

**Project** I was officially asked by our General Manager in early September to investigate in potential POS for Karma. By that time we had already been talking about the applicability in the case of Karma after the topic was raised at the AGM in connection with the shrinkage problem.

At the recent charrette I learned from member **Herb Vanden Dool** that he had already been investigating open source POS systems for personal interest (an email was sent to Rolf in November 2006 with preliminary results). We agreed on sharing our findings and are going to meet in the next few days. Herb did a very good job in getting information on various systems and had already contacted developers of a couple POS projects plus some IT professionals in Toronto to learn more about some solutions. He has a good understanding of the technical aspects (probably better than I have) and told me he was interested in doing more research on the project. **I would be happy to collaborate** with him [I already have approval to get member credit].

I'm in contact with the **London Food Co-op** about POS systems. I have had the chance to meet Loretta McHenry of London Food Co-op at an organic industry event where she told me that her co-op is looking for a scanner-barcode system for their shop too. I thus proposed to intensify the collaboration and exchange findings.

I had been dealing with the issue of POS systems back in Austria. They were part of my **MA thesis** in Austria which looked into **collaboration** among small and medium businesses **in the local organic supply chain**. The main concept was to share information (particularly from the retailers) along the whole supply chain so that planning on all stages would be more accurate and thus supplies and storage less costly. Also, a closer collaboration between the different levels should help to ease processes such as the re-ordering of goods or the payment of invoices. POS systems are a key component as they help gathering the sales data and up-dating the stock levels real-time.

On some POS issues I can consult a friend of mine in Austria. He was one of the general managers in a co-op-like shop during the introduction of a POS system. The size of the shop is comparable to Karma and the staff has been enjoying the improvements ever since. However, this project had to overcome some problems during and after the introduction.

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## Schedule

So far I have been exploring the market for POS systems and their general features. This investigation was intended to help better define a profile of functionalities for a Karma system. These are going to be the next steps:

**1. The completion of the list of Karma-specific requirements and their respective importance. (End of February)**

This should be realized by consulting the grocery manager (Lisa), a cashier trainer (Sara), the finance committee, member labour committee, cash coordinator, membership secretary, and the general manager. Also I hope to get written feedback from the board after the next board meeting.

**2. An analysis of the main processes at Karma before and after a POS system introduction. (End of February)**

This should be helpful in assessing the needs and the potential for improvements. Furthermore it will allow defining the (negative) impact of a change on staff operations and the shopping experience of members.

**3. Issuing an invitation to tender. (March)**

... or talking to open source software developers about costs of past projects.

**4. Finding software experts among Karma members.**

Karma should get a computer expert on board to assist in the decision process and to see through the introduction of the system. Besides, it would be helpful to know how much programming and trouble shooting could be assigned within the co-op.

**5. Submission of the findings from a first round of investigation. (End of March)**

These should provide the general manager and the board enough information for the selection of a small set of the most promising candidates.

**6. Gathering more information from users.**

Interviews with and visits to retailers which already deploy the systems at hand. It still has to be defined which parties of Karma should attend these calls.

**7. Submission of the final report.**

## Karma's problems with the present system

- Too much shrink and theft
- Sub-optimal stock control
- Long check-out times
- Many errors at cash/at the scales
- Very frequent additional flat fee reconciliations (managers checking the journal rolls in registers)
- Time-consuming pricing and price updates (for shelf items and overstock)
- Deliveries sit too long on the floor
- Paper barriers between systems (printing and re-entering data manually)
- Bad category sales data (wrong assignment by cashiers)
- Only grocery manager knows delivery dates of specific items

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**Definition** A POS (point of sale) system is an electronic cash register system. The most common form currently used and the subject of investigation at Karma are systems based on barcodes<sup>1</sup> and electronic barcode readers at the check-outs. A POS system consists of various soft- and hardware components.

**Functionality** The value/usefulness of the individual POS solutions depends strongly on their functionality. While there are some systems that only have basic electronic cash register functionality others usually do more than just "point of sale" tasks. The more integrated POS systems integrate modules such as accounting, inventory management, finances, and so on into one unified system. They are generally referred to as ERP<sup>2</sup> (Enterprise Resource Planning) systems with a POS module. Moreover, the introduction of an ERP system to replace two or more independent applications eliminates the need for external interfaces previously required between systems, i. e. entering numbers in Excel from daily cash report print.

- Karma specific requirements**
- can hold membership records  
*Up-to-date information on membership status, hours worked, temporary surcharges, membership/flat fee fees paid, maternity/sickness leave, which months shopped*
  - relatively maintenance free or easily supported by Karma staff and/or members
  - easy to operate for members/volunteers provides trustworthy retail transactions
  - supports a standard POS equipment (cash registers, scales, inventory, payment by cash, interac, receipt printer, etc.
  - works with the accounting software (Quickbooks)
  - can do budgeting
  - handles a swipe card system (bonus for membership cards)

Summing up Karma needs in addition to the basic POS function also the modules for membership management, warehouse management (=inventory management plus ordering), and Budgeting/Finances. Besides a POS candidate has to be compatible with the currently used accounting software (Quickbooks).

<sup>1</sup> In the United States and Canada the barcode commonly used for items in stores is the so called Universal Product Code (UPC).  
<sup>2</sup> **Enterprise Resource Planning systems (ERPs)** integrate (or attempt to integrate) all data and processes of an organization into a unified system. A key ingredient of most ERP systems is the use of a unified database to store data for the various system modules. Typical modules of an ERP system are financials, human resources, warehouse (inventory) management, and customer relationship management.

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- What to expect from a POS system**
- More accurate sales data
  - Systems automatically assigns categories at cash
  - Less time spent on pricing (esp. for price changes)
  - Planning tools (Historical data can be used to predict seasonal fluctuations)
  - More effective controlling (shrink and theft)
  - Reduced Pricing Errors
  - Deliveries are put faster on the shelves (less boxes on the floor)
  - Benchmarking with other Co-ops
  - Improved stock control and inventory management

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- The drawbacks**
- More time spent on updating data
  - Systems determines most operational procedures
  - More work for new products/suppliers (system entry)
  - staff training
  - SKUs without code have to get an internal 4-digit code or a UPC sticker
  - Codes can't be read (bad print, colors, ...)
  - Dependence on technical assistance
  - Costly support

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- Risks**
- Problems during introduction (customers get agitated with cashiers, cashiers hate their jobs, clerks can't reconcile their tills)
  - More attractive POS solutions coming up
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