Qi user manual

Qi 6.0

Version Control

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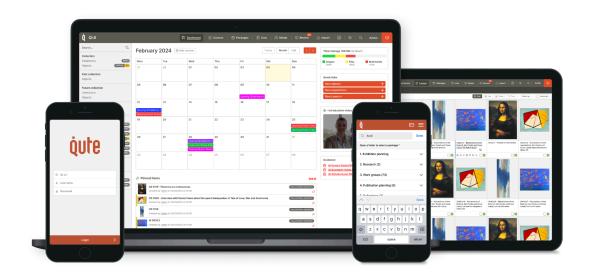


1 Introduction

This document covers all aspects of Qi, including how it works, how data is organized, its fundamental concepts, and its different sections and functionalities. This is one of several manuals that accompanies Qi, and it is specifically designed for regular users. Other manuals address administration and reporting. Additionally, depending on your installation, there may be extra manuals for specific uses of Qi, such as collections management and website management.

2 How Qi works

Qi is a modern and state-of-the art information management system, built from the ground up using web technologies and distributed as Software as a Service (SaaS).



Qi is based on a pure HTML5 and CSS3 interface for its front end, combined with a PHP8/MySQL backend structure. It requires a simple Apache/MySQL application server - there is no software to install nor to update. Qi is compatible with any modern operating system and modern browsers.

All Qi code is Object Oriented based on the MVC (Model-View-Controller) design pattern.

3 The Qi data structure

Qi is based on strong relational database principles, using SQL databases as backend. The data in Qi is full normalised - meaning that for each relationship only IDs of related records are stored in the database - not the actual values. This means that every snippet of information only exists once in the whole database structure and removes any risk of out-of-date or orphaned text strings.

3.1 Configuration and flexibility

Qi is an abstract database management software. What this means is that Qi does not have a pre-defined data schema, like most collections management systems - but the structure of the database may be different for each customer and situation.

As Keepthinking is committed to international standards, any custom configuration will be guided by standardisation (e.g. Spectrum, CDWA, CHIN, ISAD(g), RDA, etc). At the same time Qi sees standards as a set of starting guidelines, which can be followed entirely or modified to cope with complex situations.

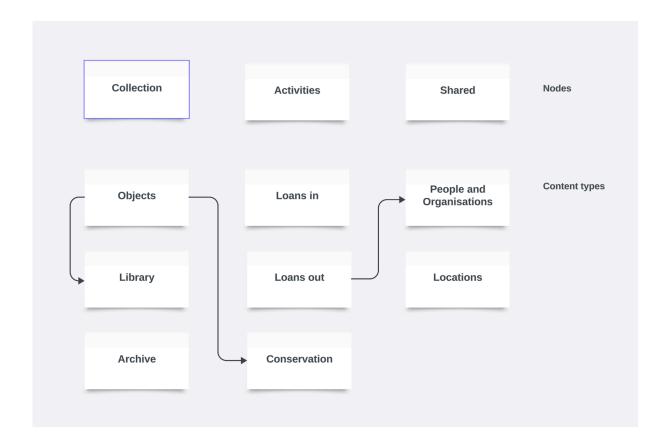
The configuration is purely managed at the database level, not on the software code - which is the same for every installation. This means that irrespective of how customised the database is, customers can upgrade to a newer version of the software with ease.

3.2 Clusters, nodes and types

Qi is founded on the principles of clusters, nodes and types.

- Clusters group nodes and types, providing a high-level logical separation. For example, institutions with multiple sites or departments might use clusters to give each unit control over its own management team and media libraries.
- Nodes are sections of the database linked to access control. A database might have a single node (e.g., for a small museum with no loan activities) or multiple nodes and sub-nodes (e.g., for a group of museums working together). Nodes can represent various collections or departments, such as archives or libraries.
- Types are content templates. Each type corresponds to one or more tables in the database and includes fields, foreign keys, authorities, and digital assets. Each node can include one or more types. For instance, the "Object" type may appear in both the "Collection" and "Loans" nodes: first, to catalog museum objects, and second, to record temporarily borrowed items.

Each node will include one or more types. For instance the Object type may be used in the Collection node as well as in the Loans node, in the first case to catalogue objects in the museum's own collection while in others to create records of objects that are borrowed temporarily.



The typical Qi collection management structure will include three nodes for each museum (collection, activities, loans) - but this can vary in different situations.

3.3 Content and lists

In Qi, **content** encompasses everything requiring approval, divided into different nodes. **Lists** are used to categorise content and do not require approval. They span the entire database and are not dependent on nodes.

3.4 Fields, Relationships and Dependents

Each type (content or list) includes fields and relationships:

- **Fields** store information that only requires a single value per record, such as accession numbers, item counts, and descriptions. Field types range from free text to pick lists and can include dates, times, currency, and numbers.
- Relationships handle repeated information, such as dimensions, movements, exhibitions, valuations, and keywords. Qi supports two types of relationships:
 - Many-to-Many (M-N) relationships link two records. For example, one object may relate to multiple artists, and one artist to multiple objects.
 - One-to-Many (1-M) relationships create multiple values for one record, such as valuations or dimensions that belong only to a specific object.

