ENERGY STAR Imaging Equipment
Specification Issues
EPA/ITI/JEITA/JBMIA

October 2014

Agenda

• Introductions
• Review of action items from the July Workshop
• Update on V2 Product Scope
• Active 0/1/2 times
• Re-registration of products into families
• US-EU Data exchange update
• Future agenda items
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July 2014 Workshop

- July 9, 2014
  - Participants: EPA, ITI, JEITA, JBMA, Certification Bodies
- Workshop focus
  - Work collaboratively on ways to ensure the integrity of the ENERGY STAR imaging equipment qualified product database, and ease of use by various stakeholders
- Discussion included
  - Overview of the CB process by Keystone Certifications, Inc.
  - Specification development process data set creation
  - Updates to certified product list and product finder
  - Data quality issues

Workshop Results

- Agreement on registering products by family
  - A single entry shall include “child” entries in the “additional models” field
- Agreement that errors (such as incorrect units for Active 0/1/2 data) and duplicated data need to be identified by partner and corrected by the CB
  - EPA agreed to continue to find ways to standardize/automate data management
- “Product Finder” tool needs to be updated to include product marketing names and models most frequently utilized by customers.
- Clarification of EPA’s specification development data needs
  - Separate dataset created based on the certified product list plus any additional non-qualified model information from stakeholders/other sources
  - Participants agreed upon a preferred Energy Star Imaging Equipment Listing for a product family
July 2014 Action Items

- EPA will use the model name rather than model number as a default field for all products in "Product Finder".
- Manufacturers will work individually with their CBs and EPA to correct errors and duplicated data on the certified product list.
- EPA will evaluate the feasibility of moving the "additional models" column to the same tab or screen as the parent model information on the CIE list.
- A follow-up teleconference call meeting will be held in two months to review progress
- EPA will re-communicate Imaging Equipment template data guidance to CBs

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Expanded scope

- September 6 letter outlined updated scope
- Added large format high performance ink jet
- Updated Table 1 in the efficiency criteria and the test method

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Media Format</th>
<th>Marking Technology</th>
<th>ENERGY STAR Evaluation Method</th>
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<tr>
<td>Copier</td>
<td>Standard</td>
<td>Direct Thermal (DT), Dye Sublimation (DS), Electro-photographic (EP), Solid Ink (SI), Thermal Transfer (TT)</td>
<td>Operational Mode (OM)</td>
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<td>Large</td>
<td>DT, DS, EP, SI, TT</td>
<td>TEC</td>
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<tr>
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<td>Stencil</td>
<td>TEC</td>
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<td>Fax Machine</td>
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<td>Ink Jet (IJ)</td>
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<td>TEC</td>
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<td>Operational Mode (OM)</td>
</tr>
<tr>
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<td>Operational Mode (OM)</td>
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</tr>
<tr>
<td></td>
<td>All</td>
<td>N/A</td>
<td>TEC</td>
</tr>
</tbody>
</table>

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Recovery Time

- The current TEC qualified product dataset has 3 times reported for most models
  - Active 0 time: Time from when unit indicates it is in Ready Mode after turn on to first page
  - Active 1 time: Time from 1 hour of sleep mode to first page
  - Active 2 time: Time from 15 minutes after first job to first page of second job

Recovery time Issues

- During V2 development, analysis showed that Active1 time varies greatly among TEC products, from several seconds to hundreds of seconds
- Improbably, for some products, Active0 time is greater than Active1 time, indicating that it takes longer to print from ready mode than from sleep mode—as much as 6 times longer in some cases.
Active 0/1/2 data

- There is shown a big correction in 2014.09.19 as compared to 2014.06.16.
- Most of Samsung’s original data (0.6/0.6/0.6 sec) have been replaced with more realistic values, although there are still some 0.6/0.6/0.6 data remaining.
- There are a few data of HP and Oce, which still show impossible numbers, i.e. 15 minutes or more.

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Comparison

- Three months have passed since the CIE discussion with EPA, CBs, and ITI, where the guideline was shown to delete duplicates and to collapse family registrations to one line with additional model info.
- A short glimpse of the change that happened in CIE is shown in the following slides.
Three partners occupy more than half of registered TEC products (total 1376 lines) in the original CIE. Duplicated data and family data included in its entirety are to be collapsed.

Total number of TEC lines decreased from 1376 to 1192. (delta=184)
Samsung’s number changed from 362 to 144. (delta=218)
Observation of Duplicated Data

- 90% of duplicated data (to be deleted) is Samsung’s data.

See the attached Excel file <sheet: duplicate-3> where duplicated data (to be deleted) of products are shown in yellow box.

Although there are still some remaining duplicates, 92% of the original duplicates have been deleted.
Re: Samsung’s “duplicates” to delete

19 yellow-hatched lines
Represents remaining
“duplicates” to delete.

However, these “duplicates”
do not fall necessarily under
the conventional definition;
Plural lines with the same
Model Name/Model Number.
This deviation is found
particularly in the lower table.

Taking Samsung’s family re-
registration into consideration,
those models in Additional
Model Info column, which
appear in other lines, should be
deleted.

Family registration only for 8/19 partners

Each partner’s number of occupying lines
are counted for all TEC lines (total 1279).
(Three partners occupy more than half.)
This includes duplicated data
(to be deleted) which occupy ca. 20%
of the entire data.

196 lines have inputs to “additional
model information” column.
Only 8 partners have family registration
as shown in the graph to the left.

(Other 11 partners have no family
registration. This might be a result
of CB’s that do not allow family
registration.)
Family registration as of 20140919

232 out of total 1192 lines (19%) have inputs to “additional model information” column. 9 out of total 22 partners have family registration as shown in the graph above. (There is one new partner --- Samsung--- appearing in the diagram.)

Note:
① There are a lot of other family-like registrations without “additional model information” occupying plural lines.
② A majority of registrations included in the upper diagram has plural-line registration of one family, such as Lexmark’s case, exhibiting 14-model family in 14 lines.

Brief Summary

• Duplicates have been almost deleted. We appreciate the efforts of those concerned.
• Although a small change can be found, portrayal of family products in CIE is still inconsistent. We look forward to the EPA’s initiative concerning family registration.
• Most Active 0/1/2 data have been corrected, with some remaining data still to be corrected.
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US-EU Data Exchange update

- Previously, EPA provided EU with data extracts in Excel every 2 weeks for those products certified to ENERGY STAR which are also sold in the EU
- Data is now available to download whenever users need to update their databases
- EU has been working to incorporate the updated data into their existing data architecture
  - Problems with importing data and new fields which have delayed the updates
- Finalizing the new database management system (DBMS)
  - Ready to perform import of Imaging and Display devices
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Thank you