

UNICORE Rich Client

Recent Developments and Roadmap

September 7, 2015 | Björn Hagemeier and [Bernd Schuller](#)

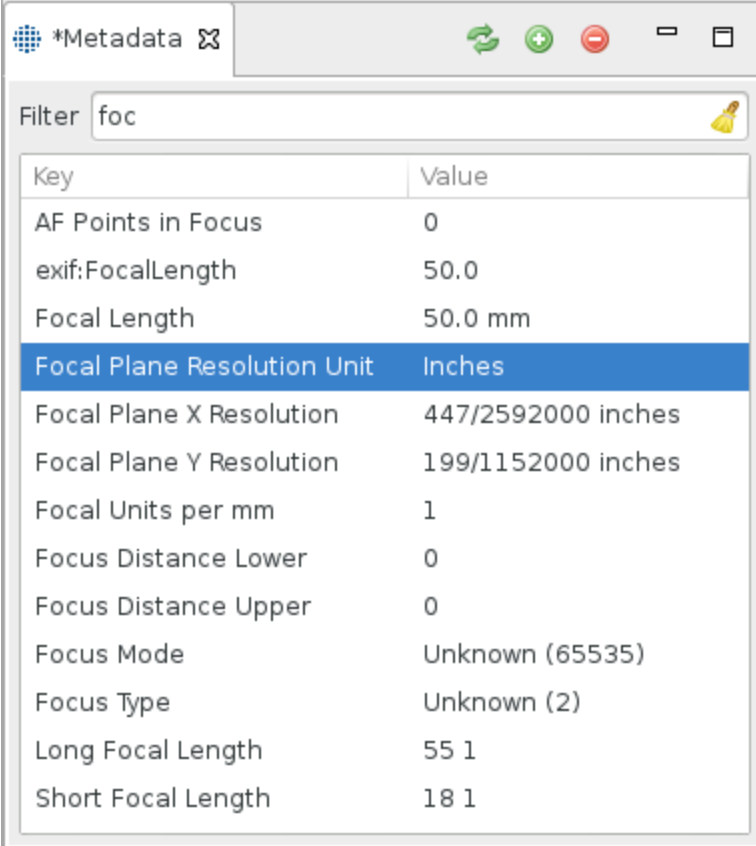
Recent Developments

- **Platform Upgrade**
- **Metadata support**
- **Complete support for storage factories**

Platform Upgrade

- **Eclipse Indigo (3.7) → Eclipse Luna (4.4)**
- **Better compatibility with modern systems**
 - **Avoid problems with MacOS X**
 - **Certain Linux Desktop environments**
 - **GTK and browser support caused headaches and crashes particularly at startup**

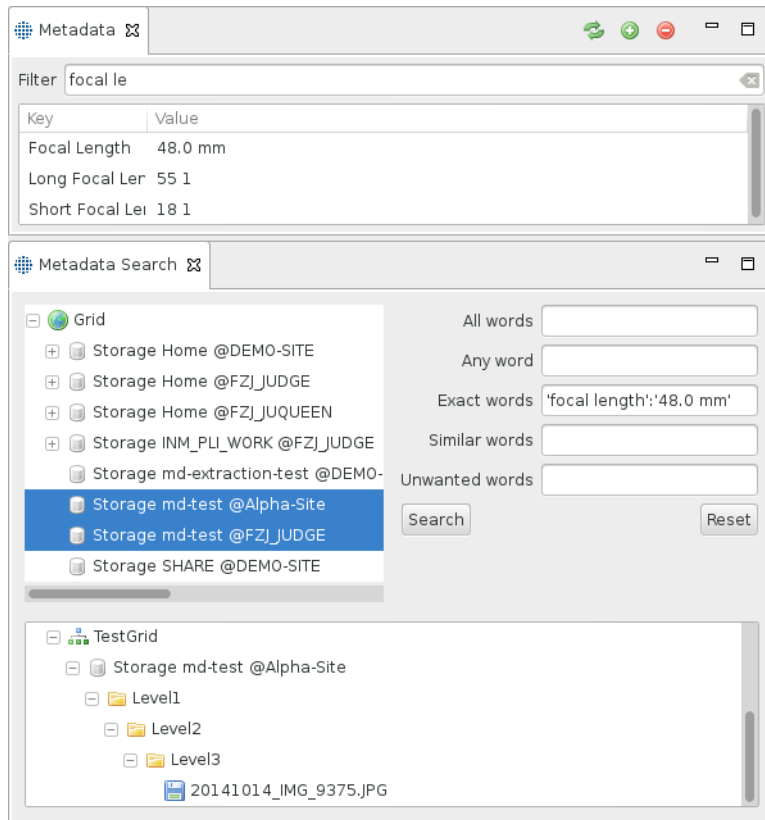
Metadata Support - View



Key	Value
AF Points in Focus	0
exif:FocalLength	50.0
Focal Length	50.0 mm
Focal Plane Resolution Unit	Inches
Focal Plane X Resolution	447/2592000 inches
Focal Plane Y Resolution	199/1152000 inches
Focal Units per mm	1
Focus Distance Lower	0
Focus Distance Upper	0
Focus Mode	Unknown (65535)
Focus Type	Unknown (2)
Long Focal Length	55 1
Short Focal Length	18 1