Relationships may also have contextual fields, for instance the caption for objects in an

exhibition.

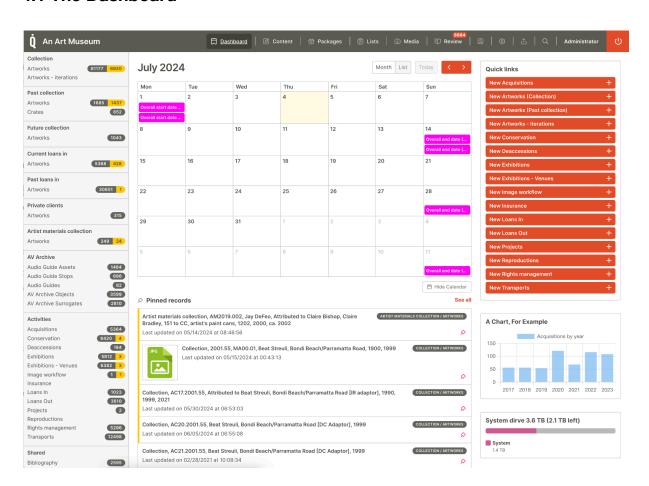
Relationships can display at the bottom of the page in the "Relationship" section or they can be embedded in the main body of the record, in this case they are called Repeatable fields.

Dependents are a special type of One to Many (1-M) relationship, whereas a parent displays all of its immediate children or a list value displays all of the records that have selected that value.

4 The Qi interface

This section is about the Qi interface.

4.1 The Dashboard

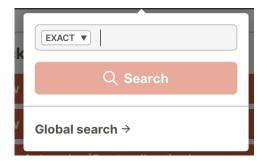


The dashboard is the first screen you will see in Qi. It has a list of all the content available, recent activity, pinned records and quick links (depending on configuration and permissions).

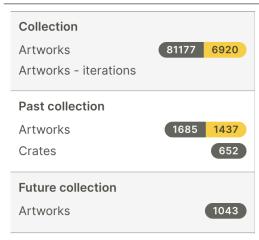
On the Dashboard:



The main menu on the top is what gives you access to all available options, Content, Lists, etc. On the right hand side you also have a global search option.



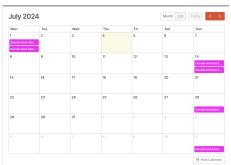
Global search, across all authorised content.



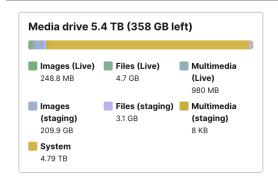
List of all Nodes (bold) and Types. Grey numbers are the total number of records (including drafts), yellow numbers are records pending review (Drafts). Drafts are records that have unapproved changes.



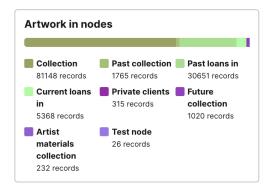
Quick links to creating new content.



The collapsable calendar view to show Qi records that have dates. The admin manual contains information on how to configure this.



Charts can be configured by the Keepthinking team to show you metrics from your Qi. eg. accessions by year or Objects by type. There can be multiple charts which are seen by all users within your Qi. Please get in touch with Keepthinking for assistance in setting these up.



♦ Dark theme

Dark theme. In the footer of Qi there is an option to change the interface into "Dark mode", This will change the entire interface from light into dark to reduce eye strain.



List of pinned records, these are records that have been pinned so they are easily accessible from the dashboard. The selection of records is specific to the user.



List of items to review.



List of recent changes.



List of records I am working on, but are not yet approved.



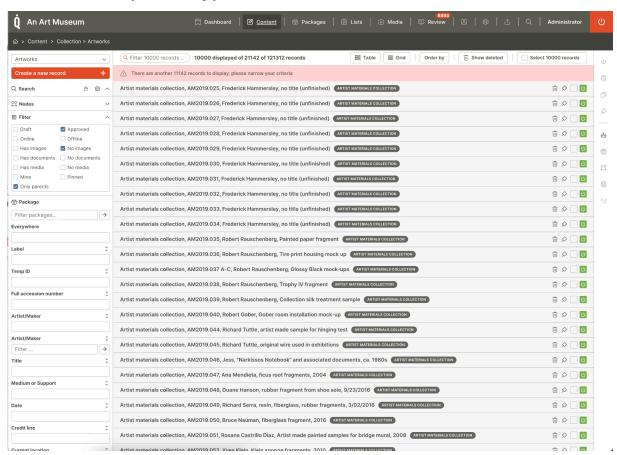
5 Managing content

Content is the core part of the database where you'll spend most of your time. Content is organised into clusters, nodes, and types.

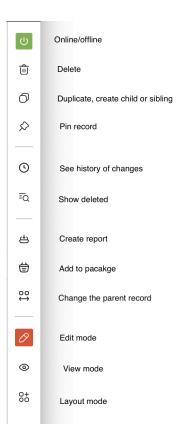
For example, selecting **Collection (node) > Objects (type)** displays content based on your permissions. Qi provides three main views for managing content.

5.1 List view

This is the main way of viewing your content.



