

Resource Library: Extended Document Management in Plone

This document will provide an overview of the features of the Resource Library add-on product for Plone. The aim of the product is to provide powerful content search on MS Word, PDF and plain text documents, couple with basic categorization and authorship information. While it is possible to customize aspects of the software, as well as integrate it with other systems like Salesforce.com, these areas will not be covered in this document.

Basic structure: Resource Library and Resource Documents

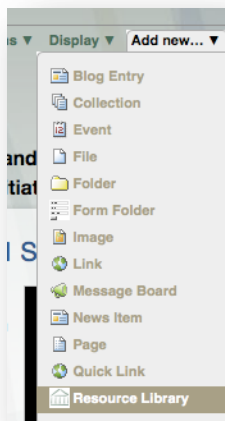
The model for the system is to create a Resource Library object in your Plone site, configure it, and then add Resource Documents to the Resource Library. It is possible to create more than one Resource Library in a single Plone site, but in practice it's often better to use a single Library to store all documents.

Resource Library takes advantage of Plone's powerful full-content indexing, so that even complex attachments like PDF's and MS Word documents are parsed and indexed at the time they are uploaded, so that a user searching for specific terms will be able to find the relevant Resource Document even if the search terms only appear in the body of the attachment.

Walk-through: Creating a Resource Library Object

Let's start by creating a Resource Library object. You will see how the values for some of the fields on the Resource Library will control what choices are available when individual Resource Documents are added later.

Select "Resource Library" from the "Add new..." menu:



This will bring up a typical Plone form to create and configure the Library:

Title (Required)

Example Resource Library

Description
A short summary of the content.

This is the description of the Resource Library.

Primary Categories List (Required)
The list of available primary categories that can used to describe a ResourceDocument

General Communication
Media Article
Speech
Training
Sermon
Resolution

Secondary Categories List
The list of available secondary categories that can used to describe a ResourceDocument

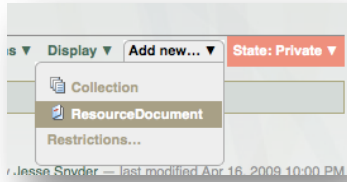
Spiritual and Religious Leaders
Community Leaders
Policy Makers and Activists
Parents and Caregivers
Teachers
Social Service Providers and Helping Professionals

Image
Will be shown in listing pages, and in the page heading. To maintain a consistent aesthetic, the image should be half to two-thirds as tall as it is wide. Image will be scaled to the correct sizes.

In addition to a title and description, there are fields for defining primary and secondary categories that can later be applied to Resource Documents. Only values entered in these fields on the Resource Library will be valid choices for categorizing Resource Documents, allowing centralized control over these options. (Note: in the example, an 'Image' field also appears, because the CPS site provides this option for all container-like content types).

Walk-through: Adding a Resource Document

Our Resource Library now in place, we can add an actual document. Choose 'Resource Document' from the 'Add new...' menu:



Again, a typical Plone add/edit form is presented:

Title (Required)

Description (Required)
A short summary of the content.

Author(s) (Required)
Enter the names for one or more authors of this resource. The format should be Lastname, Firstname.

Primary Categories (Required)
Select the primary categories for this ResourceDocument

- General Communication
- Media Article
- Speech
- Training
- Sermon
- Resolution

Secondary Categories
Select the secondary categories for this ResourceDocument

- Spiritual and Religious Leaders
- Community Leaders
- Policy Makers and Activists
- Parents and Caregivers
- Teachers
- Social Service Providers and Helping Professionals
- Children and Youth

External Web URL
Enter an external URL for this ResourceDocument ie: http://www.example.org/

Upload or manage attachments

Use this widget to remove or rename attachments for this ResourceDocument
Enter an optional title for the attachment (if not included, the title will default to the filename of the attachment)

Select an attachment to add and click 'Upload'

Once an attachment is uploaded, you can refer to it in your body text by its filename.

The 'Title' and 'Author' fields are self-explanatory. You will notice that the choices for Primary Categories and Secondary Categories are the same lists we defined on

the parent Resource Library earlier. These categories will be used to provide keyword-based search options, as we will see later.

In some cases, the resource may not be an uploaded document, but instead a simple link to another website. The 'External Web URL' field is provided for to handle this situation.

