User Interface Summary

The Smart Media Categories plugin allows you to synchronize taxonomy terms assigned to Media Library items so they are always the same as those assigned to their parent post, page or custom post type. The Settings/Smart Media Categories admin submenu has a "**Sync Post Types**" entry where you can define the post type(s) you want to synchronize. The settings submenu also lets you define which of the nine rules you want to follow on your site. Here's the settings screen:

Smart Media Categories v1.1.1 Settings

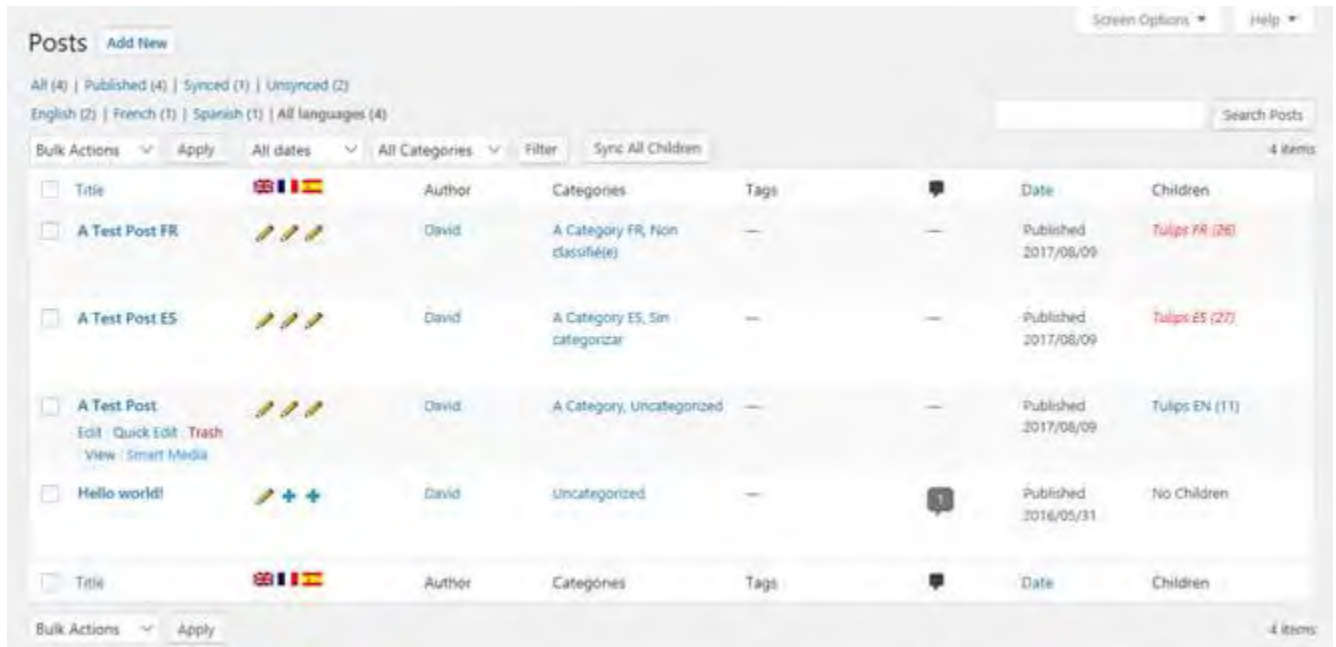| Automatic | Manual |

Automatic Actions

Check the box of each automatic rule you want to apply.

Sync Post Types	post Which Post Type(s) are subject to these rules. Separate multiple types by commas.
Scroll Threshold	10 The number of children required to activate column scrolling.
Scroll Height	150px Maximum height of scrolling Children column cell.
Upload Item	☑ When an item is uploaded to a **Sync Post Type** (any post_type in the Sync Post Types list above), it will inherit the parent's terms.
Attach Orphan	☑ When an orphan is attached to a **Sync Post Type**, it will inherit the parent's terms.
Insert Orphan	☑ Inserting an orphan in a **Sync Post Type** will attach it to the **Sync Post Type** and assign its terms.
Insert Attached	☑ Inserting an item already attached to a different **Sync Post Type** (or Page or Custom Post Type) will change the item's post_parent, delete its terms and assign the terms assigned to the new parent **Sync Post Type**.
Update Post	☑ When a **Sync Post Type's** terms are updated, the **Sync Post Type's** children inherit the current terms of the parent.
Set Feature	☑ When an orphan is set as a Featured Image of a **Sync Post Type** it is attached to the **Sync Post Type** and inherits the **Sync Post Type's** terms.
Reattach Feature	☑ If the item was previously attached to a different **Sync Post Type**, Page or Custom Post Type, it is detached from the previous parent, reattached to the current **Sync Post Type** and inherits the current parent's terms.
Remove Old Feature	☑ If the item was the Featured Image of a different **Sync Post Type**, it is removed as the Featured Image of that **Sync Post Type**.
Reattach Item	☑ When an items new parent is a **Sync Post Type**, it will inherit the parent's terms.

