



Scenario Exercise Development (SED) Tool Description

A tool designed to help users create scenario exercises based on the use of the Mutualink Collaborative Communications System.

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Scenario Exercise Development (SED) Tool Description

INTRODUCTION

Background

During any type of critical or emergency situation, time is always the enemy. The lack of information or worse, inaccurate information, generally results in lost time and erroneous decisions that can adversely impact incident responses. Therefore, the collection and dissemination of information in a collaborative, real-time environment is absolutely essential. The Mutualink Collaborative Communications System can play an important role in facilitating communications between many diverse agencies and entities during these pressure-packed times. Although the Mutualink System is remarkably easy to learn and use, it is imperative that all users maintain a high level of familiarity with the system and can instinctively use the system's many features and capabilities during these high stress situations. During an emergency there is no time or inclination to revert to instruction manuals or even on-line help descriptions.

The entire public safety industry is well aware of the need for all participants to be fully trained to carry out their assigned tasks during emergencies as well as during normal day-to-day operations. The industry has embraced the concept of scenario based training exercises as a very effective way of keeping personnel familiar with operating procedures and proficient with the available tools and systems. Exercises that mimic real-world scenarios have become common-place. Private enterprises, especially those that fall under the Department of Homeland Security's definition of Critical Infrastructure and Key Resources (CIKR), have also embraced scenario exercises as an effective method of keeping their personnel current and ready to respond to emergencies when required. The SED Tool provides a framework for the development of scenarios that can be used by all personnel involved in responding to incidents that utilize the Mutualink System.

Overview

The SED Tool is based on the Master Event Scenario List (MSEL) format used in the US Joint Chiefs of Staff sponsored Collation Warrior Interoperability Demonstration (CWID) Program. In this highly successful program, war fighters from different branches of the military took on roles of certain individuals and participated in a number of pre-defined scenarios. The scenarios were defined with detailed scripts (MSELs) with each participant performing the defined actions in the sequence specified.

The CWID scenarios involved a number of different events including military operations, terrorist activity responses, and natural disasters. Different role-players with different assignments took part in the exercises. Most role players had no experience with the various systems being demonstrated except for some brief, on site, exposure prior to the actual ten day trial. Mutualink was one of the participants in the June 2011 CWID Program with interconnected systems at eleven different domestic and international locations.

This tool provides a means of developing scenario scripts for participants to follow. A number of pre-defined scenarios have been included in the tool that can be used as a basis for creating new

scripts. The user, at their option, can define additional scenarios and develop scripts accordingly. Similar to the CWID Program, the tool is pre-loaded with agency names, personnel by job function, and possible actions. Users can add or delete any of these labels to reflect their own local community and organizational names and structure. The action items have been specifically chosen to reflect the most common actions associated with the use of the Mutualink Communications Collaboration System.

As developed by Mutualink for CWID, this tool also contains a grading capability that can be used to determine the effectiveness of the execution of the scenario. The Grading Sheet is automatically loaded with the number of actions specified in the scenario. After the scenario exercise is completed, the users can record any defects that may have occurred either due to component, system or participant error.

Scenario Exercise Library and Mutualink Support

Mutualink has developed the SED Tool for its internal use and has also made it available to customers and business partners for their independent use. Mutualink intends to continue to develop scenario exercises based on the pre-load scenarios in the tool as well as scenario exercises suggested by others. These exercises will be available to all customers and partners through Mutualink Marketing (978.392.0040 ext. 101 or info@mutualink.net) that will maintain a library of scenario exercises.

As customers and partners develop their own exercises, it is hoped that they will make them available to Mutualink for inclusion in the library for other organizations to download and use. From time-to-time, Mutualink will publish a list of the available scenario exercises.

Mutualink specialists are available to help users create the scenario event exercises and provide training on the use of the SED Tool. Users are encouraged to contact Mutualink Marketing with any questions, comments, suggestions, or errors found in the SED Tool.

SED TOOL DESCRIPTION AND USE

SED Tool Structure

The SED Tool is a Microsoft Excel™ workbook compatible with Excel versions 2007 and 2010. It is not compatible with Excel for Macs (version 2008).¹ Excel was chosen as the underlying platform because of its wide availability and familiarity. Additionally, standard Excel capabilities can be easily extended to automate a number of tool's functions to help users in the creation of scenario exercises. Only modest knowledge of Excel is required to use the SED Tool by the scenario tool exercise author (referred to as the "user" throughout this manual). Actual exercise participants (role players) can work from SED Tool worksheet printouts, PDF files, or the tool itself and require no experience with Excel. The scenario event sequence listing (the actual scenario

¹ Excel for Apple Macs does not support Visual Basic which is required by the SED Tool. Mac users can use the tool if they set up their computers to operate in a virtual machine mode and install Microsoft Windows™ and a Windows version of Excel.

script) can also be loaded onto an IWS and accessed either as a PDF file or as an Open Office spreadsheet (“Calc”). The scenario event sequence listing can also be converted to a Microsoft Word™ document.