If the resource **is** a file, the last section of the form handles the upload and optional renaming of attachments. It is possible to add more than one attachment in the case of multi-part documents that should really be grouped together under a single Resource.

An example of a completed form might look like this:

Title (Required)
Agression and Delinquency

Description (Required)
A short summary of the content.
From PART IV CONSEQUENCES, Spare the Child: The Religious Roots of Punishment and the Psychological Impact of Physical Abuse, Alfred A. Knopf, Inc., 1990.

Author(s) (Required)
Enter the names for one or more authors of this resource. The format should be Lastname, Firstname.
Creven, Philip

Primary Categories (Required)
Select the primary categories for this ResourceDocument

- General Communication
- Media Article
- Speech
- Training
- Sermon
- Resolution

Secondary Categories
Select the secondary categories for this ResourceDocument

- Spiritual and Religious Leaders
- Community Leaders
- Policy Makers and Activists
- Parents and Caregivers
- Teachers
- Social Service Providers and Helping Professionals
- Children and Youth

External Web URL
Enter an external URL for this ResourceDocument ie: http://www.example.org/

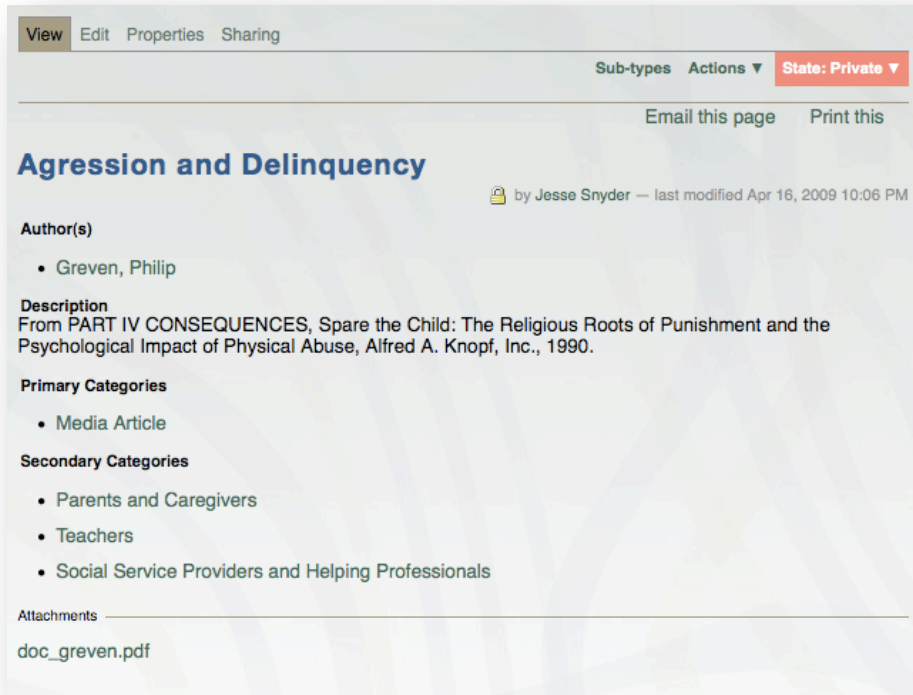
Upload or manage attachments

Use this widget to remove or rename attachments for this ResourceDocument
Enter an optional title for the attachment (if not included, the title will default to the filename of the attachment)

Select an attachment to add and click "Upload"
/Users/jesses/Downloads/doc_greven.p

Once an attachment is uploaded, you can refer to it in your body text by its filename.

I have indicated that this is a Media Article with three primary audiences (Parents and Caregivers, Teachers, and Social Service Providers and Helping Professionals), there is no relevant external URL, and the attachment I've uploaded will use the name of the original file since I did not assign another name. Once I save, I'll see the detailed view of my new Resource Document:



The screenshot shows a web interface for a Resource Document. At the top, there are navigation tabs: 'View' (selected), 'Edit', 'Properties', and 'Sharing'. To the right, there are options for 'Sub-types', 'Actions', and 'State: Private'. Below this, there are links for 'Email this page' and 'Print this'. The main title is 'Agression and Delinquency' in blue. Below the title, it says 'by Jesse Snyder — last modified Apr 16, 2009 10:06 PM'. The 'Author(s)' section lists 'Greven, Philip'. The 'Description' section contains the text: 'From PART IV CONSEQUENCES, Spare the Child: The Religious Roots of Punishment and the Psychological Impact of Physical Abuse, Alfred A. Knopf, Inc., 1990.' The 'Primary Categories' section lists 'Media Article'. The 'Secondary Categories' section lists 'Parents and Caregivers', 'Teachers', and 'Social Service Providers and Helping Professionals'. At the bottom, there is an 'Attachments' section with a single file listed: 'doc_greven.pdf'.

