



## INQUIRO 2.3 – RELEASE NOTES

Released July 4<sup>th</sup>, 2016

### SUMMARY

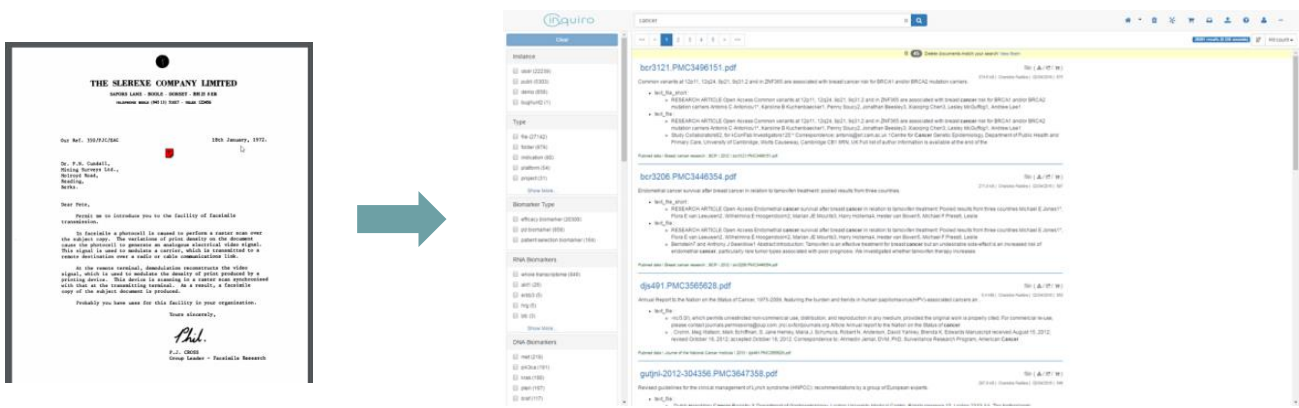
This release provides:

- 10 new features, including ergonomic change on the interface,
- 1 Enhancement,
- 1 Bug fix.

### NEW FEATURES

#### OCR

Inquiro is now able to detect text in scanned documents (like pdf). For this, Inquiro is able to perform optical character recognition (OCR). To be precise, Inquiro will extract the text and make it available for full text search in any images that contains text but also office or pdf documents that might contain scanned images.



#### DICOM

DICOM image files that are compliant with part 10 of the DICOM standard are generally referred to as “DICOM format files” or simply “DICOM files” and are represented as “.dcm.”. Inquiro is able to extract metadata in the DICOM format and make them available for search and various metadata exploration tools in Inquiro.



This is an example of the field identified by the DICOM extractor. It can contain information about patient (identification, birth date) or acquisition parameters.

This information is presented at the level of the DICOM file in Inquiro.

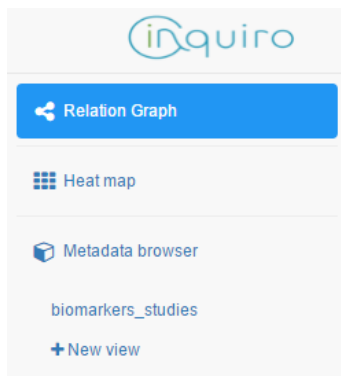
Technical Metadata

Acquisition Date	20010316	Acquisition Matrix	0 256 256 0
Acquisition Time	143415	Bits Allocated	16
Cardiac Number of Images	0	Columns	256
Echo Time	22.0000	Echo Train Length	8
Frame of Reference UID	0.0.0.0.4.8811.2.20010413115754.12432	Heart Rate	0
Image Date	20010323	Image Number	1
Image Position	-110.5001-78.3063-72.7575	Image Position (Patient)	-110.5001-78.3063-72.7575
Image Type	ORIGINALPRIMARYMPR	Images in Acquisition	1
Implementation Class UID	0.0.0.0	Implementation Version Name	NOTSPECIFIED
Magnetic Field Strength	1.50000	Manufacturer	GE Medical Systems
Media Storage SOP Class UID	1.2.840.10008.5.1.4.1.1.4	Media Storage SOP Inst UID	0.0.0.0.1.8811.2.1.20010413115754.12432
Number of Averages	1.00000	Number of Phase Encoding Steps	256
Patient Orientation	LPH	Patient Position	HFS
Patient's Sex	F	Patient's Weight	61.2350
Photometric Interpretation	MONOCHROME2	Pixel Bandwidth	31.2500
Pixel Representation	1	Pixel Spacing	0.859375/0.859375
Protocol Name	CLINICAL BRAIN	Receiving Coil	HEAD

**New metadata visualization menu**

Inquiro now offers new ways to explore and browse your data thanks to metadata. The “Metadata Exploration” page will help you to uncover relationships.