Save Changes

The "Scroll Threshold" and "Scroll Height" entries allow you to limit the vertical space allocated to the list of Children on All Posts admin menus. This is convenient because the list can get quite long and consume a lot of space.
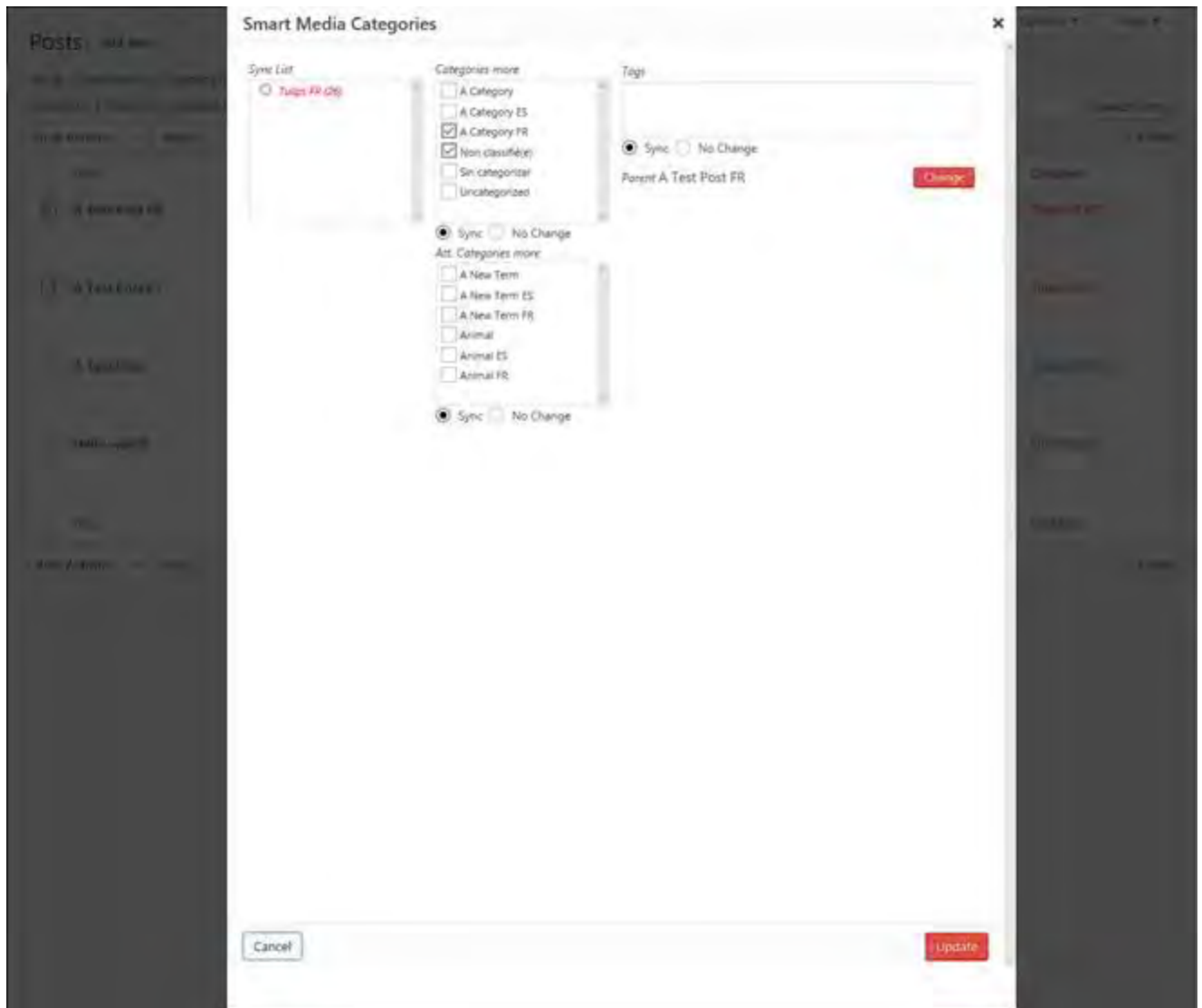
All Posts admin screen changes

