# PowerVision Solution

## SKU Auto Load System
## Streamlines Motorola Order Entry

Motorola's Paging Products Group (PPG) needed a streamlined method of loading mappings of customer-provided Stock Keeping Unit (SKU) aliases to internal products and options. The existing three- to four-day manual process of loading the information was error-prone and tedious. PowerVision's automated solution reduced cycle time by 75% and eliminated an average of eight process steps.

### A Repetitive Cycle

Customers who transmit orders electronically to Motorola's Paging Products Group (PPG) use stock keeping unit (SKU) "aliases" to order pagers rather than specifying each individual model and the options desired. However, the tedious process used by PPG involved manually verifying and reformatting customer-provided Microsoft Excel spreadsheets for loading into the company's Global Paging Order Entry (GPOE) System. If any alias failed during the loading, the entire set would then return for corrections. This process cycle would continue until all aliases were loaded into GPOE.

This repetitive process, which would take three to four days, also was error-prone and laborious due to the lack of reporting and feedback mechanisms. PPG needed a more reliable and efficient method for mapping customer SKU aliases. PowerVision analyzed the situation and developed an automated system to load the aliases effortlessly and quickly into GPOE.

### An Automated Solution

The new SKU loading system was designed and developed for ease of use and with the intention of eliminating most of the manual intervention. PowerVision provided a fully automated mechanism for performing mass loading, updates, and deletes of aliases on GPOE via Microsoft Excel; a mechanism to retrieve SKUs that fail the product compatibility test; and a reporting mechanism that can be used to retrieve alias information.

To minimize user interface changes, the PowerVision team of engineers retained the use of Microsoft Excel. To reconcile the Excel spreadsheets to the new system, PowerVision developed a macro that verifies the format of the Excel file, converts the file to ASCII text, and prompts the user to connect to a server for transfer. A custom "code resource" was developed to facilitate transferring the file in the background via the Internet standard FTP protocol.
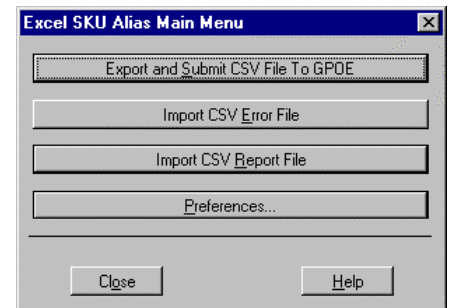
**Business Area:**
- Business Process Automation

**Key Technologies:**
- Microsoft Excel
- Informix Online 5.1
- Visual Basic
- ESQL/C
- C/Informix 4GL
- Internet Enabling

**PowerVision's Role:**
- Analysis
- Design
- Implementation
- Testing

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An ESQL/C daemon also developed by PowerVision monitors the file system for any SKU uploads. Once an uploaded file is detected, the daemon connects to the Informix database, which verifies the aliases for product compatibility by using functions from an Informix 4GL module library. At that point, the daemon attempts to load the data and notifies the end user of job completion via e-mail. Triggers on the existing tables create historic logs of any data changes.

> *"The automation has reduced cycle time, improved accuracy from a standpoint of manual fatigue and improved our reporting capabilities."*

Both SKU detail and error reporting are available with an Internet browser front-end, providing platform independence. The reporting feature employs user-specified criteria (e.g., customer code and alias) to generate Excel data files. Once downloaded, an Excel macro translates data into a report format.

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As a result of PowerVision's solution, Motorola has reduced cycle time by 75% (from four days to less than one day) and has eliminated an average of eight process steps from an initial average of 20.

"The automation has reduced cycle time, improved accuracy from a standpoint of manual fatigue and improved our reporting capabilities," reports Lynne Klaczak. "PowerVision's responsiveness has been great; they listen and empathize. If there is a glitch, they look into it immediately. I hope to work with PowerVision on future projects."

**WWW Server**

**Order Entry Database Server**

run reports on Web Server, download error detail

query data for SKU alias reports

read error reports

product compatibility check

transmit Excel files for SKU alias load

load/update SKU aliases, write error reports

**Application Server**