

Files and Media in Drupal 7

Or Please God Don't Let walkah Do Another Image
Presentation

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Agenda

- Highlight the shortcomings in the D6 File API.
- Review committed changes in D7.
- Look at my feature wish lists for D7.
- Discuss the remaining bit of nastiness that don't have easy solutions.
- Media Module BoF

Goals for the Presentation

- Provide a rationale for the changes made to the File API in D7.
- Begin to explore the exciting possibilities for contrib modules to interact with files and other modules.
- Give you an idea of what you'll need to do to upgrade modules from D6.
- Get you involved with future core development.

What sucks in Drupal 6

- Most `file_*`() functions don't update the `{files}` table.
- Zero notification that files have been created, changed or removed.
- Missing functions like `file_load()` `file_save()`
- Hard to share files between modules.

It's better in D7

- Files are first class objects
- Hooks
- File helper functions

Files Are Now Objects

- Functions to for managing the life cycle:
 - file_load()
 - file_validate()
 - file_save()

Finally, Hooks!

- `hook_file_load()`
- `hook_file_validate()`
- `hook_file_insert()`
- `hook_file_update()`
- `hook_file_copy`
- `hook_file_move()`
- `hook_file_delete()`
- `hook_file_references()`

D6 Functionality is still there

- `file_unmanaged_copy()`
- `file_unmanaged_delete()`
- `file_unmanaged_move()`
- `file_unmanaged_save_data()`

Bonus: New Functions

- `file_load_multiple()`
- `file_unmanaged_delete_recursive()`

D6 Example: Remove Attached Files

```
function upload_delete($node) {
  $files = array();
  $result = db_query('SELECT DISTINCT f.* FROM {upload}
    u INNER JOIN {files} f ON u.fid = f.fid WHERE
    u.nid = %d', $node->nid);
  while ($file = db_fetch_object($result)) {
    $files[$file->fid] = $file;
  }

  foreach ($files as $fid => $file) {
    // Delete all files associated with the node
    db_query('DELETE FROM {files} WHERE fid = %d', $fid);
    file_delete($file->filepath);
  }

  db_query('DELETE FROM {upload} WHERE nid = %d', $node->nid);
}
```

D7 Example: Remove Attached Files

```
function upload_nodeapi_delete($node) {
  db_delete('upload')->condition('nid', $node->nid)
  ->execute();
  if (!is_array($node->files)) {
    return;
  }
  foreach($node->files as $file) {
    file_delete($file);
  }
}

function upload_file_delete($file) {
  db_delete('upload')->condition('fid', $file->fid)
  ->execute();
}
```

My Image Wish List

drupal.org/community-initiatives/drupal-core/images

- #373613: Create "Image" Objects, Operate on Images By Resource
- #371374: Integrate ImageAPI/ImageCache into Core

My File API Wish List

drupal.org/community-initiatives/drupal-core/files

- #391330: File Field for Core
- #329301: Rename {files} to {file} and add unique key to the filepath column
- #322287: Add file.module to provide UI for managing files
- #227232: Support PHP stream wrappers
- #353458: Drop hook_file_references() in favor of a table based approach
- #366464: Removing file_directory_path() in filepath in file table
- #220944: Handle File Uploads in Form API
- Access control!

Want to Help?

- What do you need in core?
- Want to review patches?
- Want to write tests?
- Think you could write better docs?

Media Module