Document management with Alfresco

Introduction:

Alfresco is an enterprise class content management software suite, composed by several applications with a modular approach:

- **Alfresco Document Manager**
- Alfresco Web Content Manager
- Alfresco Record Manager
- **Alfresco Share**
- Alfresco Content Server

Alfresco

- Supports most popular DB backends (Oracle, MSSQL, MySQL and PgSQL)
- Can interact with third party software (OOffice, ImageMagick, etc.)
- Supplies APIs for repository access: it's interfaceable with other products

Alfresco Document Repository : main features [1/2]

- Directory-like document reposity (through spaces)
- Repository available both via web interface and as a shared filesystem , via WebDAV, CIFS, NFS and FTP protocols
- Support authentication chains (local authentication, Active Directory, LDAP, Kerberos).
- Document level security through users, groups and role management
- Extensible data dictionary (document meta-data, types and aspects)
- Google-like search
- Yahoo-like browsing through category or document meta-data
- SmartSpaces: define actions on spaces to perform automatic operations

Alfresco Document Repository : main features [2/2]

- Document versioning and auditing
- Workflow management
- Document format transformation (i.e. office to PDF, etc.)
- E-mail and RSS notifications
- Microsoft Office integration (SharePoint)

It's also possible to host inside the repository

- Project websites (with Alfresco Share)
- Discussion forums
- Wiki and blog pages

Present status

Current setup:

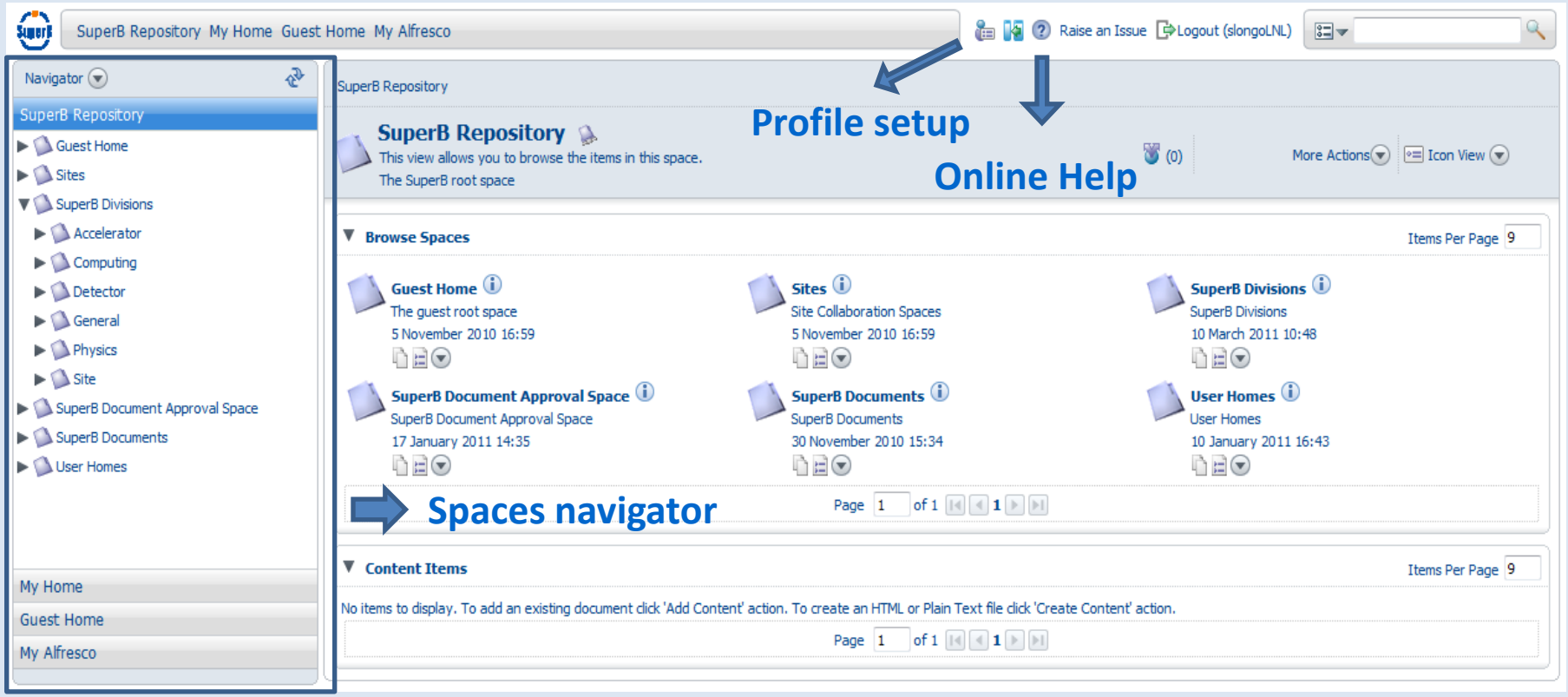
Two Alfresco applications are available: Alfresco DM and Alfresco Share

