

Crime Stoppers Web Site

By

Nick Kreimer

Submitted to
the Faculty of the Information Engineering Technology Program
in Partial Fulfillment of the Requirements for
the Degree of Bachelor of Science
in Information Engineering Technology

University of Cincinnati
College of Applied Science

May 2004

Crime Stoppers Web Site

By

Nick Kreimer

Submitted to
the Faculty of the Information Engineering Technology Program
in Partial Fulfillment of the Requirements
for
the Degree of Bachelor of Science
in Information Engineering Technology

© Copyright 2004 Nick Kreimer

The author grants to the Information Engineering Technology Program permission to reproduce and distribute copies of this document in whole or in part.

Nick Kreimer

Date

Prof. Russell McMahon, Faculty Advisor

Date

James F. Sullivan, Department Head

Date

Acknowledgements

I would like to thank the entire Crime Stoppers Board for given me this opportunity in redeveloping the Crime Stoppers Web site and funding the development process. I would also like to give special thanks to Greg Meadows and Tamar Skelly, Crime Stoppers staff, for helping test and for there recommendations on how to improve the Web Administration panel. Finally I would like to give thanks to Profitability for there discounts on hosting the site and providing months of free service.

Table of Contents

Section	Page
Acknowledgements	i
Table of Contents	ii
List of Illustrations	iii
Abstract	iv
1. Statement of the Problem	1
2. Description of the Solution	1
2.1 User Profile	3
2.2 Design Protocols	3
3. Deliverables	10
4. Design and Development	11
4.1 Budget	11
4.2 Timeline	12
5. Proof of Design	12
5.1 Public Web site	12
5.2 Web Administration Panel	15
6. Testing Procedures	18
7. Conclusions and Recommendations	19
7.1 Conclusion	19
7.2 Recommendations	19

List of Figures

Figure Number	Page
Figure 1. Login Screen	4
Figure 2. Web Admin Panel	5
Figure 3. Add Form	6
Figure 4. Web Admin Flow Chart	7
Figure 5. Menus	8
Figure 6. News and Events Links	9
Figure 7. Database Layout	10
Figure 8. Budget	11
Figure 9. Timeline	12
Figure 10. Information Examples	13
Figure 11. Home Page Displaying News and Events	13
Figure 12. News List	13
Figure 13. List of Pictures	14
Figure 14. Add Form	15
Figure 15. Edit List	16
Figure 16. Edit Form	17
Figure 17. Delete List	18

Abstract

Crime Stoppers Web Site is an internet site designed to provide information to the public about Crime Stoppers, and list criminals that are currently wanted by police. The previous site that Crime Stoppers used was static and did not provide information about Crime Stoppers. The new Crime Stoppers Web site allows the staff to enter criminals' pictures via an administration panel to be published for community viewing. This provides the public with up-to-date information about criminals that are wanted and news about crimes that have occurred. In order to make the site dynamic the latest software tools were used: PHP, MySQL, JavaScript and HTML. This Web site was created to help the public get to information as quickly as possible with the convenience of navigational ease.

Crime Stoppers Web Site

1. Statement of the Problem

This project was first brought about with a conversation with a Crime Stoppers' board member that was disappointed with the old Crime Stoppers Web site. After several conversations with the board member, I decided to take on the project. The complaints the board member had are as follows: the Web site was static, it needed to be updated on a regular basis by a Web master and the appearance was unprofessional.

Crime Stoppers is a non profit organization. Its goal is to apprehend criminals by bringing together the community, the media and law enforcement. It currently serves the greater Cincinnati area, as well as parts of Northern Kentucky.

In order to better serve the public and to achieve a better partnership with media outlets, Crime Stoppers needed to upgrade there old static Web site to a dynamic one, www.crime-stoppers.us. The new Web site needed to represent their professionalism. The old site did not track criminals, update their wanted status, or provide news. Therefore, there was no way to inform the public on which criminals are wanted or what events are taking place without having a professional Web site developer changing it daily. As information becomes available, Crime Stoppers needed a Web based interface to enter the information and release it to the public without the need for a Web programmer.

