Inserter Vision Report System

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Background

• Videk is a Rochester company that specializes in camera systems for process control.

• Videk’s customers include credit card companies and casinos who send out mass mailings.

• Videk’s InserterVision™ uses cameras to scan mailing jobs to ensure quality and completeness.

• InserterVision™ eliminates the need for costly and error-prone manual verification of mail jobs.

Problem

• Videk’s customers have expressed interest in the storage and display of mailing job information.

• InserterVision™ provides an efficient interface for gathering mailing job data, but does not store or display the information.

• Videk needs a generic solution that meets the diverse requirements of its customers.

Solution

• Videk approached the RIT Software Engineering Department to develop a solution as a Senior Project.

• The InserterVision Report System (IVRS) will allow users to manipulate and view information stored by a Videk camera system.

• The IVRS will allow Videk’s customers to format the information according to their needs.

• The IVRS is designed to accommodate both novice and technically experienced users.

Major Features

• Provides maintenance of the completed mailing job information, called Data Sets, in the system database.

• Displays selected Data Sets in a web browser (Figure 2).

• Formats the selected Data Sets into Reports according to Templates (Figure 3).

• Facilitates the creation and modification of Report Templates (Figure 1).

• Allows the import and export of Data Sets to and from files.

Design Methodology

• Designed as a three-tier client-server architecture.

• Selected object-oriented PHP technology for its extensibility and cost-effectiveness.

• Performed formal inspections of all project related documentation.

• Implemented in three incremental builds: Alpha, Beta, Gamma.

Design Benefits

• Extensibility – System allows for user creation of customized reports to satisfy new customer requirements.

• Usability – Different user levels are accommodated in terms of use of Standard Templates (Figure 1) for typical users and Advanced Templates for experienced SQL users.

• Modifiability – Modular design to facilitate future enhancement by Videk.

Future Plans

• The IVRS system will be deployed with InserterVision™.

• Maintenance and any future enhancements will be provided by Videk.

Figure 1 – Standard Template Editor:
This is the interface for the creation of report templates which dictate how the Data Sets are displayed in the report. Since the Standard Template Editor is for the typical user it simplifies the needed SQL call into a simple logical filter.

Figure 2 – Data Set Selection Page:
The user may select one or more Data Sets to view. The selected Data Set and Report Template are shown on the status bar.

Figure 3 – Report Page:
The report showing the selected Data Set formatted according to the selected Report Template. The user may easily make a hard copy of the report using the printer-friendly option which removes the navigation and status bars.