

A Web Based Development Of Electronic Product Customization Capturing Document(E-Pccd) For Atm Manufacturing Industries

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Abstract: The objective of this project is to develop a solution which allows the customization team to collect information in an efficient and organized manner. The data is stored in a centralized database which is accessed with a proper authentication mechanism. Customization data includes textual, tabular and graphic data which have dependencies. Our proposed system for information collection, storage and presentation is implemented in a company which manufactures ATM machines. The organization has a Sales Team which is responsible for collecting information about the customizations to suit the client's requirements. The Product Customization Capturing Document (PCCD) contains information about all such customizations for a particular Factory Fitted Kit (FFK). Each ATM machine is identified with a class number and each class has several FFKs which have their own Kit numbers. For complex tasks like adding additional hardware and features, the PCCD contains detailed assembly instructions along with images. Since multiple personnel may be involved, an appropriate version control mechanism is implemented. The changes made to the PCCD need to be recorded with date/time and the author as Revision history. The PCCD is generated as a PDF report which the FFK Team reviews and sends to the Manufacturing Plant. The Engineers at the manufacturing plant analyze the PCCD and will either approve or reject it. If it is rejected, the FFK team modifies the PCCD and sends it for review again. Once the PCCD is accepted, the engineers use the instructions in the PCCD to implement the customization before delivering the product. The FFK team keeps track of the whole process until completion. All information regarding the PCCD is sensitive and can be misused. Our project makes the generation of the PCCD much easier and faster and is more secure than the existing method. Since a centralized database is used, the data can be accessed by the FFK Teams around the world and changes can be made remotely.

Keywords: PCCD, FFK, WOT, BOM.

I. INTRODUCTION

Product customization capturing document is a web application developed in ASP.NET to create software for managing files by providing a web solution for them. The web solution provides facility for manipulating the internal operation of the firm[1]. The main advantage of this webpage is that it can be only accessed by the authorized person. This web application is accessed with the web browser as a client and provides the ability to update and main the program without deploying and installing the software on client computers. The project causes a revolution of the way people work with document. Before this revolution, people think working with document means working with word processor. However, new web technologies make web powerful enough to simulate an operating system and even a word processor. People no longer need to work with a specific word processor. Using the proposed system, user can work with any document everywhere[2]. PCCD is implemented in a company for selling and producing ATM parts like Card Reader , Cassettes , Dispenser , Display etc. Whenever a customer requires an ATM part the request is sent to the sales team where the process starts, then the request will be sent to the PCCD team. The PCCD team will check for the feasibility of the requirement from the customers by various verifications and will send to the manufacturing team.

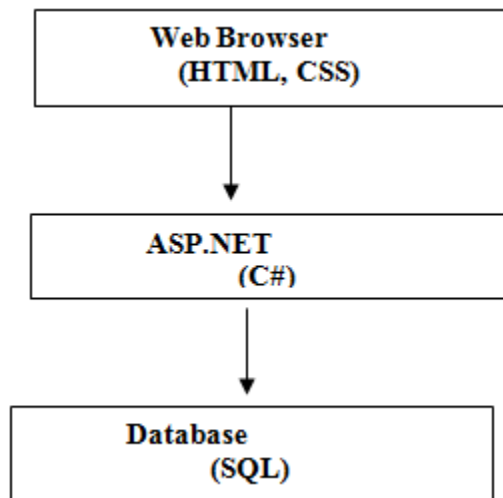
II. RELATED WORKS

Development services write a draft System Description Document by filling in the relevant parts of the Document Template. Development Services send the draft document to Application Management for review. Development services and Application Management hold a handover meeting to discuss any further additions or changes. Development services complete any additions and/or changes agreed at the handover meeting. Development services handover the System Description Document to Application Management. Applications Management will provide final sign-off and from that point will take responsibility for keeping the document up-to-date. Until the System Description Document template is converted

to a wiki template, Applications Management will add the System Description Document. This document provides a comprehensive and detailed architectural overview of the system, using a number of different architectural views to depict different aspects of the system. It is intended to capture and convey the significant architectural decisions that have been made on the system. This section defines the role or purpose of the Architectural Design in the overall project documentation, and briefly describes the structure of the document. The specific audiences for the document are identified, with an indication of how they are expected to use the document.

The aim of the project is to develop a document management system that is able to deliver access to anyone authorized anytime, anyplace on any device. The system developed makes use of rich internet technology to replace desktop application with rich internet application. The system shares the advantage of both web application and desktop application, and removes the most disadvantages of both. The problems solved in this system includes absence of support, complexity of various software packages, security and maintenance.

