



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 (OOoffice, ImageMagick, etc.)
- Supplies APIs for repository access: it's interfaceable with other products

Alfresco Document Repository : main features [1/2]

- Directory-like document repository (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



Document Management with Alfresco

Alfresco DM web interface :

The screenshot shows the Alfresco Document Management web interface. At the top, there is a navigation bar with the SuperB logo and links for "SuperB Repository", "My Home", "Guest Home", and "My Alfresco". On the right of the navigation bar are icons for "Raise an Issue", "Logout (slongNL)", and a search box.

On the left side, there is a "Navigator" sidebar. It contains a tree view of spaces: "SuperB Repository", "Guest Home", "Sites", "SuperB Divisions" (with sub-items: Accelerator, Computing, Detector, General, Physics, Site), "SuperB Document Approval Space", "SuperB Documents", and "User Homes". Below this, there are buttons for "My Home", "Guest Home", and "My Alfresco".

The main content area is titled "SuperB Repository". It features a header with "Profile setup" and "Online Help" (with a question mark icon and "(0)"), and "More Actions" and "Icon View" dropdown menus. Below the header is a "Browse Spaces" section with a "Items Per Page" dropdown set to 9. It displays six space cards: "Guest Home" (The guest root space, 5 November 2010 16:59), "Sites" (Site Collaboration Spaces, 5 November 2010 16:59), "SuperB Divisions" (SuperB Divisions, 10 March 2011 10:48), "SuperB Document Approval Space" (SuperB Document Approval Space, 17 January 2011 14:35), "SuperB Documents" (SuperB Documents, 30 November 2010 15:34), and "User Homes" (User Homes, 10 January 2011 16:43). Each card has a document icon and a dropdown menu.

Below the "Browse Spaces" section is a "Content Items" section, also with a "Items Per Page" dropdown set to 9. It displays "No items to display. To add an existing document click 'Add Content' action. To create an HTML or Plain Text file click 'Create Content' action." and a pagination bar showing "Page 1 of 1".

Annotations with blue arrows point to specific elements: "Profile setup" and "Online Help" in the main header, and "Spaces navigator" in the "Browse Spaces" section.



SuperB repository setup:

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

- Internal notes, Presentations, Publications and Reports

Spaces defined to host SuperB documents

- «SuperB Documents»: public space to host the final version of approved documents, divided by type (report, publication, 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 reserved for the Project Board
- «SuperB Steering Committee»: space reserved for the Steering Committee

Restricted access spaces [1/2] :

Browse Spaces

- Accelerator** Accelerator Division
19 January 2011 15:10
- Computing** Computing Division
19 January 2011 15:11
- Detector** Detector Division
19 January 2011 15:12
- General** General Division
17 January 2011 14:41
- Physics** Physics Division
19 January 2011 15:12
- Site** Site Division
17 January 2011 14:42

Data Dictionary
User managed
5 November 2010 16:59

SuperB Divisions SuperB Divisions
2 February 2011 16:58

SuperB Project Board SuperB Project Board
17 January 2011 15:03

SuperB Document Approval Space SuperB Document Approval Space
17 January 2011 14:35

SuperB Steering Committee SuperB Steering Committee
17 January 2011 17:36

SuperB Documents SuperB Documents
30 November 2010 15:34

User Homes User Homes
10 January 2011 16:43

Page 1 of 1

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 Committee members. Only members of the Steering Committee LDAP group can see and access this space.