2. Description of Solution

The Crime Stoppers Web site is a complete site for keeping the public informed on law enforcement issues and activities. It comes complete with an administrative Web panel to perform updates to the site. Combining the use of HTML and PHP with a

MySQL database, gives Crime Stoppers complete access to control all information on the site over the Internet 24/7.

The Web site's Admin panel uses PHP as the server side language that controls the functionality of the Web admin panel. I used PHP for the following reasons:

- It runs on multiple operating systems which makes it portable
- It is tightly integrated with MySQL
- It can be embedded in HTML
- It hides code from the user
- It provides efficient means to View, Add, Delete and Edit the database
- It provides means to work with the file directory on the server.

To create this Web site to serve the publics' need for ease of use, I used my programming, multimedia and database knowledge. The Web site is easy to navigate and designed in a logical fashion. The graphics on the site were designed using Adobe Photoshop and were used to create a professional looking site.

The Administration panel of the Web site was designed to make it easy on the Crime Stoppers staff. The staff needed to be able to add or delete criminals to or from the Web site, as well as add features such as the news. The Admin panel provides an easy to use interface and a logical layout to assist them in updating the content on the Web site. MySQL is used to collect the data entered and PHP allows the content to be modified. These two utilities provide the backbone of the new dynamic site.

The content and information published to the Web site provides information to the public, helping to assure they remember Crime Stoppers as a tool to help them serve their community.

2.1 User Profiles

The intended users for the Crime Stoppers Web site and Admin panel will be at two levels of Information Technology literacy. The two levels are general public and Crime Stoppers staff.

The general public should find the navigation of the site easy to use with straightforward navigation. The project's public site will focus on providing the best means to the general public for getting the information they need in a timely manner. The site will be adjusted to best serve the needs of the public. The site accommodates all levels of Internet Web surfing experience, by providing "standard" menus on the left side and top on the Web page and using easy to read text.

Crime Stoppers staff will be required to have some working knowledge of how the Web Admin panel works. The staff's IT knowledge is minimal and the panel will be setup to best serve their needs based on the feedback they contribute.

2.2 Design Protocols

The graphics for the site were created using Adobe Photoshop 6.0. Photoshop provides many tools for manipulating graphics and editing graphics which allows for powerful graphics. The graphical interface is designed for 800 by 600 screen resolution, which is mostly used today.

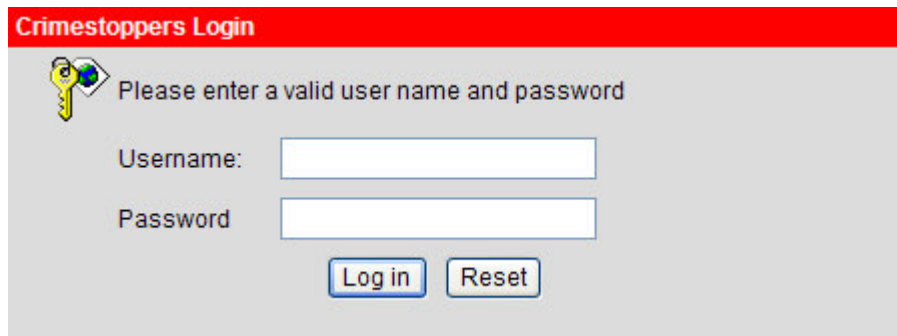
Macromedia Dreamweaver MX was used for the basic layout of the site. It provided the means for a quick layout with code highlighting for the HTML. After the basic layout was in place the rest was done by hand. I chose to hand code the HTML and PHP for the following reasons. First, I felt it provided better control of the code and

allowed me to use my own style for readability purposes. Second, hand coding the PHP allowed me to gain more knowledge of the language.

MySQL was used to collect the data from the Web Admin Panel. MySQL was used as a cheaper alternative to Microsoft SQL Server. It provided all the functionality I needed to complete the project along with meeting the security needs.