- Alfresco DM web interface : https://sbdocserver.pd.infn.it:5210/alfresco
- Alfresco Share : https://sbdocserver.pd.infn.it:5210/share

Alfresco configuration:

- User authentication and group management through sbldap.fe.infn.it
- Repository access available both through web interfaces and WebDAV
- Data dictionary customized to host SuperB specific document types
- Private space (user home) available for each SuperB user
- Spaces to host public documents and sub-group material are also present

Alfresco DM web interface :



SuperB repository setup:

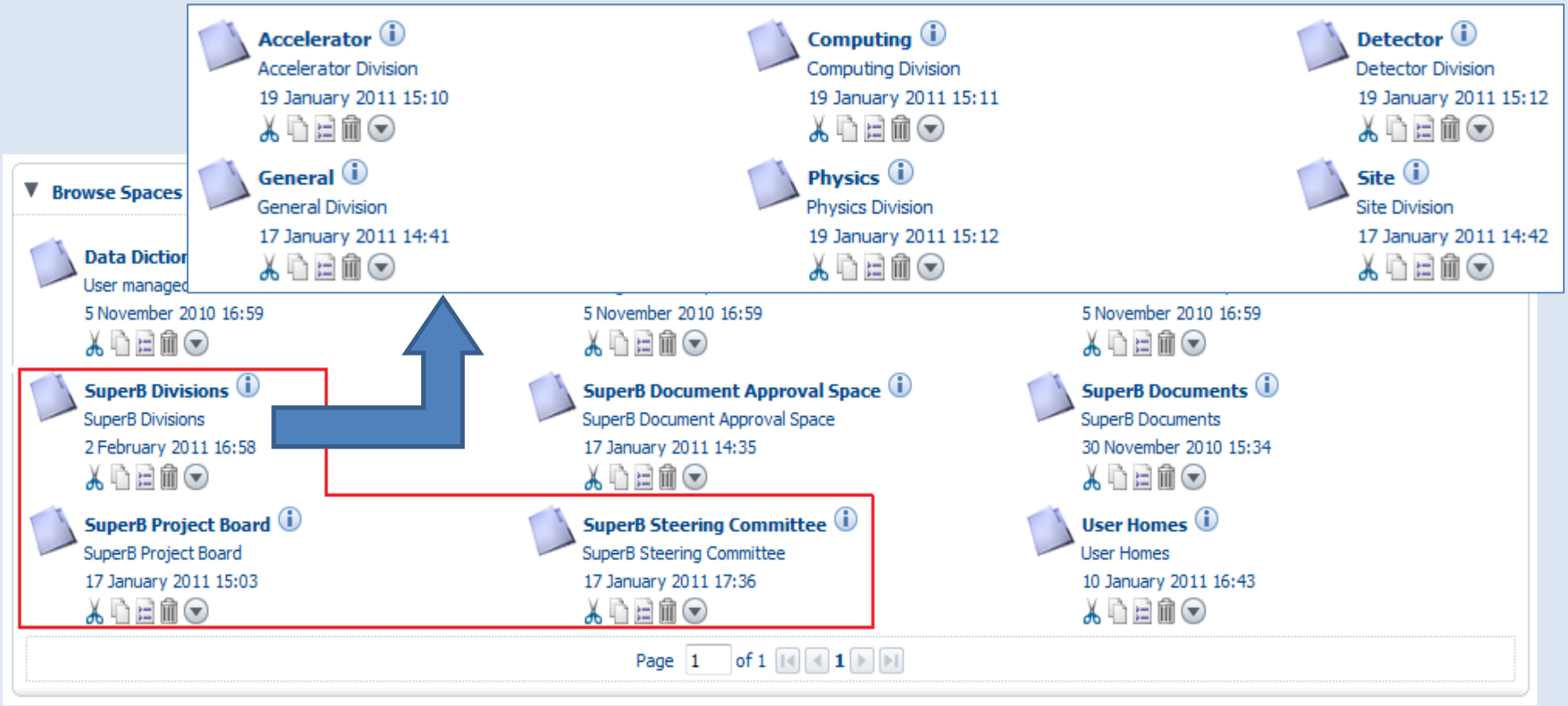
Data dictionary extended to host specific SuperB document's meta-data