For the **Sync Post Types** you specify several changes are made to the "All Posts" admin submenu:

You can see the "Children" column that lists the items attached to each post. Synchronized items are shown in blue and unsynchronized items are in red. The "Sync All Children" button above the submenu table lets you go through the existing posts and apply the rules to each of their children. The "Smart Media" rollover action lets you selectively apply synchronization to a single post, in a popup window:

Smart Media Categories

Sync List	Categories more	Tags
○ Tulips FR (26)	☐ A Category	
	☐ A Category ES	
	☑ A Category FR	● Sync ○ No Change
	☑ Non classifié(e)	Parent A Test Post FR [Change]
	☐ Sin categorizar	
	☐ Uncategorized	

● Sync ○ No Change
Att. Categories more

☐ A New Term
☐ A New Term ES
☐ A New Term FR
☐ Animal
☐ Animal ES
☐ Animal FR

● Sync ○ No Change

[Cancel]   [Update]

In the popup window you can select "Sync" or "No Change" for each taxonomy and you can change the terms assigned. You can instead use the "Change" button to move the items to a new parent:
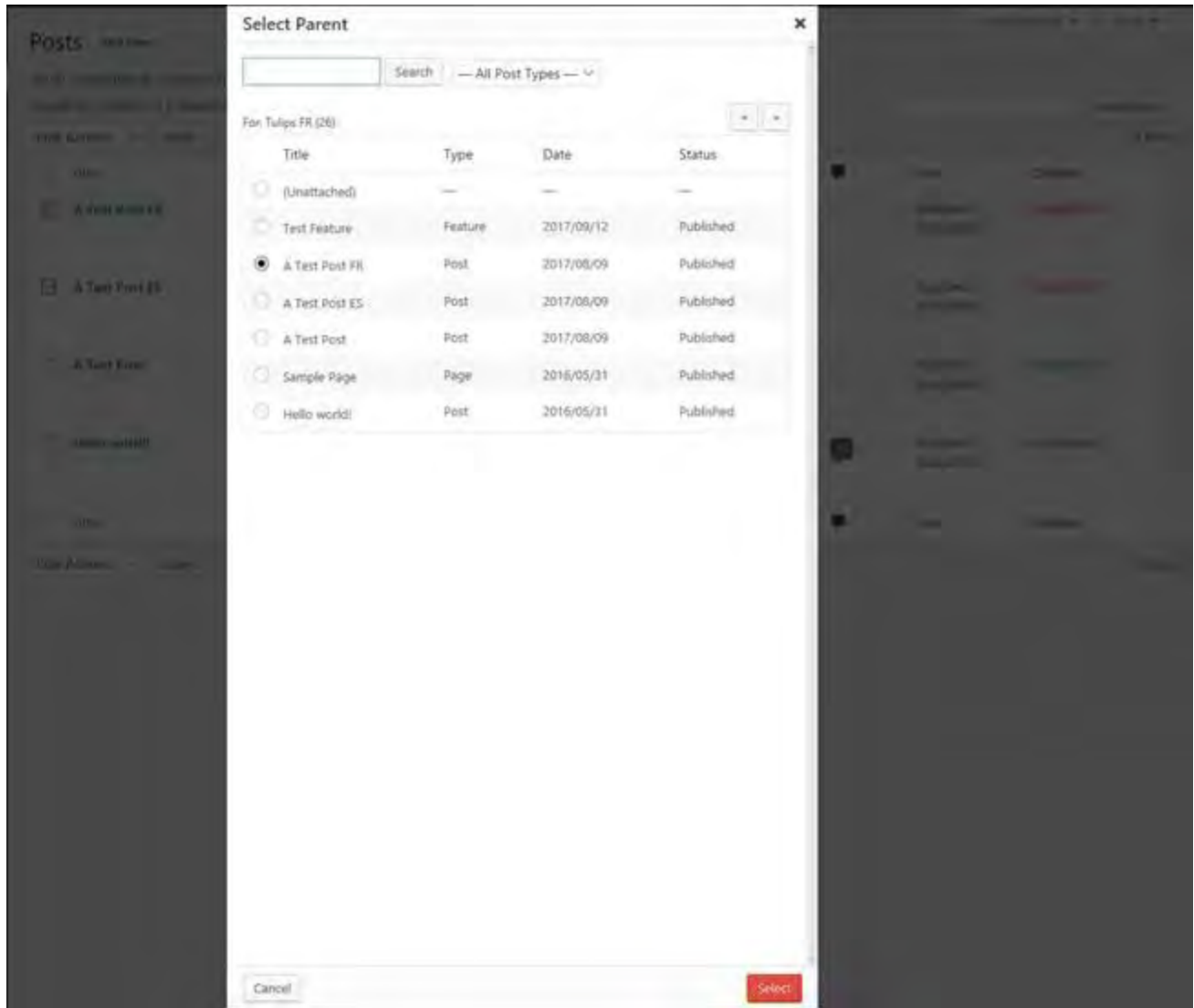
If you want to synchronize some of the posts but not all you can check the posts you want, select "Edit" from the "Bulk Actions" drop down and click "Apply. The Bulk Edit area opens up and you can see a new "Sync All Children" button in the lower-right corner of the area. Click the button to synch only those posts in the "BULK EDIT" list:

Posts [Add New]

English (2) | French (1) | Spanish (1) | All languages (4)

Search Posts

Edit ∨	Apply	All dates ∨	All Categories ∨	Filter	Sync All Children				4 items
☐ Title		🇬🇧 🇫🇷 🇪🇸	Author	Categories	Tags	💬	Date	Children	

BULK EDIT

	Categories	Tags
✪ A Test Post FR	☐ A Category	
✪ A Test Post ES	☐ A Category ES	
	☐ A Category FR	Author — No Change — ∨
	☐ Non classifié(e)	Comments — No Change — ∨ Pings — No Change — ∨
	☐ Sin categorizar	Status — No Change — ∨ Sticky — No Change — ∨
		Format — No Change — ∨

[Cancel]   Sync All Children   [Update]

Requirements Summary

This section contains the final list of requirements, developed by organizing and de-duplicating the items in the Requirements Extract section below. Numbers in parentheses at the end of a requirement match the requirement back to statements in the Requirements Extract.

The Requirements sections also reflect all of the remarks in the Discussion section, which was created, updated and agreed on over a set of e-mail exchanges and comments on earlier draft versions of this document. Wherever there is a difference between an item in the Requirements Extract and in the Discussion, the Discussion wins. The requirement number will be marked "obsolete" in these cases.

Definitions

In this document:

- "**Post**" means a parent object of **any type listed in the "Sync Post Types" list on the Settings/Smart Media Categories screen**. There are a few places where this distinction is important, so the word **Post** is capitalized and in bold face.

- "item" means any Media Library object, such as an image, because "image" is too narrow and "attachment" is archaic.
- "post" means any type of parent object, including a **Post**, **Page**, or Custom Post Type object.
- "**Page**" means a parent object of **post_type = page**, as distinct from a **Post** or Custom Post Type object. There are a few places where this distinction is important, so the word **Page** is capitalized and in bold face.
- "term" is means *any taxonomy term*, e.g., in Categories, Tags and Custom Taxonomies.
- "parent" means an item's post_parent field is equal to the ID of the post.
- "child", "children" means an item or all items where the item post_parent field is equal to the ID of the post.
- "orphan" means an item whose post_parent field is zero (0).
- "uploaded" means "added to the Media Library".
- "uploaded to a post" means an item is uploaded and the post_parent is assigned.
- "attached (to a post)" means an item's post_parent is (or is set to) the post's ID.
- "detached (from a post)" means an item's post_parent is set to zero (0).
- "inserted (in a post)" means one or more of the item's files is named in an <IMG> tag in the post content.
- "(terms are) assigned to an item" means that the terms *replace* the item's existing terms (which are removed).
- "inherit" means that the terms of an item's parent are assigned to the item, replacing any existing terms (which are removed).

Sources of new Media Library items (item is uploaded from):

- Upload New Media screen, invoked from the admin Media/Add New submenu
- Media Manager Modal Window (MMMW) Upload Files tab, invoked from the Set Featured Image or Add Media links on the admin Edit Post/Page submenus. The MMMW can also be invoked from other plugins such as Advanced Custom Fields.

Requirements

Automatic Actions

Uploading items to the Media Library

There are no automatic actions taken when an item is uploaded to the Media Library without being assigned to a post. The item enters the Media Library as an orphan and has no assigned terms.

