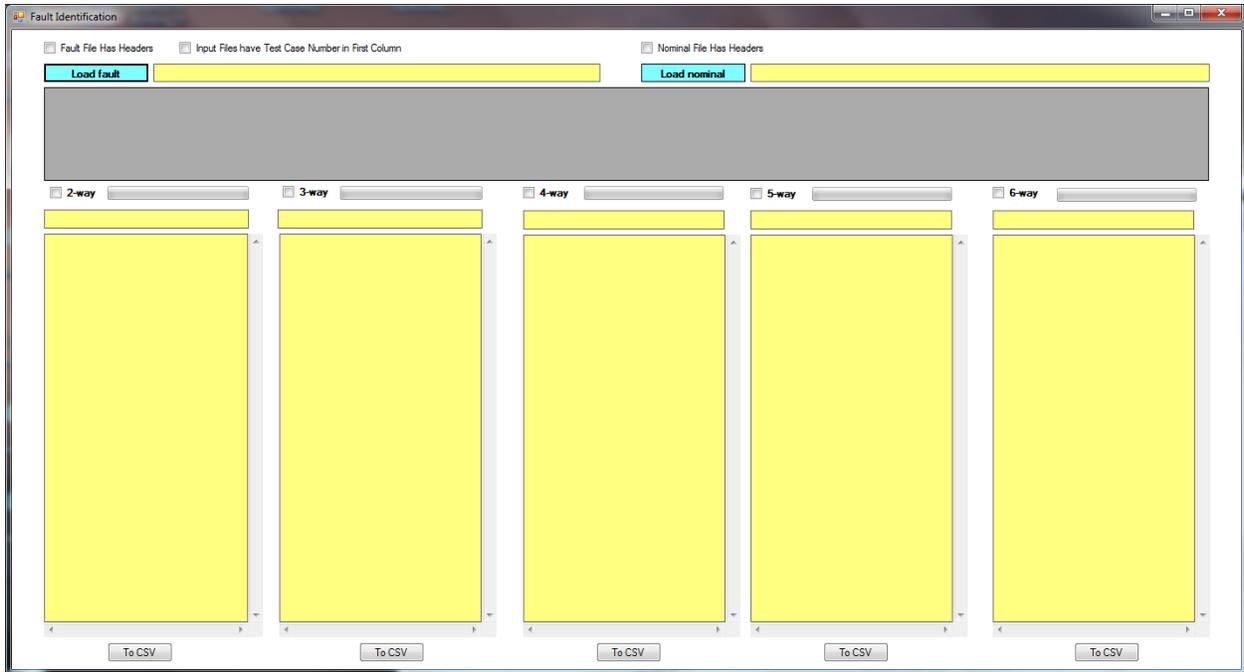
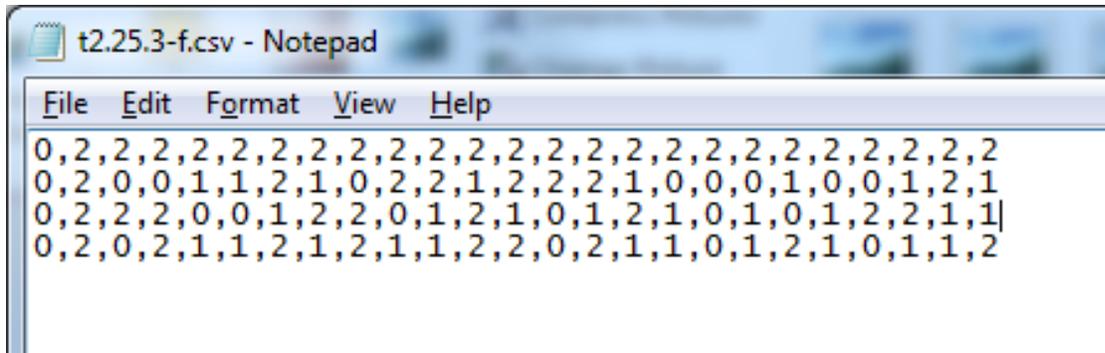


The fault identification program will locate the combinations that are unique to the fault file when compared to the combinations that are present in the nominal file.

After starting the exe file, the program is displayed.



The fault file should be a comma separated variable (CSV) file that contains the test cases that did not pass. An example is shown below. Note that each test must be on its own line.



