



**SHOTPlus™**

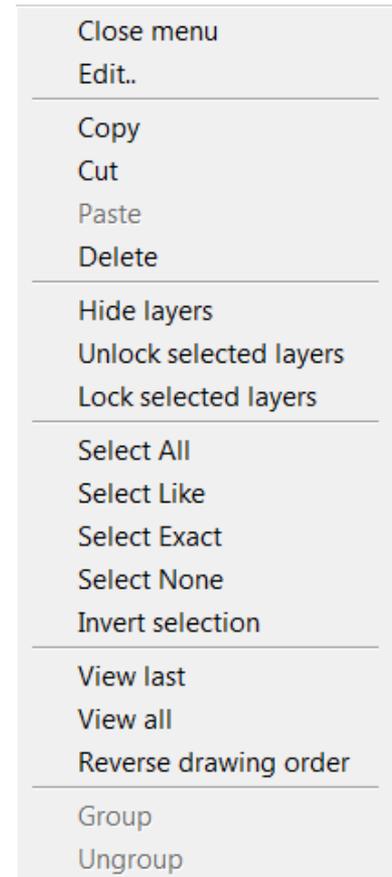
SHOTPlus Standard  
Drawing Tools

March 2017



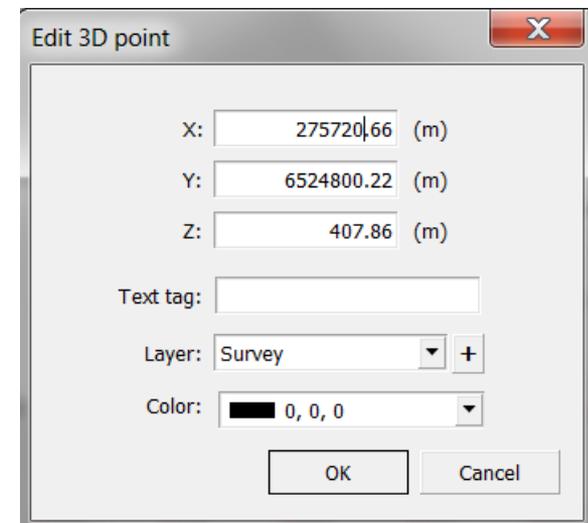
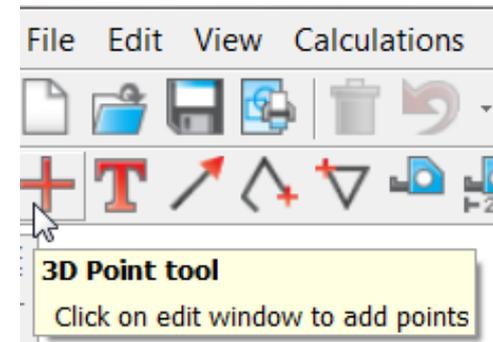
# RIGHT MOUSE BUTTON MENU

1. Tool/Screen object operations
2. Copy/Cut/Paste screen objects
3. Layer operations
  - › Relates to the layers of the objects currently selected
4. Select options
  - › Like
  - › Exact
5. Screen objects view options
  - › Reverse drawing order to view objects obscured under others



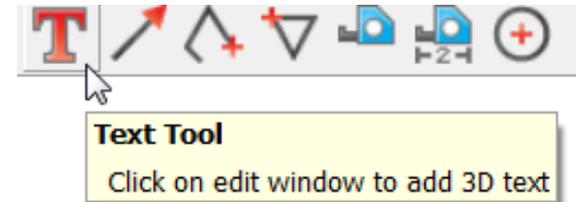
# 3D POINT TOOL

1. 3D point tool
  - › Creates a point in 3 dimensional space
2. Double click on the point to edit it
3. Change the layer the point belongs to

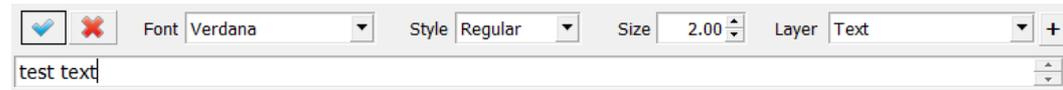


# TEXT TOOL

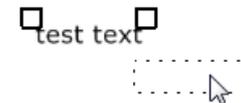
1. Create a 3D text label on the screen
  - › Adjust the font, style and size