The automated features of the tool are implemented through the use of Visual Basic for Applications (VBA) custom code, commonly referred to as Macros. As a security precaution, some versions of Excel normally do NOT allow the execution of these types of routines unless specifically enabled. For these routines to be available the workbook must have previously been saved with the Macros enabled (a standard “Save As” option in Excel) AND Macro operation enabled before the SED Tool is opened. Instructions on how to enable macros is provided in a separate worksheet (Enable_Macros) included in the SED Tool.

It is highly recommended that the user save the current, unmodified version of the SED Tool with another filename before making any modifications. Some of the modifications, such as deleting scenarios or list entries are not reversible. Therefore, if the user makes an incorrect modification or would like to revert to the old settings it may not be possible unless another unmodified version is available.

● SED Tool Structure Organization

Each worksheet in the SED Tool workbook is described in subsequent sections of this manual. Most of the worksheets are designed to support the Scenario worksheet which is used to create the line-by-line sequential listing of actions that are to be performed by the personnel involved in the exercise. The SED Tool includes a number of pre-defined scenarios that users may want to consider using as a base for their exercises. The tool also includes an actual exercise with fifty-nine sequential event actions that can serve as an example.

The SED Tool includes the capability of customizing a number of lists for each system. This allows the user to change:

- The categories of the agencies/entities involved
- The actual names of the agencies/entities involved
- The titles of the role players
- The actions that role players may take

These lists are dynamic and can be changed as each scenario exercise is being developed. During the exercise development process, specific sequential action events can be inserted, deleted, or have their sequence changed by the user.

The length of time to develop a scenario exercise will widely vary based on the users experience and familiarity with the SED Tool and the desired complexity of the exercise. As an example, the sample 59 step exercise was developed by an experienced user in about two hours.

SED TOOL WORKSHEET DESCRIPTION

Overview of SED Tool Worksheet

Below is an excerpt from the Index Worksheet that lists each worksheet and a brief description of its use. The user can click on any of the Worksheet Titles to move directly to the desired worksheet.

Worksheet Title	Description
Overview	Title Page that provides an overall explanation of the Tool and its use.
Index	This worksheet, click on the worksheet title to move to that particular worksheet.
Scenario_Definitions	This worksheet is used to define the scenarios and the associated scenario data.
Scenario	This worksheet is used to create the individual scenario exercises.
Grading Sheet	This worksheet is used to summarize the actions and tabulate any reported defects that occur during the exercise.
User_Defined_Ranges	This worksheet contains the defined ranges and provides the user with the ability to add/delete/modify the lists.
Scenario Example	This worksheet is an example of a Scenario Event Sequence Listing.
Enable_Macros	Instructions for enabling Visual Basic.
Maintenance_Macros	This worksheet contains a number of Macros (Visual Basic Routines) that automate certain capabilities of the Tool. They are
Change_Record	This worksheet provides a high level summary of the changes in the ISC Tool made with each revision.

To begin, it is suggested that the user view the Scenario worksheet first. In this worksheet, the scenario exercise is created or modified and then a copy of it can be given to all participants. Default printing parameters have been set to produce properly formatted copies of the scenario event sequence list.

Subsequent sections of this manual, listed in recommended review order, describe the purpose of each of the worksheets used to create a scenario exercise.

Scenario_Definition Worksheet

This worksheet contains the pre-loaded scenarios that a user may want to use to develop a particular scenario exercise. The user can delete or modify any of the scenarios to fit their needs. The user can also add entirely new scenarios if desired. The pre-loaded scenarios, by necessity, use generic names and places. To make them more realistic, the user is encouraged to replace the generic names with names that reflect their actual area of operation. Note that the Scenario Descriptions are sufficiently vague to reflect the typical early information that is available about an incident. Additional information can be added during the scenario exercise creation process. Below is an excerpt of this worksheet.

Scenario Definitions					Show Tool Menu
Sorted by Number					
No.	Scenario Name	Category	Primary Entity	Scenario Description	Desc Length
1	PROTESTOR GATHERING	Private Enterprise	Bank	An unknown number of protesters have appeared in the lobby at the Common National Bank Corporate Offices. Some are shouting threatening comments. Bank security personnel are monitoring the activities on their video surveillance system. The situation is very tense and seems to be quickly escalating.	302
2	BOMB THREAT	Public/ Private Agency	County EOC	The County EOC received an alert from DHS that a usually reliable informant has told them that some of the facilities within the county that store/use large volumes of chlorine will be bombed within the next 24 hours. There are over 75 such facilities within the county. No other details are available at this time.	316
3	HURRICANE	Public/ Private Agency	County EOC	The National Weather Service has just issued a weather bulletin that has identified the path of Hurricane Nancy and there will be a direct hit on the county's shore line within four hours. It is the peak of tourist season.	223
4	SNOW STORM	Public/ Private Agency	County EOC	A freak, early winter blizzard has hit the county. It started on a Thursday morning during rush hour. It is now 2PM and over 12 inches of snow have accumulated. Traffic jams are everywhere, school buses are stuck, and the 911 Center is being overwhelmed with weather related calls.	284