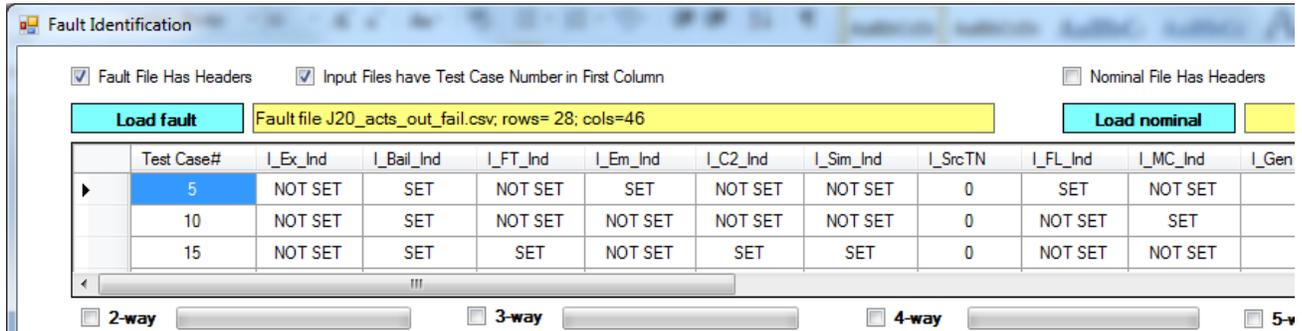
If the fault file contains headers in the first row (as shown below), then check “Fault File has Headers” box before the “Load Fault” button is pressed. The first row of data will be ignored when checking for unique failing combinations.

```
Test_Case,I_Ex_Ind,I_Bail_Ind,I_FT_Ind,I_Em_Ind,I_C2_Ind,I_5,I_10,I_15,I_25,I_26,I_29,I_31,I_35,I_38,I_39,I_40,I_42,I_44,I_46,I_47,I_49,I_51,I_52,I_54,I_56,I_57,I_59,I_62,I_63,I_67,I_69,NOT SET,SET,NOT SET,SET,NOT SET,NOT SET,0,SET,NOT SET,12,10,NOT SET,SET,NOT SET,NOT SET,NOT SET,NOT SET,0,NOT SET,SE15,NOT SET,SET,SET,NOT SET,SET,SET,0,NOT SET,NOT SET,13,20425,NOT SET,SET,NOT SET,NOT SET,NOT SET,SET,0,NOT SET,SET,1226,NOT SET,NOT SET,NOT SET,SET,NOT SET,SET,0,SET,SET,12,20429,NOT SET,NOT SET,NOT SET,SET,NOT SET,NOT SET,77777,NOT SE31,NOT SET,NOT SET,NOT SET,NOT SET,NOT SET,SET,77777,SET,NO35,NOT SET,SET,NOT SET,SET,SET,NOT SET,0,SET,NOT SET,12,20438,NOT SET,NOT SET,NOT SET,NOT SET,NOT SET,NOT SET,77777,NO39,NOT SET,NOT SET,SET,NOT SET,NOT SET,SET,0,SET,NOT SET,1240,NOT SET,NOT SET,NOT SET,SET,SET,NOT SET,77777,SET,NOT SE42,NOT SET,NOT SET,SET,SET,SET,NOT SET,77777,SET,SET,13,81944,NOT SET,NOT SET,NOT SET,NOT SET,NOT SET,NOT SET,0,NOT SE46,NOT SET,SET,SET,SET,NOT SET,SET,77777,SET,NOT SET,12,20447,NOT SET,SET,SET,NOT SET,SET,SET,77777,NOT SET,NOT SET,1349,NOT SET,NOT SET,SET,SET,NOT SET,NOT SET,77777,SET,SET,1251,NOT SET,SET,NOT SET,SET,SET,NOT SET,77777,SET,SET,12,81952,NOT SET,NOT SET,SET,NOT SET,SET,SET,0,SET,SET,13,204775,54,NOT SET,SET,NOT SET,SET,SET,NOT SET,NOT SET,77777,SET,NOT SE56,NOT SET,SET,SET,SET,NOT SET,NOT SET,0,SET,NOT SET,13,20457,NOT SET,SET,SET,NOT SET,SET,SET,77777,SET,SET,13,204750,59,NOT SET,NOT SET,SET,NOT SET,SET,NOT SET,77777,NOT SET,NO62,NOT SET,SET,SET,NOT SET,SET,SET,77777,NOT SET,SET,12,20463,NOT SET,NOT SET,NOT SET,NOT SET,SET,NOT SET,77777,SET,NO67,NOT SET,SET,NOT SET,SET,NOT SET,SET,0,SET,NOT SET,13,20469,NOT SET,SET,SET,NOT SET,NOT SET,SET,0,NOT SET,NOT SET,13
```