2. Click on the text to select
  - › Drag the text with your mouse to move when the layer is unlocked

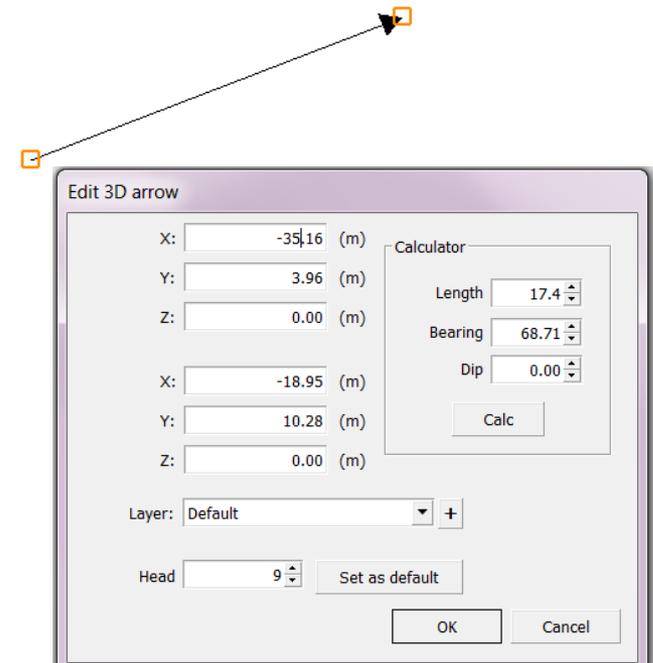
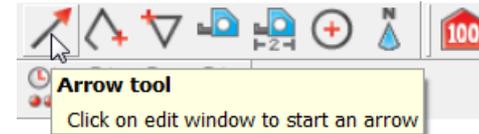


3. Double click on the text to edit the properties



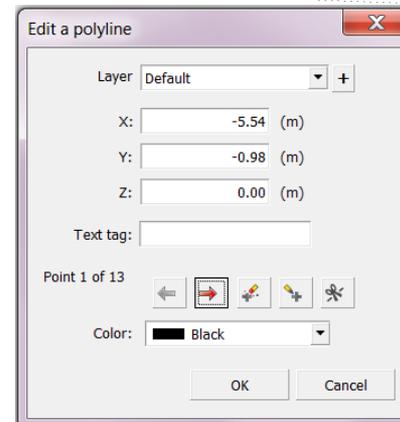
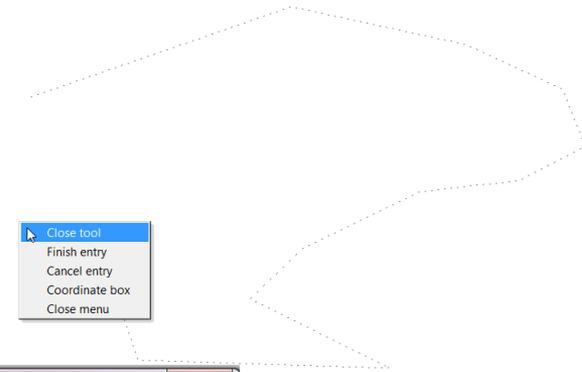
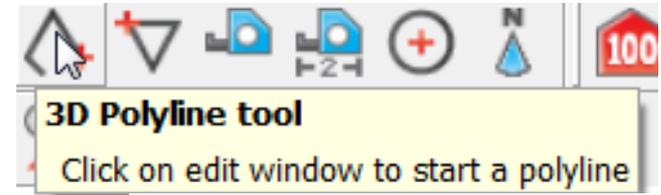
# ARROW TOOL

1. Draw an arrow object in 2 dimensions
2. To move one end of the arrow click on a grip and drag it to the new position when the layer is unlocked
3. To move the entire arrow object click on the middle of it and drag to the new position when the layer is unlocked
4. To change the size of the arrow head edit the arrow object and increase or decrease the size of the head



# 3D POLYLINE TOOL

1. Draw a multi segment polyline on the screen
2. Each mouse click will create a new segment
  - › Use Close tool to finish drawing and close the tool
  - › Use Finish Entry to finish drawing with an option to start another line
3. Double click to edit the polyline object
4. Use the Arrow buttons to navigate between nodes
5. Use the Cut button to split the line into 2
6. Move polyline around as a whole or by segment by clicking and dragging when layer unlocked