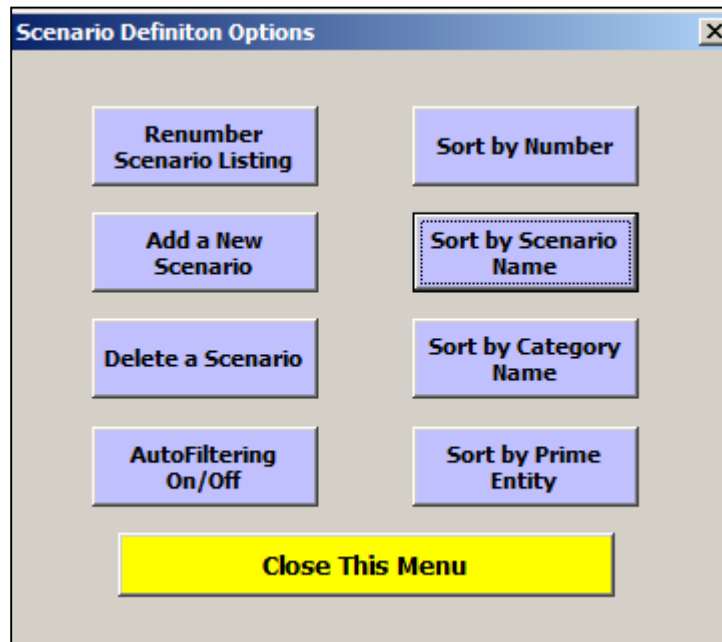
The Category and Prime Entity columns shown in the worksheet excerpt have been included to help subdivide the scenarios for various communities of interest. Entries for these two columns are selected from dropdown menus that appear when the cell is selected. The user can easily add, change, or delete entries in the lists shown on the User_Defined_Ranges worksheet that is described in another section of this manual.

Below is a list of the twenty-seven scenarios included with the initial release of the tool.

- | | |
|----------------------------|------------------------|
| PROTESTOR GATHERING | SUSPICIOUS PACKAGES |
| BOMB THREAT | BOATING MISHAP |
| HURRICANE | CAR CHASE |
| SNOW STORM | HAZMAT ACCIDENT |
| PLANT EXPLOSION | PERSONAL THREATS |
| CAR ACCIDENT | RADIO SYSTEM FAILURE |
| TORNADO | SCHOOL INTRUDER |
| TRAIN DERAILMENT | SCHOOL VANDELISM |
| MASS CASULTY EVENT | STUDENT IN TROUBLE |
| PATIENT TRANSFER | MEDICAL EMERGENCY |
| POWER OUTAGE | MTA EMERGENCY |
| SHOTS FIRED | TERRORIST EVENT |
| CAR THEFT | SHOPPING MALL ACCIDENT |
| INCOMPATIBLE RADIO SYSTEMS | |

Following the procedure outlined below, new scenarios can be added or the existing scenarios can be edited or deleted.

A yellow click box labeled **Show Tool Menu** is shown at the top of the worksheet. Clicking on this box (only available when Macros are enabled in Excel) results in the following menu appearing.



Each option is described below.

Renumber Scenario Listing: This option renumbers the scenarios, starting with the top most scenario in the sequential order shown. The user can overwrite any of the line numbers as desired. This is useful if the user would like to change the listed order. For example, if the user wanted to switch item 3 and 5, they could simply change the numbers and re-sort the list as described below. Or if the user would like to move item 5 to the top of the list, they could change item 5 to, say, 0.1 and then sort the list by number. After the list is re-sorted the old #5 would be at the top of the list (number 0.1). The user could then re-number the list and the routine would re-number the list with integers (1, 2, 3...). If any of the scenarios are hidden (using the AutoFilter feature described below), the hidden scenarios are omitted from the sequential re-numbering so the list of visible (non-hidden) scenarios is continuous.

Add a New Scenario: This option adds a new blank line at the top of the list to allow the user to add a new scenario and select the Category and Primary Entity from the dropdown lists provided. After this option is selected, the user is advised to turn off Protection before attempting to add the new scenario details. This feature has been included to help avoid accidental changes to the entries. The use of Protection is explained in the Maintenance_Macros worksheet description provided later in this manual. After the new scenario is added, its order can be easily changed through the sort options described below.

Delete a Scenario: This option provides the ability for the user to delete an existing scenario that has been selected. To select a scenario for deletion the user only has to select one of the cells in the line containing the target scenario. Once this option is selected, the row to be deleted is highlighted in yellow and the user is asked to confirm their desire to delete that row or cancel the operation.

IT IS IMPORTANT TO NOTE THAT ONCE THE SCENARIO IS DELETED IT CANNOT BE RETRIEVED.

