

## **TIES - Traffic Information and Enforcement System**

TIES is an on-line, interactive traffic accident analysis system which can either stand alone or integrate with other applications in the CISCO records management system. An easy-to-use English language menu and prompt design makes TIES ideal for non-technical personnel use. The system provides a data entry system to enter, alter, and delete records, with a comprehensive security feature to maintain confidentiality of files. User-defined code tables increase the efficiency and accuracy of data entry while the Utilities module provides a feature to custom-design the data entry screens to suit each agency's needs.

TIES is a modular system which combines to maintain and manage all accident-related records. Each module provides one or more reports which produce reliable and timely printouts of the information in the system.

### **TIES MODULES**

**ACCIDENT** – The Accident module maintains data on all vehicle accidents. Data stored includes an assigned accident number, agency and geographic area information, date, day and time, number of vehicles involved, number of individuals killed or injured, the exact street or area location of the accident (this is tied to a unique geobase file developed by each agency), witnesses, weather and road conditions, and reporting officer information. When an accident record is completed, the system automatically prompts for corresponding records for the appropriate number of vehicles, occupants, pedestrians, witnesses, property owners, and fatalities. If CISCO's

Fatality	Citation	Images	Vehicle	Occupant	Pedestrian	Witness	Owner
Location	Description	Other					

County: ANN ANNE ARUNDEL    CTV: C CITY    City: 00CO COLUMBUS  
Accident Date: 07 09 2001 (MON)    Time: 1039    # Vehicles: 1    Fatal #: N 0  
Injuries #: N 0    # Peds: 00    Location: PINE BLVD  
Grid: 0001 NORTH RESIDENTIAL    Road Class: 01 INTERSTATE SYSTEM  
On Roadway: Y    Mile Post: .0    Intersect Road: MAIN STREET  
Nearest Road: MAIN STREET    2: [empty]  
Distance: [empty]    Loc Type: [empty]  
Acc Typ: 1: 10 FIXED OBJECT    2: [empty]

When an accident record is completed, the system automatically prompts for corresponding records for the appropriate number of vehicles, occupants, pedestrians, witnesses, property owners, and fatalities. If CISCO's

CITATIONS is present, the system will also prompt for a Citation record.

These records can be entered through each of the modules after an accident record is created and stored. The system has a fool-proof check system that will not allow supplementary records to be entered in the other modules unless a corresponding accident record has been created.

Reports include: an Accident Summary Report, Accidents by Day and Time, Type of Accident Summary, Accidents by Officer, and a "Dirty Dozen" report which pinpoints the twelve geographic areas with the highest accident rate within a specified date range.

**VEHICLE** - This module stores information on vehicles involved in accidents. Information includes the assigned accident number, an assigned vehicle number, number of occupants, direction of travel, posted speed, driver's name, address, and license information, vehicle owner information, vehicle descriptors, insurance information, whether it was towed and where, damage descriptors, driver condition, skidmarks, driver, vehicle, and highway accident factors, and any tests administered to the driver.

**OCCUPANT** - The Occupant module maintains records on all vehicle occupants. Information includes the assigned accident, vehicle and occupant numbers, occupant name, sex, date of birth, age, addresses, safety equipment used, seat position, whether he/she was ejected, injury areas and severity, whether, where, and when medically transported, and whether he/she was killed.

**PEDESTRIAN** - The Pedestrian module maintains records of all pedestrians involved in accidents. Information stored includes the assigned accident and pedestrian numbers, pedestrian name, address, and personal descriptors, whether he/she was a cyclist, the pedestrian's location during the accident, injury areas and severity, medical transport information, whether he/she was killed, any physical factors affecting the accident, driver action, statute and citation numbers, and tests administered to the pedestrian.

**ACCIDENT WITNESS** - The Witness module maintains records on accident witnesses. Information stored includes the assigned accident and witness numbers, the witness' phone number, name, sex, age, address, and work phone number. Any number of witness records can be created for each accident.

**PROPERTY OWNER** - The Property Owner module maintains records on property damaged in accidents. The module stores information that includes the assigned accident and owner numbers, the owners name, address, and phone number, the property damaged, the damage cost, the owner type, whether the owner is government or not, and objects struck in the accident.

**FATALITY** - The Fatality module stores records on all individuals killed in accidents. Information includes the assigned accident and fatality numbers, whether the accident was school bus related, the time the agency was notified of the accident, the time an officer arrived, the accident date, specifications of the accident including surface type, alignment, profile, number of lanes, the vehicle's relation to the roadway, the traffic flow direction, the vehicle's role in the accident, the body's name, whether he/she was ejected, how he/she was extricated, any tests administered, such as blood alcohol level, date and time of death and reporting officer and date.

**SIGNS AND SIGNALS** - The Signs and Signals module maintains technical information on traffic control signs and signals. Information stored includes the signal location, mile point, device number and type, ASM number, lateral position, grid, model, manufacturer, size, date installed, dates inspected and repaired, condition, times repaired, expected end of life, number of phases and heads.

**NSC REPORTS** - TIES provides an automatic report creation feature in the NSC Reports module. The system accesses the Accident, Vehicle, Occupant and Pedestrian modules to extract pertinent data for a variety of required NSC reports.

**TIES MASTER NAME INDEX** - This module has a system-wide search capability. A soundex feature allows the system to generate a list of all individuals with the same or similar last names. All modules are accessed, and a date range can be assigned. The listing indicates what module the name appears in. This search feature is a quick, easy way to find all occurrences of a particular name throughout the TIES system.

**UTILITIES** - The Utilities module provides a unique, custom-design feature for the data entry screens in each record module. The user can determine whether or not a particular data element is needed, and if not, can key the element so that the cursor will skip that field when data is entered on the applicable screen. This increases data entry efficiency and accuracy.