III. PCCD Architecture



Web applications is a web application developed in ASP.NET to create software for managing files by providing a web solution for them. The web solution provides facility for manipulating the internal operation of the firm[1]. The main advantage of this webpage is that it can be only accessed by the authorized person. This web application is accessed with the web browser as a client and provides the ability to update and main the program without deploying and installing the software on client computers.

HTML and CSS are some of the technologies that are part of today`s browsers to provide interactivity to web applications. Web servers have also be enhanced to respond to clients request in the more flexible way than presenting the same content to all users.

ASP.NET is an open source server side web application framework designed for web development to produce dynamic web pages. It was developed by Microsoft to allow the programmers to build dynamic websites, web application and web services. The web applications need to be compiled before deployment, while website structure allows the users to copy the files directly to the servers without prior compilation.

SQL (Structured Query Language) is the special purpose programming language designed for managing data held in the relational database management system(RDBMS),or for stream processing in the relational data stream management system(RDSMS).Originally based upon relational algebra and tuple relational calculus, SQL consists of DDL,DML and a DCL. The scope SQL includes data insert, query, update and delete, schema creation and modification and data access control.

IV. . FRAME WORK

PCCD web application will work under 4 modules

- Basic info
- WOT (Web Ordering Tools) & BOM (Bill of Materials)
- Instructions

- Revision History

V.1 Basic Info

Information about the kit such as the kit number, name, author, number of kits per annum, etc are obtained from the user. The page also collects information about the plant in which the particular customization is done. Other information such as the contact details of the FFK personnel involved is also obtained. Kit Description will provide description for the kit. Detail what it is and why it is required. This should be mentioned so that it is understandable to anyone not familiar with any of the detail parts involved. It also indicate any areas of the document which are at a draft stage and have yet to be proven and therefore may change. Failure to fully complete this section in an unambiguous manner may result in delays with approval of request. Kit Content should detail all hardware, software & activities Furthermore all relevant fields must be entered .Country List Kit to be made orderable for if opening order ability to a new organization please provides contact details of ICCC / responsible person covering / within that organization.



IV.2 WOT & BOM

The Web Ordering Tool (WOT) allows us to specify customizations that are dependent on each other (required) and also those that are mutually exclusive (illegal).The Bill of Materials (BOM) contains the list of all parts required to make a particular set of customizations, their description, quantity required and other such information.



Fig [2] WOT AND BOM module

IV.3 INSTRUCTIONS

The FFK team uploads photographs of the assembly process along with detailed instructions of disassembly/assembly. The engineers at the manufacturing plant use these photos and the corresponding instructions to perform the required customization to the ATM machine.

Along with that Provide placement details for any additional items being shipped with the unit.

- Cables

- Software back-up disks / CD/DVD ROMs
- Starter packs
- Documentation such as manuals, folders, ICE logs, instruction sheets
- Logo panels
- Cleaning kits



Fig [4] Instructions module



Fig [5] General Tab on Instruction module

V.4 REVISION HISTORY

This form is to be completed to record any changes to the capturing document. Information collected in the document history tab is then used to generate a version control table such as the one shown below.