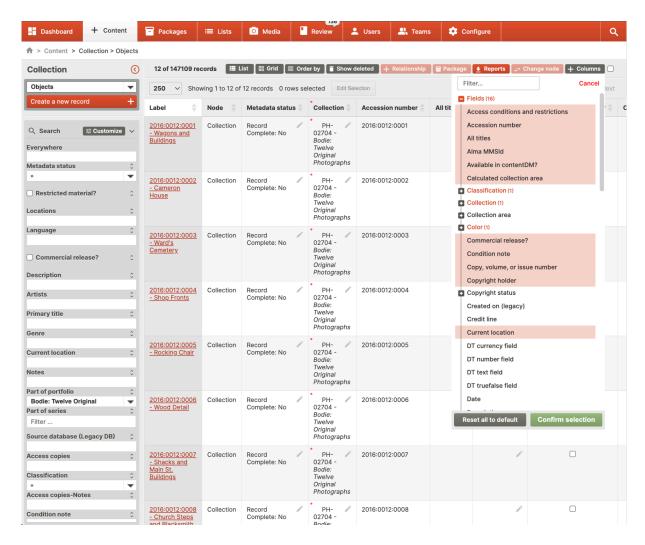
From here you can select a group of records and do the following actions using the right hand menu:



- Add relationships: Set up in the configuration panel (see the Admin manual for details).
- Change nodes: Move records from one node to another, e.g., from Collection to Past Collection.
- Change parent record: Reassign a record within the hierarchy.
- Make duplicates: Create empty child or sibling records, apart from the parent field.
- Run reports: Export data from Qi to Word or Excel (see the Reporting manual).
- Add to package: Compile selected records.
- Change status: Toggle between online and offline to control website availability.
- Pin records: Display selected records on your dashboard for easy access.

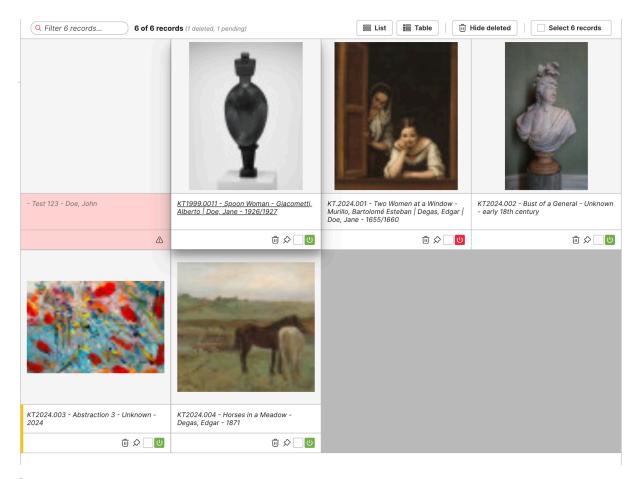
5.2 Table view

Qi also has a table view to allow users to choose which fields to view and to bulk edit. Click on the "+ Column" to choose new fields to view, all fields with the pencil icon are editable (relationships, readonly and unique fields are not). Users can choose a group of records and bulk edit them by clicking on the "Edit selection" button.



5.3 Grid view

The grid view allows users to view their record with a large thumbnail view.



Click on the image and you can view it full screen and navigate to the next object record using the left and right arrows.

5.4 Search

5.4.1 The everywhere search

On the left, you will find the **Everywhere Search** form. This feature searches every field and relationship, except for relationship contextual fields and dependents. It only searches full words: for example, if a record contains the word "lights" and you search for "light," it won't return that record as a result.

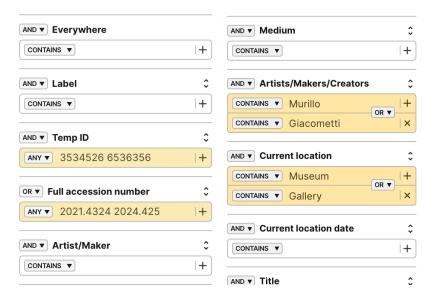
The search accepts *wildcards*; for instance, searching for "light*" will return results for "light," "lights," "lighting," "lighter," and so on. However, other Boolean operators are not supported in this field.

5.4.2 Field specific searching

You can click on **Customise** and choose specific fields to include in your search. These preferences are saved to your user profile and remain until you modify them.

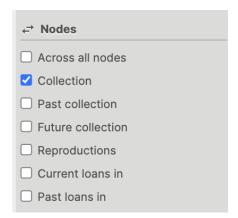


Boolean search operators are available within each field dropdown, and there are also options between fields to specify *AND*, *OR*, or *NOT*.



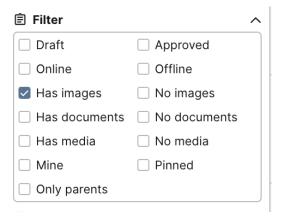
5.4.3 Search across nodes

The **Nodes** section in the search bar allows users to select which nodes to search within, depending on their user permissions.



5.4.4 Search filters

At the bottom of the search form, there are several checkboxes for additional search filters.



