MiniCheck-OCR, Inc
Confidential Project Details
Capstone summer 2008
MiniCheck ID Pro™

This project will incorporate the work done in the previous semester, combine that application with some powerful new enhancements and should really be fun. The features developed this semester will have real world implications! Our goal is to provide an excellent "hands on" learning experience and have fun doing it!

MiniCheck-OCR, Inc has developed a suite of applications known as the *MiniCheck MGR™ and MiniCheck ID™. The *MiniCheck MGR™ is a revolutionary new front-end application for electronically processing checks and MiniCheck ID™ is used for validating IDs at the point-of-sale or any situation where ID Validation or Age Verification are important. MiniCheck ID™ incorporates advanced identity management by allowing the user to connect to third party databases in order to **verify** a customer's identity by verifying the authenticity of a social security number or postal address. All functions executed through the MiniCheck ID™ user interface. At the point-of-sale, MiniCheck ID™ provides the ability to validate a photo ID such as a driver's license or state issued ID card in order to prevent losses due to fraud. This ID validation is done using a combination of advanced algorithms to read and decipher the electronically encoded data in either the magnetic strip or barcode located on the ID itself. The user has an option to capture an image of a photo ID at the point-of-sale and store it within the record archive maintained by a financial institution, service provider or in the local database itself.

Project scope:

MiniCheck ID Pro™
<u>To enhance and improve upon the existing architecture of MiniCheck ID™</u>
The goal is to integrate full credit card processing capabilities into the MiniCheck ID™ software. The name of the newly modified application is MiniCheck ID Pro™ and will use the flexible C#/.NET Framework. MiniCheck ID Pro™ will be integrated into <u>Authorize Net's Card-Present format</u> Which is designed to allow merchants to process credit card transactions manually from any PC with internet access using a USB enabled magnetic stripe reader.*All integration and support API documents can be found at <u>www.Authorize.Net</u> and will be provided to the team. Authorize Net provides technical support to developers wishing to integrate applications to Authorize Net's platform.
<u>This semesters' team will also:</u>
*The team will be provided the previous team's source code to review for consistency, confirm that all features in the application work reliably and modify to incorporate full credit card processing capabilities using Authorize Net. Every

aspect of the transaction, all visible functionality will appear to be within the MiniCheck ID Pro™ UI.

*There should be an option in the user CONFIGURATION Screen to setup the customer's individual Authorize Net login/password so the user does NOT have to keep re-entering this information. The team will mask the identity of outside vendors and make every possible effort to promote the MiniCheck brand identity. Authorize Net fully supports QuickBooks; it is very important that the new application developed will fully incorporate every feature and option available as they relate to QuickBooks within Authorize Net. This will include the custom options that Authorize Net has available to Authorize Net's merchant customers to <u>map</u> their existing QuickBooks settings to their Authorize Net account.

MiniCheck ID Pro™

Additional required enhancements:

*Add functionality for generating targeted marketing lists using a variety of search criteria and setting up user-defined product ID names or codes similar to the features found in the MiniCheck MGR™ software application used for processing checks. Detailed examples, demos and screen shots are available to the team showing how this set of features is used within the MiniCheck MGR™ software that we already have for checks.

*The team will modify the user interface so that when the option to process a credit card transaction is chosen, other "OPTIONAL" fields become available so that the USER can enter and easily capture VALUABLE customer demographic information regarding the transaction that will be useful for generating targeted marketing lists later on.

<u>The optional fields should include the following</u>:

*<u>Product or Service purchased,</u> *<u>Catalog ID/Part number</u>, *<u>Amount of transaction</u>, <u>Customer</u> *<u>Name</u>, *<u>Address</u>, *<u>City</u>, *<u>State</u>, *<u>Zip code</u> and *<u>Phone number</u>, *<u>Any special discount code/percent and any</u> *<u>Group or affiliate association identification</u>.

MiniCheck ID Pro™

We currently use Access as a database in MiniCheck ID™, the database functionality is not smooth right now, we would like the database modified so that it flows smoothly, easily generates reports and is easy to work with.

<u>Important Detailed Information regarding MiniCheck ID™</u>

The current version of MiniCheck ID™ is a PC based application created in C# (.NET Framework) designed to perform the following functions:

To read, capture, identify and parse the information that is contained in the magnetic stripe on a driver's license as well as any 1D or 2D barcode used on drivers' licenses or state issued ID cards.

The results are then displayed on the users' desktop within the User Interface on the local PC allowing the user to quickly and accurately verify that the information printed on the

front of the ID card matches the information that is electronically encoded in the magnetic stripe or barcode.

All magnetic stripe readers work the same (basically); they read the data from the magnetic stripe and output this data in its RAW format. Credit cards and ID cards are read in much the same way. There are different brands of magnetic stripe readers on the market; examples of this are evident in almost every retail location in the country.

*Many drivers' licenses and state issued ID cards have magnetic stripes and/or barcodes on them, which contain important personal information. Using the reference materials available, the previous student team has fully integrated the ability to identify the basic fields of information on the magnetic stripes and barcodes then parse the specific fields of information. The user has the option to store the parsed data automatically in the database of the MiniCheck ID™ application.

*The information contained in the magnetic stripes or barcodes found on ID cards vary depending on the state of issue.

IMPORTANT Note: The previous team developed the MiniCheck ID™ application to support all drivers' licenses and state issued ID cards that follow the AAMVA standards that are the recommended industry standards for formatting and encoding the information contained on drivers' licenses and state issued ID cards.

ENHANCEMENT OF MINICHECK ID™

Additional Background and history

When a user swipes an ID card through the magnetic stripe reader, the raw data electronically encoded on the card is parsed and converted into meaningful information, it is then displayed in the user interface. This allows the user to verify that the information displayed on the card is same as the information that is electronically encoded in the magnetic stripe thereby reducing the likelihood of accepting a potentially fraudulent transaction.

In fall 2007, Capstone Team #3 enhanced the existing standalone application by improving the user interface and making it more powerful than before in terms of functionality. They changed the user interface to make it more user friendly for the end users. This application worked with Mini USB 3-Track MSR (Magtek), CardScan

business card scanner, MICR Image(Magtek), Excella STX(Magtek) and gray MagenPrint enabled USB 3-Track MSR(Magtek)., Mini USB 3-Track MSR, MICR Image and Excella STX scanners read the **Magnetic stripe**, CardScan and Excella STX scanners read **Barcodes from images of the ID captured** and MagenPrint enabled USB 3-Track MSR scanner reads Magnetic stripe and **Magneprint signature.** They replaced the ClearImage Software Development Kit with Atalasoft imaging toolkit used for parsing barcodes from images. This technology allows MiniCheck ID™ to read the information contained in a barcode from an image of a barcode and without the use of a physical barcode reader. They integrated various SDKs for supporting Magtek Excella STX, CardScan. They also integrated MagnePrint API in order to avoid the user from getting redirected to MagneSafe website. They developed the application was done in .NET and C#.

- VERIS is a third-party service provider that offers a database so that a user can actually verify someone's identity to a higher level like a social security number previous address etc., than just a local validation of an ID. It requires a login with username and password, the user then chooses another option to "Verify Identity" from the MiniCheck ID™ user interface. The user interface changes to adapt to the available options within the Veris online database for verification. **<u>Everything still appears to take place within the MiniCheck ID™ user interface,</u> The team implemented this functionality last semester.**

This project will be fun while providing an excellent learning experience for each team member. This project combines multiple technologies to produce a powerful real-world solution. Thank you for choosing this project and I look forward to working with you.