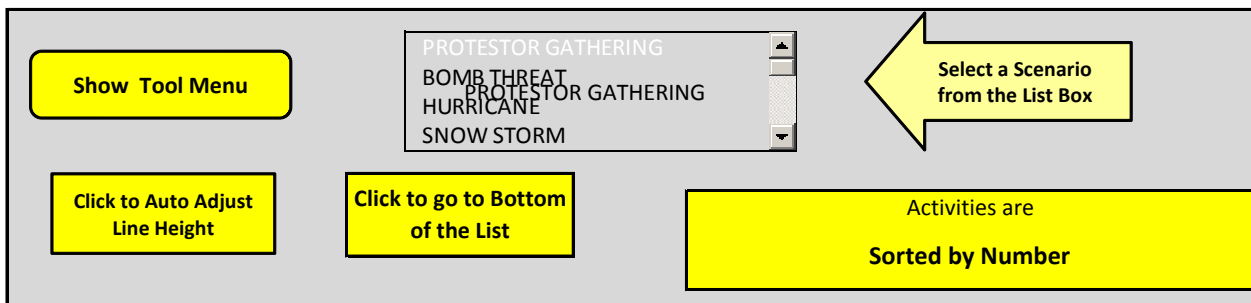
AutoFiltering On/Off: This option toggles (turns On or Off) the standard Excel AutoFiltering capability. When turned on, the user can filter the list by selecting some of the items shown in each dropdown list activated by clicking on the small down-arrows shown on the title line of the table. Although the AutoFiltering option provides the ability to sort a particular column, the sorting options described below are more effective (they provide second and third levels of sorting). Refer to standard Excel documentation for more details on the AutoFiltering function. Note that AutoFiltering is NOT required for normal use of the SED Tool and, therefore, this capability can be ignored. AutoFiltering is an effective way of hiding scenarios from view or printing.

Sort by xxx: Four different sorting option buttons as shown above, are included in the tool. Clicking on any one of these options will result in the numerical (line number) or alphabetical (other columns) being sorted in ascending order. For all sort options except the Sort by Number, second and third key sorts are used. The sort keys are shown directly above the column label line. Once the scenario listing is sorted, the user can re-number the list by selecting the Re-number option described above.

Scenario Worksheet

As previously described, the Scenario worksheet is used to create scenario exercises and to provide the work product that is used by each participant in a particular scenario exercise. The Scenario worksheet is divided into four areas as shown and described below.

The first area is the Utilities Area. It contains a number of set up and editing tools. The selection box that is shown in the middle of the area allows the user to select one particular scenario for the exercise. By clicking on the desired scenario, the scenario details are then shown on the worksheet in the General Area described below.



The **Show Tool Menu** button provides a menu of choices used to manipulate the scenario sequential event data and will be thoroughly described after this general overview. The **Auto Adjust Line Height** button sets the line height of each entry in the sequential event listing area to show all of the text properly. It may be necessary for the user to occasionally click on this button after certain cells are edited. The **Click to go to Bottom of the list** button provides a handy method of moving to the last event sequence line item. After that line item a similar click box is provided to move the user to the top of the worksheet. The **Activities are Sorted by xxx** box shows the current sort order of the event sequences. It is automatically changed when the list is re-sorted.

The General Area shown below is automatically filled in based on the scenario selected in the Selection Listbox described above. The data in the General Area cannot be directly changed. Instead, a different scenario needs to be selected or the scenario information must be edited on the Scenario_Definitions worksheet previously described.

Scenario Type:	PROTESTOR GATHERING	An unknown number of protesters have appeared in the lobby at the Common National Bank Corporate Offices. Some are shouting threatening comments. Bank security personnel are monitoring the activities on their video surveillance system. The situation is very tense and seems to be quickly escalating.
Category:	Private Enterprise	
Primary Entity:	Bank	

The Scenario Exercise Summary Area shown below contains user-entered information about the particular exercise that is created. The data fields are self-explanatory.



Scenario Name:	Bank Protestors	Tom Berger	Created By
Created Date:	5-Jan-12	Mutualink, Inc.	Organization
Revised Date:	10-Jan-12	tberger@mutualink.net , 603-661-5682	Contact Info
Summary:	This scenario exercise includes three IWSs (2 @ Commons Bank facilities, 1 @ Local Police), a video feed from the bank, and two radio channels (1 for bank security and 1 for the police). A cell phone is also brought into the incident as is a Public Address system and a file is transferred.		

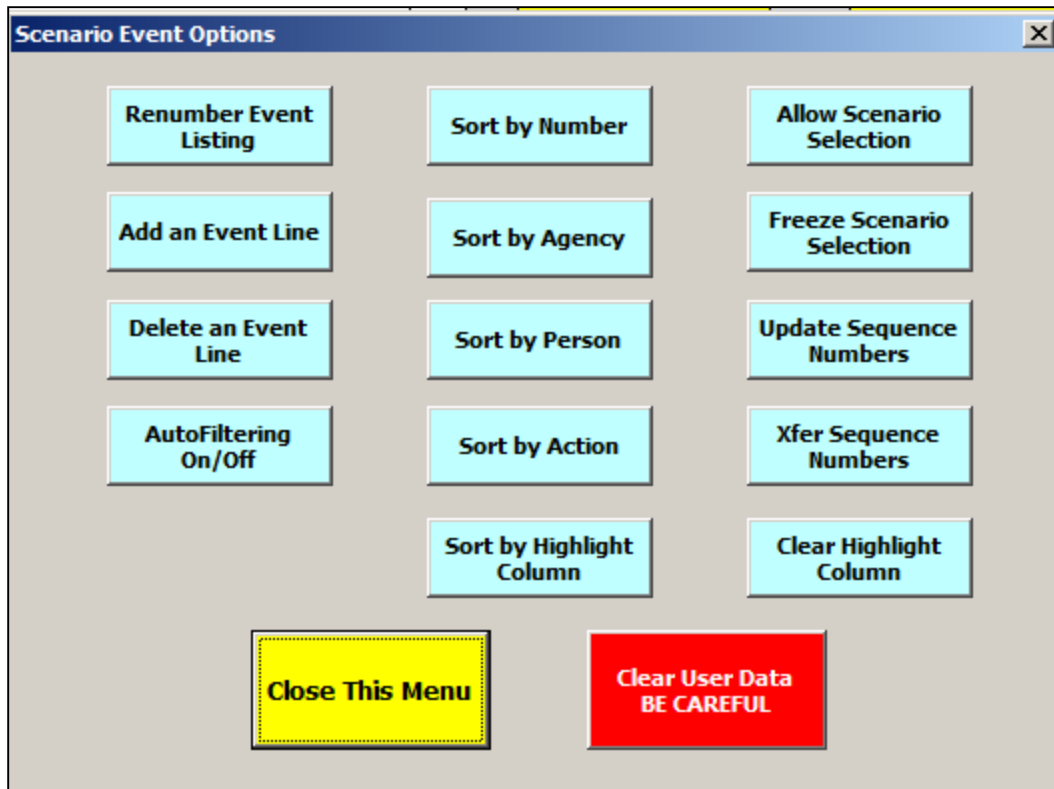
The Scenario Event Sequence Area is used to create each action step that is scripted to be followed by the exercise participants. Below is a sample of that area for one particular scenario exercise.