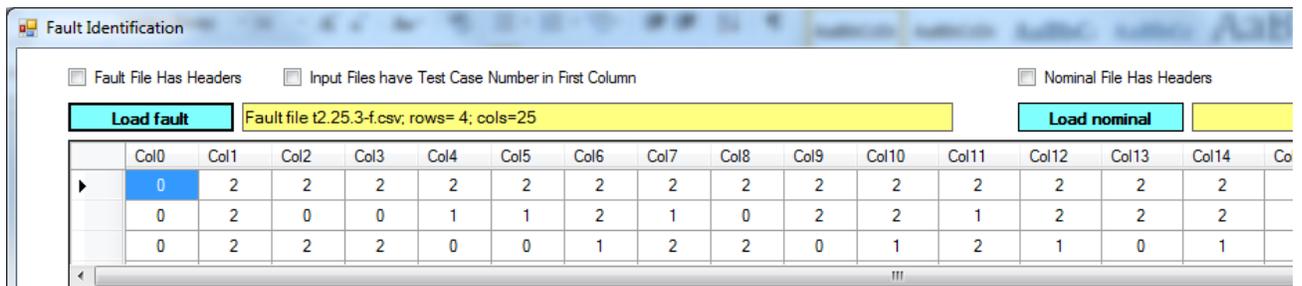
If the fault file and the nominal file contain test case numbers in the first column of the data (as shown above), then check the “Input files have test case number in the first column” box. The first column of data will be ignored when checking for unique failing combinations.

The fault file must be loaded before the nominal file.

When a valid fault file is loaded, the fault file data is presented in a data grid view. The data grid view information cannot be changed from within the program.



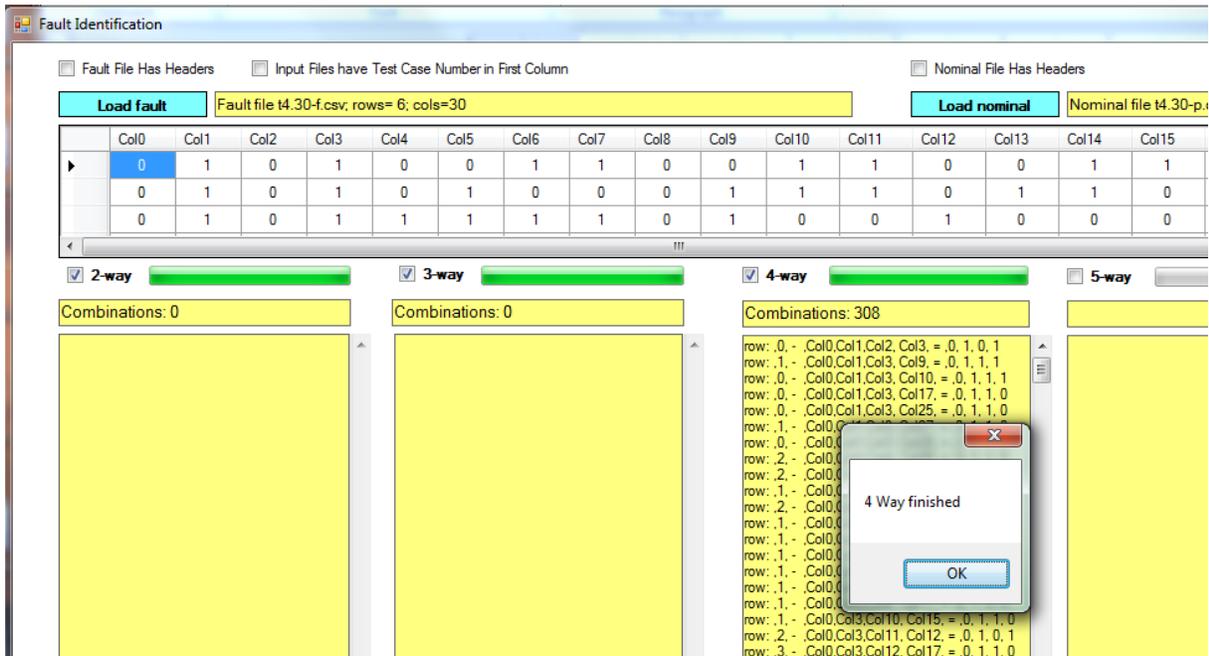
If the fault data file does not include a header row, a generic header row will be added to the data grid view, but it will not be added to the test data file.