- Internal notes, Presentations, Pubblications and Reports

Spaces defined to host SuperB documents

- «SuperB Documents»: public space to host the final version of approved documents, divided by type (report, pubblication, etc.) and topic (Accellerator, Computing, etc.)
- «SuperB Document Approval Space»: space accessible to any SuperB user for the submission of documents that have to become public
- «SuperB Divisions»: space containing a sub-spaces for each SuperB division.
- «SuperB Project Board»: space reserverd for the Project Board
- «SuperB Steering Committee»: space reserved for the Steering Committee

Restricted access spaces [1/2] :



Restricted access spaces [2/2] :

- «**SuperB Divisions**»: further divided in «**Accelerator**», «**Computing**», «**Detector**», «**General**», «**Physics**» and «**Site**». Collaboration role (i.e. write access) available to division members. Consumer role (i.e. read only access) configured for any SuperB user.
- «**SuperB Project Board**»: Space reserved for Project Board members. Only members of the Project Board LDAP group can see and access this space.
- «**SuperB Steering Committee**»: Space reserved for Steering Commitee members. Only members of the Steering Committee LDAP group can see and access this space.

Each sub-space can be fully customized indipendently by the others
Coordination role on can be delegated to division leaders

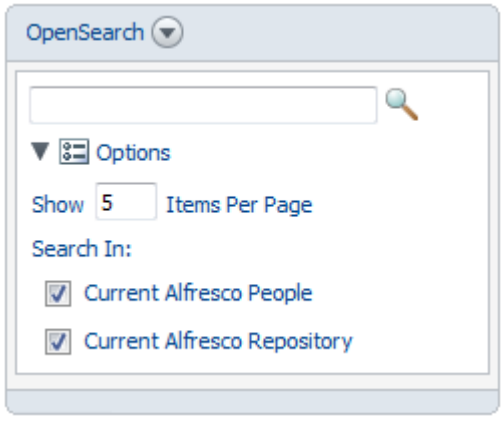
Usage Examples

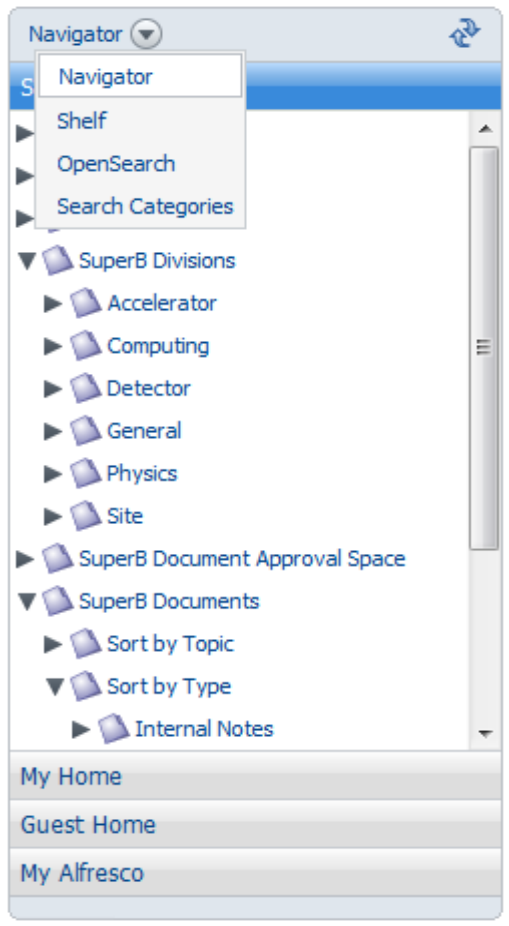
Access to documents [1/3]:

Several ways are available to search for a document inside the repository

Using the Alfresco navigator plugin a user can browse the repository in a «Explorer like» fashion.

OpenSearch plugin allows to search documents for a particular set of key-words (both document's content and associated meta-data)



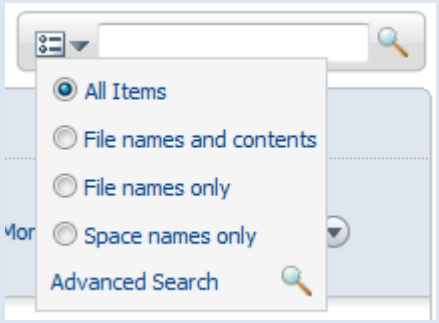


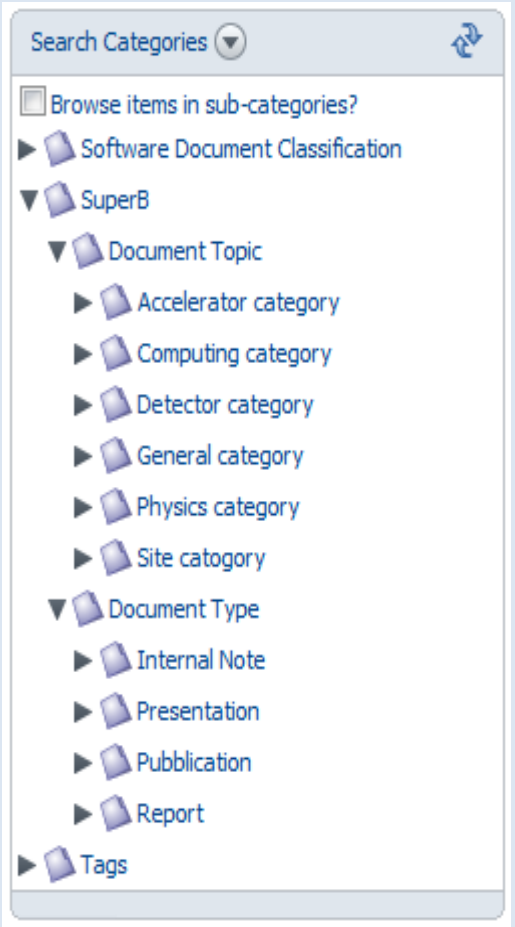
Access to documents [2/3] :

The «Search Categories» plugin can be used to browse the repository in a yahoo-like manner, quickly accessing all the documents of a specific type or from a particular division.

On the top-right corner of the web interface there is a quick search text box.

