MuseKnowledge™ Source Factory Overview
Over the last decade, Muse has amassed a library of more than 6,500 Source Packages.

This global library, called the MuseKnowledge™ Source Factory, serves as a central repository of Source Packages that are licensed to Muse implementations, metadata that describes them and delivery mechanisms that bring them to customers.
MuseKnowledge™ Source Factory: a connector ecosystem

Identification
- Tools for finding content sources
- System for gathering metadata and technical info about sources

Design
- Framework for recording source capabilities
- Syntax translator generation
- Applications for visually defining content tagging

Building
- Database of test parameters
- Automated build and versioning

Deployment
- All sources are packaged in the Source Factory with details
- Automated Source Update deploys updated packages

Monitoring
- Automated Source Checker operates constantly
- Results of user operations are used for early warning

Repair
- Automatic and user notification
- Tracking, testing and building system
MuseKnowledge™ Source Factory Life Cycle

New Sources can be built and delivered in a few days; repairs can be made in a few hours.

Many repairs are handled by MuseKnowledge™ software.

MuseGlobal monitors Source Package performance with an automated program that checks every Source, every day.

Completed Source Packages are flagged ‘released’ and are available for manual or automated download to MuseKnowledge™ systems.

Individual Sources or Source subject areas are requested and the process begins.

Developers and subject specialists define how the connector will work.

Muse has developers building and maintaining Source Packages.

Identify

Design

Build

Deploy

Monitor

Repair
MuseKnowledge™ Source Factory Interface

- Accessible on HTTP as part of the MuseKnowledge™ Support website;
- 2 entry points can be used:
  - MuseGlobal Website – www.museglobal.com
  - Support Website – support.museglobal.com

Enter your credentials
MuseKnowledge™ Source Factory Interface

- List all Source Packages currently Released by default with the following details: Source Name, Source ID, Status, Data Service, Host, Protocol, Package Version;
- Source Packages that were retired, replaced or they are new requested by customers can be tracked on this list;
- Export lists of Source Packages to CSV file;
- Filters can be used to locate a Source Package:
  - names beginning with;
  - names containing;
  - IDs containing;
  - Production status;
  - Protocol.
MuseKnowledge™ Source Factory Interface

- Detailed view of Source Package characteristics;
MuseKnowledge™ Source Factory Interface

• Production States - stages in the life cycle of a Source Package:
  • Released; The usable state for a Source Package: it is working (see its Test State) and is available for download and installation. Source Packages will remain in this state until they become broken and need fixing, or they become Defunct.
  • Under Investigation; Once a Source Package is reported by the Muse Source Checker or by an user as being "Not Working", it is moved to this state while the Source Factory team investigate the cause. It will stay in this state until work on fixing it actually starts.
  • In Progress; This is the generic rubric for initially building or fixing a Source Package. It is when the programmers and specialists are actively working on the Source Package. From this state the Source Package moves to Awaiting Testing.
  • Awaiting Testing; The Source Packages are tested after being built or fixed by the programmer who did the work and then by their team leader and finally through an automated and human Quality Assurance stage.
  • Awaiting Release; This state is briefly passed through by all completed Source Packages while they are awaiting the automated deployment processes which move them from the programming and testing shop to the Released state within the Source Factory where they are available for download.
MuseKnowledge™ Source Factory Interface

- **Requested;** This is the first time a Source Package appears in the Source Factory.
- **Awaiting Development;** Each request for a new Source Package is validated, both to determine that it does not already exist in the Source Factory (in which case the requestor is notified of the existing Source Package name), and that the supplied details are accurate. At this stage a permanent ID is created for the new Source Package and MuseGlobal contacts the content provider to obtain technical details and invite them to join our Content Partner Program. The Source Package will wait in this state until work on creating it (In Progress) starts.
- **Maintenance;** A non 'Defunct' Source will have a Maintenance Production status if it is reported as not working, and the intention is to fix it, but there is no estimate of how long that will take.
- **Defunct;** At the end of its useful life a Source Package is declared Defunct. This may be because the actual Source to which it connects has disappeared or merged with another or changed its name or been sold or any of the other commercially inspired things that happen to content. The Source Package will continue to exist in the Source Factory in this state until there are no copies of Muse using it.
- **Defunct with replacement;** This state is the Defunct state and additionally there is a Source Package that provides a replacement, connecting to the same Source.
MuseKnowledge™ Source Factory Interface

- Duplicate; The Source Package has been replaced by a better, more functional one connecting to the same Source. Or it may be found that the Source Package is a duplicate and has been rationalized out of use. In all cases the Source Package will continue to exist in the Source Factory in this state until there are no copies of Muse using it. It is marked with this state and a link to the replacement Source Package.