No.	Entity & IWS	Person	H	Activity/Event	Action	File name, number, etc.
1	Common Bk Corp Lobby	Security Guard		The Main Lobby Security Guard at Common National Bank's Corporate Office creates a session with the off-site Corporate Security Office to inform them about the protesters' presence.	I: Create an incident	Session named "Protestors"
2	Common Bk Corp	Shift Supervisor		Common Bank Corporate Security Shift Supervisor	I: Accept an incident	Session named
3	Common Bk Corp	Security Guard		In response to Shift Supervisor's request, the Security	V: Bring a	
4	Common Bk Corp	Shift Supervisor		Opens video icon to view real time video feed from the	V: Open video feed	
5	Common Bk Corp Security Office	Shift Supervisor		Shift Supervisor brings Common Bank Security radio channel into the incident and asks all security guards at the Corporate Offices to converge on the Main Lobby area but not to enter the lobby or confront the protesters. All personnel to maintain a low key presence. Supervisor asks all guards to acknowledge transmission receipt.	R: Bring a radio into an incident	Common Bank radio channel SEC 1

The Entity & IWS, the Person, and the Action line items are selected from dropdown lists that appear when the particular cell is selected. The entries in this list can be changed by the user on the User_Defined_Ranges worksheet described later in this manual. The Activity/Event column and the File name, number, etc. column can contain free-form text.

The column labeled "H" is an optional Highlight column that can be used for a variety of purposes. Most commonly it can be used to highlight the activities associated with one particular participant. In the example shown above, the actions to be taken by the Security Guard are highlighted in green. Any available "fill" color in Excel can be used. The Shift Supervisor's actions could also have been highlighted in a different color. Numbers in place of or in addition to colors could also be used. As will be discussed below, the sequential event listing can be sorted by this column. Another use of this column is to highlight any changes made to the event listing after it has been released.

A number of tools are available to help the user create and edit the Scenario Event Sequences. These tools are available under the **Show Tool Menu** located at the top of the worksheet. When this button is clicked, the following menu will pop up.



Each option is described below.

Renumber Event Listing: This option renumbers the event action sequences, starting with the top most (first) event in the sequential order listed. The user can overwrite any of the line numbers as desired. This is useful if the user would like to change the listed order. For example, if the user wanted to switch item 3 and 5, they could simply change the numbers and re-sort the list as described below. Or if the user would like to move item 5 to the top of the list they could change item 5 to, say, 0.1 and then sort the list by number. After the list is re-sorted the old #5 would be at the top of the list (number 0.1). The user could then re-number the list and the routine would re-number the list with integers (1, 2, 3...).

CARE MUST BE TAKEN IN USING THIS OPTION. REFER TO THE UPDATE SEQUENCE NUMBERS OPTION DESCRIBED BELOW.

Add an Event Line: This option adds a new blank line at the bottom of the list to allow the user to add a new event and select the Entity, Person, and Action from the dropdown lists provided. After this option is selected, the user is advised to turn off Protection before attempting to add the new event details. This feature has been included to help avoid accidental changes to the entries. The use of Protection is explained in the Maintenance_Macros worksheet description provided later in this manual. After the new event is added, its order can be easily changed through the sort options described below.

Delete an Event Line: This option provides the ability for the user to delete an existing event that has been selected. To select an event for deletion the user only has to select one of the cells

in the line containing the target event. Once this option is selected, the row to be deleted will be highlighted in yellow and the user will be asked to confirm their desire to delete that row or cancel the operation.

IT IS IMPORTANT TO NOTE THAT ONCE THE EVENT LINE IS DELETED IT CANNOT BE RETRIEVED.

