

## Programming Using Task, Object, Event (TOE) Charts:

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Many people like to use TOE charts while programming in Visual BASIC. We can use this excellent system for Liberty BASIC programming as well. In this article I will explain what a TOE chart is, how to create one, and why it is useful.

TOE charts are called Task, Object, and Event charts. A TOE chart is simply an aid to help you plan and design a new program.

One of the many benefits of using a TOE chart is that it allows you to decide ahead of time on what you want to name each of your controls and what each control must do in your program.

Here is an example of what a TOE chart might look like for a data entry screen:

Task	Object	Event
<u>Get User Information</u>		
Customer Last Name	txtBoxLastName	
Customer First Name	txtBoxFirstName	
Customer Address	txtBoxAddress	
Customer Phone	txtBoxPhone	
Save User To Database File	btnSave	Click
End the program	btnExit	Click

The first column in a TOE chart is the “**Task**” column. This is the area where you will list all the tasks that you wish your program to do such as “get the customer phone”, and “end the program”.

The second column in a TOE chart is the “**Object**” column. This column will contain a list of objects or controls such as textboxes, labels, listboxes, etc. that will be needed to do each task in your program.

The third column in a TOE chart is the “**Event**” column. This column will contain a list of the events associated with the listed objects. (i.e. A button control like “btnExit” will require a click event in order to end the program.) It is important to note that not all controls or objects in a user interface will need an event to occur for them to do their tasks.

When you are creating a very large program you might want to consider arranging the TOE chart by

object. List each object only once, then list the task and event for each object.

This is only one of many documents that can help when you are planning and creating a new program. There are many others. I like to use TOE charts along with flowcharts to help me create new programs. They are great time savers for me.