- Cancelled; Sometimes it is necessary to cancel a requested Source Package.
MuseKnowledge™ Source Factory Interface

- **Test States** – the test status of a Source Package:
  - Regular testing of Source Packages: The Source Checker determines if each Source Package is performing correctly and records the results of its test in the Test History portion of the Source Package record.
  - Where Source Packages are not tested, we assume they are working when deployed in the Source Factory and that they will stay with a good chance of working for some time. An aging algorithm changes the state of each Source Package every day so that eventually they will move to the Probably Working state and finally (after about 9 months) to the Might not Work state.
  - Available test statuses:

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<th>Legend Icon</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔</td>
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</tr>
<tr>
<td>≈</td>
<td>Not Confident</td>
</tr>
<tr>
<td>✗</td>
<td>Not Working</td>
</tr>
<tr>
<td>🟢</td>
<td>Working</td>
</tr>
<tr>
<td>🟠</td>
<td>Probably Working</td>
</tr>
<tr>
<td>🟡</td>
<td>Might Not Work</td>
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<td>−</td>
<td>Not Tested</td>
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<tr>
<td>?</td>
<td>Unknown</td>
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<tr>
<td></td>
<td>Tested</td>
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<tr>
<td></td>
<td>Working</td>
</tr>
<tr>
<td></td>
<td>Administrative</td>
</tr>
</tbody>
</table>
• Source Groups – create groups of Source Packages for different customers. For example create special subject based Groups or size limited Groups to offer to customers.
• Customers - create new Customers and view/edit details of existing Customers. Customers can be created here to give them access to the Source Factory from their Muse Consoles.
• Registration Service – information about Serial Numbers issued.
  • Filter, Export to CSV functionalities;
  • Detailed information for a Serial Number;
  • Request Extension;
  • Serial Numbers about to expire.
MuseKnowledge™ Administration Consoles

- Add Sources
  - MuseKnowledge™ Administration Consoles connect to MuseKnowledge™ Source Factory and retrieve the list of available Source Packages which can be installed in a MuseKnowledge™ Application;
  - Filters are available to locate the desired Source Package;
  - Multiple Source Packages can be added at a time.
MuseKnowledge™ Control Center

- Automatic Source Upgrade
  - Eliminate or greatly reduces the need for Administrators to manually run the MuseKnowledge™ Console Source Upgrade process to keep Sources in their Application up-to-date and functioning optimally for their users;
  - The MuseKnowledge™ Control Center Automatic Source Upgrade is a Source update process that can be run on a user-determined frequency to automatically upgrade all selected Source Packages;
  - Out of the box pre-configured task file - Source Packages Upgrade Tasks.tsk;
  - Easy to configure the desired upgrade algorithm:
MuseKnowledge™ Control Center

- MuseKnowledge™ Source Checker
  - Test Source Packages on regular basis and store the test results into the Global InfoBase;
  - The daily test status obtained is used to compute the overall test status of the Source Package, only the last 7 consecutive tests are used with the following algorithm:
    - Working. This means that almost all tests of the Source Package were successfully; the Source Package is allowed 1 failure and will keep the Working status;
    - Not Confident. This means that successful and failed test results are being recorded alternatively for that Source Packages; 2 consecutive failures will change the test status to Not Confident;
    - Not Working. 7 consecutive failed tests for the Source Package will declare it Not Working;
    - Not Tested. The test statuses from this category are not computed based on tests on Source Packages but they are based on how much time passed since the last repack of the Source Package due to changes inside the Source Package.
  - The test statuses are kept for historical purposes;
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<th>Query</th>
<th>Hits</th>
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