

**I have to send a draft mail to my manager about my observation. Draft a highly summarized mail with key details that you observed after merge, make sure you highlight everything it is merging(if it is actually doing), cover all detail and definition**

**Subject:** Critical Review: Oak Index Merge Analysis - Action Required for AEMaaCS Migration

Dear [Manager Name],

I've completed the analysis of the Oak index definitions that were merged by the Index Converter Utility during our AEM as a Cloud Service migration. The utility merged two custom indexes (jpmaaLuceneJCK and marketIntReport) into a single index. While most configurations were successfully retained, I've identified a **critical issue** that will impact production functionality if not addressed.

**Summary of Merged Indexes**

**Original Index 1: jpmaaLuceneJCK**

* Target Content: Japanese, Chinese (Traditional), and Chinese (Simplified) pages under /content/jpm-cp/jpma/\*
* Custom CJK Analyzer for Asian language support
* 22 indexed properties with weighted boost values (title, pageTitle, navTitle, description, tags, etc.)
* Deep content aggregation (9 levels)

**Original Index 2: marketIntReport**

* Target Content: Experience Fragments under /content/experience-fragments/jpm-cp/market-intelligence
* Minimal configuration with only indexNodeName enabled
* No custom analyzer or properties

**What Was Successfully Merged ✓**

The Index Converter performed well on most aspects:

1. **Aggregates** - All 9 levels of deep content aggregation from Index 1 retained
2. **Analyzers** - CJK Analyzer configuration (org.apache.lucene.analysis.cjk.CJKAnalyzer) fully preserved
3. **Index Properties** - All 22 property definitions from Index 1 included (title with boost=10, pageTitle with boost=9, navTitle with boost=8, description, tags, etc.)
4. **indexNodeName** - Intelligently added from Index 2 ({Boolean}true)
5. **excludedPaths** - Index 1's specific locale exclusions properly retained (UNION merge)
6. **Core Settings** - compatVersion, evaluatePathRestrictions, type=lucene maintained correctly
7. **Codec** - Index 2's Lucene46 codec adopted
8. **Tags** - New visualSimilaritySearch tag added by converter

**Critical Issue Identified ❌**

**Problem: Complete Loss of Locale-Specific Paths**

The merged index **only retained Index 2's paths** and **completely lost Index 1's paths**:

**Original Index 1:**

* includedPaths: [/content/jpm-cp/jpma, /content/jpm-cp/jpma/ja\_jp, /content/jpm-cp/jpma/zh\_tw, /content/jpm-cp/jpma/zh\_cn]
* queryPaths: [/content/jpm-cp/jpma/ja\_jp, /content/jpm-cp/jpma/zh\_tw, /content/jpm-cp/jpma/zh\_cn]

**Merged Index (Current):**

* includedPaths: [/content/experience-fragments/jpm-cp/market-intelligence] ← **Index 1 paths LOST**
* queryPaths: [/content/experience-fragments/jpm-cp/market-intelligence] ← **Index 1 paths LOST**

**Business Impact**

This configuration error will cause:

1. **No Indexing** - Japanese, Chinese (Traditional), and Chinese (Simplified) content will NOT be indexed at all
2. **Failed Queries** - Searches on locale-specific pages (/content/jpm-cp/jpma/ja\_jp, /zh\_tw, /zh\_cn) won't use this index
3. **Performance Degradation** - Queries will fall back to slow traversal or fail entirely
4. **Wasted Configuration** - The expensive CJK Analyzer is configured but applies only to Experience Fragments (wrong content type)
5. **Content Author Impact** - Editors searching for Japanese/Chinese pages will get no results or experience severe delays

**Root Cause**

The Index Converter Utility lacks documented logic for merging includedPaths and queryPaths when consolidating multiple custom indexes. Adobe's official documentation does not explain how the tool handles path merging for separate custom indexes. The utility appears to have used Index 2's structure as the "base" and merged Index 1's properties/analyzers into it, but applied a **REPLACE strategy** for paths instead of **UNION**, resulting in the loss of Index 1's paths.

**Recommended Action**

**Immediate Fix Required:**

Manually correct the merged index definition by combining both sets of paths:

includedPaths="[/content/jpm-cp/jpma,/content/jpm-cp/jpma/ja\_jp,/content/jpm-cp/jpma/zh\_tw,/content/jpm-cp/jpma/zh\_cn,/content/experience-fragments/jpm-cp/market-intelligence]"  
  
queryPaths="[/content/jpm-cp/jpma/ja\_jp,/content/jpm-cp/jpma/zh\_tw,/content/jpm-cp/jpma/zh\_cn,/content/experience-fragments/jpm-cp/market-intelligence]"

This ensures:

* All locale content AND Experience Fragments are indexed
* Queries targeting either path set can use the index
* No content is excluded during Cloud Service migration
* CJK Analyzer applies to the correct Asian language content

**Testing Plan:**

1. Update index definition with corrected paths
2. Deploy to dev environment
3. Trigger reindexing
4. Validate search functionality on Japanese/Chinese pages
5. Verify Experience Fragment search still works
6. Monitor index size and query performance

**Next Steps**

1. **Approve path correction** for the merged index
2. **Update index definition** in ui.apps module
3. **Deploy to dev environment** for validation
4. **Consider filing Adobe Support ticket** to document this Index Converter behavior for future migrations

Please let me know if you'd like me to proceed with implementing the corrected index definition or if you need additional details on any aspect of this analysis.

Best regards,  
[Your Name]

**Attachments:**

* Original Index 1 Definition (jpmaaLuceneJCK)
* Original Index 2 Definition (marketIntReport)
* Merged Index Definition (current state)
* Proposed Corrected Index Definition

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1. <https://experienceleague.adobe.com/en/docs/experience-manager-cloud-service/content/migration-journey/refactoring-tools/index-converter>

1. <https://experienceleague.adobe.com/en/docs/experience-manager-learn/cloud-service/migration/cloud-acceleration-manager/index-converter>

1. <https://github.com/adobe/aem-cloud-service-source-migration>

1. <https://www.aem.live/docs/faq>

1. <https://www.linkedin.com/pulse/step-by-step-guide-migrating-oak-indexes-aem-divanshu-goyal>

1. <https://www.albinsblog.com/2023/08/key-considerations-for-migrating-to-aem-as-a-cloud.html>

1. <https://adapt.to/2024/schedule/indexing-in-aemaacs-behind-the-scenes>

1. <https://javadoc.io/doc/com.adobe.aem/aem-sdk-api/latest/index.html>