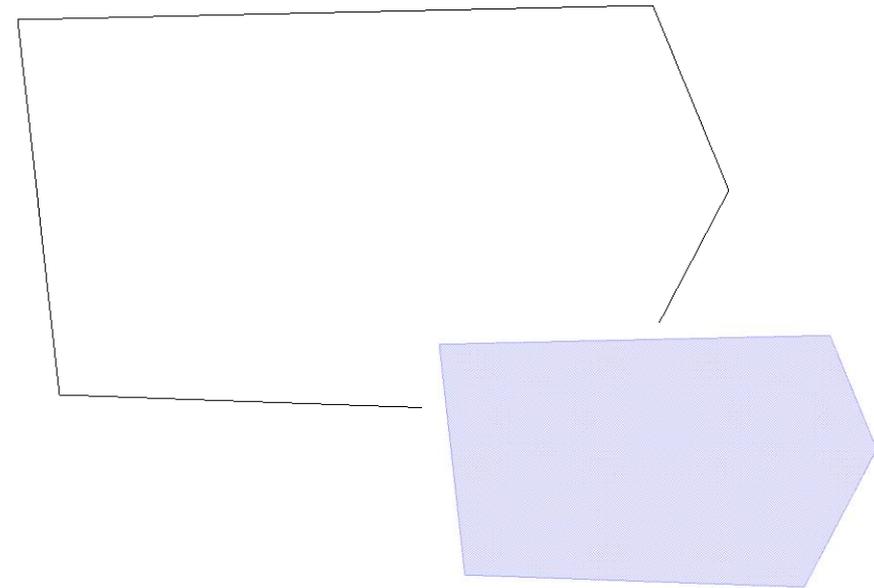
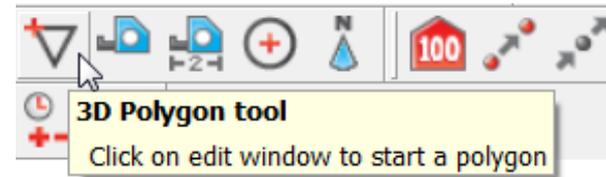


# 3D POLYGON TOOL

## The screen object

### 1. Behaves just like a Polyline

- › Is a closed object
- › Each vertex has 3 dimensions
- › Polygons can be shaded/filled



# TOOLS/GENERAL FUNCTIONS

## 1. Expand a polygon

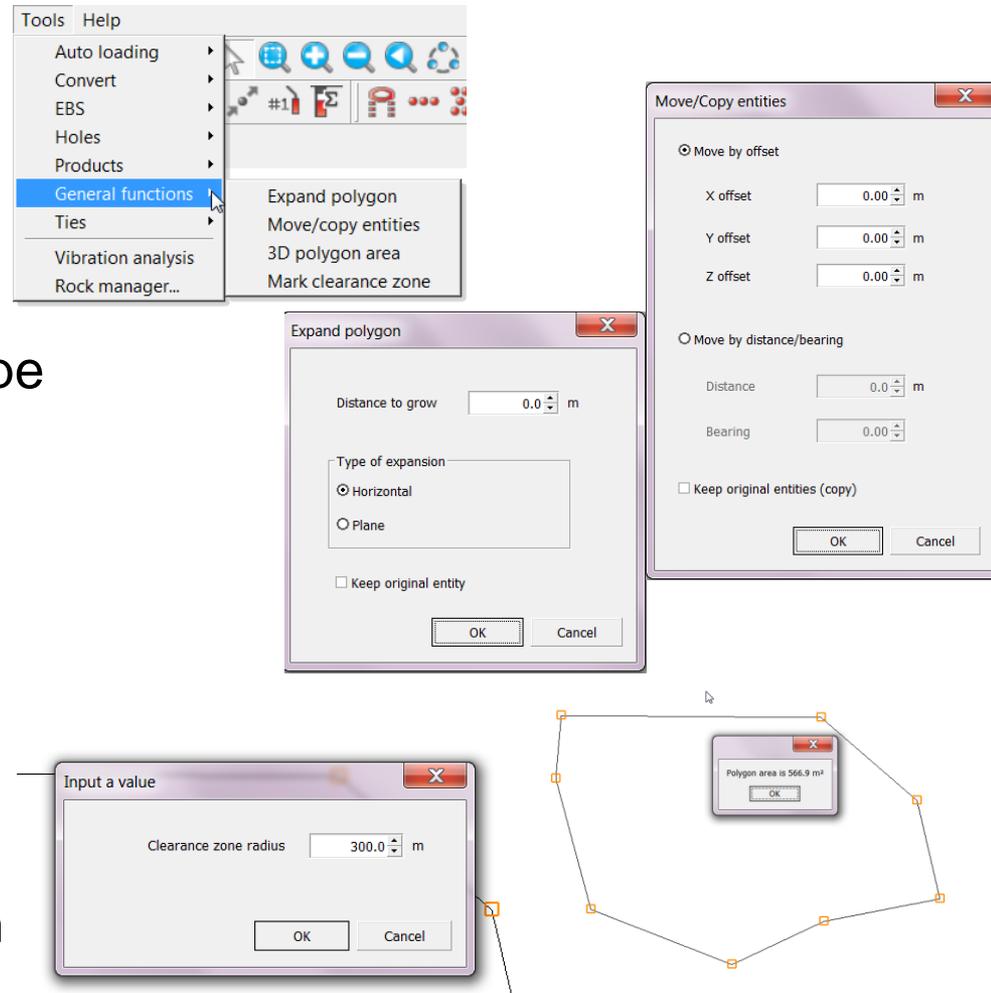
- › Horizontal expansion – vertices Z values are preserved
- › Plane expansion – vertices are extended along the slope of the edge

