Keepthinking®

Qi user manual

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1. Introduction

This document covers all aspects of Qi, including how it works, how data is organised, what its fundamental concepts are, as well as its different sections and functionalities. This is one of a number of manuals that accompanies Qi and it is dedicated to regular users. The other standard manuals cover administration and reporting. In addition, depending on your installation, there may be extra manuals dedicated to your specific instance of Qi, for 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).
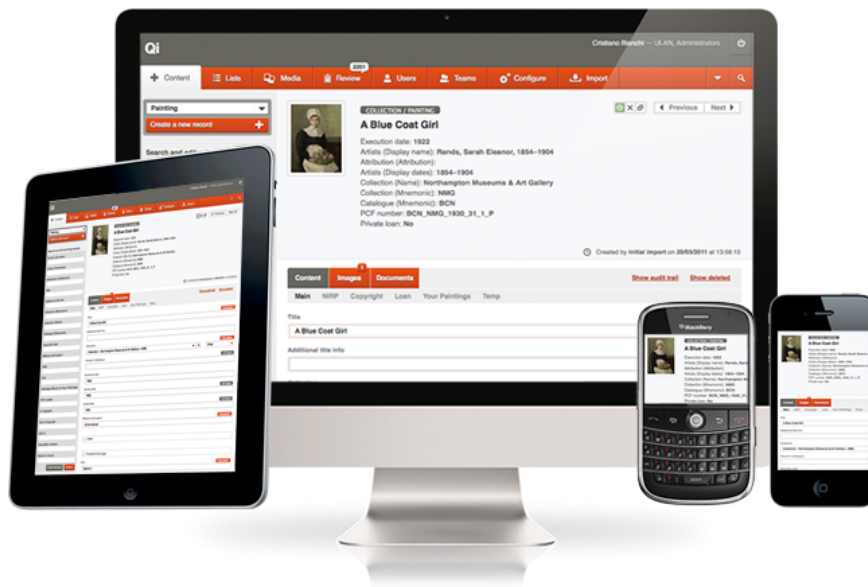
Qi is based on a pure HTML5 and CSS3 interface for its front end, combined with a PHP5/MySQL backend structure. It requires a simple Apache/MySQL application server - there is no software to install nor to update. Qi is compatible with any modern operating system and modern browsers.

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 This means that every snippet of information only exists once in the whole database structure and removes any risk of out-of-date or orphaned text strings.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 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** are grouping mechanisms for Nodes and Types, each with bigger logical separation than what is below. A typical use of clusters is institutions with multiple sites or departments, where each unit wants to have control over its own management team and media libraries.

› **Nodes** are sections of the database that are linked to access control. A database may include a single node (e.g. a very small museum with no loan activities) or multiple nodes and sub-nodes (e.g. a cluster of large and small museums working together). In between, we have single museums with multiple collections or institutions that manage more than just their collection in Qi, e.g. archive and library.

› **Types** are Content templates. Each type corresponds to one or more tables in the database and includes one or more fields, foreign keys, authorities and digital assets.

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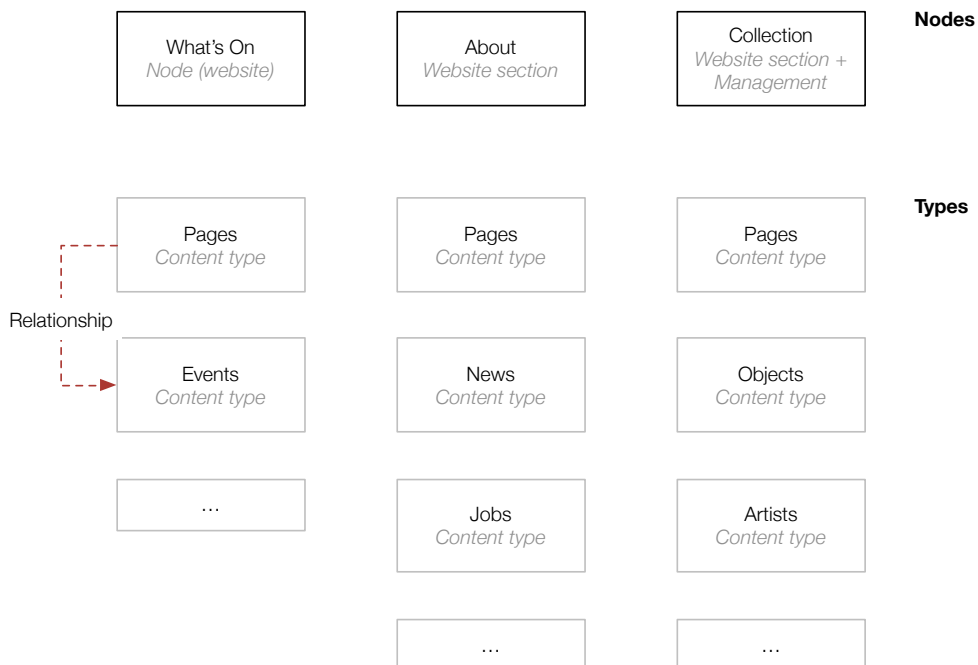
The typical Qi collection management structure will include three nodes for each museum (collection, activities, loans) - but this can vary in different situations.