These options include:

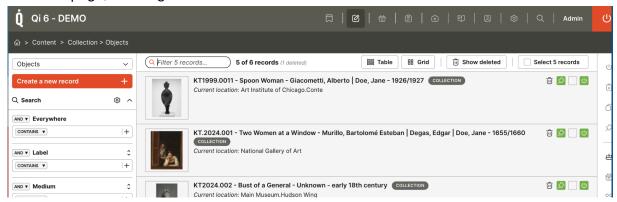
- Drafts: Only records with changes pending review and approval.
- Approved: Records that are approved.
- For Approval: Draft records that may or may not be ready for approval.
- Mine: Records created by you.
- Online: Records set to online status (indicated by a green button).
- Offline: Records set to offline status.
- Has Images / Has No Image: Records with or without images.
- Has Documents / Has No Documents: Records with or without attached documents.
- Has Media / Has No Media: Records with or without media files.
- **Deleted**: Records marked as deleted (the "Show deleted" option must be enabled).
- Pinned: User-specific pinned records.
- Only Parents: Top-level records in a hierarchical structure.

6 Search results

In List View, there is an additional search filter at the top of the page, allowing users to filter

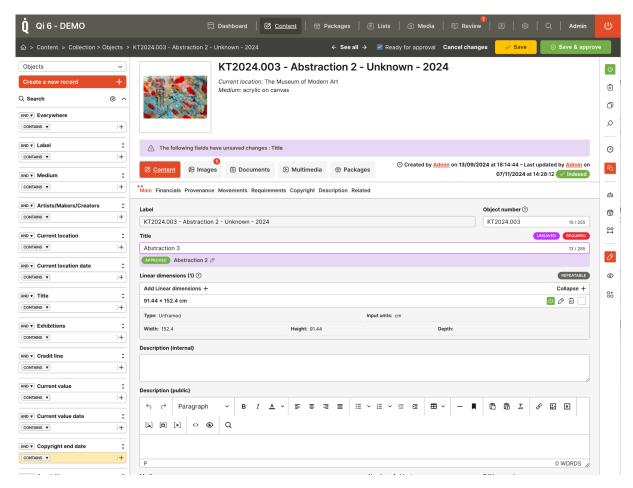


results further by searching within the label. Search results load continually as you scroll down the page, allowing for fast return of results.

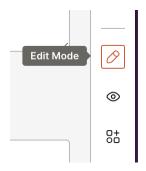


7 Editing records

When editing a record, this is the screen you will see (the process is the same for new and for existing records).



To edit records, you must enter Edit Record mode, available in the right-hand menu.



When editing, you will see up to four main tabs (depending on configuration and the record type) and, optionally, sub-tabs in the **Content** tab.

Tabs that have required fields or fields with draft changes show in the tabs with a red dot or yellow background. Tabs that have local changes show as a purple dot.

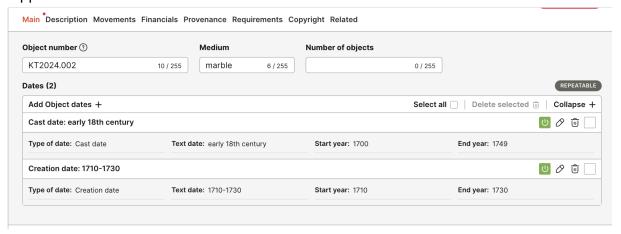
7.1 Content

Content is where you enter meta-data, using a variety of fields and relationships. Please note you can only start entering relationships (including fields with multiple values) once you have saved a draft of the record: this is because Qi needs a primary record ID to link relationships to.

Each field can have help text added, this is added in the configuration tab.

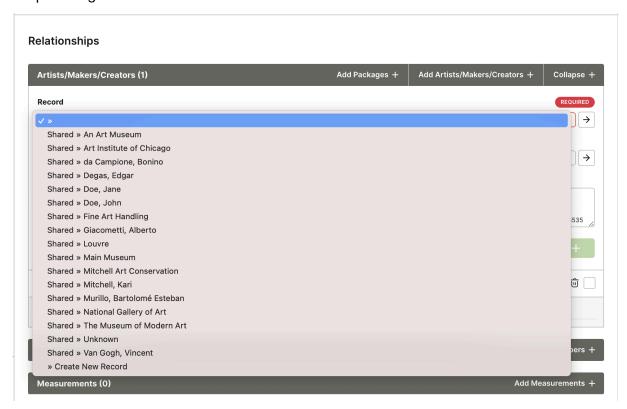


Relationships may display at the bottom of the record or be embedded within the main body of the record, as with dates in the example below. This can be managed in the configuration panel; please refer to the configuration manual or contact the Keepthinking team for support.



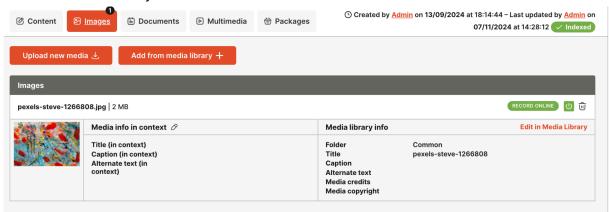
When adding a relationship to another content type or list, there is an option to create a new

record if it does not already exist. This feature appears at the bottom of the list, enabling you to create a new record and link it to the current one. This functionality can be enabled for each specific relationship; please refer to the configuration manual or contact the Keepthinking team for assistance.