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



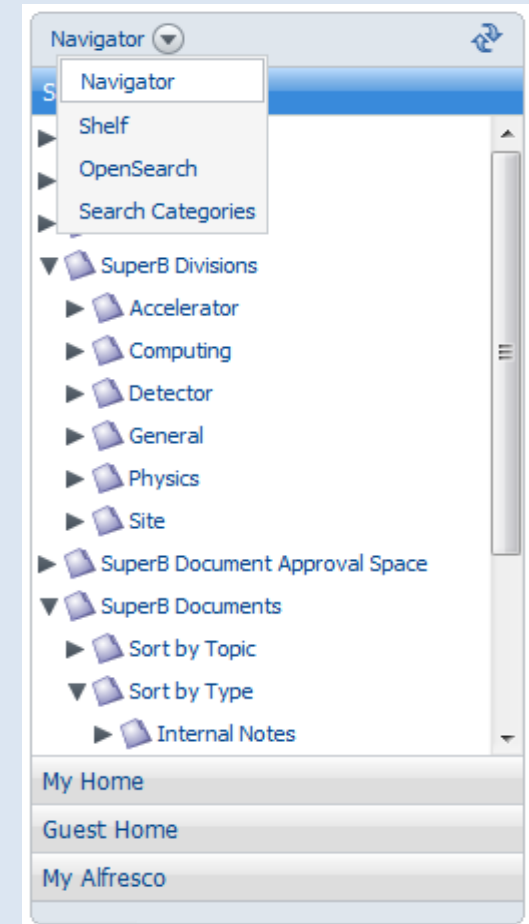
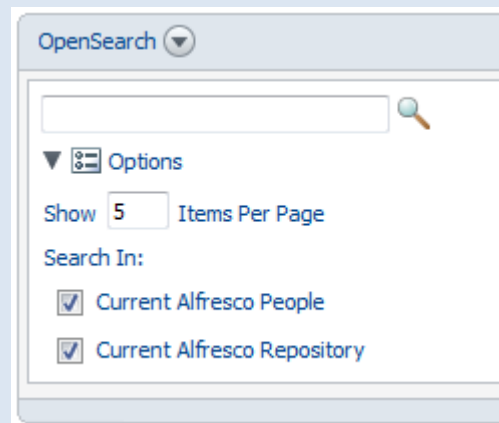
Usage Examples

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)

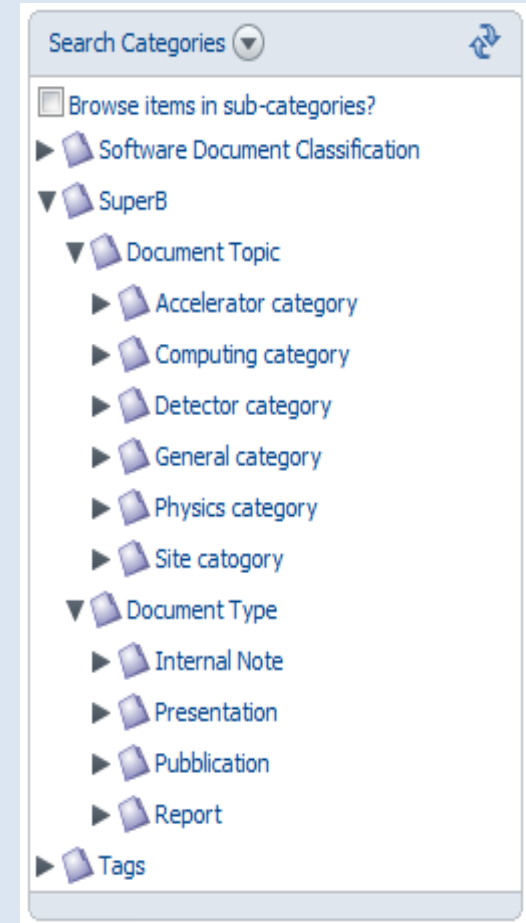
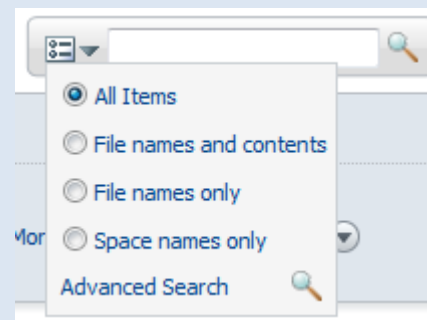


Access to documents [2/3] :