To get there; click the “Metadata Exploration” icon in the top menu bar of Inquiro.



This menu will open the list of available ways to explore your data, based on metadata:

- Relation Graph
- Heat map
- Metadata browser







## Metadata Browser

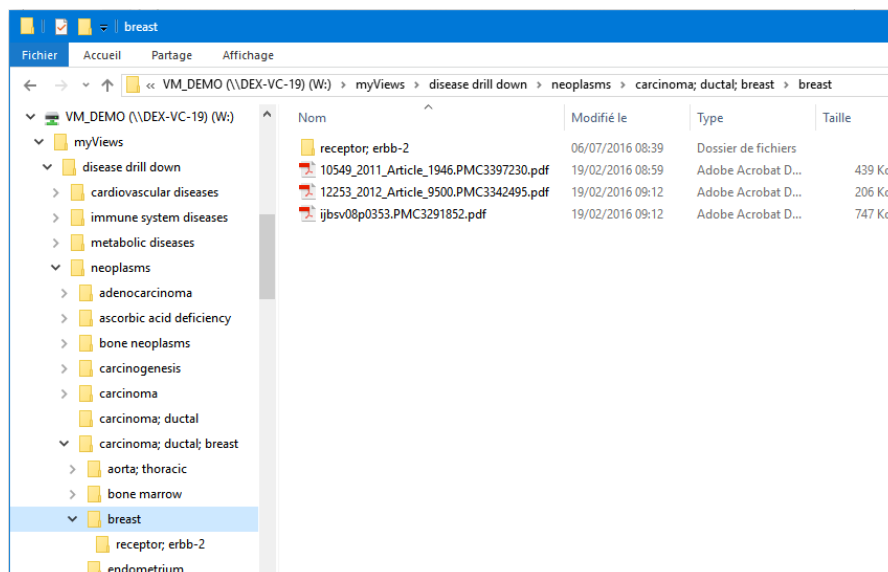
Create dynamic metadata based views to browse your data according topics that matter to you.

Name	Description	File Content	Chemicals And Drugs
12253_2012_Article_9500.PMC3342495.p...	Expression of GLUT1 and GLUT3 glucose transporters in endometrial and breast cancers.	Publication	Breast Cancer
10549_2011_Article_1946.PMC3397230.p...	Overexpression of a novel cell cycle regulator ecdysoneless in breast cancer. a marker o...	Publication	Receptor; ErbB-2
ijbsv08p0353.PMC3291852.pdf	Comparison of protein expression profiles of different stages of lymph nodes metastasis ...	Publication	Breast Cancer

Finally you can export this view on your network drive:




This will export this folder structure to your network drive. Here for example, a view with biomarker name and compound ID is exported.





## Graph Customization (Admin section)

 Customization

Template

Internationalization

Dictionnaires


Graph



A new page is available in the admin section of Inquiro

This page allows you to select which metadata is available in Metadata Exploration Tools described above.

 publi ▾

Key	Intra Graph	Heat Map	Metadata Browser
<u>dynamic_fields</u> 			
Key	Intra Graph	Heat Map	Metadata Browser
genes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
molecular_structure	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
cell_physiological_processes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
cell_line	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
diseases	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
investigative_techniques	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
animal_diseases	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
genetic_variation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
organisms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
epidemiologic_factors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
anatomy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
genetic_processes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
diagnostic_techniques_and_procedures	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
chemicals_and_drugs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
proteins	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
age_groups	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
biochemical_processes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
computing_methodologies	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

