artefactual / atom

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Open-source, web application for archival description and public access. http://www.accesstomemory.org

2,645 commits 106 branches 36 releases 20 contributors AGPL-3.0

Branch: qa/2.4.x New pull request Find file Clone or download

apps/qubit Change FW treeview node format, refs #10909 7 days ago
cache Stop using .gitignore under certain directories. 5 years ago
config Add status id to term foreign key to schema. 13 days ago
css Merge IO browse and adv. search pages, refs #9141 a year ago
data Version bump. 13 days ago
images Add full width treeview, refs #6375 2 years ago
init Add reference systemd worker service, refs #9623 a year ago
js Improve alerts after FW tre... #10973 29 days ago
lib Taxonomy normalize fix ... 8 days ago
log Empty .sf file 5 years ago
plugins Fixed failing of MODS impor... 22 days ago
test renderDate leading zeroes on day, Refs #10641 4 months ago

Get to Know AtoM's Codebase

An introduction for developers and systems administrators covering Symfony, developer resources, standard practices, and other information.

Dev resources:
Things to know before you begin

Main AtoM webpage: www.accesstomemory.org

- Links to tarball downloads of AtoM
- Version specific documentation
- How to get support
    - Forum, Redmine, Github
- **The Wiki**
    - Development Resources
    - Links to:
        - Coding standards
        - Contributing code (contrib agreement)
        - Code Review Process

AtoM User Forum on Google Groups: ica-atom-users

- 'Community -> Get Support' on above for details on submitting a post on the Forum

Planning an extensive change? Open a discussion on User Forum!

AtoM Technology overview

AtoM is Symfony 1 based - symfony.com/legacy

- ORM - Propel
- MVC framework

PHP > 5.5, MySql, Nginx (Apache)

Elasticsearch 1.7.5 - (5.2 soon!)

Bootstrap 2.3.2, Less CSS

Javascript - JQuery 1.8.3

Other dependencies:
https://www.accesstomemory.org/docs/latest/admin-manual/installation/requirements/#installation-requirements

Debug Mode and AtoM Logs

Use to determine:

- Contents of request
- Contents of response
- Route being requested
- User context details
- AtoM application settings
- Plus more!

Turn on debug mode:

1. cd to atom root dir
2. Edit qubit_dev.php to add your ip to array: `$allowedIps`
3. In atom dir: `php symfony cc`
4. Update URL to: `http://10.10.10.10/qubit_dev.php`
5. Browse AtoM as you normally would, 'qubit_dev' will 'stick'
6. **sf** icon in top right
7. Logs in atom/log: qubit_dev.log

Tour of AtoM Codebase

- Modules: Controllers & Views

- Models

- Plugins (themes + more)

- Background jobs

- Migrations

- Vendor

- Javascript

Tour of AtoM Codebase

Modules: Controllers and Views

Modules found in: `atom/apps/qubit/modules`

- Each folder here is a module

- Controllers in 'actions' (xAction.class.php)
  - Form `extends DefaultEditAction`
  - Handles both `HTTP GET and POST`
    - See `$request->isMethod()`
- Views located in 'templates' (xSuccess.class.php)

Example: modules/object/actions import and export

Base templates and layouts:
`atom/apps/qubit/templates`

Tour of AtoM Codebase

Models

Class definitions for objects representing db table rows

E.g. Actors, Information Objects (Archival Descr), Repositories

- Located in: `atom/lib/model`
  - Inherit from abstract base classes (abc)
- abc's located in: `atom/lib/model/om`
  - Almost all major objects extend QubitObject
    - Id's are unique; from a common pool
    - Base methods are defined once
    - Classes can override base methods if necessary

General non-ORM classes located in `atom/lib`

E.g. Parsers, Import and Export classes, Clipboard etc.

Helper functions

- `atom/lib/helper/QubitHelper.php`
- `atom/lib/Qubit.class.php`

Tour of AtoM Codebase

Plugins

Located in `atom/plugins`

Plugins come in various types:

- Theme (more detail later!)
  - Dominion and Archives Canada
  - Plugin configuration file: summary must include 'theme'
- Functional
  - ElasticSearch, Install, RestAPI
  - Most of these loaded automatically - ProjectConfiguration.class.php
- Templating
  - ISAD, ISAAR, ISDIAH, MODS, EAD etc.
  - AtoM disallows deactivation of ISAD, ISAAR, ISDIAH
    - ISAAR & ISDIAH have no alternative templates
    - ISAD plugin is an exception - is extended by DACS

Structure of plugin folder mirrors the AtoM folder
- Used to add models - e.g. ElasticSearch plugin
- Used to override existing module functionality - e.g. AC Theme
- Used to add new controllers - e.g. Rest API

Community contributed plugins

Tour of AtoM Codebase

Background Jobs

Located in `atom/lib/job`

Used to make long running processes run asynchronously
- Prevents http timeouts
- Avoids making user wait for action to complete

Initiating a background job
- Place in queue - use QubitJob::runJob
  - E.g. object export controller
  - creates and returns a QubitJob
  - runJob signals gearman that job is available

Background job launched by gearmand
- Execute in background on server
- Use QubitJob record to communicate completion
- Job classes all extend arBaseJob
- Monitor progress on Manage Jobs page (viewing QubitJobs)

Tour of AtoM Codebase

Migrations

Located in
`atom/lib/task/migrate/migrations`

Migrations modify the database in some fashion
- Used to update existing installations
- New data fixture (setting, menu item etc)
  - E.g. Migration 148, 149
- Database change
  - E.g. Migration 134

Database is versioned - can be viewed on Settings page
- Note 'Version' const in each migration file

Migrations triggered by CLI task
- php symfony tools:upgrade-sql

New installations
- Would not use migrations
- Load fixtures from yml files when database is populated

Tour of AtoM Codebase

Vendor

Located in `atom/vendor`

Contains 3rd party plugins & dependencies

Be aware of license! AtoM is AGPL-v3.

Licenses of all vendor contents
- Must be compatible with AGPL-v3
- Will be listed in AtoM's COPYRIGHT file

Typically code changes to files in here are avoided

Plugins can also include vendor items

Tour of AtoM Codebase

Javascript

Located in `atom/js`

We have some js to handle client & WebUI behaviours

Uses JQuery

E.g. See module object export

```
$this->response->addJavaScript('exportOptions', 'last');
```

Tour of AtoM Codebase

CLI Tasks

Run from root dir of AtoM

AtoM provides variety of CLI administrative tasks

- Usage: `php symfony [options] task_name [arguments]`

User and File permissions important

Some commands can be destructive!

- E.g. `tools:purge`

Help for each task is provided

- E.g. `php symfony` **help** `tools:add-superuser`

Contributing Code/Github

1. Clone
2. Create a work branch
3. Make changes
4. Commit changes
5. Push for Code Review
6. Additional Changes needed? → Goto 3.
7. Celebrate!

Code Review process

Contributing Code

Q&A

www.accesstomemory.org

www.artefactual.com