3.3.   Content and lists

Simply put, Content is everything that requires approval and can be divided into different nodes. Lists are used to categorise content, do not require approval and span the whole database - they are not node-dependent.

3.4.   Fields, Relationships and Dependents

Each type (of content or list) will include fields and relationships.

› **Fields** are for information that - for a record - only need to have a single value: e.g. accession number, number of items, short description and so on. Field types may range from free text to authority pick lists, with everything in between: dates, times, currency, numbers and so on.

› **Relationships** are for information that is repeated, like dimensions, movements, exhibitions, valuations and keywords. Qi has two types of relationships:

  - **Many to Many (M-N)** relationships link two records: one object may be linked to two artists and one artist may be linked to multiple objects.

  - **One to Many (1-M)** relationships create multiple values for one specific record: valuations, dimensions, etc. that don't belong to any other objects.

› Relationships may also have *contextual* fields, for instance the caption for objects in an exhibition.

› **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 and quick links (depending on configuration and permissions).

On the Dashboard:

The main menu 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.

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 main part of the database, where you will be working most of the time. As already mentioned, content can be divided in Clusters, Nodes and Types.

If you for example select the Collection (node) » Objects (type), this is what you might see (depending on your permissions).

5.1. Search

On the left, you will find a search form, with many fields (configurable, by Keepthinking).

On the left, I can search for existing records or create new ones. On the right, I can select an existing record to view and edit. From the list of records I can also export data and create *packages* (see below).

> Everywhere - searches all field (including relationships)

> Individual fields, which may be text, check boxes or drop down lists

> Dates must be searched using YYYY or YYYY-MM or YYYY-MM-DD

Search has several *modifiers*:

> A normal *string* will perform a *pattern* search, accent and case insensitive: searching for *light* will also find *lighter* and *lowlight*.

> If you want to search for a whole word or sentence, you can wrap in **"double quotes"**

> Boolean operators available are **AND**, **OR**, **NOT**, **EMPTY** and **NOT EMPTY** (all in UPPERCASE) - the last two find fields that have / do not have a value

> For numeric and date fields you can use additional modifiers (all in UPPERCASE):

  - **GT** searches values Greater Than (e.g. "GT 1000")

  - **GTE** searches values Greater or Equal Than (e.g. "GTE 1000")

  - **LT** searches values Less Than (e.g. "LT 1000")

  - **LT** searches values Less or Equal Than (e.g. "LTE 1000")

  - **BETWEEN** searches ranges (e.g. "BETWEEN "2015-01-01 2015-01-31)

On the results, a vertical yellow line means that the object has modifications that are waiting to be approved.

GB1752.ART/1/346 - [Unknown]

GB1752.ART/1/507 - Night Plume

5.2. The Everywhere search

Q SEARCH   Clear all fields ⌄

Everywhere

The Everywhere search is what we call a "Full Text Search" field and behaves differently from the other fields:

› It searches every field and every relationship, but not relationship contextual fields and dependents

› It only searches full words: if a record contains the word lights and you search for light, it won't return that record as a result.