This tool can be used both to submit a query to the search engine or to access the «Advanced Search» form



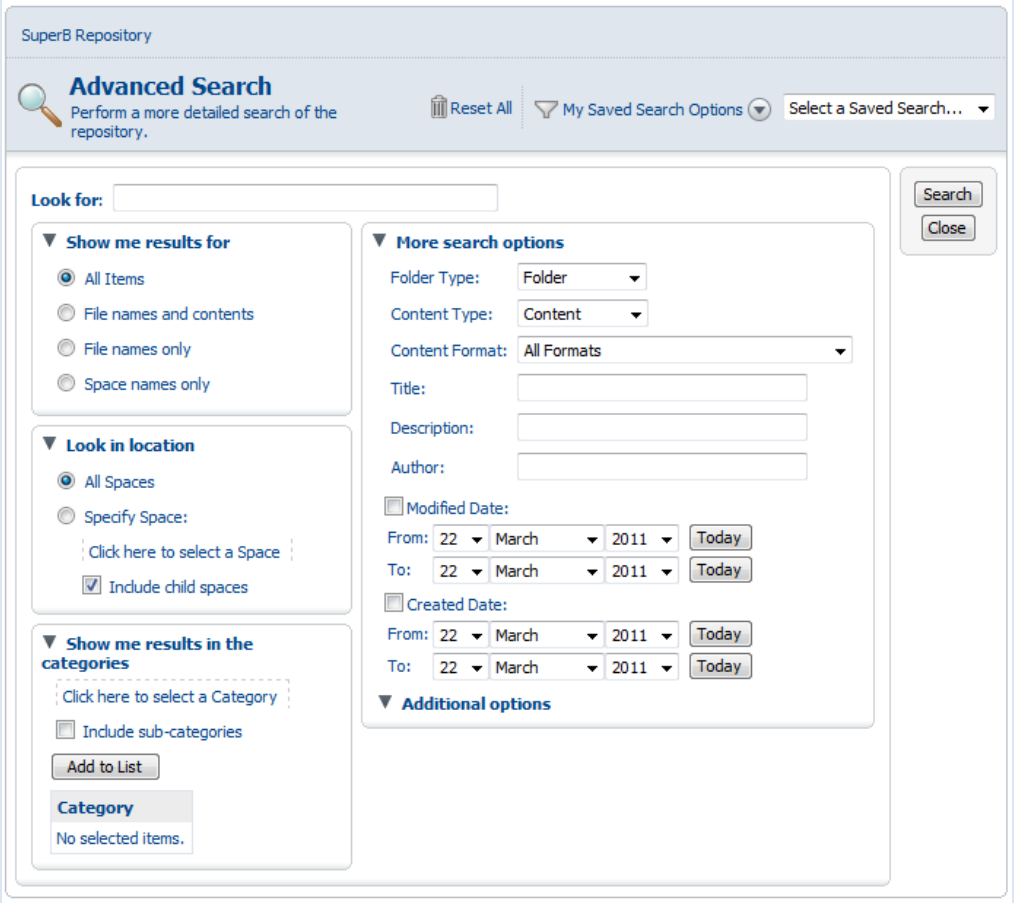


Access to documents [3/3] :

«Advanced Search» form enable to submit complex queries to the repository search engine.

With this tool a user can search for keywords, restrict searching to specific spaces, categories and also content meta-data values

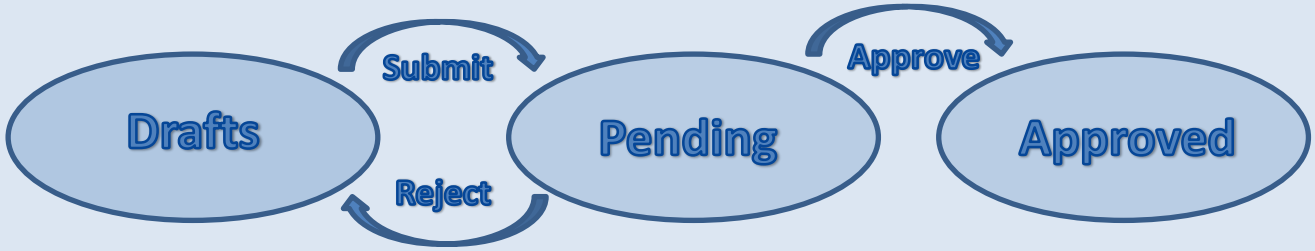
Tip: a particularly useful query can be saved for later usage



Approval workflow of new content :

Document approval workflow was configured in several spaces, allowing SuperB users to submit documents that have to be approved by coordinators.