Uploading items to a post

When an item is uploaded to a post, the post's terms must be assigned to the item. (#1, #2, #3)

Inserting items in a post

When an orphan is inserted in a post it is attached to the post and the post's terms are assigned to the item. (#5, #10)

Removing items from a post

There are no automatic actions taken when an item is removed from a post, i.e., the <img src=> or <a href=> is deleted from the body/content of the post.

Updating a post

When a post's term is added or removed, the term is added or removed from all attached items. (#1, #6, #7)

Setting a Featured Image

When an orphan is set as a post's Featured Image it is attached to the post and the post's terms are assigned to the item. (#4, #10)

1. When an **orphan** is set as a Featured Image of a **Post** it is attached to the **Post** and inherits the **Post's** terms.
2. If the item was previously attached to a different **Post**, **Page** or Custom Post Type, it is detached from the previous parent, reattached to the current **Post** and inherits the current **Post's** terms.
3. If the item was the Featured Image of a different **Post**, it is removed as the Featured Image of that **Post**.

There are no automatic actions taken when an item is set as the Featured Image of a post with post_type other than 'post'.

Removing a Featured Image

When a Featured Image is removed from a post, the item is detached from the post. (#9, obsolete)

There are no automatic actions taken when an item is removed as the Featured Image of a post.

Displaying items in a gallery

There are no automatic actions taken when an item is displayed in a [gallery].

Attaching an orphan

When an orphan is attached to a post, the post's terms must be assigned to the item. (#1, #2, #3)

Detaching an item

When an item is detached from a post (how?) all of the item's terms are deleted. (#8, obsolete)

Detaching an item can be done with the Select Parent popup window. There are no automatic actions taken when an item is detached from a post.

Changing an item's parent post

Changing an item's parent can be done with the Select Parent popup window. When an items new parent is a **Post**, it will inherit the **Post's** terms.

Moving an item or a post to the trash

There are no automatic actions taken when an item or a post is moved to the Trash or restored from the Trash.

Permanently deleting an item

There are no automatic actions taken when an item is permanently deleted.

Permanently deleting a post

There are no automatic actions taken when an item is permanently deleted.

Manual Actions

1. Assign a post's terms to all items attached to the post. (#1, #3)
2. Assign a post's terms to its Featured Image if the Featured Image is an orphan. (#4)
3. Assign a post's terms to an inserted item if the item is an orphan. (#5)
4. Detach an item, i.e., set its post_parent to zero (0) and delete its terms. Remove it as the Featured Image, if applicable. (#8)

Posts/All Posts Admin screen

1. Add a column to the submenu table listing the children; items "uploaded to this post". Indicate which children are/are not synched with the parent. Click on a child to bring up a modal window that supports re-assigning it to a different post.
2. Add a rollover action to the Title column to "Sync Terms"; synchronize the post's terms to its children. The "Sync Terms" area also supports re-assigning one or more children to a different post.
3. Add two additional views, "Synced" and "Unsynced", which show posts that have children where the children are synchronized or unsynchronized respectively.
4. Add a link to the Posts/Edit Post screen to synchronize ALL of the children in the current view.
5. Add a link to the All Posts bulk edit area to synchronize ALL of the children for a list of posts (selected by checkboxes in the submenu table).

Morton: The on demand sync/initial sync should be available as an added item in "Bulk Actions" in my opinion, as that simply adds functionality to the existing framework and filters selected here.

The problem is of course that it's not a very powerful feature, as the selection is only for the items listed in current window. So when filter returns more than one window one has to go to the next page.

I therefore think it's more logical to have this feature under Settings\Smart Media Categories, and that it by default lists the un-synched children, but perhaps in the same familiar layout as in Posts and Pages, but with a more global reach for the sync action – whether all or a filtered set (let's say one wants to start off with only one category tree – e.g. Flowers, and all sub-categories (species) – no matter how many pages in the list, they will all be synched).

David: Your observations on the "***on demand sync/initial sync***" are stimulating. Maybe I can implement this as an additional "View", like the All/Published/Draft/Trash views already present on the Posts/Pages submenu. Something like "Unsynched", perhaps. I can add a Bulk Action like "Synchronize" which would synchronize all of the selected items on the page, and perhaps a second "Synch All" bulk action that would go through all pages of the current view. It would respect the view, date and category filters in place when it is applied. Would that be adequate?