› It accepts "wildcards": in the previous example, if you search for light* it will return both light as well as lights, lighting, lighter, etc

5.3. Search modifiers

At the bottom of the search form, you have a series of checkboxes that specify extra search options.
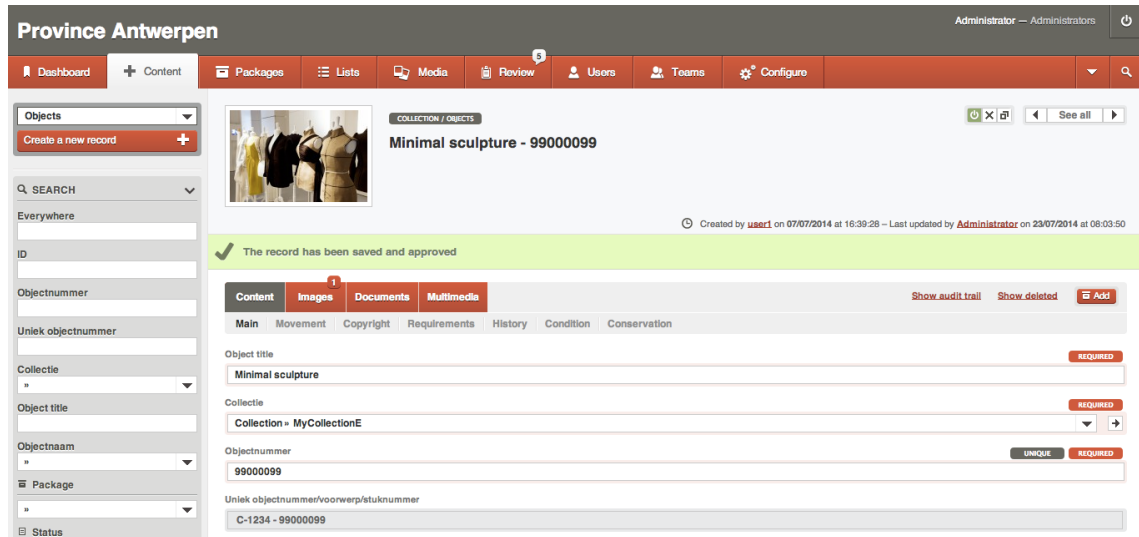
▣ **Status**

☐ Draft   ☐ Approved
☐ For approval ☐ Mine
☐ Online   ☐ Offline
☐ Has images   ☐ Deleted
☐ Across all nodes

The options do the following:

› Drafts: only records that have changes pending review and approval

› Approved: the opposite

› For approval: a draft record may or may not be ready for approval

› Mine: records that you have created

› Online: records that are set online (green on button)

› Offline: the opposite

› Has images: self-explanatory

› Deleted: records that have been deleted (the "Show deleted" option must be on)

› Across all nodes: a type of content may be divided across multiple nodes - this gives you the option, which is dependent upon your permissions, to see objects in nodes others that the one from where you start the search

5.4. Editing records

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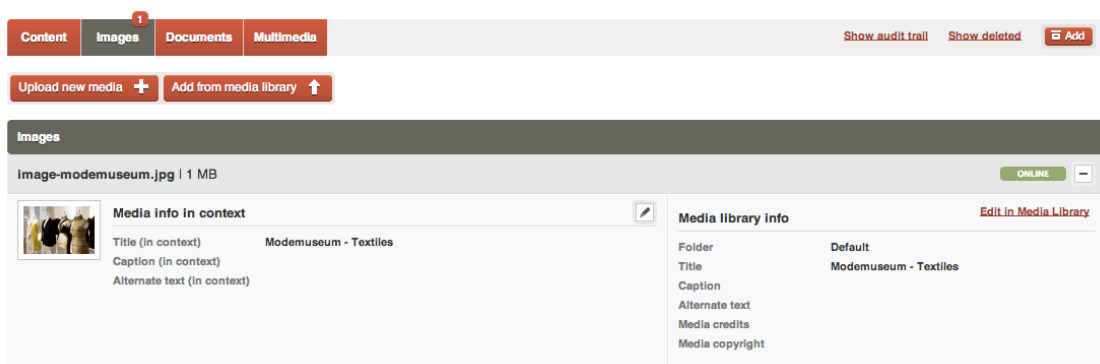

Here you have up to four main tabs (depending on configuration and variable by type) and optionally sub tabs in the Content main tab.