- **Metadata view**
- **Direct editing**
- **Quick filter for keys and values**
- **Save through global save command**

Metadata Support - Search



The screenshot displays two windows from a metadata search application. The top window, titled 'Metadata', shows a search filter 'focal le' and a table of results:

Key	Value
Focal Length	48.0 mm
Long Focal Len	55 1
Short Focal Len	18 1

The bottom window, titled 'Metadata Search', shows a search interface with a file tree on the left and search filters on the right. The file tree includes a 'Grid' folder containing several storage locations, with 'Storage md-test @Alpha-Site' and 'Storage md-test @FZJ_JUDGE' highlighted. Below the tree is a 'TestGrid' folder containing a sub-tree of folders (Level1, Level2, Level3) and a file named '20141014_IMG_9375.JPG'. The search filters on the right include fields for 'All words', 'Any word', 'Exact words' (containing 'focal length':48.0 mm'), 'Similar words', and 'Unwanted words', along with 'Search' and 'Reset' buttons.

- **Single search view provides access to matching files**
- **Precise search for key/value pair**
- **Drag & Drop or open files directly**

Storage Factories

Choose date and time

Please set the life time of the storage to be created as well as any additional parameters:

Storage Type: SWIFT

Properties:

- authURL: identity-api-endpoint
- password: password
- tenantName: name of the tenant/ project
- storageRoot: swift-container to be used as r
- tenantID: ID of the tenant/ project
- Storage name: SWIFT-storage
- username: username

Termination Time

< Januar > < 2018 >

Mo	Di	Mi	Do	Fr	Sa	So
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4
5	6	7	8	9	10	11

1:16:32 PM

Cancel OK

- Support for multiple storage types
- User-defined parameters depending on server-side description

Roadmap

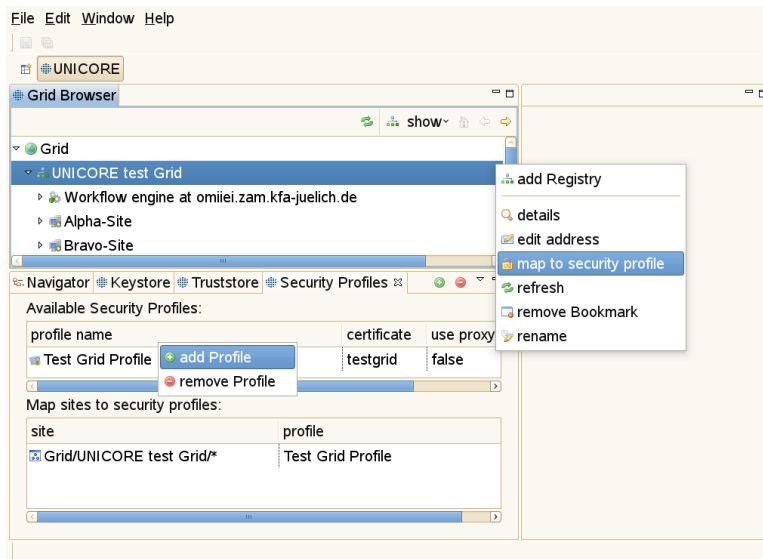
- **Further usability enhancements**
- **Flexible security setup**
- **Replace Swing-based Applications**
- **Provenance**
- **Code Maintainability**



Usability

- **Use platform dialogs as much as possible**
 - **Provide platform default behavior, e.g. ESC to cancel, RETURN to confirm dialog**
 - **More pleasant look and feel**
 - **Improves maintainability by reducing code and enabling the use of GUI builders**

Security Setup



- **Setup everything within the running session**
- **No need to restart for different AuthN mechanism, e.g. UNITY**
- **Realized akin to existing profile support or extending it**

Replace Swing-based Applications

- **Pure SWT is better in Eclipse**
- **Will not be able to provide exact same look and feel as the Script Application**
 - **SWT follows a different approach**
- **Generic Application plus editing input scripts comes close to Script functionality**
 - **This is also done in the portal**

Provenance

- **Support jobs and workflows with provenance tracking enabled**
- **Visualize provenance data about selected jobs and workflows**



Maintainability

- **Use platform features, i.e. extension points and extensions, as much as possible**
- **Prefer configuration over code**
 - **Particularly relevant for menus**
- **Comes along with usability enhancements**

Under the hood

- **Recently moved to Git SCM**
 - <https://sourceforge.net/p/unicore/urc.git>
 - **Better supports development mode**
- **Eclipse Luna → Mars**
 - **not easily possible**
 - **Some changes still required**
 - **No hints about missing classes in Eclipse migration documentation**
- **Need to rework keystore and truststore handling**
 - **BC → caNI**