PHP was used for logging into the Web Admin Panel and to communicate with the MySQL database. PHP is tightly integrated with MySQL which made it an easy choice as a server side language. PHP also provides the ability to hide the code from the user and provides the security necessary to protect the integrity of the Web site.

The Crime Stoppers Web site is divided into two main sections: Web Admin Panel and the public website. When entering the Admin panel the user will be presented with the login screen (Figure 1).



The image shows a web browser window titled "Crimestoppers Login". The window has a red header bar with the text "Crimestoppers Login" in white. Below the header is a grey background area. On the left side of this area is a yellow key icon with a blue and green globe. To the right of the icon is the text "Please enter a valid user name and password". Below this text are two white input fields. The first is labeled "Username:" and the second is labeled "Password:". Below the input fields are two buttons: "Log in" and "Reset".

Figure 1. Login screen

If the user supplies the correct information they will be authenticated by the database and allowed to proceed to the Web Admin panel (Figure 2 and 3). If the user incorrectly enters their Username or Password, they will be redirected to an error page.

CRIMESTOPPERS Crimestoppers - Administrator Control Panel [Go to Homepage](#) | [Logout](#)

ADMIN
Control Panel

Tristate Criminals

- » Add Criminal
- » Edit Criminal
- » Delete Criminal

Crimestoppers Criminals

- » Add Criminal
- » Edit Criminal
- » Delete Criminal

Unidentified Criminals

- » Add Criminal
- » Edit Criminal
- » Delete Criminal

Unsolved Homicides

- » Add Cold Case
- » Edit Cold Case
- » Delete Cold Case

Events and News


- » Add Event
- » Edit Event
- » Delete Event

- » Add News
- » Edit News
- » Delete News

Advanced Admin

- » Add New User

Welcome to the Crimestoppers Admin Control Panel



From here, you can control all aspects of Crimestoppers. Please select what you need from the links down the left hand side of this page.

Note: Fields which are marked with * are required fields!

Technical Informations

Technical Support: crime@fuse.net

Figure 2. Web Admin panel

The screenshot shows the 'Crimestoppers - Administrator Control Panel' with a navigation menu on the left and a main form area on the right. The form is titled 'Add Unidentified' and is divided into several sections:

- Information:**
 - Alias: Text input field
 - Last Seen: Dropdown menu and text input field
 - Agency*: Text input field
 - Gender: Radio buttons for Male and Female
 - Race: Dropdown menu
 - Hair: Text input field
 - Eyes: Dropdown menu
 - Height: Text input fields for feet and inches
 - Weight: Text input field
 - Approx Age: Text input field
 - Armed: Checkbox for YES
- Wanted For and Misc Info:** Large text area for notes.
- Picture:** Text input field and 'Browse...' button.
- Publish:** Checkbox for YES.
- Submit:** Button at the bottom.

The left navigation menu includes categories like 'Tristate Criminals', 'Crimestoppers Criminals', 'Unidentified Criminals', 'Unsolved Homicides', 'Events and News', and 'Advanced Admin', each with sub-links for 'Add', 'Edit', and 'Delete'.

Figure 3. Add form

The Web Admin panel will provide the administrators with links on the left to update different aspects of the site. The Admin panel is setup-using frames, which will give the user access to the menus at all times. From the Admin panel administrators can add, edit or delete criminals in three different categories: Tristate, Crimestoppers or Unidentified Criminals. There are also links to add, edit or delete Unsolved Homicides, Events or News. The flow chart for the Web Admin Panel can be found below (Figure 4).