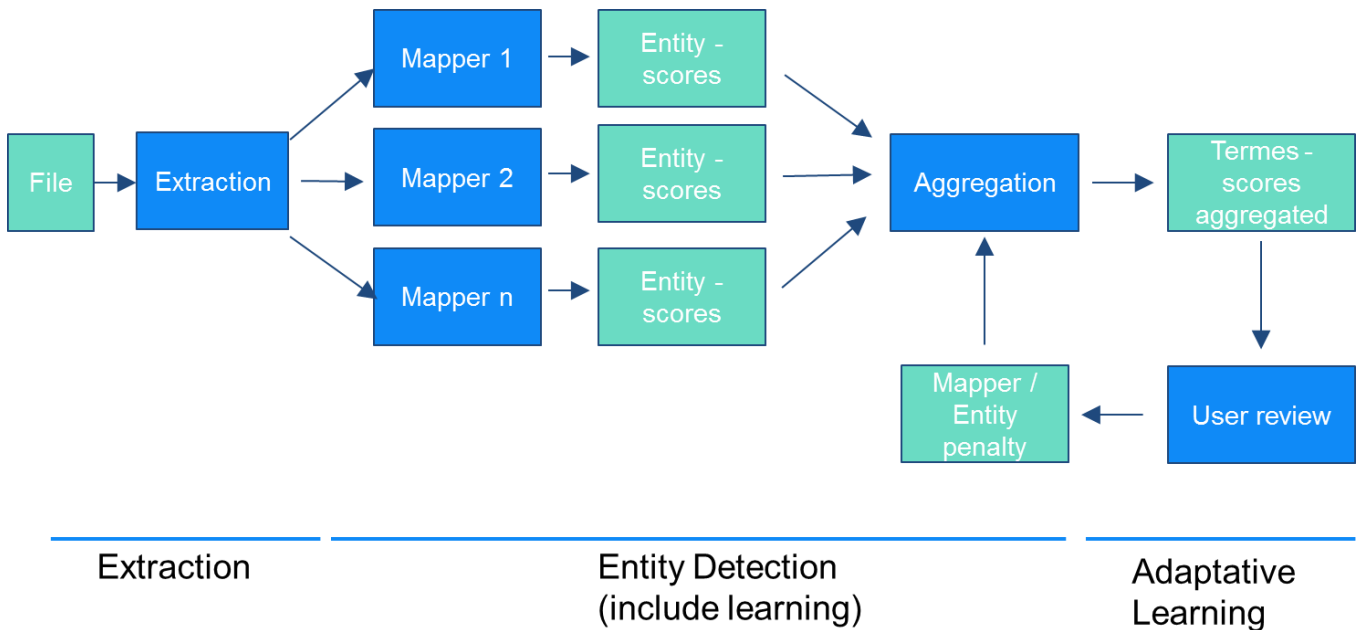


### Metadata Suggestion

The goal of the metadata suggestion is to propose to end users business oriented metadata that has been discovered using various strategies:

Algorithm	Detail
<b>Dictionary mapper</b>	Matches dictionary terms in the text (works well with IDs, substances, ...)
<b>Stemmed dictionary mapper</b>	Matches dictionary terms with stemming on the text (for more general terms)
<b>NLP entity detection</b>	Detects all the named entities on a text, using Noun Phrase detection and Mutli Word recognition. This mapper can work without preconfigured dictionary in Inquiro
<b>MoreLikeThis mapper</b>	Relies on already annotated document that can look like a new document (works well on already partially curated data set)

The results of various mapper are aggregated using a special score normalization and aggregation process. This process can learn which are the best mappers for the current corpus. These could happen either from already annotated dataset or in an adaptive way during user reviews.





Metadata suggestion can be reviewed in Inquiro on a file container using this button which will lead to a review of each suggested metadata



Category	Percentage	Status
Anatomy		✓
Appendix	85.00%	✓
Chemicals and drugs		✓
Pyrrrolidines	92.30%	✓
Reducing Agents	90.00%	✓
Hydrogen	89.29%	✓
Sodium Bicarbonate	89.21%	✓
Cations	85.00%	✓
Carbon Dioxide	85.00%	✓
Sodium	84.89%	✓
Potassium	84.44%	✓
Gold	84.29%	✓
Tin	83.00%	✓
Mercury	82.26%	✓
Investigative techniques		✓
Calibration	85.00%	✓

0 approved, 14 unchanged, 0 rejected

Save Cancel

### Federated searches

The federated search allows a user to search across multiple instances of Inquiro. This is simply possible using the new search facet that is now displayed each time a search return results in more than one instance:

Instance

- obdr (12398)
- publi (5694)
- demo (836)
- bughunt2 (3)

### Sharing files or any other data

Now in Inquiro you can decide to share data (file, folder or project, study,...) from multiple places:

