

Support Documentation

Mobile Device Tracking System (MDTS)

Innovative Technologies

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Innovative Technologies is determined to complete a mobile device tracking system to meet your needs. Our team has spent the last 4 to 5 years studying upon information such as programming and information security as well as application development and use cases to create a system to track your mobile device collection of 40 iPads, 5 iPad Mini's and several laptops in your collection for the Propel Center's equipment available for students and faculty of Colorado State University – Pueblo. The system will allow you to track student and faculty's check-in and checkout status and the expected return.

As far as system development, the deliverables will include a barcode scanner that connects to the Microsoft Surface tablets and scan's a barcode on the back of the device being checked out to the student. We have also allotted enough barcode labels to add devices in the future as well as the added capability to do this with new devices in the Mobile Device Tracking System (MDTS). The member of the Propel Center checking out the device will sign in on one of the Microsoft Surface tablets. The Student or Faculty member will enter their PID/FID, checkout length of time, and if it is there first time renting a device, information on lost, stolen or broken charges. Our MDTS will connect to your primary Windows based personal computer to back up the systems database weekly and allow other scheduled backup's to occur. The database will be based on the current format of what is used in Microsoft Access and will incorporate the entities listed above. The final stage after the development will be the testing and debugging of the MDTS application software in correlation with the hardware (barcode scanner). We've advised you to order a Bluetooth barcode scanner to allow for faster wireless communications and for use on multiple devices. There is an option to use the barcode scanner via USB if the Bluetooth were to malfunction for any reason.

To continue support after the system is complete and our work here is done we will have technical documentation and support for someone to come in and work on the system, edit the code or fix any minor bugs, even if somewhat less educated in information technology. Innovative Technologies thanks you for letting us develop a product that works to your benefit and provides us with real world professional experience.

Training Outline:

Who: Innovative Technologies (Tom, Jeff, and Daniel) and any Propel Center faculty including Eileen, Eileen's Teachers Assistant, and possibly the director of the Propel Center.

What: Give lessons on how the system will function and how to use the full capability of the system, which includes: adding/removing users, checking in and checking out devices, how to charge barcode scanner, backup system to database, adding new devices to the Mobile Device Tracking System (MDTS), and also starting up, shutting down, and logging to the MDTS.

Where: The Propel Center at CSU-Pueblo Life Science building.

When: After the week of April 11 and after if needed.

Why: To make sure the system performs to the client's approval, demonstrate the full use of the program itself, and make any final adjustments to the MDTS for ease of use to the Propel Center and its members.

How: Step by step demonstration by the developers and testers of Innovative Technologies (Tom, Jeff and Daniel).

Setup Instructions

- 1.) The Mobile Device Tracking Application will be placed in the documents folder when given to the client.
- 2.) A shortcut will be made during deployment for the client. If it needs to be re-created, navigate to the folder above and locate the application under
...Document\MobileTrackingApp\bin\Debug
- 3.) To make the application compatible with the PC the following software packages are needed:
Adobe: <https://get2.adobe.com/reader/>
.NET Framework 4.0 or higher: <http://www.microsoft.com/en-us/download/details.aspx?id=30653>
- 4.) If prompted, restart the computer
- 5.) To back-up the application copy the entire "Document\MobileTrackingApp" folder onto an external storage drive or cloud.
- 6.) To restore a back-up copy the previously backed up folder in its entirety onto the machine into the documents folder. Repeat steps 1 through 4 as needed.

Disaster Recovery

In case of disaster we may ask that Eileen make a copy of the Mobile Device Tracking System (MDTS) at home on a flash drive along with a database that she could transfer with her home every six months. Failure to do this may lead to complete loss of the MDTS unless one of the Innovative Technologies creators has the program on their computer at home and can be contacted. However Innovative Technologies will not be held responsible for the MDTS if a disaster may occur. The MDTS will also be on multiple devices such as the computer and two Microsoft Surface tablets in the Propel Center. *Refer to Back-up in Step 5 above*

Instructions for Use of the Mobile Device Tracking System

Login

1. Open up the MDTs application.
2. Enter username and password.
3. Click "Login".

Home

1. Check Out – Previous user checkout a mobile device
2. New Check Out – New user checks out a device
3. Check In – User returning a device to Propel Center
4. Search – Find a record in the database (view only)
5. Help - Provides a link to the support documentation
6. About - Provides a brief summary of the project

Checkout & New Checkout

1. When checking out a new device the user needs to scan the barcode label on the Mobile device. The cursor must be in the serial number box. The device name will autofill when a valid serial number is entered.
2. Enter your school 6 digit PID or Faculty FID.
3. Enter First Name and Last Name (skip this step if it is a returning student).
4. Select the Checkout Date.
5. Select the Due Date for the device.
6. Select Device Assets if applicable.
7. Add comments if necessary.
8. If this is a new checkout the borrower must agree to and sign the agreement form.
9. Continue by pressing Checkout.
10. The form will redirect to the home screen.

Check In

1. Put the cursor in the S/N box and scan the barcode label on the mobile device. The cursor **MUST** be in the S/N box. The Device Name box will autofill when a valid serial number is entered.
2. Enter the Student or Faculty PID.
3. Select the Check In Date. By default the current date will already be selected.
4. Add comments if necessary.
5. Click “Check In” and the record will be updated.

Search

1. The user can search by PID or Device Name to list all records associated with either element.
2. Click Show Available Devices to list all devices that are not checked out.
3. Click Show Checked out Devices to list all devices that are currently checked out.

Logout

1. Logout is available from the Home screen as well as on the Edit Database form (Admin).
2. Clicking Logout will redirect the user to the Login screen.

Help

1. The Help menu will allow you to access the technical documentation and support.

Signature Form

2. Sign to agree to the Propel Center policy and confirmation of barrowing the Propel Centers property.

Editing Database (Admin)

1. After logging in as an admin, the Edit Database form will be presented.
2. Search by PID or Device Name.
3. Select a record needing changes from the list presented.
4. The user will be presented with all current information and be given a chance to change the information associated with that record.
5. Once the changes are made click Save in order to update the information in the database about that record.
6. If changes need to be made specific to the student information, refer to the “Edit Student” section below.
7. Click Logout when all changes are finished.

Add Device (Admin)

1. Click Add Device on the bottom of the Edit Database form.
2. Enter the New Device Name and Serial Number in the corresponding text boxes.
3. Click Add Device to add it to the database.
4. Click Logout when all changes are finished.

Edit Student (Admin)

1. If changes need to be made specific to the student information, select a record pertaining to the student then click “Edit Student”.
2. The user will be presented with all current information and be given a chance to change the information associated with that record.
3. Once the changes are made click Save in order to update the information in the database about that record.