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

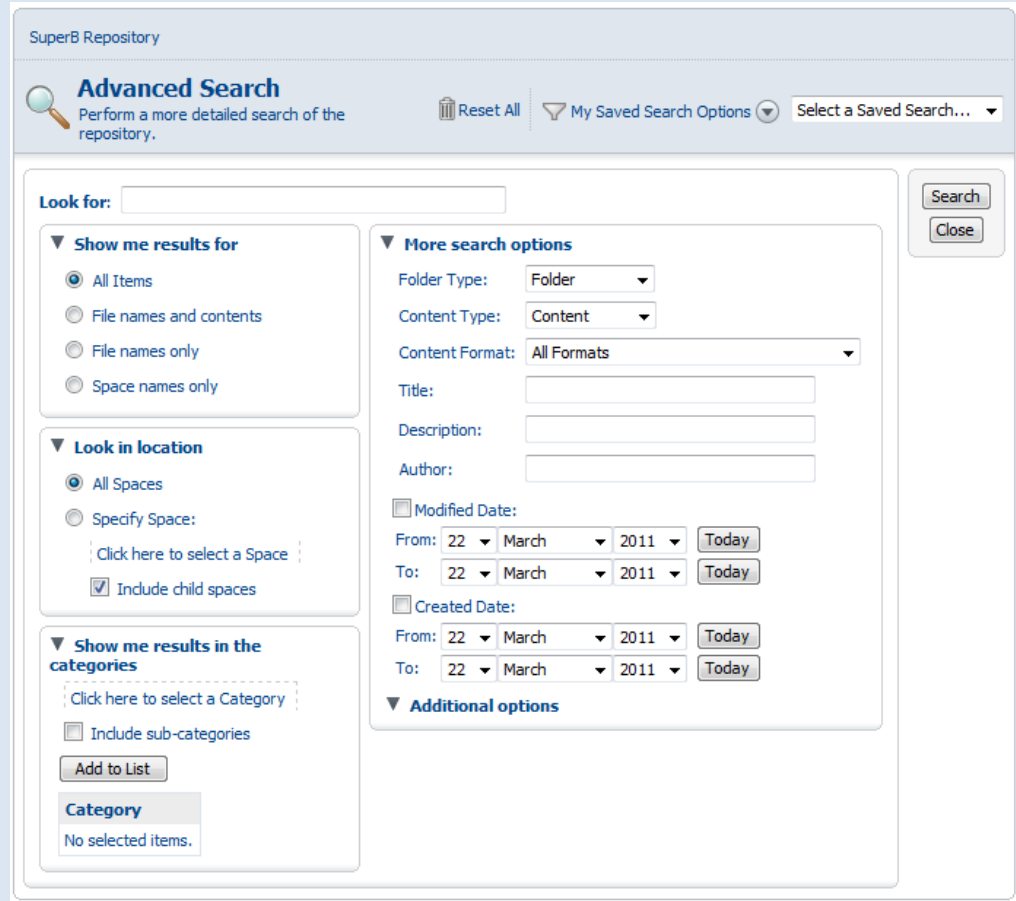


Access to documents [3/3] :

«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

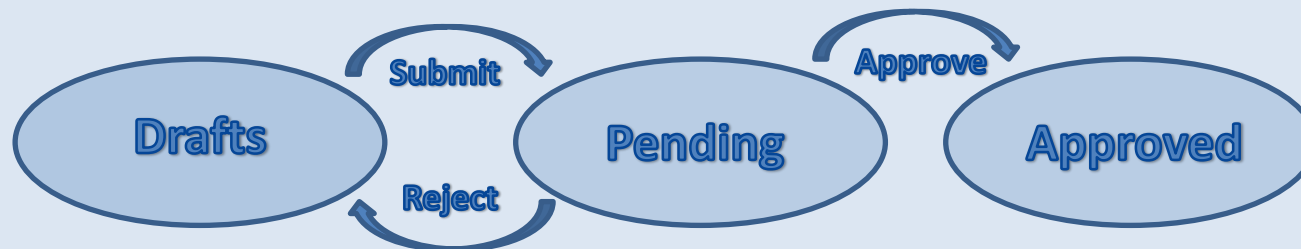


The screenshot shows the 'Advanced Search' interface for the SuperB Repository. The page title is 'SuperB Repository'. Below the title, there is a search icon and the text 'Advanced Search' with a sub-description: 'Perform a more detailed search of the repository.' To the right of this text are buttons for 'Reset All', a dropdown for 'My Saved Search Options', and a text input for 'Select a Saved Search...'. Below this is a 'Look for:' text input field. The main search area is divided into several sections: 'Show me results for' with radio buttons for 'All Items' (selected), 'File names and contents', 'File names only', and 'Space names only'; 'Look in location' with radio buttons for 'All Spaces' (selected) and 'Specify Space:' (with a link 'Click here to select a Space' and a checked 'Include child spaces' checkbox); 'Show me results in the categories' with a link 'Click here to select a Category', an unchecked 'Include sub-categories' checkbox, an 'Add to List' button, and a 'Category' dropdown showing 'No selected items.'; and 'More search options' with dropdowns for 'Folder Type' (Folder), 'Content Type' (Content), and 'Content Format' (All Formats); text inputs for 'Title:', 'Description:', and 'Author:'. There are also date filters for 'Modified Date' and 'Created Date', each with 'From' and 'To' dropdowns (set to 22 March 2011) and 'Today' buttons. On the right side of the form, there are 'Search' and 'Close' buttons.