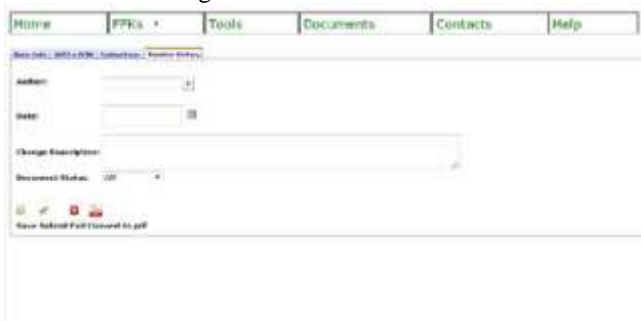
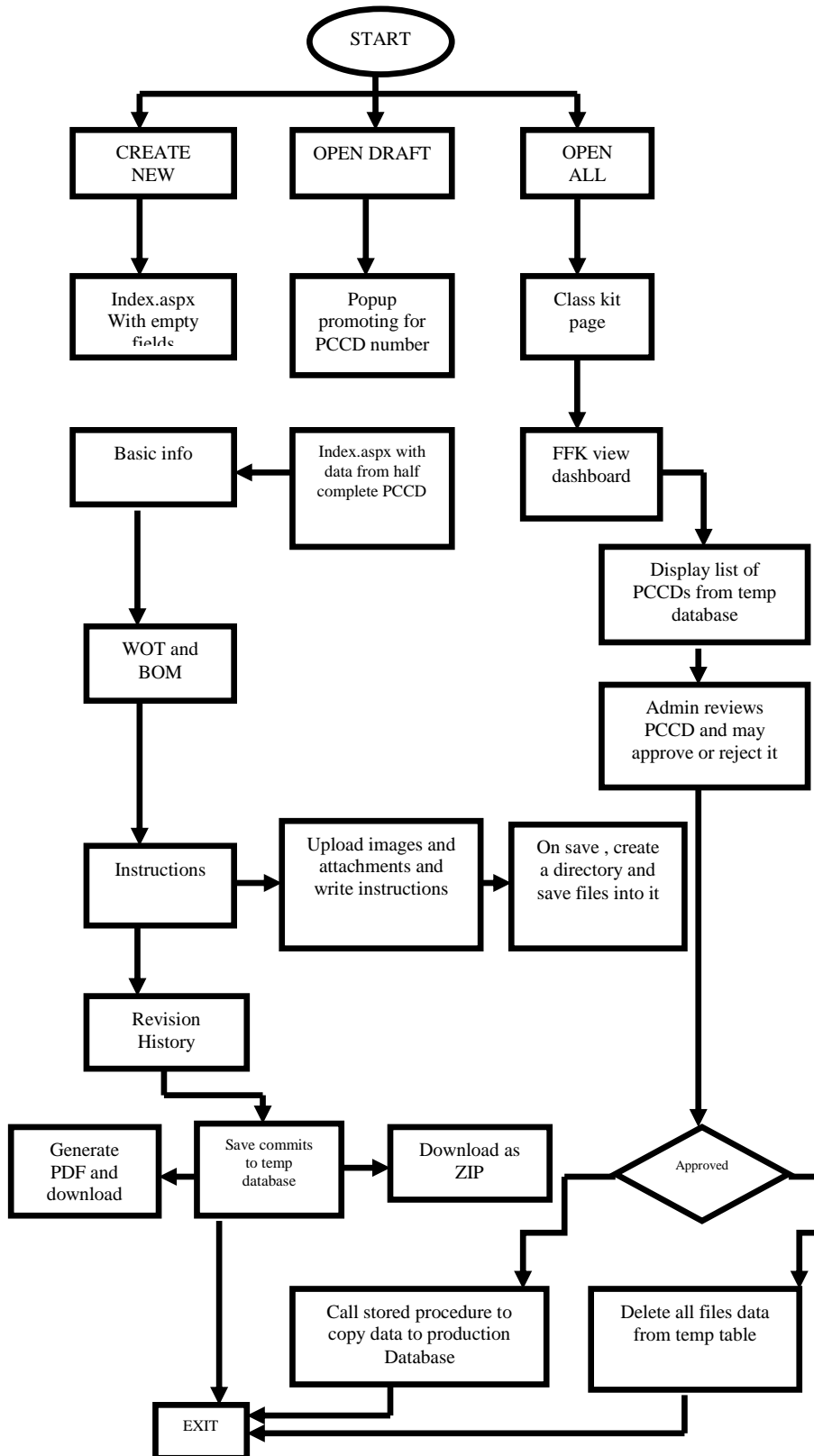


Fig [6] Revision History module

Rev	Date	Description	Author
A	13-07-2015	Initial Release	Gyorgy Marosi
B	22-09-2015	IP Camera installation	Suresh

VI. SYSTEM FLOW DIAGRAM


The System flow diagram will show the flow structure of the diagram it initialize from Start which is divided into three sections Create New Open Draft , Open all . In the Create new section the new form for the Project will be generated .The Open draft will show the details for the Existing page (i.e) it will open the existing page with the help of User Name and Password. These are used to generated the complete Zip file of data and also in PDF form.

VII . Advantages of the PCCD

- Our project makes the generation of the PCCD much easier, faster and more secure than the existing method.
- Since a centralized database is used, the data can be accessed by the FFK Teams around the world and changes can be made remotely.
- All changes made to an existing PCCD can be monitored using the document history which acts as the version control system.

VIII . Conclusion

The PCCD is much easier and faster and more secure than the existing method. Since a centralized database is used, the data can be accessed by the FFK Teams around the world and changes can be made remotely. The report will be generated where all the objects and Pictures inserted will be in the form of ZIP file and the form will be in PDF format. The organization has a Sales team which is responsible for collecting information about the customizations to suit the client's requirements.. The changes were made remotely and the generation those changes will be done by the FFK team members and those data will be approved for the next set of verification of the Manufacturing Team.

IX . Reference

1. http://www.cl.cam.ac.uk/~ls418/works/undergraudate_final_report.pdf
2. <http://groups.csail.mit.edu/uid/projects/chickenfoot/uist05.pdf>
3. http://www.cl.cam.ac.uk/~ls418/works/undergraudate_final_report.pdf
4. <http://support.sas.com/documentation/configuration/biwaag.pdf>
5. http://www.acf.hhs.gov/sites/default/files/ocse/dcl_07_36a.pdf
6. <http://dSPACE.cusat.ac.in/jspui/bitstream/123456789/4245/1/DocMgtSystem.pdf>