Morton: I think this seems like a great approach.

Pages/All Pages Admin screen
1. Add a column to the submenu table listing the children; items "uploaded to this page". Click on a child to bring up a modal window that supports re-assigning the child to a different post.

Discussion

This section contains clarification of and additional explanation of the requirements listed above.

Uploading items to the Media Library

The WordPress Media/Add New admin submenu can be used to upload items to the Media Library without attaching them to a post. When this is done, the item enters the Media Library as an orphan and has no assigned terms.

Uploading items to a post

The WordPress Media Manager Modal Window can upload items to the Media Library and immediately attach them to a **Post** (or **Page** or custom post type). When this is done, the item's post_parent field is set and the terms of the parent are assigned to the item.

Inserting items in a post

As defined above, "inserted in a post" means that one or more of an **existing** item's "attached files" appears in the content field of the post. For example, as the "src=" attribute of an <img> tag or as the "href=" attribute of a <a> tag (a link). An item can have more than one attached file, e.g., the thumbnail/medium/large/post-thumbnail intermediate sizes as well as the original.

In WordPress there is no relationship between inserting an **existing** item in a post and attaching it to a post. An item can be inserted in one (or more) posts that are different from its parent, and an orphan can be inserted in one or more posts.

With Smart Media Categories the **Post**-item relationship is primary and "the last assignment always wins". This means that inserting an item in a **Post** will attach it to the **Post** and assign its terms. Inserting an item already attached to a different **Post** (or **Page** or Custom Post Type) will change the item's post_parent, delete its terms and assign the terms assigned to the new parent **Post**.

Note: This rule means that the item will also appear by default in any galleries in the **Post**, in addition to its explicit appearance at the point of insertion.

Removing items from a post

The phrase "removed from a post" means that the <img src=> or <a href=> is deleted from the body/content of the post. There are many ways to do this and several of them are difficult to detect. The WordPress Visual Editor makes it easy to remove or replace and <img src=> tag, but the tag can also be altered in the "Text" mode editor.

With Smart Media Categories, removing an item has no effect on its post_parent or terms.

NOTE: If an item is attached to **Post** "A" and later inserted in **Post** "B" its post_parent is changed, old terms deleted and new terms are inherited from **Post** "B". Removing the item from **Post** "B" at a later time has **no effect**; the item is still attached to **Post** "B". **The item is not re-attached to Post "A".**

Updating a post

The phrase "update a post" means that the Edit Post submenu Save Draft/Publish/Update button is clicked, the Quick Edit "Update" button is clicked or the Bulk Edit "Update" button is clicked.

When any of these events occur for a **Post**, the **Post's** children inherit the current terms of the parent.

Setting a Featured Image

Here are the rules WordPress implements for Featured Images:

- A post may (or may not) have one item designated as its Featured Image
- The Featured Image does not have to be attached to the post
- An item can be the Featured Image in more than one post
- An item attached to one post can be the Featured Image in a different post

Given the above points the "inheritance of terms" for a post's Featured Image need further definition. The current requirements (listed above) follow these rules when setting a Featured image in a **Post**:

1. When an item (including an **orphan**) is set as a Featured Image of a **Post** it is attached to the **Post** and inherits the **Post's** terms.
2. If the item was previously attached to a different **Post**, **Page** or Custom Post Type, it is detached from the previous parent. All of the item's former terms are deleted and new terms are assigned when it becomes a Featured Image of the current **Post**.
3. If the item was the Featured Image of a different **Post**, it is removed as the Featured Image of that **Post**. **The former parent Post will thus have no Featured Image.**

The rules derive from the convention that the **Post**-item relationship is of primary importance and when moving an item between **Posts** "the current **Post** always wins".

When setting a Featured Image in a **Page** or Custom Post Type the rule is different:

1. When an item is set as the Featured Image of a **Page** or Custom Post Type its parent and terms are unchanged.

Setting an item as the Featured Image of a **Page** (or other Custom Post Type) is considered an ancillary use and does not affect the primary **Post**-item relationship.

Removing a Featured Image

Once an item is set as the Featured Image of its parent **Post** it usually remains in place. The only reason to remove it is so a different item can be set as the Featured Image of that **Post**.

1. Removing an item as the Featured Image of a **Post** does not affect parent or terms.
2. Removing an item as the Featured Image of a **Page** or Custom Post Type is an ancillary act and also does not affect parent or terms.

