THE PROBLEM
OMERO: Desktop, Web and CLI clients
THE OME TEAM
The OME Team and Consortium
Add in Some Users
THE CONTEXT
Common Development Aim

- deploy functional software
- allows users to achieve tasks
- ease of use
- learnability
- robustness
Expert Systems & Academic Development

- very traditional situation
- well recognised issues
- “it works for me”
- expanding to non-expert users
- determining the user pool
- being all things to everybody
User Experience

- UX team
- requirements gathering
- task and workflow analysis
- UI design
- testing
- user evaluation
- documentation and training
Broad Range and Spread of Users

- Scientists
- Facility managers
- Administrators
- Developers
  - Dundee
  - Consortium Members
  - Glencoe
  - Wider community
Scientist User

- **User Interface**
  - the only way users have to interact with a system

- what they see is what they get ...

  ... they only get what they can see.
THE APPROACH
Classic Development Models

**Waterfall Model**

- Requirements
- Design
- Implementation
- Verification
- Maintenance

**Agile-Waterfall Model**

- Requirements
- Design
- Implementation
- Prioritise
- Verification

**Star Model**

- Analysis
  - User
  - Task
  - Functional
- Deployment
- Requirements Specifications
- Design
  - Conceptual
  - Functional
  - Dialogue
- Evaluation
- Rapid Prototyping

Hartson and Hix
Design = Map of How to Reach Goal
Approach Preferred by Some
Design is Communication

- saves time and effort
- avoids mistakes/crossed wires
- prevents redundancy
- facilitates collaboration
- enhances documentation
Expert Knowledge and Mental Models

- mental models are incomplete, unstable, nebulous and easily confused (Norman)
- making mental models explicit stabilises them and clarifies ideas
- expert scientist users, expert developer users
- mostly expert knowledge is “deep knowledge” i.e. tacit, not consciously articulated
- making abstract knowledge explicit actually changes it (Bliss)
Kick Starts Thought Processes

- starts developers thinking
- before they start coding
  - done a lot of pre-processing
  - firmed up their mental models
  - filled in gaps
- this is where real time-saving can take place
OME DESIGN
UX Team Workflow

- starts with requirements
- use cases
  - single task
  - complex workflow
- sometimes small user numbers
- busy people
- once on board very helpful
UX Team Workflow

- Client Group meetings
  - present requirements
  - talk through issues
  - present any scoping/feedback
- often where conceptual design and functional design get all twisted up
Conceptual and Functional Design

- Tasks
- Requirements
- Workflows
- Models

Object
- attribute1: type
- attribute2: type
- method1()
- method2()
- _privateMethod1()
- _privateMethod2()
SCOPING
Scoping Workflow

- RFE
- New Workflow
- New Functionality

User Requirements

Task Analysis

Mockup

Implementation

Release

- Code
- Documentation
- User Help
One Step at a Time
Task Analysis
UML-type Use Case Diagram
Flow Diagrams

Has same permissions and interactivity as current "share link" in Web client but does not require login to view images.

Has same permissions and interactivity as current "Virtual Microscope" user but does not require login to view images/annotations/attachments.

Has same permissions and interactivity as current group permissions system - requires insight and login but group owner can generate username/s and password/s.
Collaboration

14-04-24
Discussed with Jean-Marie

Add blue box to selected rendering settings to highlight it.

GF:
- replace "Reset" with "Default" in Saved by thumbnails and menu
- add check to selected settings in menu

Rendering Settings - Display in UI and other Issues. in [Mock-up/Scoping]

Members
- DL
- TG
- PM

Labels
- Active
- Investigation

Description
Display settings owned by other still need some investigation to take into account the issues raised by the 5.0.3 changes and further development.

Main GDoc:
https://docs.google.com/document/d/1ZyX5d6LP3eOwLRlQPJQs5k8hY4g9qWvOg6zG4TyXqSMVcd4H/edit

Checklist
- Add saving of multiple settings for each user

Activity
Write a comment...

Gus Ferguson
"Save As" named settings and select/edit name/del mocks added to:
https://docs.google.com/document/d/1C6FQQeWQHW/hp556-M-
pW06OEjEpsOy9gfYx9BkWqLy/w/edit

Nov 27 at 10:12 am - Edit - Delete

Gus Ferguson
Mockup of first suggestion for multiple settings per user in:
https://docs.google.com/document/d/1C6FQQeWQHW/hp556-M-
pW06OEjEpsOy9gfYx9BkWqLy/w/edit

Nov 12 at 11:35 am - Edit - Delete

Jean-Marie Barel
[URL] will rename or create a new one the card and add more tasks. We have not yet tackled the "multiple settings" per user. This has serious implications on how we handle settings from clients to service dealing with settings.