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.

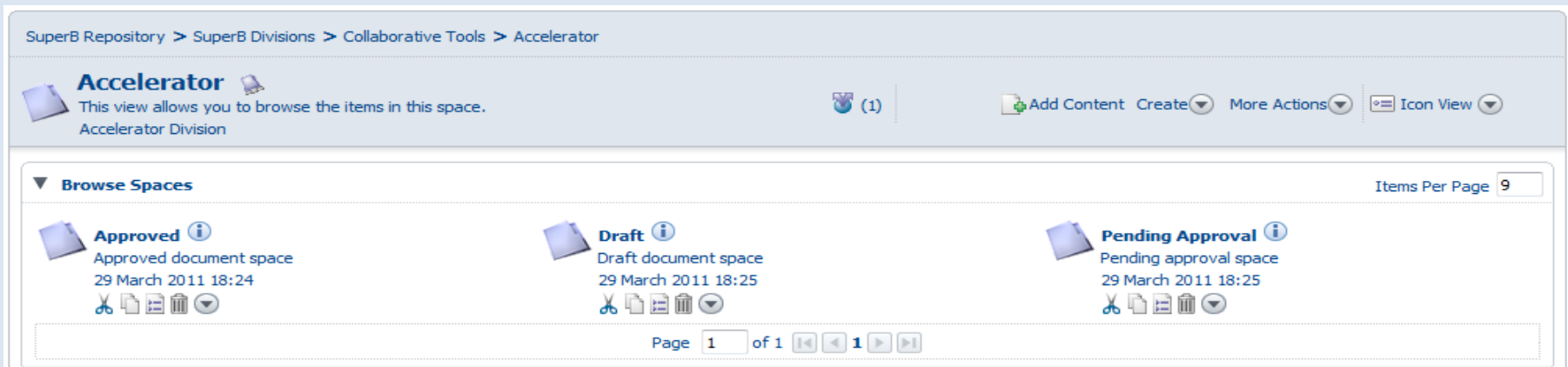


At present, any division's space (except the Computing space) contains this default document approval workflow

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.

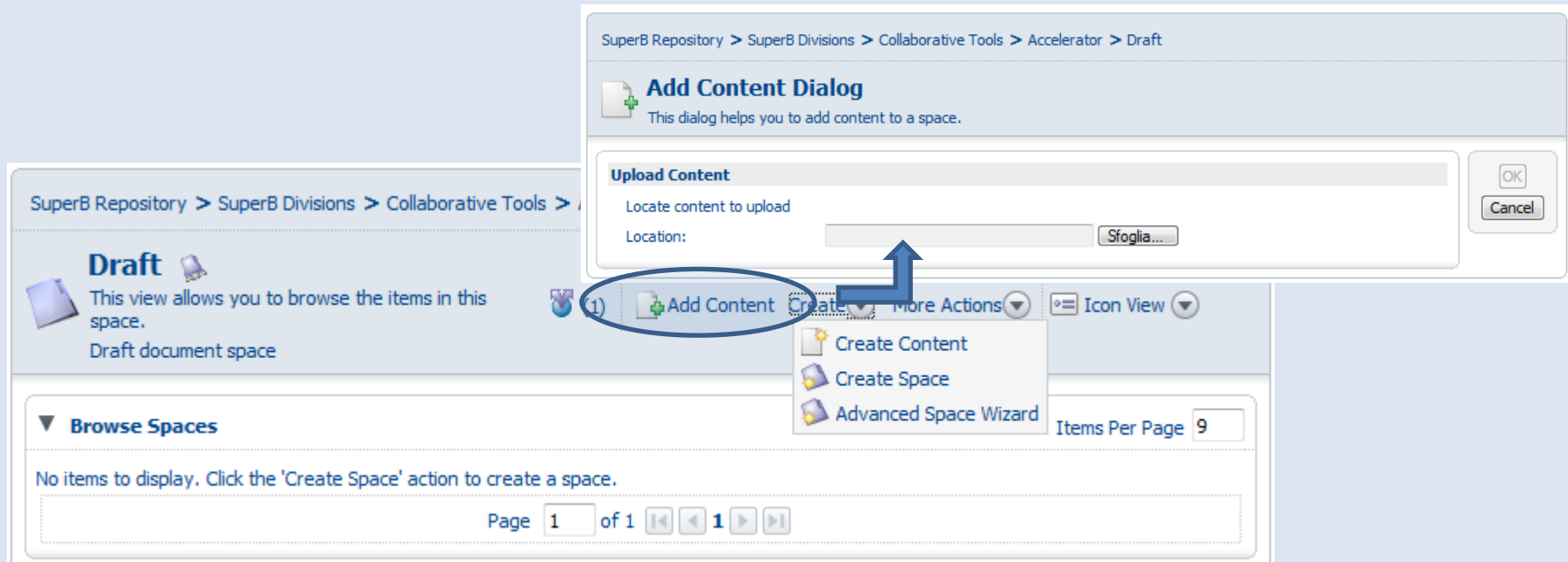
The Accelerator space («SuperB Divisions»->«Accelerator») has the previously described default setup:



The screenshot shows the Alfresco web interface for the 'Accelerator' space. The breadcrumb path is 'SuperB Repository > SuperB Divisions > Collaborative Tools > Accelerator'. The space name is 'Accelerator' with a description: 'This view allows you to browse the items in this space. Accelerator Division'. There are 1 items in the space. Action buttons include 'Add Content', 'Create', 'More Actions', and 'Icon View'. The 'Browse Spaces' section shows three sub-spaces: 'Approved' (Approved document space, 29 March 2011 18:24), 'Draft' (Draft document space, 29 March 2011 18:25), and 'Pending Approval' (Pending approval space, 29 March 2011 18:25). Each sub-space has a set of icons for actions like copy, paste, delete, and refresh. The page number is 1 of 1.

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

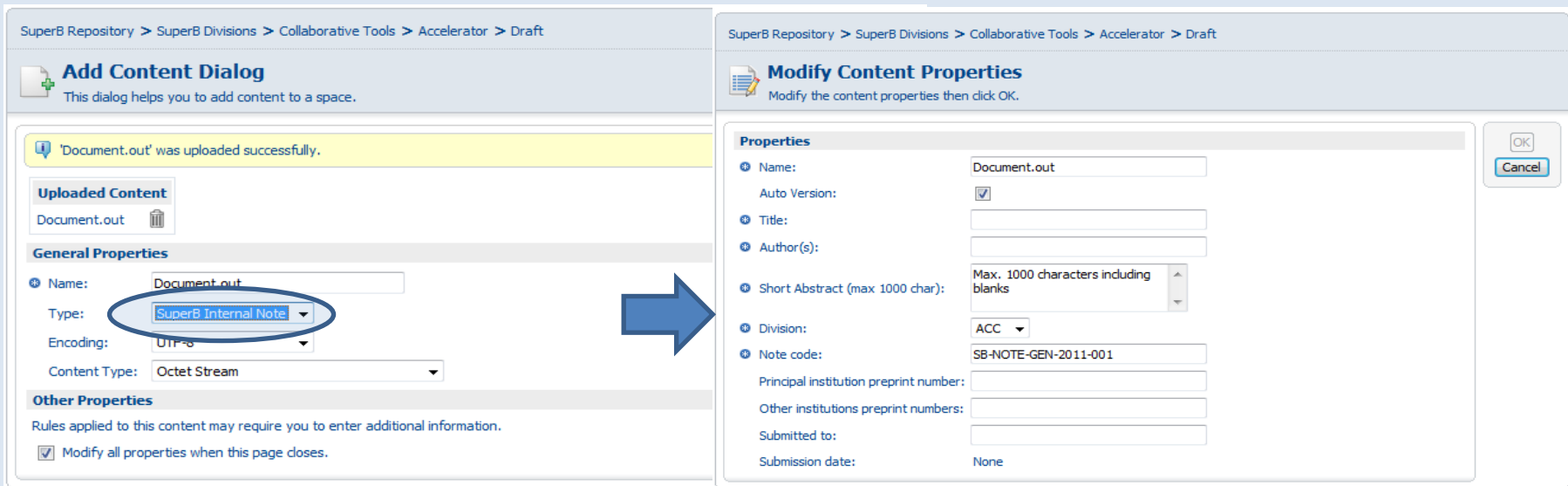


The screenshot displays the Alfresco web interface. The main area shows the 'Draft' space, which is currently empty. A contextual menu is open over the 'Add Content' link, with the 'Add Content' option circled in blue. An arrow points from this menu to the 'Add Content Dialog' window that is overlaid on top. The dialog has a title bar 'Add Content Dialog' and a subtitle 'This dialog helps you to add content to a space.' Below this, there is a section titled 'Upload Content' with a text input field for 'Locate content to upload' and a 'Sfoglia...' button. The dialog also features 'OK' and 'Cancel' buttons.

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



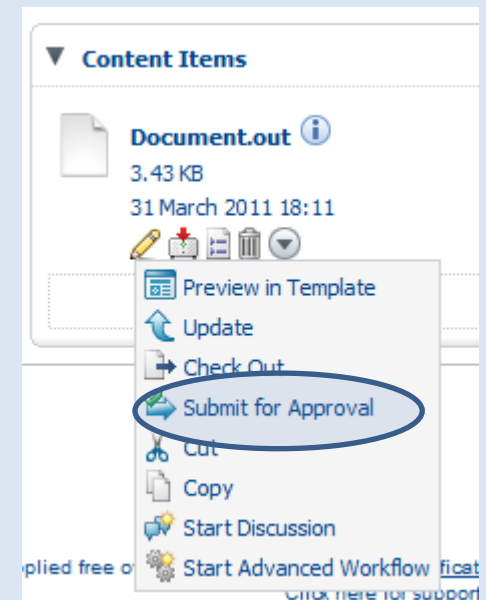