The workflow model can be described with the following finite state machine.

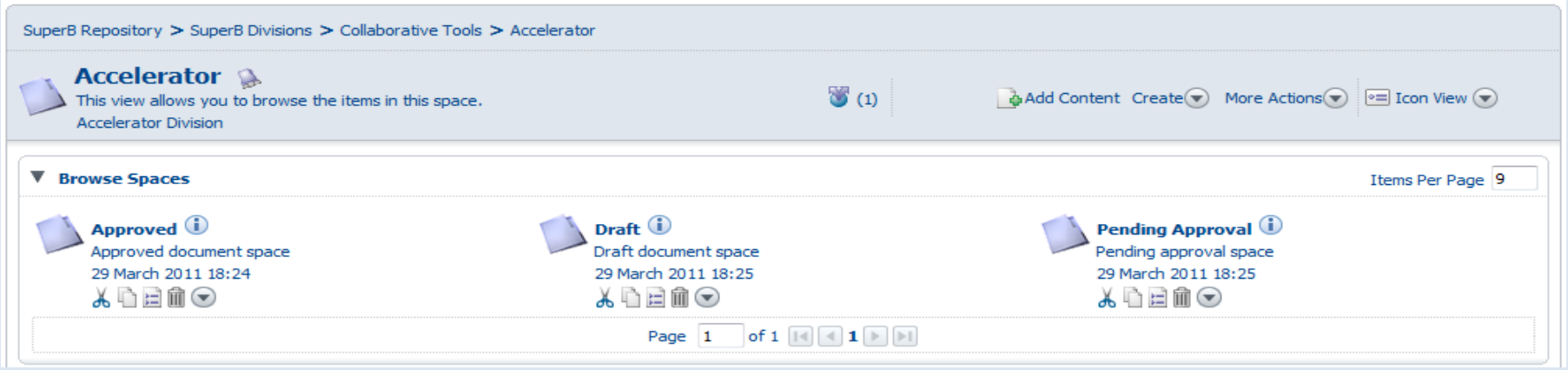


At present, any division's space (except the Computing space) contains this default document approval workflow

Submission of a new document [1/5] :

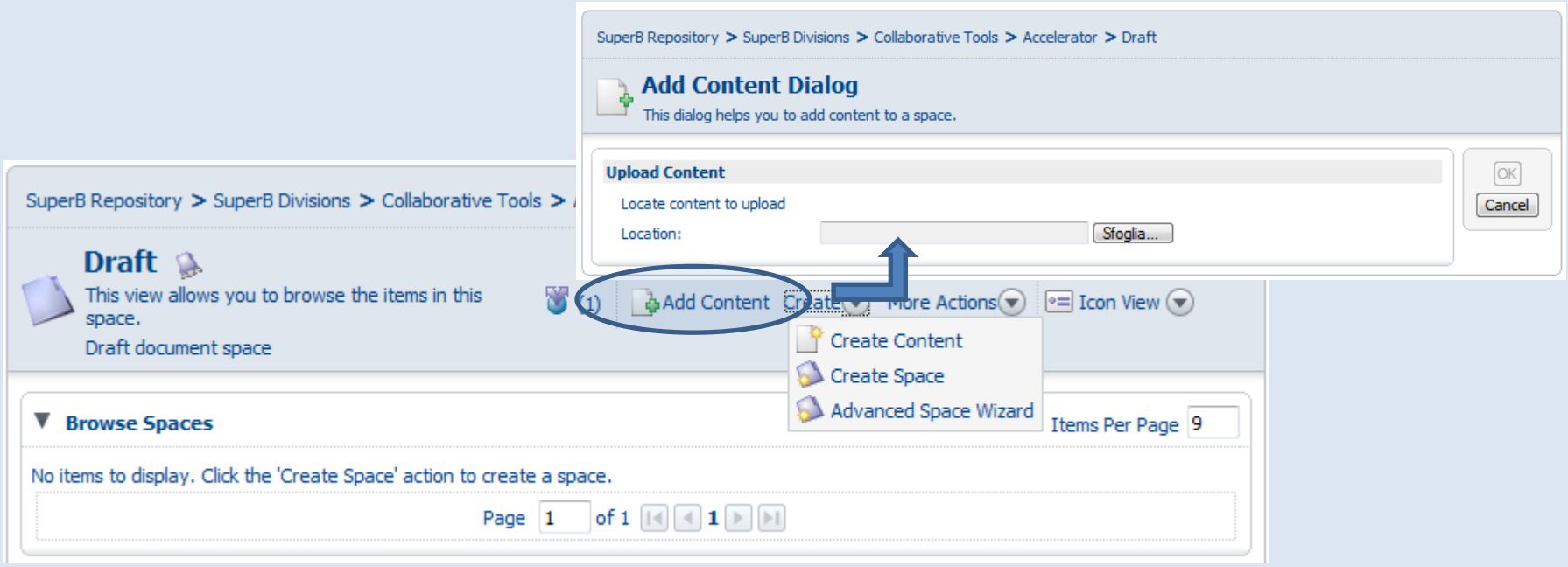
As a usage example, let's consider the submission for approval of a new document from the accelerator division.

