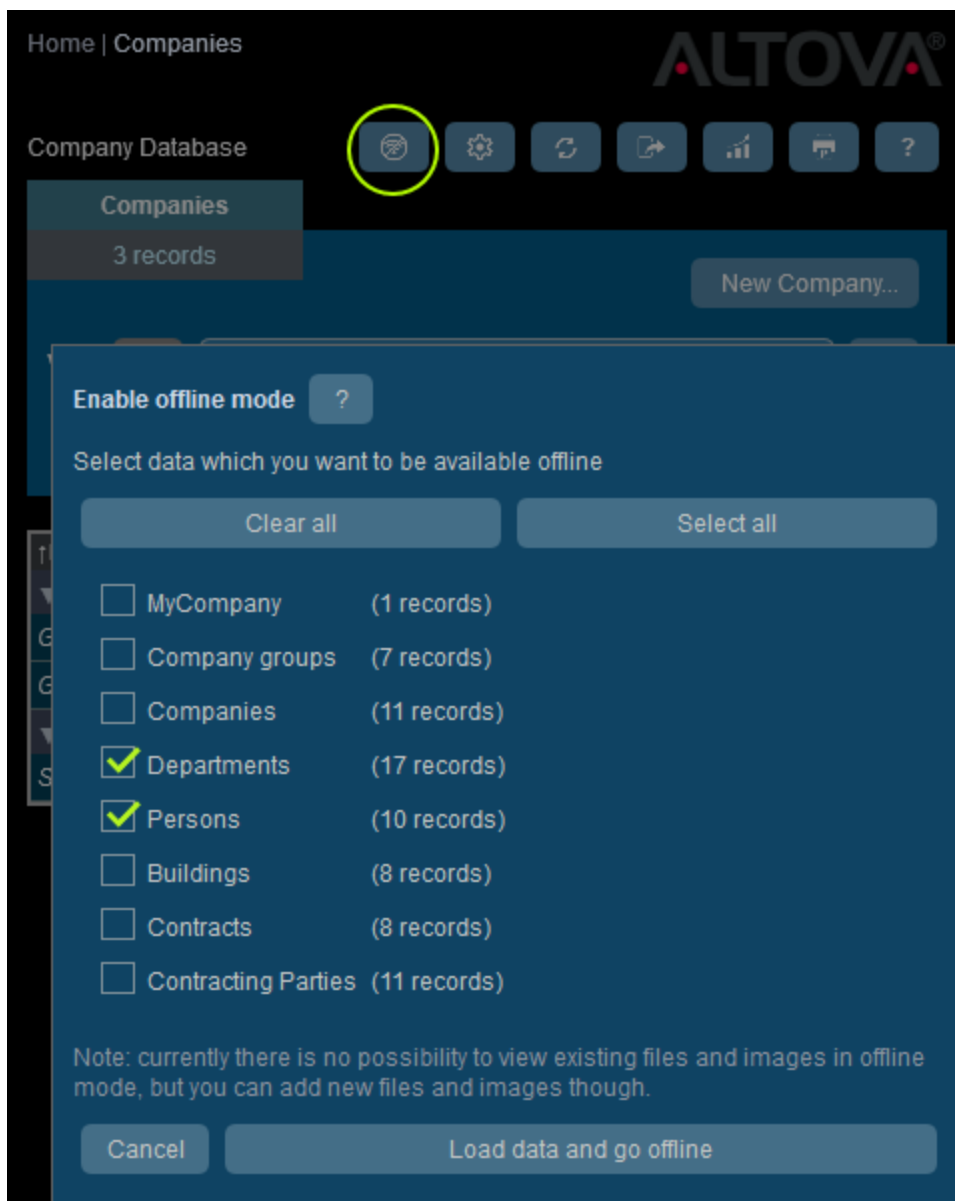
	Offline Mode ¹⁷²
	Settings ¹³⁶
	Refresh ¹⁶⁴
	Export to XML/CSV ¹⁶⁶
	Generate Report ¹⁶⁹
	Print ¹⁷¹
	Help ¹³³

4.13 Offline Mode

Offline Mode enables you to save selected records to your device, edit these records offline, and save your edits back to the server when you exit Offline Mode. The **Offline Mode** button (*circled green in the screenshot below*) is available at the *Home* level and the container level. For example, the screenshot below shows the **Offline Mode** button of the *Companies* container.








To go offline, edit records offline, and return online, do the following:

1. Click the **Offline Mode** button (circled green in the screenshot below) at any level where it is available.
2. In the *Enable Offline Mode* form that appears (*see screenshot below*), select the container/s that you want to edit offline.



3. Click **Load data and go offline**.
4. Records of the container/s that you selected will be available for editing offline. Edit these and save your changes.
5. That you are in Offline Mode will be indicated by a button named **OFFLINE** at top right. To go back online and save your changes to the server database, click **OFFLINE**. When you are back online, your changes will be saved automatically to the ContractManager database.

☐ *Icons of the Container Page*

	Offline Mode ¹⁷²
	Settings ¹³⁶
	Refresh ¹⁶⁴
	Export to XML/CSV ¹⁶⁶
	Generate Report ¹⁶⁹
	Print ¹⁷¹
	Help ¹³³

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