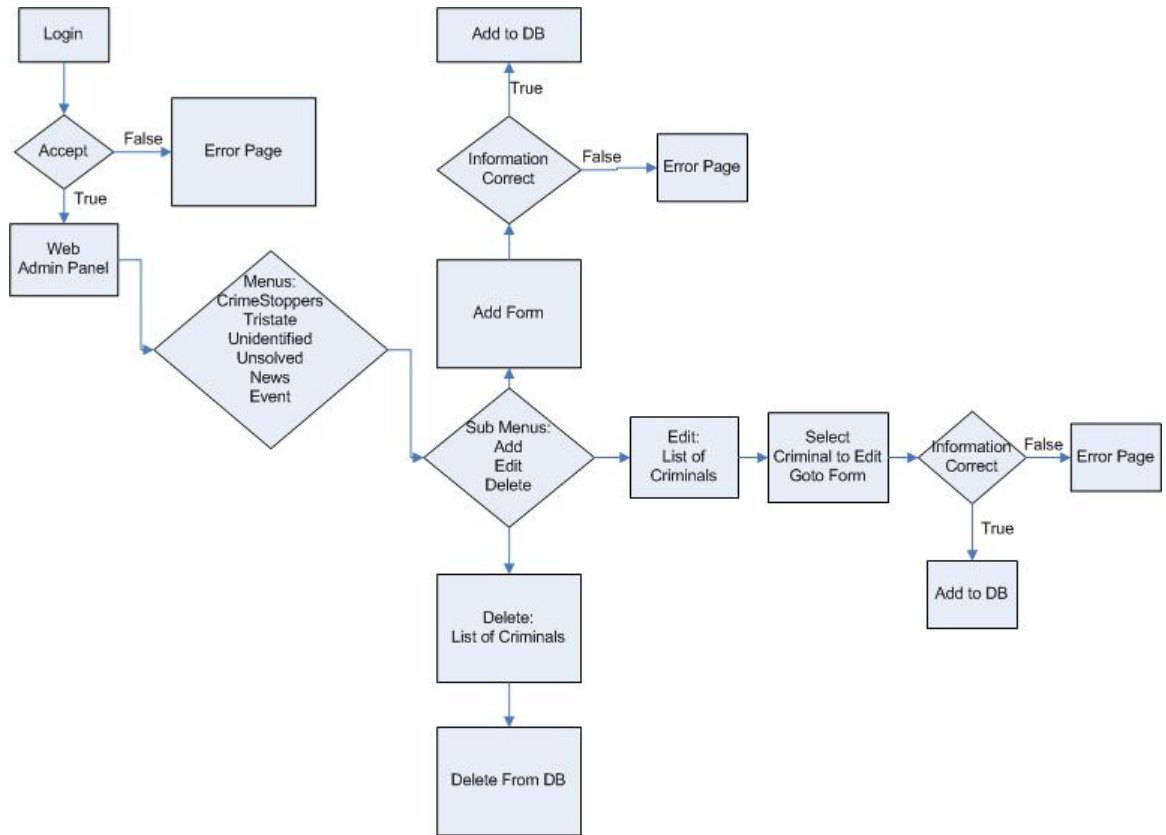


Figure 4. Web Admin flow chart

The public Web site houses all information that is relevant to the public. The site will contain two menu bars on every page located on the top and left hand side (Figure 5). The Public Web site will be developed using PHP, HTML and JavaScript. The user will be able to navigate to every page at anytime and return to the main page in one mouse click.