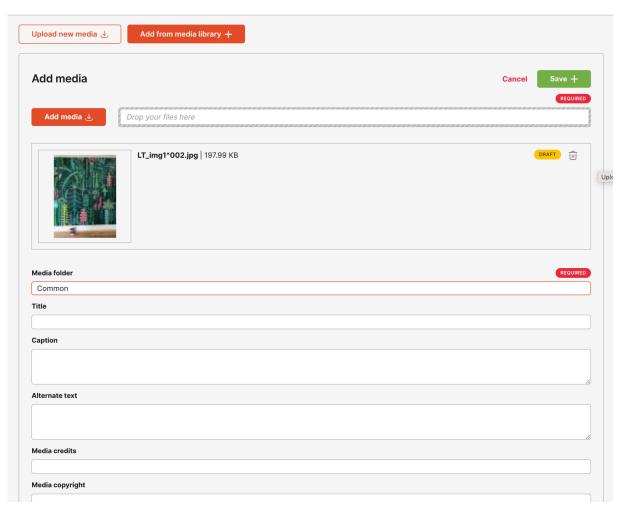
7.1.1 Images

On the Images tab you can upload new images and/or link images that are already part of the DAM/Media Library.

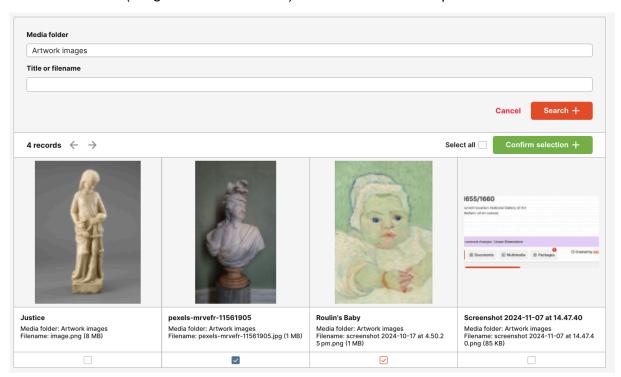


Uploading a new image is simple and can be done using drag and drop.

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Linking an image of the Media Library involves finding the image via a combination of media folder and search (image file name and title). You can choose multiple files to add at once.





Images (and other media assets) can be reordered via drag and drop.



Images and other assets need to be approved (see below).

7.1.2 Documents and multimedia

The process to upload documents (e.g. Word, Excel, PDF) and multimedia (e.g. audio and video) is exactly the same as for images.

7.2 Indexing

Qi stores all data about a record in an index table for searching and generating reports. Changes that are made are processed one by one and are stored in a queue. Sometimes this queue can be long and new changes are not available for exporting in reports, the status of the record Indexed or Not indexed are shown at the top of the record. Users can push a record to the top of the queue by clicking on the "Not Indexed" button.

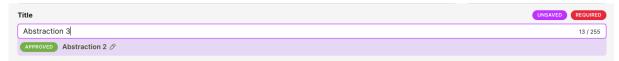
7.3 Duplicating records

When you click on the duplicate button on the right you have several options. The "Create new" options are only available in a hierarchical structure.

Duplicate create an exact duplicate, there are options to exclude relationships or media Create new Sibling - This create a new record with only the parent record field filled in Create new Child - This create a new record with only the parent record field filled in

7.4 Locally stored changes

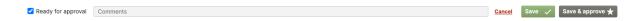
When you are making changes to a record they are automatically stored in your browser and will remain there if you move away from the record, they will only be accessible on that specific computer and browser. These are highlighted in purple in the interface.



7.5 Save and Save & Approve

Once you are finished with the new record or the changes to an existing record, you will want to save them. Depending on your permissions, you will have two options to do that:

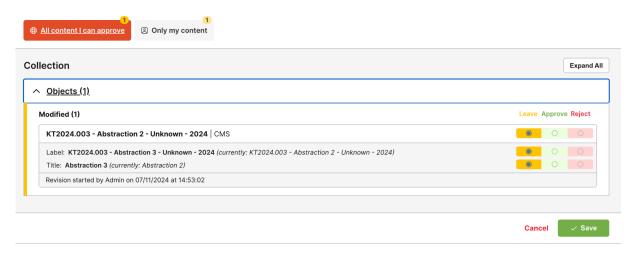
Save or Save & Approve. These options are in the sticky breadcrumb at the top of the record and at the bottom underneath the content.



7.5.1 Ready for approval

As per the picture above, there are two options to the left of the Save buttons:

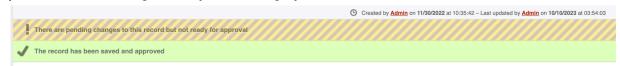
 Ready for approval (checkbox): if checked (default) it means that a new record or the changes to an existing record are ready to be formally approved. It is possible to leave a message/comments that the authorised approver would see in his/her review panel.



A record that is ready for approval would have a characteristic yellow marking, in lists and the single record.