The Accelerator space («SuperB Divisions»->«Accellerator») has the previously described default setup:



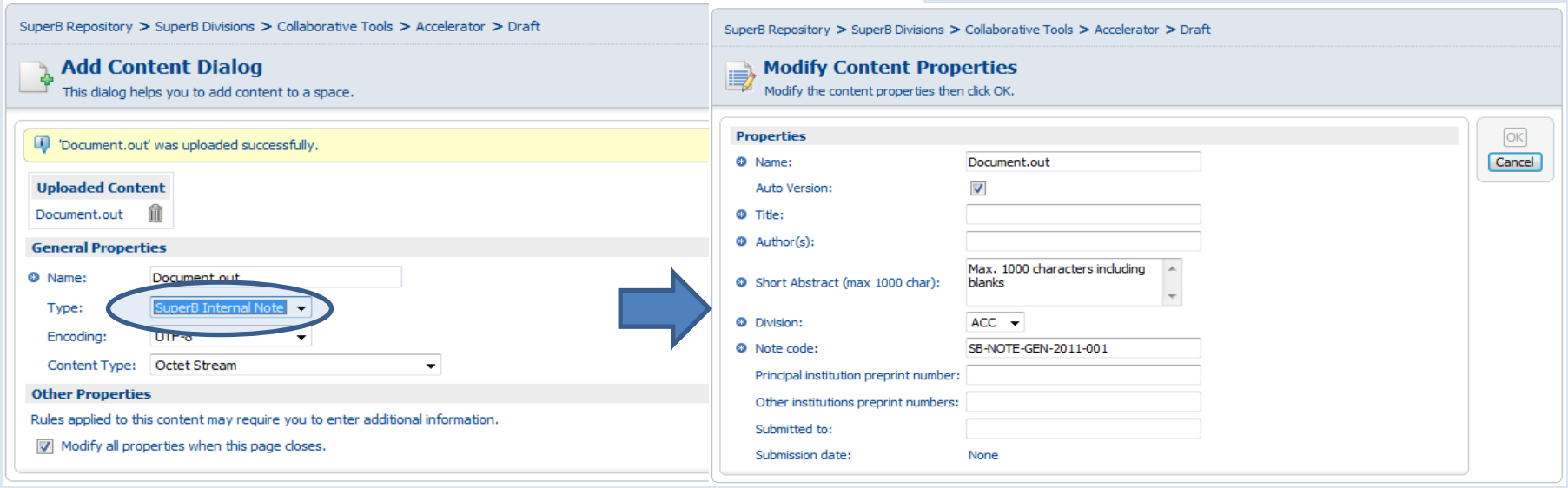
Submission of a new document [2/5] :