From the top bar

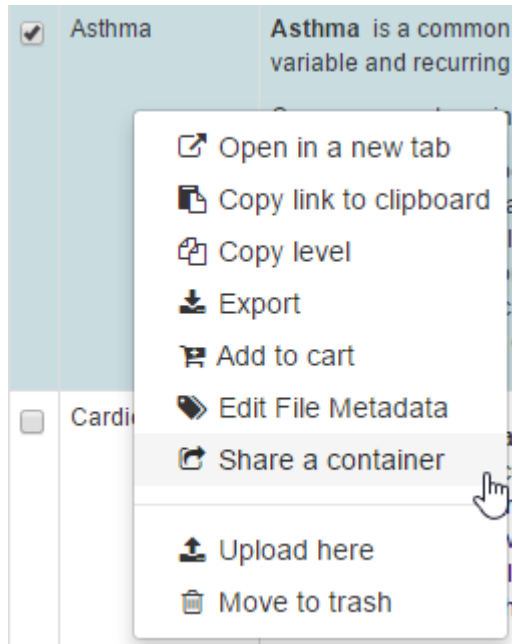
... Dexstr Data Repository

Share a container

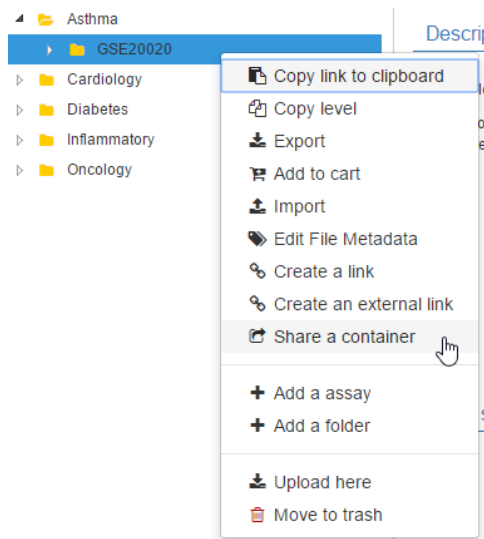




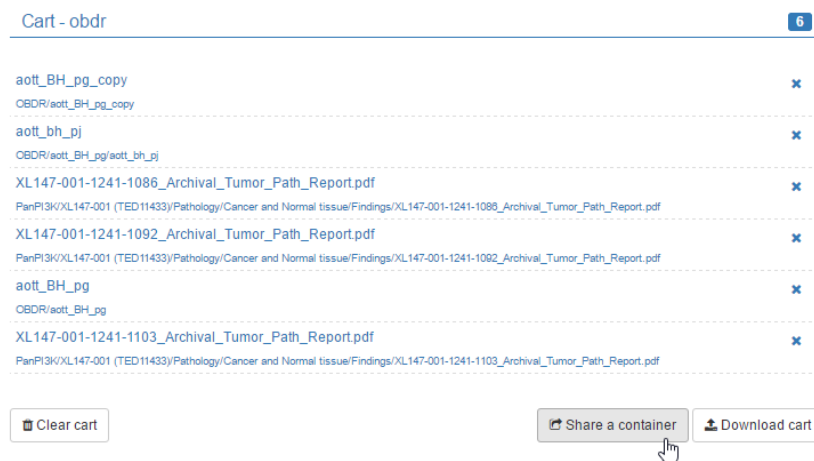
### From any table



### From the tree view



### From the shopping cart



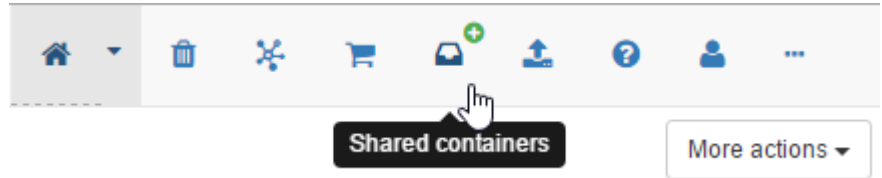
[contact@dexstr.io](mailto:contact@dexstr.io) | [www.dexstr.io](http://www.dexstr.io) | +33 981 777 336

DEXSTR SA - 195 Route d'Espagne - BP 13669 - 31036 Toulouse Cedex 1, France

SA AU CAPITAL DE 100.000 EUROS - SIRET: 8 05 2 64 8 68 0 00 11 - RCS TOULOUSE - TVA FR 13 805 264 868



As soon as an item is shared, the user or group of users that receive the shared items will be notified in the top bar by a green indicator



## ENHANCEMENTS (TOTAL: 1)

ID	Area	Description	Comment
SA-197		Cannot edit folder's details when it has been connected to Isilon	

## BUG FIXES (TOTAL: 1)

ID	Area	Description	Comment
SA-186		The bin displays the content of another instance	