If the Ready for approval tickbox is unchecked, the record won't be listed in the review panel and its marking will be yellow and grey.



7.5.2 The approval workflow

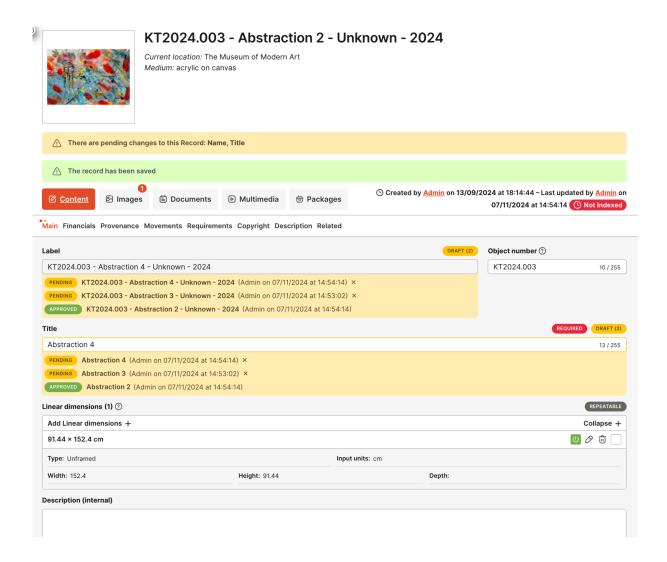
In Qi, for Content types, all changes to records and all new records follow an approval workflow:

- A content editor creates a new record or modifies an existing record
- 2. When Saving the record (or the changes) they are written into the database as Draft

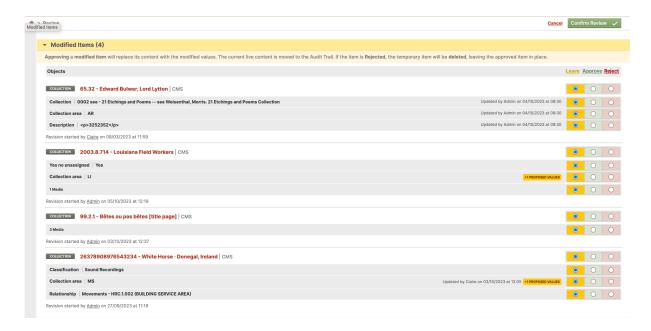
3. A content approver can then approve or reject the changes

The full history of changes is preserved in the audit trail.

The workflow is as follows:



I have made changes to a record and clicked Save. A new revision has been created that has two changes to one field and one added image (which also needs approval).



The user with approval rights notices that there are records to review and heads to the Review panel. Users can approve individual changes within a record.

7.5.3 Permissions

Depending on permission, you may have the right to just save (or not even that) or to Save & Approve. Generally, separation between editing and approving is typical of medium/large teams and museums. In a small institution the person who makes the changes is the person who also approves them. In every instance, even with a Save & Approve action the history of changes is preserved in the audit trail.

7.6 Deleting records

Qi never deletes records, it simply hides them from view. Deleting is a two-step process for standard records (content and lists) and a simple one for relationships and media.



7.6.1 Deleting standard records (Content and Lists)

First you need to mark an item for deletion, using the bin button.

Items that are marked for deletion will be subject to the review process, so deletion needs to be approved by a User with appropriate permissions.

Qi will check if the record has dependencies and in particular if it is used as a list value or in a relationship. If the latter is the case, the reviewer won't be able to confirm deletion until dependencies are manually removed.



Deleting relationships and media records

Deleting relationships and media is a one-step process and does not need approval.

7.6.2 Restoring deleted records

To see deleted records, you need to turn on the related flag, by clicking "Show deleted" next to the number of records in a list. Please note that the link will not appear if the type has no deleted records.



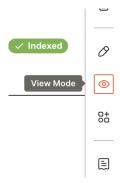
To restore a record simply click "undelete" (subject to permissions). The process is the same for media and relationships.

8 Content views

Beyond **Edit mode**, there are two additional modes available in version 6.0.

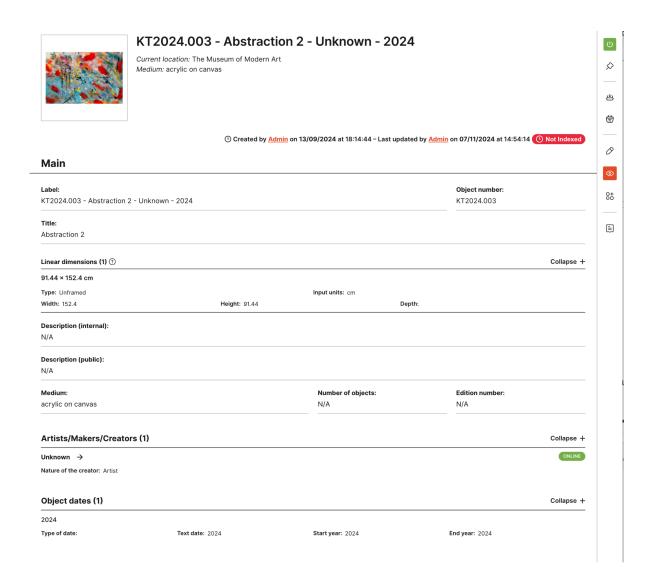
8.1 View mode

View mode is selected by clicking on the icon in the right hand menu.