Displaying items in a gallery

The phrase "displayed in a gallery" means an item returned by any of the many shortcodes used to compose galleries, e.g., [gallery] or [mla_gallery]. By default, galleries usually include the images attached to the post, but this practice is becoming less popular/common as time goes on.

With Smart Media Categories, display of an item in a gallery has no effect on its post_parent or terms.

Attaching an orphan

The phrase "attaching an item" means setting changing its post_parent from zero (0) to the ID of its (new) parent post. There are several ways this can be done, including:

- Uploading an item with the "Upload Files" tab of the "Insert Media" or "Create Gallery" modal window functions
- Uploading an item with the "Upload Files" tab of the "Set Featured Image" modal window functions
- Clicking the "Attach" link in the "Uploaded to" column of the Media/Library submenu table
- Direct assignment of post_parent using a plugin such as Media Library Assistant

With Smart Media Categories, attaching an orphan to a post will set its post_parent and terms to the post's ID and terms. Any terms previously assigned to the orphan will be deleted.

Detaching an item

The phrase "detaching an item" means changing its post_parent from a non-zero ID to zero (0). There is no standard WordPress mechanism for this. Once a post_parent is assigned there is no way to change or remove it. Media Library Assistant, like several other plugins, allows you to change the post_parent value. There may not be a reliable way to detect this event in many cases.

With Smart Media Categories, detaching an item, however it occurs, has no effect on the terms assigned to the item.

Changing an item's parent post

The phrase "changing a parent" means changing its post_parent from one non-zero ID to a different non-zero ID. There is no standard WordPress mechanism for this. Media Library Assistant, like several other plugins, allows you to change the post_parent value. There may not be a reliable way to detect this event in many cases.

With Smart Media Categories, changing an item's parent be treated as if the item were first detached from the current post, then attached to the new post. In other words, the rules for detaching and then attaching the item would be applied in that order.

Moving an item or a post to the trash

By default, WordPress implements "the trash", a temporary holding place for posts from which they can be restored or permanently deleted. After a configurable period of time, posts in the trash will be automatically deleted. By changing a configuration parameter, this feature can also be applied to Media Library items. With Smart Media Categories,

1. Moving an item or post to the trash has no effect on its post_parent or assigned terms.
2. Restoring an item or post from the trash has no effect on its post_parent or assigned terms.

Permanently deleting an item

Permanently deleting an item from the Media Library means deleting the attached files from the Uploads area and deleting the item's post object (post_type=attachment) in the database. WordPress will also remove the item as the Featured Image from posts and delete all of its assigned terms. WordPress will **NOT** remove any <img>/<a> tags in the content of posts; they will simply be broken links. Deleting the item also "detaches" it because the post_parent field goes away when the post object is deleted.

With Smart Media Categories, no additional actions are taken when an item is permanently deleted.

Permanently deleting a post

Permanently deleting a post means deleting the post object in the database. WordPress will also delete all of its assigned terms. All attached items become orphans, i.e., WordPress finds all of the items with post_parent equal to the ID of the deleted post and sets the items' post_parent to zero.

With Smart Media Categories, no additional actions are taken when a post is permanently deleted.

Requirements Extract

This section contains a summary of the requirements followed by excerpts from the Support topic and subsequent e-mail dialog that bear directly on requirements.

This section does **not** contain any requirements from the subsequent review of earlier document versions, neither the comments embedded in the document nor the "E-mail Comments on the Requirements Document".

Summary

(#1) How do I enable images in media library to inherit their post's categories?

(#2) (new image upload) How do I enable categories defaulting from those set in the post?

(#3) mapping of taxonomy terms from an item's parent to the item

(#4) (mapping of terms for the) Featured Image

(#5) (mapping of terms for an image) inserted in post

(#6) as soon as I've selected terms for the post, the uploaded images will inherit these terms

(#7) when terms of the post are changed, this should also happen for attached items

(#8) when an item is detached it should revert back to orphaned/default state / no categories (conflict with #11)

(#9) when a Featured image is removed it should revert back to orphaned/default state / no categories (conflict with #14)

(#10) The featured image in my case is always from one of the images attached to/inserted into the post

(#11) The media that is no longer attached, keeps the last post's categories (conflict with #8)

(#12) When a post is deleted, any media attached/inherited taxonomy keeps its terms

(#13) Custom taxonomies and Tags are not relevant

(#14) When an item is detached or removed as a Featured Image its terms are unchanged (conflict with #9)

Media Library Assistant Support Topic
Posted on: Thursday, October 24, 2013 4:37 PM
(#1) How do I assign all images in posts to the post's categories? Or better yet - how do I enable images in media library to inherit their post's categories?