5.4.1. 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.

5.4.2. 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.

Linking an image of the Media Library involves finding the image via a combination of media folder and search (image file name and title).

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

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

5.4.3.   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.

5.5.   Save and Save & Approve

Once you are finishes 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**.

5.5.1. Ready (not not) 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.
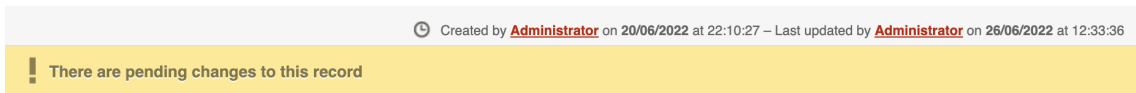
If the **Ready for approval** tickbox is unchecked, the record won't be listed in the review panel and its marking with be yellow and grey.
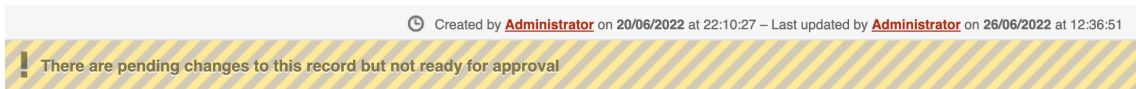
5.5.2. The approval workflow

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

1. 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 changed fields and one added image (which also needs approval).

The user with approval rights notices that there are records to review (6 in this case) and heads to the Review panel.

5.5.3. 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.

5.6. 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.

5.6.1. Deleting standard records (Content and Lists)

First you need to mark an item for deletion, using the 'x' 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.

COLLECTION **Modemuseum - Textiles** Last updated by Administrator on 23/07/2014 at 03:57:33

! **You cannot delete this record**

This record is in use by other records in the following contexts. Please modify the relevant items.

Record(s) in which the item is used as a value in a list

Collection | Objecten (objects) | **651 - My first event**

Collection | Objecten (objects) | **345 - sertdfg**

Collection | Objecten (objects) | **My object**

Collection | Objecten (objects) | **123123 - fobj**

Collection | Objecten (objects) | **2543 - Tram**

Collection | Objecten (objects) | **awev**

Collection | Objecten (objects) | **354345 - eertsert**

Collection | Objecten (objects) | **2015.225.255 - A new mask from India**

Collection | Objecten (objects) | **123 - Groene Waterman**

Collection | Objecten (objects) | **test 123 - Poopenkast**

5.6.2. Deleting relationships and media records

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

5.6.3. 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.

1 record *(1 total, 1 deleted)* **Show deleted**

To restore a record simply click "undelete" (subject to permissions).

1 of 1 record *(1 deleted)* **Hide deleted**   View ⊞   Add   ⬇ Export   Select all ☐

HG1 - Heart of Gold   undelete

The process is the same for media and relationships.

5.7. 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.

6. 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.

6.1. Package folders

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

6.2. 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).

Removing objects from packages is done in the package Tab.

6.3. 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.

7. Digital Assets Management (Media)

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

Digital assets are organised in Catalogues, Types and Folders.

7.1. 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.

7.2. 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

7.3. Media folders

Media are 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 - generally not used

› 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

7.4. Media records

For each type, the media record displays filenames, path and links to content, along with list record of where the asset is currently being used and also relevant meta-data.

IMAGE

_DSC5029[1]

File name: dsc5029-1.jpg
Original file name: dsc5029-1.jpg
Full path: dsc5029-1.jpg
File size: 228 KB
Width: 1300 pixels
Height: 866 pixels
Type: JPG
URL: https://antwerpen.qi-cms.com/media/_source/dsc5029-1.jpg

Created by **Theo Aerts** on **20/08/2014** at 19:50:40

⚠ **Note: this image is linked to 1 record**

Collection » Objecten (objects) » 502.BE.01.01 - Sint-Jorisbeeld

| File | Download |

Basic | File info

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