This mode shows all content and media in a condensed single page. This is a way for users who are not editing content to view records.

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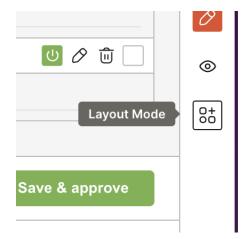


In view mode there is a Print View button that allows users to quickly export the information about that single record.

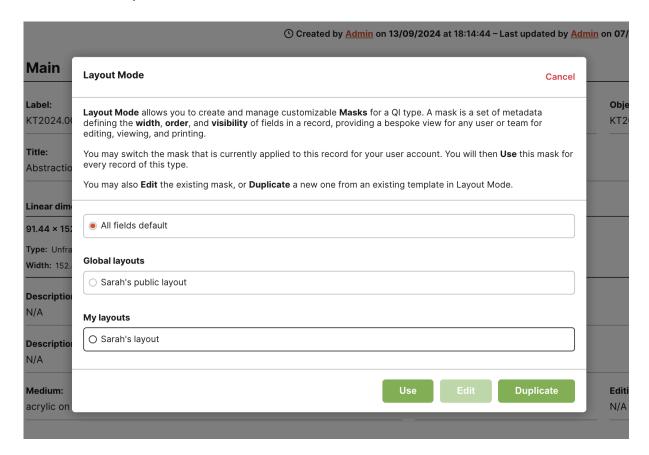


8.2 Layout masks

The layouts mask are accessed via the **Layout mode** icon in the right hand menu.



Layout masks allow users to customise which fields are displayed, as well as their order, size, and tab placement. Personalised layouts will appear in the "My Layouts" section. Admin users can also create **Global Layouts** that are available to all users; these are listed under "Global Layouts."

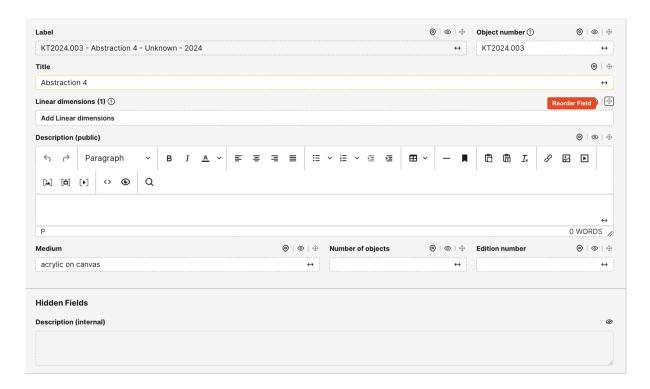


Users can switch between existing layouts, edit current ones, or create new ones.

- To select a layout, choose one and click "Use."
- To create a new layout, select a template as a starting point and click "Duplicate."
 The All Fields Default template includes all available fields and is often a useful starting option.

To edit an existing template, select it and then click on "Edit"

When editing an existing template or creating a new one, you can drag and drop fields to resize and reorder them. Hidden fields appear below and can be restored by clicking the "Show Field" icon.



When saving a layout, give it a unique name. You can then choose either **Save** or **Save and Use** to apply it immediately.

Admins can choose at this point if the template should be a personal layout (only available to them) or a global layout which is available to all users.



9 Managing lists

Managing Lists is entirely similar to managing Content; the only difference being that changes can be saved without the need to be approved. Only deletions need to be approved.

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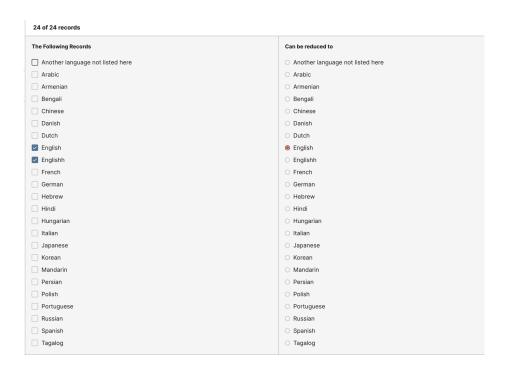
9.1 List cleaning tool

The list cleaning tool is embedded in Qi (dependent on permissions) and is accessible in the list menu by clicking on the "Clean" icon.



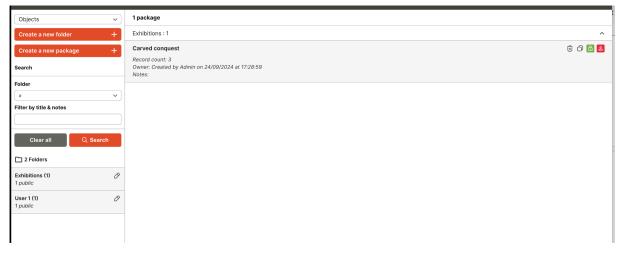
Users can select two or more terms in the left-hand column that they wish to merge, then choose the term to keep in the right-hand column. The selected terms will be merged, along with all their associated links. Note that this action is irreversible, so use with care.