## 2. Move/Copy an object

- › Move by a specific offset (XYZ)
- › Move by a distance and bearing
- › Option to keep the original object as it were

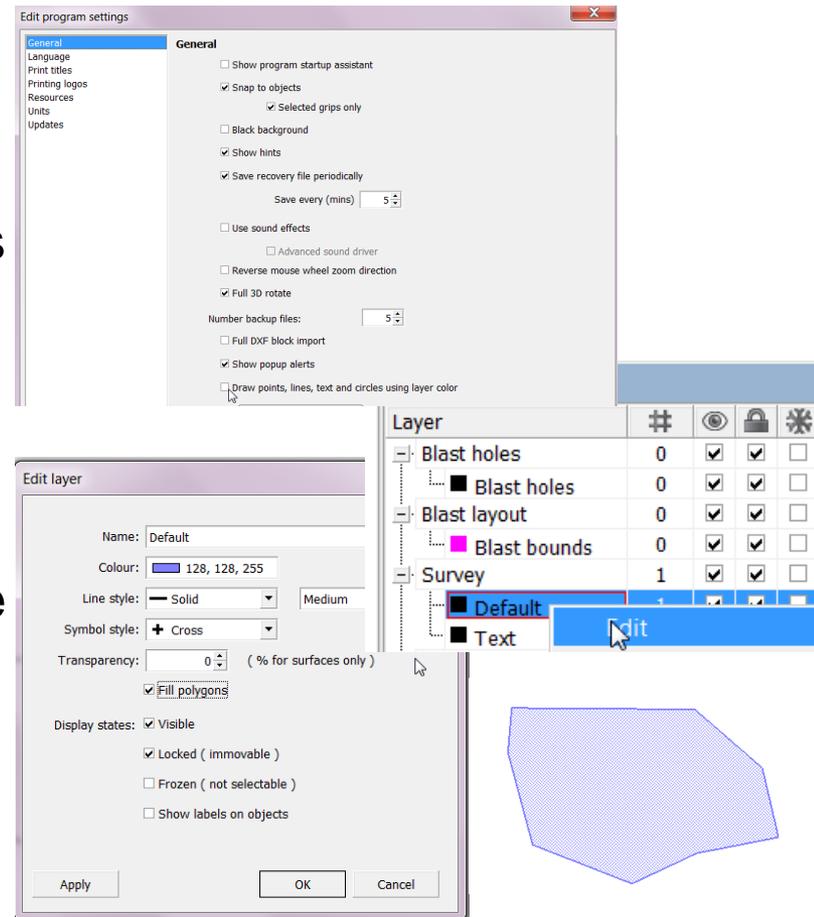
## 3. Display the area of the polygon

## 4. Add a clearance zone



# 3D POLYGON – SURFACE SHADING

1. Edit the layer the polygon belongs to (generally the default layer). Make sure that in the blast settings menu that it's selected to draw shapes etc according to the layer colour to apply any changes to the actual layer (otherwise this will need to be done in the layer itself as well).
2. Change the colour of the polygon border and the fill (if set)
3. Change the style and thickness of the polygon outline line
4. Fill the polygon with a solid colour shading
  - › Overlapping filled polygons may appear to cancel each other out