AutoFiltering On/Off: This option toggles (turns On or Off) the standard Excel AutoFiltering capability. When turned on, the user can filter the list by selecting some of the items shown in each dropdown list activated by clicking on the small down-arrows shown lower right hand side of each cell on the title line of the table. Although the AutoFiltering option provides the ability to sort a particular column, the sorting options described below are more effective (they provide second and third levels of sorting). Refer to standard Excel documentation for more details on the AutoFiltering function. Note that AutoFiltering is NOT required for normal use of the SED Tool and, therefore, this capability can be ignored.

Sort by xxx: Five different sorting option buttons as shown above are included in the tool. The Sort by Highlight Column will be discussed below. Clicking on any one of these options will result in the numerical (line number) or alphabetical (other columns) being sorted in ascending order. For all sort options except the Sort by Number, second and third key sorts are used. The sort keys are shown directly above the column label line. Once the scenario listing is sorted, the user can re-number the list by selecting the Re-number option described above.

Sort by Highlight Column: For the “H” or highlight column, the list will be sorted by cell color and then by the number in the cell and finally by the line number. Excel associated a color index number with each fill in color. It is these numbers that determine the sort order (by ascending number). The colors and color index numbers are shown at the bottom of the Maintenance_Macros worksheet. For convenience the top row of the color choices shown in the Excel “Fill In” Theme Colors dropdown menu (shown with the “spilling paint can” icon on the main Excel Home Tool Bar) are shown below along with their corresponding color index numbers.

2	1	19	55	47	18	48	47	42	45
---	---	----	----	----	----	----	----	----	----

Note that two of the colors have the same index number as shown above and below.

47	and	47
----	-----	----

Although the colors are different, they will sort as if they were the same color. So, avoid using one of the colors or the other. There is no restriction on which colors to use and, for most applications, the sort order is not important. If no color is specified in one of the “H” column cells, the line will appear below any colored cells in the list.

Allow Scenario Selection: The Scenario Selection list box is normally active and allows the user to change or select any of the predefined or user created scenarios listed on the Scenario_Definitions worksheet. This routine allows the user to select any scenario. However, once sequential scenario events are added, changing the scenario description could be very confusing. To avoid this potential problem, the Scenario Selection list box can be disabled from changing the scenario as shown by freezing the selection as described below.

Freeze Scenario Selection: This option disables the Scenario Select list box from changing the scenario and its description as shown on the worksheet. The Scenario Select list box is still active but has no effect on the information shown.

WARNING MESSAGE WHEN SCENARIO IS CHANGED

If the Scenario is changed while there are event sequence items present, the user will receive a warning message when they click on the Show Tool Menu. This message warns the user of the potential confusion that could occur if the scenario is changed while the individual event sequence steps were specified for a different scenario.

Update Sequence Numbers: Although the event sequence list can be sorted by any of the five columns shown on the menu, the scenario exercise only has meaning if the event action sequences are listed in the order according to time (oldest action first). The user is encouraged to use the Line Number column to sequentially list the items in “time order”. If the user re-sorts the list by any of the columns shown and then re-numbers the list, the time order of events will be lost. The Sequence Number concept has been included to recover from this mishap. A hidden column, referred to as Sequence Numbers is included next to the Line Number column. By clicking on the **Update Sequence Numbers** option, a copy of the values in the line number column is pasted into the Sequence Number column. The user can then re-number the list after sorting it but still be able to recover the original sequence of events by using the restore option described below.

Xfer Sequence Numbers: When this option is clicked, the line numbers previously stored in the Sequence Number column are pasted into the Line Number column to enable the restoring of the previously saved sequence order.

Clear Highlight Column: This option removes any numbers or colors in the “H” of Highlight column that the user may have entered. The user is given the opportunity of canceling this routine before it is executed if desired.

Clear User Data...: This option totally clears all user entered data on the worksheet. It should only be used when the user desires to create a new scenario exercise. The user is given an opportunity to cancel this function before it is activated.

IT IS IMPORTANT TO NOTE THAT ONCE THE DATA IS DELETED IT CANNOT BE RETRIEVED.

The user is, therefore, encouraged to save a copy of the SED Tool before selecting this option.

User_Defined_Ranges Worksheet

This worksheet contains the five different standard column ranges used in the SED Tool. They are:

- Actions
- Agency
- Person
- Entity
- Category

These lists include default entries. The user can Add, Delete, and Sort the lists by clicking on the various click boxes provided. The lists are protected to avoid inadvertent changes. By using the unprotect feature of the tool shown on the Maintenance_Macros worksheet, the user can make changes to any of the entries in any of the lists. The user should never delete all entries from the any list. The Delete option prevents this from occurring.

The number of event occurrences for each of the entries in the Actions, Agency, and Persons lists is shown next to each entry.

Scenario Example Worksheet

This worksheet contains a static copy of the Protestor Gathering scenario. It is included for reference. During the creation of a new scenario event exercise, the Scenario worksheet must first be cleared of all of the data used in the past scenario. The user can refer to the Scenario Example worksheet to review the actions shown to serve as a model for the new actions specified in the scenario under development.

Maintenance_Macros Worksheet

The Maintenance_Macros worksheet included in the SED Tool allows the user to select any one of six different macros (Visual Basic Routines) to help the user update or modify the Tool. The use of these macros is optional. All of the functions they perform can also be performed using standard Excel worksheet manipulation techniques. The macros have been included simply to automate the change process. Following a picture of the worksheet is a description of each of the six macros. As described in the introduction to this section, the macros are only available if the SED Tool has been saved with macros enabled and macro operation has been enabled before the SED Tool workbook has been opened.

