



SYSTEM
ANALYSING
NON-ETHICAL
TRANSGRESSIONS of
ADVERSARIES

Product user manual

What is SANTA?:

SANTA: System Analysing Non-Ethical Transgressions of Adversaries.

SANTA is an all-in-one crime analysis program appropriate for a range of needs. Though its main purpose of development was for community awareness, SANTA provides a platform that is easy to navigate and understand, allows anybody to view and manage crime data, as well as analyse them in a number of ways.

SANTA provides a number of basic features. These include basic data management and analysis systems, which may be accessed from the main screen of the application.

Importing Data:

Selecting File > Import allows the user to import existing crime data into SANTA for viewing and analysing. Import data accepts only .csv files. These files should list crime data in the following order:

Case Number, Date, Block, IUCR, Primary Description, Secondary Description, Location Description, Whether an Arrest was Made, Whether the offence was Domestic, Beat, Ward, FBI CD, X coordinate, Y coordinate, Latitude, Longitude and Location. The file should have a header line including this information. SANTA will not read this first line, it is up to the user to ensure their data begins on the second line of the .csv file.

After clicking import, a dialog box should appear which allows you to select a .csv file - this dialog box will prevent you from selecting a wrong file type. After selection, you will see a loading message. Please be patient - depending on the size of your file, this can take a while. Once the import is complete, you should see your loaded file in the table viewer.

Exporting Data:

File > Export launches a window which lets you enter the name of the csv file you want to create containing the currently selected crime records. After entering a name, clicking the ok button will make a csv with your given name and write the currently selected data into that file. Clicking

cancel will close the export window. the exported file will be created in the same place as the SANTA executable (santa.jar) and will overwrite any csv file with the same name.

Creating records:

File > Create Record launches a frame in which you can input your own crime data. Creating a record includes several mandatory fields. These fields are indicated with an asterisk, and are fields that need to be correctly entered in order to save a new record. SANTA will not let you save your new record without these. The remaining fields will be automatically filled in by SANTA if left blank.

The IUCR field is non-editable, as it will be generated depending on your choice of primary and secondary crime types. The secondary type selector can only be utilised once a primary type has been selected. The Crime ID is also non-editable, as SANTA generates this for you to ensure it is unique.

Editing records:

Individual records are editable. This is achieved by clicking the 'edit record' button when viewing a single record. This launches a form similar to creating a new record, but with the record's data already filled in. The same restrictions apply: everything but IUCR and Crime ID is editable. The same fields are mandatory. While you are in edit mode, the 'edit record' button is disabled. This prevents you from opening up multiple edit record windows and getting changes confused.

If you wish to change the crime's secondary type, you must first re-select its primary type. This is a hassle, but necessary due to the way the secondary types field is populated.

Showing Crimes on map:

At any point you can click on the map tab and it will show the data currently in the Record Viewer.

You can now go back and forth between the tabs. If at any point you change your filter, the map will reload with the new data.

Showing a specific crime on the map:

While in the Record Viewer, click on a crime and it will load into the side data viewer (on the right). This will show all the specific information about that crime. At the bottom there is a 'Show Record on Map' button, pressing this will show the crime on the map. It will also switch you to the map tab automatically.

Data viewer:

The data viewer is located on the right hand side of the screen by default, but it may be hidden by selecting the options View > Show Viewing Record Panel. This option toggles it on and off.

The data viewer presents all the information about a single crime record in an easy-to-read format. The data viewer also includes three buttons: Delete record, show record on map, and edit record. The descriptions of these buttons and their functions are explained in the relevant sections of this document.

The data viewer loads a record once you click on it. You can use the mouse or the up/down keys to navigate between records in the table, and each one will display once selected.

Filtering:

The filter panel is located on the left hand side of the data view tab. Check or uncheck the "Show Filter Panel" option in the View menu to show or hide this panel. By entering text into the search box and clicking the search button, the data will be searched by primary and secondary description and case number. Use the date range options below the search box to filter crime record between particular dates. Click the calendar button to the right hand side of each field to use the calendar drop down to select the dates easily. The crime type box contains a checkbox

for each primary description in the current data set. The select all checkbox makes it easy to select and unselect all the crime type checkboxes. The arrest and domestic checkboxes are used to filter the records to only show crimes where an arrest was made or crime was domestic. Click the Filter button to apply the changes to the current data by using the data range, crime type, arrest and domestic fields.

Data Analysis:

The 'Analyse Data' Button allows the user to generate statistics about their current data selection. Once pressed, a new window will appear for the user to interact with. This window allows for analysis of the data contained within the dataset, as defined by the filters.

An important thing to note is that the Analysis does not act on any searches given to the database, but simply the most recent filters selected.

The Data Analysis is broken down into four main sections. These are: Welcome, Overview, Type Breakdown, and Trend Analysis. Each may be accessed by clicking on their respective tabs. Data for each section is generated when the user clicks on the respective tab. This data is then stored until the user closes the window.

The Welcome section provides an overview of the statistics that may be accessed in the given analysis. This is the only tab which may be closed.

The statistics provided in the analysis are as follows:

- Overview
 - This view allows for a quick overview of the dataset, at a glance, giving basic statistics about what is contained therein. The contents of this overview are as follows:
 - Total Crimes
 - Total Arrests
 - Total Domestic Incidents
 - Total Days (Range in selected data)
 - Frequency of crimes (per day)
 - First Day in Range
 - Last Day in Range
- Type Breakdown:

- This view gives an overview of the different types of crimes contained within the selected data. The data is represented in the following ways:
 - A list of the crimes contained within the selection, with total incidences, total frequency (per day) and the percentage amount of arrests made for that crime type. This view only shows the crimes currently contained within the dataset. For example, if a dataset contains crimes that are only of type “Homicide”, there is only “Homicide” shown in the list.
 - A ranking of the top most prevalent crimes in the dataset, with at most the top three most prevalent crimes shown. If there are less than that number contained within the dataset, only that many are shown. For example, if a dataset contains crimes that are only of type “Homicide”, there is only “Homicide” shown in the rankings.
 - The data is also shown graphically in the form of both bar and pie graphs.
- Trend Overview
 - This gives how the amount of crimes changes over time. The time period contained within the dataset is broken down into ten equal periods, and crimes the amount of crimes for each period are calculated and then shown on a graph.

When the analysis is given, no conclusions, statistical or otherwise are given. This allows the user to have complete freedom to use the given statistics to analyse the data as they see fit.

Data Sets:

To add a new data set, click the “Add” button in the top bar. A dialog box will pop up asking the user to enter a name for the new data set, by clicking “Ok” the data set will be added and opened up displaying a blank data view. Clicking “Delete” will create a window that asks the user if they want to delete the current data set, if yes is clicked the data set will be deleted, if cancel is clicked the window will close. To change the current data set use the drop down box in between the delete and add button. Choosing a different data set will load all the data of the data set and refresh the filtering options

Closing:

You can close SANTA in any standard way – exiting via system standard close buttons (X top right in Microsoft Windows and Linux, red dot top left in Mac OSX), keyboard shortcuts (such as ALT+F4), or by navigating to File > Close. SANTA's persistent storage will maintain everything you've been working on for you to return to later.