Font	Style: Verdana, Arial, Helvetica, Sans-Serif Color: Black
------	--

Background	Color: White
Menu Links	Color: White

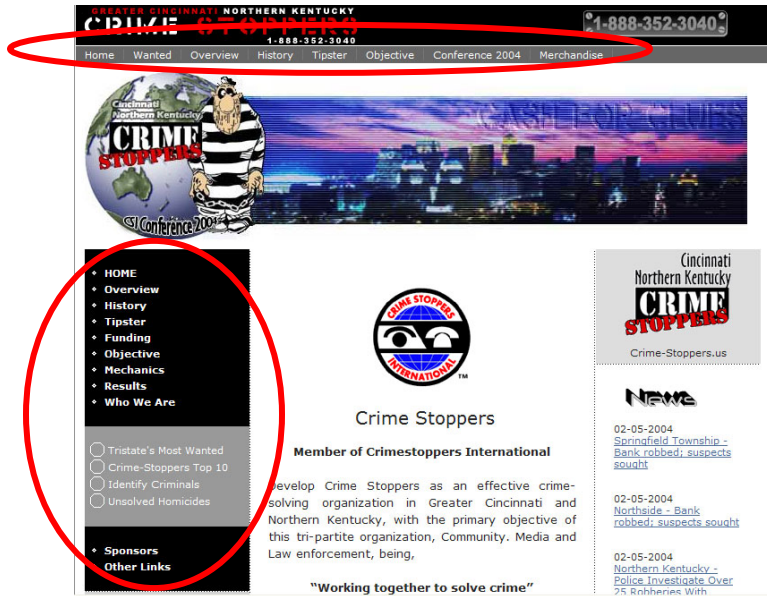


Figure 5. Menu

The News and Events section will appear on the right hand side. The sections will contain links to the three newest entries and a link to a list of all archived news and events (Figure 6).



Figure 6. News and Events links

Several tables are used to house the information collected from the Web Administration Panel, in order to publish it to the public site. Below is the layout of the tables from the database (Figure 7).

cs_admin		cs_coldcase		cs_crimestoppers		cs_tristate	
Name	Type	Name	Type	Name	Type	Name	Type
username	varchar(16)	Id	int(4)	id	int(4)	id	int(4)
password	varchar(16)	Pub	char(1)	pub	char(1)	pub	char(1)
email	varchar(100)	Name	varchar(50)	name	varchar(50)	name	varchar(50)
level	char(1)	Story	text	ctrlnum	varchar(12)	ctrlnum	varchar(12)
cs_unidentified		solved	char(1)	alias	varchar(50)	alias	varchar(50)
Name	Type	pic	text	lastseen	varchar(5)	lastseen	varchar(5)

id	int(4)	date_add	datetime	lka	varchar(50)	lka	varchar(50)
pub	char(1)	date_edit	datetime	agency	varchar(50)	agency	varchar(50)
alias	varchar(50)	added_by	varchar(16)	gender	varchar(6)	gender	varchar(6)
lastseen	varchar(50)	edited_by	varchar(16)	race	varchar(8)	race	varchar(8)
lka	varchar(50)	cs_events		hair	varchar(25)	hair	varchar(25)
agency	varchar(50)	Name	Type	eyes	varchar(5)	eyes	varchar(5)
gender	varchar(6)	id	int(4)	feet	char(1)	feet	char(1)
race	varchar(8)	pub	char(1)	inches	char(2)	inches	char(2)
hair	varchar(25)	title	text	weight	char(3)	weight	char(3)
eyes	varchar(5)	story	text	month	char(2)	month	char(2)
feet	char(1)	event_date	datetime	day	char(2)	day	char(2)
inches	char(2)	date_add	datetime	year	char(4)	year	char(4)
weight	char(3)	date_edit	datetime	age	char(2)	age	char(2)
age	char(2)	added_by	varchar(16)	wantedfor	text	wantedfor	text
wantedfor	text	edited_by	varchar(16)	armed	char(1)	armed	char(1)
armed	char(1)	cs_events		arrested	char(1)	arrested	char(1)
ident	char(1)	Name	Type	pic	text	pic	text
arrested	char(1)	id	int(4)	date_add	datetime	date_add	datetime
pic	text	pub	char(1)	date_edit	datetime	date_edit	datetime
date_add	datetime	title	text	added_by	varchar(16)	added_by	varchar(16)
date_edit	datetime	story	text	edited_by	varchar(16)	edited_by	varchar(16)
added_by	varchar(16)	date_add	datetime				
edited_by	varchar(16)	date_edit	datetime				
		added_by	varchar(16)				
		edited_by	varchar(16)				

Figure 7. Database layout

3. Deliverables

In order to help provide an outline for the project certain items were considered necessary. During the design phase the following deliverables were defined and reached:

1. A Web site that will provide the public with information about Crime Stoppers.
 - Overview, History, How to provide tips, Funding, Objectives, Sponsors, Links to other agencies, News and Events, Criminals and Unsolved Homicides list with pictures
2. The Web site will look and act very consistently so that public users will be able to navigate quickly.
3. A general navigation bar on every page for easy navigation on both the public Web site and Web Administration panel.
4. The Web site will be compatible with Netscape Navigator 4.7 and above and Microsoft Internet Explorer 5.0 and above and the look will be similar between the two.
5. A back-end database will facilitate the development of the dynamic public Web site.
6. A dynamic front-end interface will be in HTML, PHP and JavaScript
7. Users of the Web Administration panel will have secure login that is authenticated by the database.
8. Users of the Web Administration panel will be able to complete the following tasks:
 - Add, edit and or delete criminals to or from the database with a graphical interface
 - Add, edit and or delete unsolved homicides to or from the database with a graphical interface
 - Add, edit and or delete events or news to or from the database with a graphical interface
 - Change wanted or solved status of criminals or unsolved homicides using a graphical interface.

4. Design and Development

The next section describes the project’s timeline and budget.

4.1 Budget

The budget for the project is shown in the table below (Figure 8).

Software		
Item	Cost	Source
Adobe Photoshop 7.0	\$609.00	Adobe.com

Dreamweaver MX	\$399.00	Macromedia.com
Provided by Profitability	\$150.00/qtr.	Gaeanet
PHP License MySQL License Apache Server Redhat 7.0		
Hardware		
Computer Estimated Value	\$1,500.00	CompUSA.com

Figure 8. Budget

4.2 Timeline

Below is the outline that was followed to the completion of the project (Figure 9).

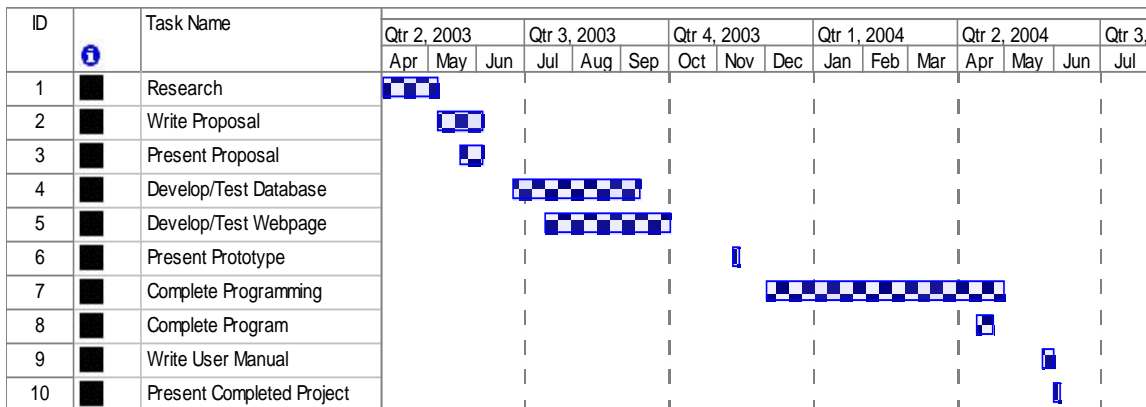


Figure 9. Time Line

5. Proof of Design

The next section shows in detail how deliverables of the project were completed.

5.1 Public Web Site

The public Web site was designed to provide information about Crime Stoppers such as an Overview, how to provide tips, funding and objectives. The public site also

contains dynamic information such as news, events, criminals and unsolved homicides list, along with pictures. Web site also contains a comprehensive list of links to other police agencies. Upon entering the site, a brief introduction of Crime Stoppers is presented along with contact information and list of the 3 most recent news stories and upcoming events (Figure 5). To make navigation through the site as easy as possible there are constant menus located on the left hand side of the page and at the top as shown in Figure 5.

The informative section of the website contains the overview, history, tipster, funding, objective, mechanics, results and who we are links. Each link establishes a connection to a text description with a standard title at the top of the page (Figure 10).



Figure 10. Information examples

The news and event are listed on the home page of the site (Figure 11). Both sections establish a connection to the database through PHP to pull the information to display on the site. The news section pulls the news title of the three most recent news stories and the events section displays the title of the three upcoming events, according to date. At the bottom of each section is a link that will connect to a page for each section to display a list of all the news and events depending on the link which is clicked (Figure 12).