Also included on this worksheet is a table that shows the standard colors and the Color Index Codes associated with each color. A VBA routine is also included that allows the user to view the Color Index Code of the user specified color in the test cell. As previously described, the “H” or Highlight column can optionally be filled with colors or numbers to highlight each individual participant, organization, or any other factor. The “H” column can be sorted by color if desired. The sort order will be determined by the Color Index Code associated with each color.

Visual Basic Tool Maintenance Routines
 (These routines only operate if the Tool has been saved with Macros and Macro operation has been enabled before the Tool is opened.)

All Worksheets are normally protected so no entries can be made except on the Scenarios worksheet. No Password is used (null).

Turn Worksheet Protection ON

Turn Worksheet Protection OFF

This option allows the user to change the header and footer on all worksheets as specified below to be changed simultaneously.

Update All Worksheet Headers & Footers

Header and Footer Values to Use		
Right Header	Version	Ver 1.0
Left Footer	Update Date	1/26/2012

Row 1 on each worksheet contains the version number, date, and a brief description of the worksheet that is used shown on the Index Worksheet.

Show Row 1 on Each Worksheet

Update Index Worksheet

Hide Row 1 on Each Worksheet

Turn Worksheet Protection ON: This routine uses the standard Excel capability to disallow designated cells in each worksheet from being changed by a user. All cells have this designation except for the event action sequence section of the Scenario worksheet. During normal use, Worksheet Protection should be turned on to avoid accidental cell changes that could corrupt the entire ISC Tool. There is no password associated with the protection.

Turn Worksheet Protection OFF: This routine uses the standard Excel capability to turn protection off thereby allowing users to change cell values. Use this routine carefully to enable cell changes when necessary.

Update All Worksheet Headers and Footers: This routine replaces the Right Header (version number) and the Left Footer (update date) based on the values entered in the highlighted cells on each worksheet. Other headers and footers are fixed.

Show Row 1 on Each Worksheet: Row 1 on each worksheet contains the version number (cell A1), the date (cell B1), and a brief description of the worksheet (cell C3). These values are listed

on the Index worksheet. This routine shows (“unhides”) the first row of each worksheet to aid the user in making changes if desired.

Hide Row 1 on Each Worksheet: Row 1 on each worksheet contains the version number (cell A1), the date (cell B1), and a brief description of the worksheet (cell C1). These values are listed on the Index worksheet. This routine hides the first row of each worksheet.

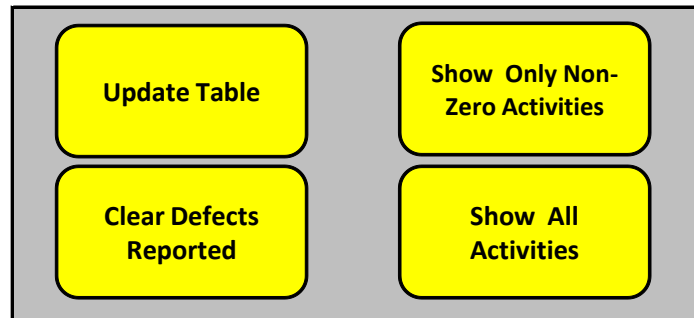
Update Index Worksheet: This routine copies the Row 1 data described above from each worksheet onto the Index worksheet.

Grading Sheet Worksheet

The SED Tool contains a grading sheet, a portion of which is shown below. The purpose of the grading sheet is to capture any failures that occur after the scenario exercise is complete. Since failures are more easily remembered and should occur far less often than successful actions they are captured by the tool. The success rate is then calculated automatically. The “To Be Performed” column counts the number of action occurrences listed on the Scenario worksheet with one action counted for each action sequence item.

Scenario Grade Sheet			
Scenario Type:	PROTESTOR GATHERING		
Category:	Private Enterprise		
Primary Entity:	Bank		
Scenario Name:	Bank Protestors		
Created Date:	5-Jan-12		
Revised Date:	10-Jan-12		
Created By:	Tom Berger		
Activity	To Be Performed	Defects Reported	Success Rate
Total: All Activities	59	0	100%
C: Create and send a chat/text message	1	0	100%
C: Receive a chat/text message	1	0	100%
F: Receive a file	2	0	100%
F: Save a file	0	0	-
F: Send a file	1	0	100%
F: View a file	2	0	100%

The four routine options as shown on the right side of the worksheet and shown below can be used to adjust the Grading Sheet table. Those functions as described below.



Update Table: This option re-populates the grading sheet with all of the currently defined actions. The user should click on this option when any changes are made to the Scenario worksheet.

Clear Defects: This option sets all of the user entered defects to zero. This action should be performed after each scenario exercise.

Show Non-zero Activities: This option hides all action rows that are not involved in the scenario exercise to simplify the grading sheet.

Show All Activities: This option shows (“unhides”) all action rows in order to list all actions as listed on the User_Defined_Ranges worksheet.