To begin the submission process, a user has first to go inside the «Draft» space. Content uploading is done using the «Add Content» link of the contextual menu, which opens a new form to select the file that have to be uploaded



Submission of a new document [3/5] :

After uploading the document, to finish the «Add Content» procedure, the user have to specify several meta-data that will be associated to the document.
Note: It's important to choose the right Type. Data associated to the document and the automatic management of the content depend on this value

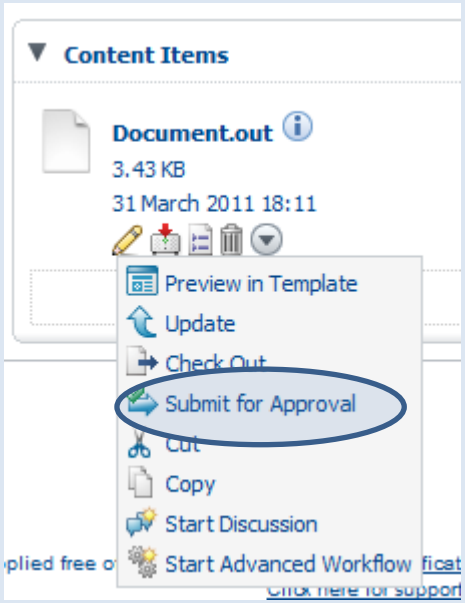


Submission of a new document [4/5] :

While inside the «Draft» space, a user may freely modify the document and its properties (note: version management is enabled by default)

Once completed, the document can be submitted using the «Submit for Approval» command evidenced in the contextual menu on the right

At this point the content is moved to the «Pending Approval» space and all the coordinator of this space (default: division manager) receive an email that notify the presence of a new document.



Submission of a new document [5/5] :

The document approval workflow continues as follow:

- Anyone of the «Pending Approval» space coordinators can review the document and decide if it has to be approved or rejected
- If rejected the document is moved back to the «Draft» space
- If Approved the document is moved to the «Approved» space
- A copy of the approved document is placed inside the «SuperB Repository»-> «SuperB Document Approval Space»-> «Pending Approval» for a second level approval (mainly meta-data associated to content will be checked)
- If approved the document is moved to «SuperB Repository»-> «SuperB Document Approval Space»-> «Approved» and a PDF copy of the content is placed inside a subspace of «SuperB»-> «SuperB Documents» (depending on the content type and topic)
- At this point the document become public and accessible by all the users

Division coordinators:

Accelerator:
- Marica Biagini, Pantaleo Raimondi, John Seeman

Detector:
- Francesco Forti, Blair Ratclif

Computing:
- Fabrizio Bianchi

Physics:
- Adrian Bevan, Marco Ciuchini, Achille Stocchi

Site:
- Sandro Tomassini

Document Management with Alfresco

Home | Overview | Accelerator | Detector | Computing | Site | Physics

- What is SuperB
- Who are we?
- How to join us
- Contact us

- SuperB Meetings
- SuperB Calendar
- Collaborative tools
- Mailing lists
- Wiki
- CDR
- Web links

Document Repository

- Browse Documents
- Search Documents
- Submit Documents

Welcome to SuperB

We are an international enterprise aiming at the construction of a very high luminosity asymmetric e^+e^- flavour factory. The physics studies possible at such a machine will provide a uniquely important source of information about the details of the new physics uncovered at hadron colliders in the coming decade. A heavy flavour factory such as SuperB will be a partner, together with the LHC and eventually the ILC, in ascertaining exactly *what kind* of new physics has been found.

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Hi Stefano Longo,
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Search

Conclusions :

- Alfresco Document Manager is ready to be tested by SuperB members
- Documents published via the collaboration website were moved to the SuperB Alfresco Repository
- A default document workflow is defined for each division

- Division's leader may start customizing their spaces, defining directories, new workflows, access rules, etc.
- New documents should be submitted using Alfresco DM

For information and suggestions regarding Alfresco DM or… if somethin does not work as expected, just send me an email at Stefano.Longo@pd.infn.it

Thanks

For your attention