One thing particularly worth noting here: the author name and all the primary and secondary categories are all clickable links. Each is a link to a list of **all** Resource Documents in the Library with the same value for that field. So, for example, clicking on the author's name will return a list of all Resource Documents where Philip Greven is the author.

Resource Library Search Interface

The search interface for the Resource Library aims to be simple and emphasize powerful full-text searching over complex query constructions (think “Google” – evidence suggests they got this right). However, in addition to the ‘Text search’ box, there are also checkboxes for filtering results based on primary and secondary topics:

The screenshot shows a search interface titled "Example Resource Library". It features a search criteria section with a text search box. Below the search box, there are two sections for filtering: "Limit by Primary Topic?" with a checkbox for "Media Article", and "Limit by Secondary Topic?" with checkboxes for "Parents and Caregivers", "Social Service Providers and Helping Professionals", and "Teachers". A "Search" button is located at the bottom of the interface.

Note that in our example only a subset of the primary and secondary category fields we defined on the Library object appear. This is because **only values for which there is an actual document in the database** get displayed as filters. Filtering based on a value that isn't yet present in the database will always return an empty search result, so displaying it as an option is just a recipe for user frustration.

Search results include a simple table with the basic information about each Resource Document matching the search criteria. The title (first column) is a link to the full details for that Resource Document that we saw earlier:

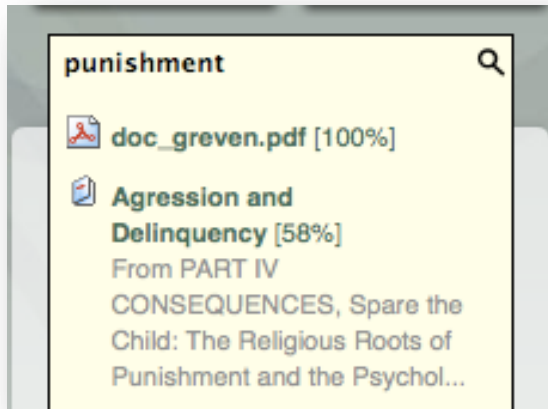
The screenshot shows a table titled "Results" with the following columns: Title, Author(s), Submitted, Primary Categories, Secondary Categories, and Description. The table contains one row of results.

Title	Author(s)	Submitted	Primary Categories	Secondary Categories	Description
Agression and Delinquency	<ul style="list-style-type: none">• Greven, Philip	Apr 16, 2009	<ul style="list-style-type: none">• Media Article	<ul style="list-style-type: none">• Parents and Caregivers• Teachers• Social Service Providers and Helping Professionals	From PART IV CONSEQUENCES, Spare the Child: The Religious Roots of Punishment and the Psychological Impact of Physical Abuse, Alfred A. Knopf, Inc., 1990.

General Plone Search Interface

In addition to the special search features described above, Resource Documents and the attachments they include are also discoverable through Plone's built-in global

search box. To demonstrate this, I'll search for the term 'punishment', which I know exists in the body of the PDF I attached to my example Resource Document:



We can see that Plone returns both the attachment ('doc_greven.pdf') and the Resource Document it belongs to ('Agression and Delinquency'). If I follow the first result to the attachment, we see that it still includes a reference and link to its parent Resource Document:



Summary and Qualifications

We have now seen a brief overview of the Resource Library product's features:

- Resource Library creation and configuration, including setting up topic/category tags that can be applied to Resource Documents
- Resource Document creation and file attachment upload
- Resource Document detail view, including built-in links to similar documents
- Resource Library search interface
- Resource Document and attachment integration with Plone's global search

Many of these features and the presentation of the information may be overridden and customized to meet special client needs.