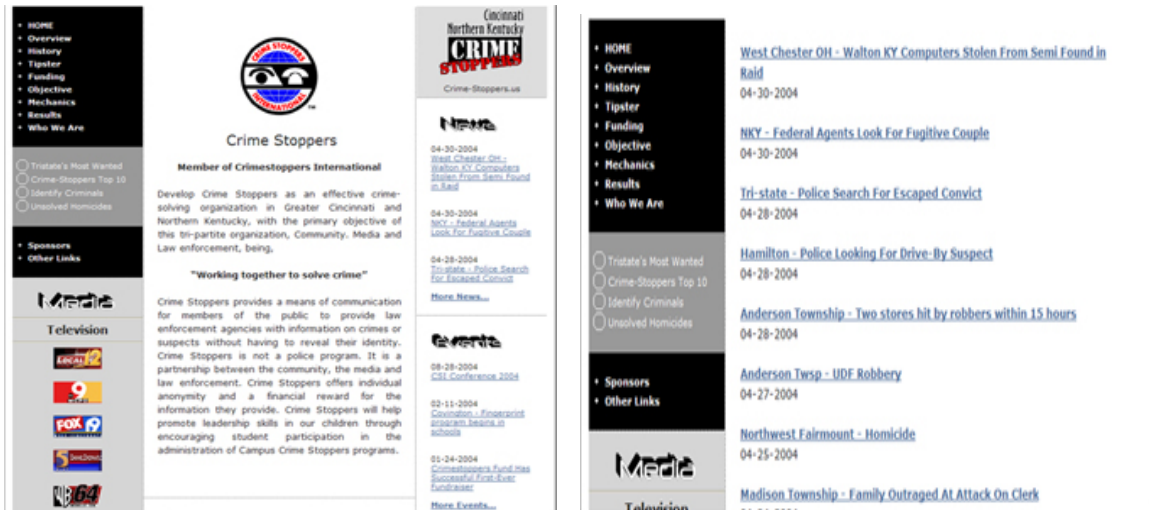


Figure 11. Home Page displaying News and Events Figure 12. News list

The Criminal list is divided into three sections: Tristate’s Most Wanted, Crime Stoppers Top 10 and Identify Criminals. Each section provides a similar look and feel with some slight differences in the information that is displayed. Below is the layout of the way the lists are viewed on all three sections including the unsolved homicides link (Figure 13).



Figure 13. List of pictures

Each page gets ten picture from the database to display on the site. The page numbers for the additional pictures are located above and below the list given the user the ability to link to any page list at anytime. On the top left and bottom left of the list of pictures contain the page the user in currently viewing. There is also a link on the top and lower right to view all the pictures from the database. Every picture in the list is a link to provide a larger image in a pop up window if the viewer needs to see the full size image.

5.2 Web Administration Panel

The Web Administration Panel contains the web pages to the Crime Stoppers staff to add, edit or delete information to or from the site. The Administration Panel is protected by a secure login with encrypted passwords and is authenticated by the

database and is provided a session throughout the administration. Before entering the Administration Panel the user will have to login into the site (Figure 1).

The Administration Panel has a standard menu on the left hand side, divided into separate sections (Figure 2). Each section allows the user to add, edit or delete from that section. When adding information to the database for the Administration Panel the user is given the option to publish the data to the public Web site or wait to publish it at a later date. Below are examples of add forms for each section (Figure 14). Once the data has been entered and verified the user is presented with the information that they entered so they know that the database entry was successful.



Figure 14. Add forms

Each section also gives the user the ability to edit the data. If a user decides to edit a particular section they are presented with a list of information from the database, giving them the ability to edit a specific record (Figure 15).