Oct 15, 2014 at 4:17 am - Edit
Use Cases
Use Cases
Use Cases

Default-Owner Rendering Settings V1

Arising from feedback from Oxford
Trello Card: https://trello.com/c/Jw1L8goY/163-rendering-settings

Testing of Current State

Insight:
- If owner has not changed rendering settings then default settings show up as owner settings.
- If owner has changed settings, no default settings show in "Settings By" list - just new owner settings.
- Have to use "Revert" to see default settings.
- In read-only when a non-owner changes rendering settings, these are retained for the session in that group, but no entry added to the "Settings By" list. Will not see changes if remove group from data tree and then reinitiate it and view again.
- In read-annotate if a non-owner views an image without changing rendering settings, an entry is made in the "Settings By" list with the default settings.
- In read-only another user sees the owner's settings by default - in read-annotate a user sees the default settings.
- In read-only a group owner cannot save changed settings for the data belonging to another user - either group owner or member. This is contrary to the published permissions.
- In read-annotate - if non-owner changes rendering settings - the thumbnail do not update.

Web:
- In read-annotate - no ability to see settings from other users - presented with default settings.
- In read-only - see owners settings by default.
Use Cases

- In read-only - see owners settings by default.

Points:

- default to display owner's settings if user has no settings of own
- do not save default settings as user settings if user just views and does not alter settings
- have the settings thumbnails displayed by default
  - this will expose them better
  - plenty of room
  - can collapse if desired
- increase size of thumbnails to centre pane default - can't see anything worthwhile as they are
- could do with new icon
- highlight owner's settings with blue text
- display "Reset" settings as thumbnail
- right click on thumbnails should give
  
  Display Rendering Settings > Default
  
  user-1
  
  user-2

- selection of another rendering setting should not over-write user's setting if present
- if no user rendering setting then displayed setting can be saved as user setting as normal
- need to get the rendering settings switching into Web

Insight Mockups:
Back end
Steps – 5.0.5 state
Steps – 1st Round Mockups
Steps – 1st Round Mockups
Steps – 1st Round Mockups
Steps – 5.0.6 Implementation
Steps – 2nd Round Mockups
Steps – 2\textsuperscript{nd} Round Mockups
Steps – 5.1.0 Implementation
Steps – 3rd Round Mockups
Steps – 3rd Round Mockups
Release

OMERO 5.0.6 Downloads

OMERO 5.0.6 documentation

OMERO User Help - Home Page

User Help

OMERO is distributed under the terms of the GNU GPL. For more information, visit openscience.org

New in OMERO.Insight 5.0

Reset Your Password

To reset your password, go to the OMERO.web login page.

Click on the Forgot your password? link below the password text box to open the reset screen.

Enter your OMERO username and email address and click Submit.
Iterations

[Diagram of file structure]

- 1 Admin Dashboard - Quotas
- 2 Sharing
- 3 Search
- 4 Tagging
- 5 MIF
- 6 Create Dataset
- 7 Icons/Images
- 8 Group - user views
- 9 L and C Panes Overview
- 10 FS Import
- 11 Login Customising
- 12 Post-visits
- 13 User Guides Website
- 14 Activity Menu
- 15 Drag and Drop
- 16 Cut/Paste/Delete/Copy/Remove
- 17 Duplicate Detection on import
- 18 Viewer
- 19 In-place Importing
- 20 HTS-HCS
- 21 Default-Owner Rendering Settings
- 22 Insight Link to Image
- 23 Scripts Launching
- 23 Scripts - Export - Publish Launching
- 24 Trash Can
- 25 Activity Window
- 26 Map Annotation
- 27 Preview - Figure
- 28 Permissions
- 29 Tagging ROIs
- 30 Imagej Save ROIs
- 31 Importer Lite
- 32 Ratings
- Calendar
- Client Feedback
- Counting Cells

Default-Owner Rendering Settings.graffle
Final Screenshots
images1
images2
images3
Rendering Settings Requirements.docx
Rendering Settings - Preview Pane Round 2.docx
Rendering Settings - Preview Pane Round 3.docx
RenderingSettings2.graffle
renderingSettings3.graffle
Most Valuable when Hardest

- everyone resists change to the status quo
- often have to deal with “ownership”
  - design and code
- identify and deal with issues on paper
- visualisation is key
  - sketches, mockups, paper prototypes
- “it’s so simple – why did it take so long?”
Thanks

- Jason Swedlow
- OME Team
- CLS User-testers