Portico Specified Escalation Path for Problem Resolution

There are several points throughout the testing and production processes where problems may arise that require that specific steps be taken to ensure their efficient resolution. There are also times that, despite the extensive checks and balances Portico has in place, provider content is ingested into the archive and later found to be problematic. Each of these situations has a unique escalation path for problem resolution.

1. Problems discovered during testing

1.1. When a profile and transform are used together for the first time to test content (integration testing), previously unseen issues are sometimes discovered, which require a change to one or both tools.

It is also possible for integration testing to go well, but for previously unseen issues to be discovered when full testing occurs, due to the fact that the amount of content used for full testing is greater than that used for integration testing.

1.2. Testing occurs in the setup environment, so any profile changes required will be handled by the team assigned to the content provider.

1.3. For any transform changes required, a problem ticket (JIRA) or set of problem tickets will be entered and assigned to the data team (for tracking purposes the data team will create a “parent” JIRA for the content provider and attach the various subtasks; in most cases, the updated transform will not deploy back to the production environment until all subtasks are complete; see “Methods and Procedures – Technology JIRA Usage and Deployment Process” for complete workflow).

1.4. Upon completion of profile and/or transform changes, regression testing must occur in the setup environment. (See “Portico Regression Testing Guidelines (Operations)” for complete description of regression testing.)

2. Problems discovered during production

2.1. A content provider is moved to the ingest environment after extensive testing has verified that the tools developed for that content provider are able to handle the unique characteristics of the content. However, it is common for some content to go into “problem state” in ConPrep due to a) anomalies in the provider’s content (missing files, markup that is not valid against the DTD, etc.) or b) cases occurring that were not seen during testing and which require that a tool be modified to handle them.

2.2. Escalation path for provider content issues:

- Production team identifies problems and assigns them to the vendor that works with the stream.
- The vendor fixes either the content or the tools as necessary, with review by the data team member that manages them. For problems that require the content provider to resend content the ingest team member generates a problem report identifying affected

batches and describing the problem, and then creates a problem ticket through JIRA assigned to the Publisher Content Coordinator.

- The Publisher Content Coordinator supplies the content provider with a description of the problem(s) discovered and the list of specific problems, and requests that replacement files be delivered.
- When replacements arrive, the Publisher Content Coordinator saves them to a specified “replacements” directory for the content provider in the content storage area and notifies the ingest team, through the JIRA system, that the content has been redelivered and can be rerun.
- Ingest team runs the newly supplied content and reruns.

2.3. Escalation path for new cases requiring tool modification:

- Ingest team analyzes problems to determine whether problem resolution requires profile changes, transform changes, or both.
- If a profile change is determined to be very minor, a member of the ingest team may modify the profile. If a profile change is determined to be extensive, the work will be sent to the vendor for addressing in the next maintenance cycle.
  - Regardless of which team is responsible for modifying the profile, regression testing for all profile changes occurs in the setup environment; the updated profile is deployed to the ingest environment only after successful testing has been completed. (See “Portico Regression Testing Guidelines (Operations)” for complete description of regression testing.)
- If it is determined that transform changes are required to correct the problems, the ingest team will create a JIRA for each class of problem for each content provider and assign it to the vendor.
  - Regression testing must be successfully completed in the setup environment before an updated transform can be deployed to the ingest environment.

3. Problems discovered in archive

3.1. From time to time, through regular review of ingested content, cross-checking business documents against the archive and testing new system implementations, problems with content preserved in the Portico archive are discovered. When this occurs, Portico will pull the content from the archive, make any corrections necessary for the content to be run as initially intended, and the content will be re-ingested.

Examples of the types of problems for which content will be pulled and rerun include, but are not limited to: 1) content was run under incorrect agreement ID and 2) content was run using a Content Set ID that does not exist in the business documents.

3.2. To date, no such problems have been identified by library or publisher auditors. Were they to be so discovered, the initial steps would involve the auditor contacting User Support and User Support forwarding that issue on to the Archive Service Product Manager or Publisher Content Coordinator. After that, the regular process would proceed apace. (Note one publisher auditor did note concerns with the rendition of Unicode characters in the audit interface. We consulted with the publisher and our own XSLT experts and changed our rendition code – this did not affect the preservation of the archived content.)

3.3. Escalation path for archive/delivery site problems:

- The Publisher Content Coordinator or archive services product manager is notified that there is a problem with content ingested in the archive.
- Publisher Content Coordinator will review any supplied documentation and, if necessary, further investigate the problem to ensure that Portico has a complete understanding of what has occurred and the necessary corrective actions. In some cases, Portico will determine that the problem does not need to be retroactively addressed and we will simply follow the standard processes above to update the transform or profile. In other cases, Portico will determine that the problem does need to be retroactively addressed, and the steps in this path will continue to be followed.
- The Publisher Content Coordinator or the Production lead will complete documentation following the template put forth in "Modifying Original SIPs or AUs." Documentation should thoroughly outline the problem and the steps that must be taken to resolve it (see "Portico Content Modification and Deletion Policy" for complete overview of this process).
- The documentation must be approved by Portico's Archive Services Product Manager.
- See "Portico Roles and Responsibilities" for a list of staff responsible for the various steps required to remove content from the archive and delivery site.

4. Document History

4.1. Approved by: Kate Wittenberg

4.2. Last Review Date: 8/7/2023

4.3. Reviewed by: Amy Kirchhoff, Karen Hanson, Kate Wittenberg, Sandra Parr

4.4. Change history:

Version	Date	Change	Author
0.1	6/3/2009	Wrote introduction	Stephanie Orphan
0.2	7/24/2009	Rewrote introduction, completed document	Stephanie Orphan
1.0*	7/29/2009	Slight mods for terminology and added in bit about library & publisher auditors.	Amy Kirchhoff
1.1*	8/5/2009	Changed title slightly.	Amy Kirchhoff
1.1.1	4/4/2011	Updated the logo	Amy Kirchhoff
1.2*	3/27/2016	Updated to reflect new vendor model.	Amy Kirchhoff
1.3	8/7/2023	Replace "publisher" with "content provider"	Karen Hanson

* An approved version of this document.