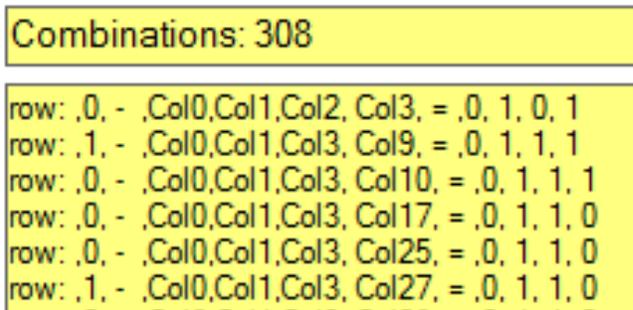
The nominal file is a CSV file that contains the test cases that passed. The nominal file must have the same number of columns as the fault file. Each test case must be on its own line.

If the nominal file has headers in the first column, then check the "Nominal file has headers" box. The first row of data will be ignored when checking for unique failing combinations.

After both files are loaded, the user can have the program identify unique failing 2way, 3way, 4way, 5way, and 6way combinations. Users check the appropriate N-way checkbox to begin the process. Progress can be monitored via the corresponding progress bar and the program will alert the user when the process is finished with a pop-up message box. It is recommended that users check for failing combinations one at a time vice all at once.



The results are shown with the fault file row, the test case (if the “input file has test case numbers” box is checked), the fault file column header, and the fault file data.



Results without headers and test cases.

Combinations: 788

row: ,2, TC: ,10, - ,I_Bail_Ind,I_Em_Ind,C1_Depth = ,SET, NOT SET, 127
row: ,3, TC: ,15, - ,I_Bail_Ind,I_Sim_Ind,I_Env-Cat = ,SET, SET, 1
row: ,2, TC: ,10, - ,I_Bail_Ind,I_SrcTN, C1_Elev = ,SET, 0, 51551
row: ,4, TC: ,25, - ,I_Bail_Ind,I_FL_Ind, C2_Voicef = ,SET, NOT SET, 7001
row: ,6, TC: ,29, - ,I_Bail_Ind,I_MC_Ind, I_Env-Cat = ,NOT SET, NOT SET, 3
row: ,7, TC: ,31, - ,I_Bail_Ind,I_MC_Ind,C2_Voice
row: ,8, TC: ,35, - ,I_Bail_Ind,I_Alt,I_Env-Cat, = ,
row: ,22, TC: ,59, - ,I_Bail_Ind,I_Alt,I_Env-Cat, = ,
row: ,5, TC: ,26, - ,I_Bail_Ind,I_Alt,EO_Crs, = ,N
row: ,1, TC: ,5, - ,I_Bail_Ind,I_Alt,C1_Depth, = ,S
row: ,4, TC: ,25, - ,I_Bail_Ind,I_Alt,C1_Depth_Ca
row: ,1, TC: ,5, - ,I_Bail_Ind,I_Site,EO_Crs, = ,S

Results with headers and test cases.

After the results are displayed, the results can be saved to a CSV file by clicking the appropriate “To CSV” button under the results text box. Name the file with the “.csv” extension because if no extension is provided, the file will be saved without a default extension.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	row:	2 TC:	10 -	I_Bail_Ind	I_Em_Ind	C1_Depth	=	SET	NOT SET	127			
2	row:	3 TC:	15 -	I_Bail_Ind	I_Sim_Ind	I_Env-Cat	=	SET	SET	1			
3	row:	2 TC:	10 -	I_Bail_Ind	I_SrcTN	C1_Elev	=	SET	0	51551			
4	row:	4 TC:	25 -	I_Bail_Ind	I_FL_Ind	C2_Voicef	=	SET	NOT SET	7001			
5	row:	6 TC:	29 -	I_Bail_Ind	I_MC_Ind	I_Env-Cat	=	NOT SET	NOT SET	3			

Users can load another fault file and another nominal file to start the process over again, however, it is recommended that the program be closed and re-opened if additional files need to be checked.

Please submit bug reports to Tim McLean, Marine Corps Tactical Systems Support Activity (MCTSSA), timothy.d.mclean@usmc.mil 760-725-2693.