10 Packages

Packages are simple ways to save records into temporary lists. Packages can be linked to like any other record.



A simple use case for Packages is preparation for an exhibition. Curators can prepare a list of objects over the course of weeks and months and when ready, link them in one go to an exhibition, a condition checking and a transport activity.

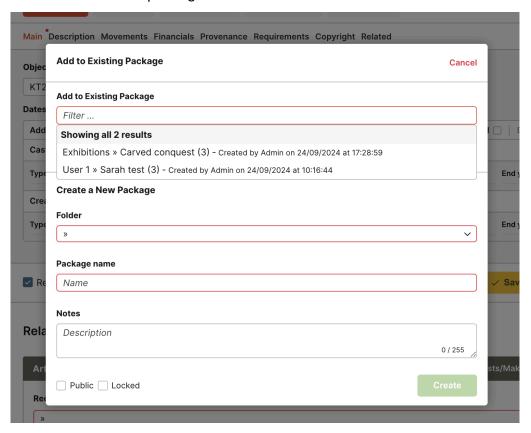
10.1 Package folders

Packages can be organised into Folders, which are created from the Packages Tab.



10.2 Editing packages

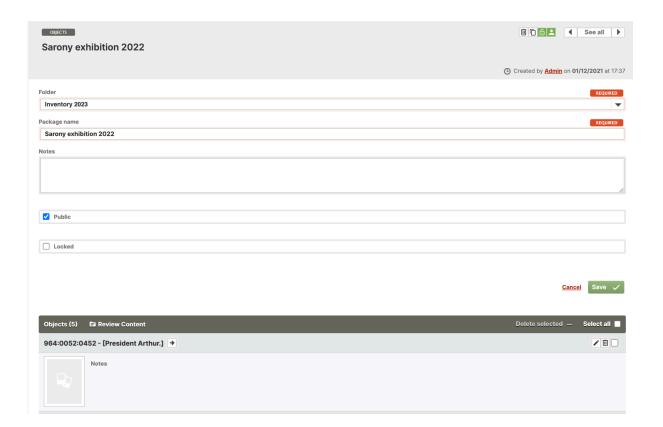
The procedure for creating packages involves a standard search in Content (e.g. for Objects) and adding some or all of the results to one Package. At least one Package folder must exist in order to be able to create packages.



When one or more records are selected, by choosing Add at the top of the list it will be possible to add them to an existing package or to a new one. Packages can be used as one of the search criteria.

Packages can be public or private (only visible to their creator) as well as locked or unlocked (ability to add/remove objects).

Clicking on the Review Content button will take you to view the content on the package in the content view.



10.3 Removing objects from packages is done in the package tab.

10.4 Using packages

Packages are generally used when linking to other types of content, for instance linking Objects to an Exhibition.



In this case, we can link an event to an individual object as well as to object packages (i.e. a group of objects). Once linked, Objects do not maintain the relationship to the package. This means that if new objects are added or removed to the package they will not automatically be linked to the event in which the package was used.

11 Digital Assets Management (Media)

In Qi, the integrated DAMS is called the Media Library.





Digital assets are organised in Catalogues, Types and Folders.

11.1 Media Catalogues

Media Catalogues are the highest level of the hierarchy and folders are inside them. The purpose of Catalogues is to allow different access permissions to media files, as permissions are controlled at catalogue level.



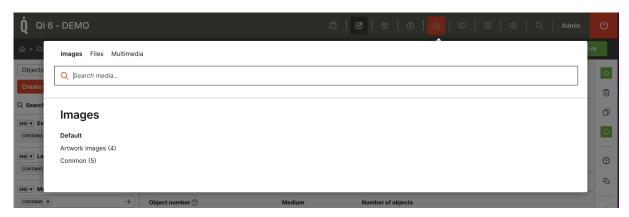
Different teams can be assigned different permissions for each Catalogue, from no access to full access to read only. Read only can also be limited to specific sizes for images.

Only users with configuration permissions can create and edit Catalogues.

11.2 Media types

There are three types of media assets in Qi:

- Images
- Files
- Multimedia



Files and Multimedia are complex assets, as they can be combined with others to create media packages. In particular:

- Files can be linked to images (e.g. cover image for a PDF catalogue)
- Multimedia can be linked to images (.e.g. cover image for a video), files (e.g. transcripts) and one or more subtitle files



11.3 Media folders

The media is a way to organise files inside the DAMS - similar to what happens on the standard computer filesystem.



Each Catalogue and Type pair will have different folders. Folders have 5 parameters:

Catalogue (must be assessable to the user)

Media folder name. This is the name that appears in Qi

Directory. This is what gets written to the disk - only alphanumeric and underscore characters

Rank is for special purposes - usually just for reports

Password protected. This means that files in the folder are only accessible from within Qi i.e. they are not public on the web. This is for reserved documents and should not be used for public images and PDFs

11.4 Media records

For each type, the media record displays filenames, path and links to content, along with a

list record of where the asset is currently being used and also relevant meta-data.

It is possible to edit meta-data, change the folder as well as replace assets. Only files that are not linked to any content or list record can be deleted.