The image shows two screenshots of the SuperB Repository interface. The left screenshot is the 'Add Content Dialog' where a document named 'Document.out' has been uploaded successfully. The 'General Properties' section shows the 'Name' as 'Document.out', the 'Type' as 'SuperB Internal Note' (highlighted with a blue oval and a blue arrow), 'Encoding' as 'UTF-8', and 'Content Type' as 'Octet Stream'. The right screenshot is the 'Modify Content Properties' dialog, which allows users to edit the document's metadata. The 'Properties' section includes fields for Name (Document.out), Auto Version (checked), Title, Author(s), Short Abstract (max 1000 char), Division (ACC), Note code (SB-NOTE-GEN-2011-001), Principal institution preprint number, Other institutions preprint numbers, Submitted to, and Submission date (None). The 'OK' and 'Cancel' buttons are visible on the right side of the dialog.

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:

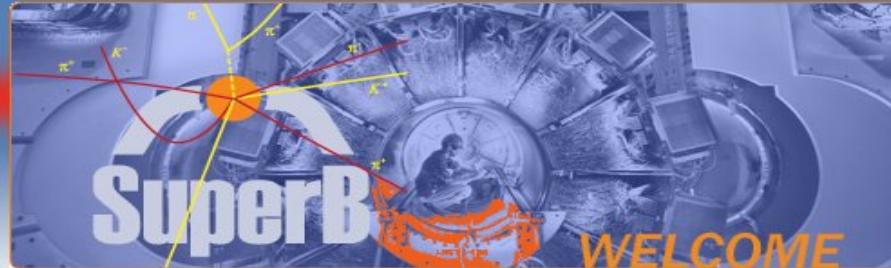
- Fabrizio Bianchi

Physics:

- Adrian Bevan, Marco Ciuchini, Achille Stocchi

Site:

- Sandro Tomassini



[Home](#) | [Overview](#) | [Accelerator](#) | [Detector](#) | [Computing](#) | [Site](#) | [Physics](#) |



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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.



Document Repository

- [Browse Documents](#)
- [Search Documents](#)
- [Submit Documents](#)

User Menu

- [Your profile](#)
- [Send an article](#)
- [Logout](#)
- [Login page](#)

Login

Hi Stefano Longo,
[Log out](#)

Search

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