View All			
Page 1 of 1			
Show All			
	Robert Branam AKA: Agency: REMU Sex: Male Race: White DOB: 02/02/1977 Hgt: 5'09" Wgt: 160 Hair: Brown Eye: Blue	Added 2003.10.28 21:40:16 by: skreimer Edited 2003.10.28 22:51:04 by: skreimer	Edit
Trafficking in Drugs/Poss. of Drugs			
	Elhab Rassar AKA: Agency: NA Sex: Male Race: Other DOB: Hgt: 5'08" Wgt: 140 Hair: Black Eye: Brown	Added 2003.10.28 21:39:24 by: skreimer Edited 2003.10.28 22:50:40 by: skreimer	Edit
Last Seen: 213 Bosley St in Clifton Theft of \$84,200.00 in US currency			
	Jeffrey Powell AKA: Agency: NA Sex: Male Race: Black DOB: 02/13/1972 Hgt: 5'06" Wgt: 195 Hair: Black Eye: Brown	Added 2003.10.28 21:38:29 by: skreimer Edited 2003.10.28 22:48:37 by: skreimer	Edit
Last Seen: View Ct in Cincinnati 3 Counts of Kidnapping			

Figure 15. Edit list

The edit list for each section has a similar look and feel, which displays the information related to that section that the user chose to edit. At the top of the page is a drop down list that provides the user with the ability to only view certain records such as records that are not published. The edit list displays ten records per page and provides a list of links to the other pages on the top and bottom of the list. Once a user decides to edit a record they click the Edit link on the right hand side to reach the edit form (Figure 16).

Figure 16. Edit form

The edit form gets the information for the database for the record that was selected for editing. From there the user can add or modify any information about the record. Before the information is updated in the database it is verified, then the user is provided with the information entered to display a successful update to the record.

The last option for the user is to delete records from the database. When the delete option is selected the list of records are displayed in a list similar to the edit list with less information (Figure 17).




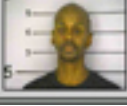
View All		GO
Page: 1 of 6		1 2 3 4 5 6 >>
Show All		
	William R Burdine	Added: 2004-04-30 06:59:07 Edited: 2004-04-30 07:01:24
	James Black	Added: 2004-04-24 12:23:50 Edited: 2004-04-29 15:19:10
	Leonard Dister	Added: 2004-04-24 12:22:29 Edited: 2004-04-29 15:19:24
	Lance Laney	Added: 2004-04-14 10:03:05 Edited: 2004-04-15 13:16:16

Figure 17. Delete list

Again the delete list has a similar look to the edit list, with the drop down list on the top of the page. This list also displays ten records with the additional records displayed on separate pages. The delete list gives the user the ability to delete more than one record from the database at a time.

6. Testing Procedures

Testing was done in two main phases. The first phase was completed in house; it consisted of entering test data as the modules for the forms were completed to assure they were working correctly. At that time when problems were found they were fixed and retested to assure that all previous modules were still working correctly. The second phase included the Crime Stoppers staff entering data into the Web Administration panel as though it has gone live. Any problems found during the second stage were corrected and retested in house.

7. Conclusions and Recommendations

7.1 Conclusions

This project was created in response to Crime Stoppers' need for an updated Web site to facilitate to their need for dynamic content. I created a well organized and professional looking site that included all the information that the Board members suggested. The information that the Web site provides is a great addition to the coverage Crime Stoppers gets in the media and allows the public to view the list of wanted criminals. To prepare this project I used Adobe Photoshop 6.0, Macromedia Dreamweaver MX, MySQL and PHP. The project was completed over the three quarter Senior Design sequence and fulfilled all Design Freeze deliverables. Testing was performed to ensure the products success and evaluation forms were filled out to help improve the site.

7.2 Recommendations

Future updates to the site might include a partnership between media outlets and Crime Stoppers to share a XML list of news that could be syndicated on the site; also Crime Stoppers could produce a XML list from the database of wanted criminals to display on media Web site. This recommendation would save both parties valuable time in reproducing the same information. Along with that is the suggestion to create a volunteer section for the site that would allow citizens to sign up to help out at different Crime Stoppers functions; I would also like in the future to display random images on the home page of criminals that are currently wanted and to make that random picture a link to the information about the wanted criminal.