(#2) I see no linkage or inheritance option for new image uploads either… How do I enable categories defaulting from those set in the post?

Posted on: Thursday, October 24, 2013 5:50 PM
The most practical thing I can imagine is to extend the mapping features already present for IPTC/EXIF/PDF metadata and custom fields to enable (#3) mapping of taxonomy terms from an item's parent to the item itself. This would happen on demand ("map all attachments now") and when an item is added to the Media Library. That would avoid the inheritance/linkage maintenance issues.

Posted on: Friday, October 25, 2013 6:34 AM
I'm referring to images attached to posts, meaning those displayed in Edit Post + Add Media + Uploaded to this post, which I guess is the same as post_parent matching the post ID. But I'd prefer if I could have the (#4) Featured Image + those (#5) inserted in post, as I sometimes upload images to a post that I do not display in the published post. So I've got posts with let's say 4 uploaded images, but only 2 published (one Featured Image and one inserted in post's body).

With linkage/inheritance I mean that (#6) as soon as I've selected categories (preferably also Tags) for the post, the uploaded images will inherit these categories (and preferably the Tags as well), so that I do not have to click the same categories again just for the images

(#13) As Custom Taxonomies are custom, I think that should be for a future version.

1: (#7) When categories of the post are changed, this should also happen for the photos.
2: (#8) When detached/(#9) Featured image is deleted it should revert back to orphaned/default state / no categories (however this is rarely a situation, as I don't upload or keep images just for themselves - they are basically orphans).

For the time being I find categories to be most relevant, but somewhere down the road I think tags should have the same methodology, as images are uploaded to be part of a post, which is also tagged.

E-mail Dialog

Sent: 05 March 2014 23:14
I think it should be possible to develop a custom plugin for your application that would use the "post_parent" value to assign taxonomy terms to attachments that match those assigned to their parent post/page. It may also be possible to update attachment terms when changes are made in the parent.

Extending support to "the Featured Image + those inserted in post", when the post_parent field is not used or does not match, would be more difficult. It is important to understand in detail any relationship other than the explicit relationship denoted by the post_parent field.

Sent: Wednesday, March 05, 2014 3:42 PM
By default any image/media is an orphan taxonomy-wise.

It is oblivious to EXIF which is completely incomprehensible! There is so much info in images already, and reusing it should be first priority. The need to manually update taxonomy for post and images is very analogue.

When this is not possible the second best is some sort of default population for users like me, where each photo is unique to a post.

(#10) The featured image in my case is always from one of the images attached to/inserted into the post.

Requirements:
You have already clearly understood the requirements and needs very well:

"*I think it should be possible to develop a custom plugin for your application that would use the "post_parent" value to assign taxonomy terms to attachments that match those assigned to their parent post/page. It may also be possible to update attachment terms when changes are made in the parent.*"

Why is this in contradiction to the prior paragraph?:

"*Extending support to "the Featured Image + those inserted in post", when the post_parent field is not used or does not match, would be more difficult. It is important to understand in detail any relationship other than the explicit relationship denoted by the post_parent field.*"

The featured image in my case is always from one of the images attached to/inserted into the post.

From the topic list below:

- (#1, #6, #7) "*When categories of the post are changed, this should also happen for the photos.*"

(#14) This one I no longer regard as relevant, as it will be replaced by new categories when/if attached to a new post.

- (#8, #9) *"When detached/Featured image is deleted it should revert back to orphaned/default state / no categories"*

From what I understand from your feedback you seem to be able to cover initial as well as maintenance side of this. It's important that any changes to attached images are updated (that they can be (#8) dropped or (#2) added to post).

The (#1, #3) initiation/activation phase is also important, as I need to update all images published, and drafts – not only the new posts after plugin is activated.

What should happen in the workflow:

New post
I create a new post, update taxonomy, select "Add Media" from within the Edit Post, and add all required media.

I save draft and expect the (#2) media taxonomy to be updated with post's categories.

Edit post
the post, and attach a new image, which will also (#1, #3) inherit the posts categories.

(#11) The media that is no longer attached, keeps the last post's categories.

Delete post
(#12) Any media attached/inherited taxonomy keeps it's categories.

Tags
(#13) I use tags only for location info, so this is not relevant for an image/media.