RECOMMENDATIONS ON HOW TO USE THE SED TOOL

The following a list of recommendations of how to most effectively use the SED Tool. The recommendations are provided in numbered paragraph form for reference purposes.

1. Enable Macro operation following the procedure shown on the Enable_Macros worksheet. This action must be taken before the SED Tool is open. If the Tool is already open, follow the instructions for enabling macros, then close the SED Tool and re-open it.
2. Save the SED Tool with a new filename as recommended in the next section of this manual using the standard Excel “Save As” (with macros enabled) to preserve the original file. Make all modifications to the newly named file.
3. To protect your work save the file at regular intervals.
4. Select a Scenario from the Scenario_Definitions worksheet or create a new scenario following the procedure described in this manual. If an existing scenario is used, modify it to include specific names that participants can relate to in order to make the exercise appear more realistic.
5. Move to the User_Defined_Ranges worksheet and modify the lists to include the names of the organizations and personnel that will most probably be involved. Additions or deletions can be made later as required.

6. Move to the Scenario worksheet and from the **Show Tools Menu** select **Clear User Data...** option. This routine will clear all user data that was included in the original file. Only the past user entered data and not the individual (now blank) event lines are removed.
7. Fill in the Scenario Exercise Summary area.
8. Begin to fill in the sequential event listing. At this point it is best to only fill in the descriptions with very brief explanations in order to organize your thoughts and the desired flow of events. For example, the following might be the first few events that are to be performed.
 - 1) Dispatcher receives a notification of a bomb scare
 - 2) Dispatcher creates an incident
 - 3) Dispatcher invites State Police to join the incident
 - 4) State Police accepts the incident
 - 5) State Police contacts the Dispatcher by Intercom
 - 6) Dispatcher updates State Police...
9. Continue this process for the entire scenario exercise and from time-to-time number the list using the **Renumber Event Listing** option in the Show Tool Menu. As you proceed in identifying the event you will find that you have missed some events in the sequence. For example, assume you would like to add an event just after the previously defined event number 5. Simply enter the new event somewhere in the listing and number it 5.1. Then the **Sort by Number** option on in the Show Tool Menu. Next, re-number the list using the re-number tool.
10. When the entire scenario exercise is roughed out, go back to the first event item and fill in the description properly and select the other column fields. As you perform this process, you may find it necessary to add different entities, persons, or actions as presented in the dropdown lists. Add these labels on the User_Defined_Ranges worksheet.
11. From time-to-time update the Sequence Number column using the **Update Sequence Numbers** option of the Show Tool Menu.
12. When the scenario exercise listing is complete, move to the User_Defined_Ranges worksheet and observe the number of actions, entities, and people involved in the exercise. If some items are missing that you feel are important to include in the exercise, move back to the Scenario worksheet and add the event actions as appropriate, inserting them into the sequence as described above.
13. Spell check the Scenario worksheet and save the results.
14. As a final check walk through the scenario exercise thinking through each required participant action making sure you have not assumed they will be performing actions not

specified. As an example, before a user can invite someone to participate in an incident, someone must have created the incident.

15. As an optional activity, the user can assign colors to individual users in the “H” or Highlight column so that participants can easily identify the event tasks they will be asked to perform. Although the user can manually go through all event sequence items and color or number each one corresponding to the each participant, there is a more efficient method that can be used as described below:
 - a. From the Show Tool Menu, click on the Clear Highlight Column option to remove any previous color or numbers.
 - b. From the Show Tool Menu, sort the sequence list by Person.
 - c. In the “H” column, select all of the event sequence lines for a particular person. Select a color from the Excel Tool Bar “fill” menu for that person.
 - d. If desired, number each of the “H” column sequence lines for that person starting with 1, 2, etc.
 - e. Repeat this process for each person.
 - f. When complete, re-sort the list by Row Number to re-establish the time sequence of events.
16. When you are satisfied with the scenario event listing, move to the Grading Sheet worksheet. Click on the **Click Defects Reported** and **Update Table** options so the worksheet is ready for the grading when the exercise is performed.
17. Move the Maintenance_Macros worksheet and change the worksheet headers and footers as desired.
18. Save the file and set up a review meeting with a colleague to walk through the scenario exercise as a final check before releasing it.
19. Decide on the most appropriate method to distribute the exercise. Some options are:
 - a. Distribute the entire SED Tool itself.
 - b. Print the Scenario Worksheet using the pre-set printing parameters and distribute hard copies.
 - c. Print the Scenario Worksheet to a PDF File (if the host computer and copy of Excel are equipped to do so) and email or print the resulting file.
 - d. Copy the Scenario Worksheet to new Workbook using the standard “Move or Copy Sheet” command.
20. Optionally, forward a copy of the SED Tool with the new scenario exercise for inclusion in the Mutualink Scenario Library to the Mutualink Marketing Manager at info@mutualink.net.



🎯 Suggested File Naming Convention

Providing consistency will be especially important for users who use the Mutualink Scenario Exercise Library, it is recommended that the standard file naming convention shown below be used.

Standard Format (with fields demarked with the underscore “_” character)

SED_Version_Creator Organization_Scenario_Original or Revised Scenario Date (YYYY_MM_DD)

Example for the Protestor Scenario

SED_V1_Mutualink_Protestor_2012_01_26