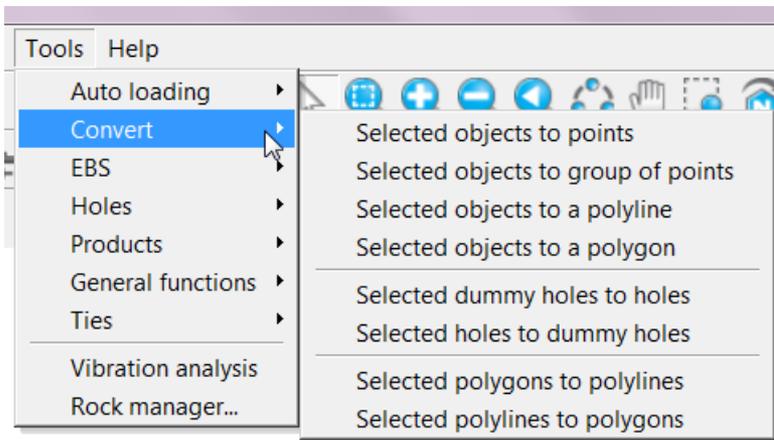


# CONVERT FUNCTIONS

## Tools / Convert

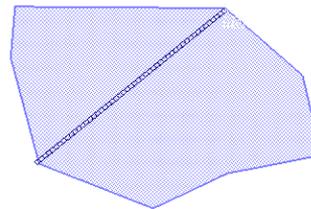
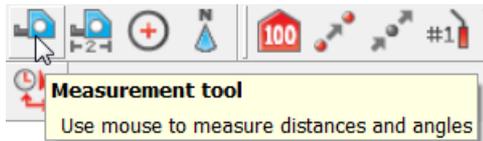
### 1. Screen object convert functions

- › Select an object/objects on the screen
- › Select the convert function you wish to apply
  
- › Group of points - points that cannot be selected separately (point cloud object)



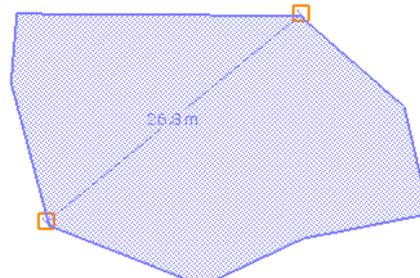
1. Measurement tool allows the user to measure distance between 2 points

- › The 2 points can be on the same plane, or
- › The 2 points can have different X,Y,Z coordinates. **To achieve this use the Snap on option (Edit / Program Settings / General)**



Distance	26.7 m
Bearing	50.60 deg, Dip 0.00 deg
Delta	(20.65, 16.96, 0.00)m

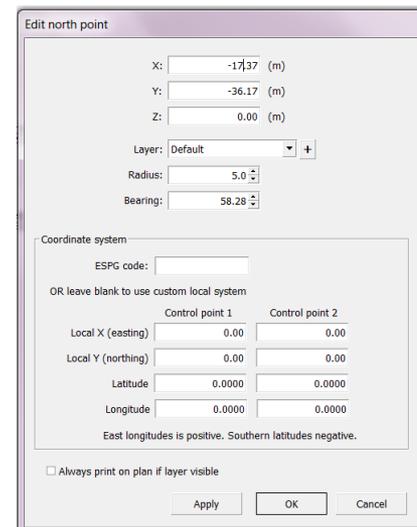
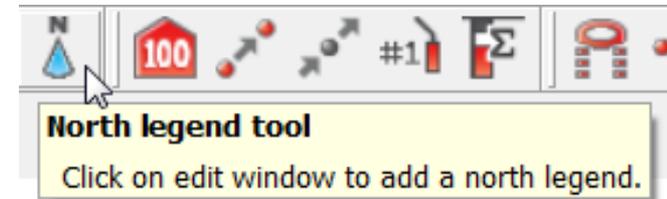
2. Dimension tool leaves a annotated line to mark the distance measured



Distance	26.7 m
Bearing	50.60 deg, Dip 0.00 deg
Delta	(20.65, 16.96, 0.00)m

# NORTH LEGEND TOOL

1. North legend tool places a North pointer object on the screen
2. To rotate the North pointer Mouse click on the arrow vertex and move the mouse in the desired direction when layer unlocked
3. To move the North pointer mouse click on the arrow outline and drag to the desired location when layer unlocked
4. To change the size of the North pointer double click on the object to edit and change the Radius value



Edit north point

X:  (m)  
Y:  (m)  
Z:  (m)

Layer:  +

Radius:   
Bearing:

Coordinate system

ESPG code:

OR leave blank to use custom local system

	Control point 1	Control point 2
Local X (easting)	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
Local Y (northing)	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
Latitude	<input type="text" value="0.0000"/>	<input type="text" value="0.0000"/>
Longitude	<input type="text" value="0.0000"/>	<input type="text" value="0.0000"/>

East longitudes is positive. Southern latitudes negative.

Always print on plan if layer visible

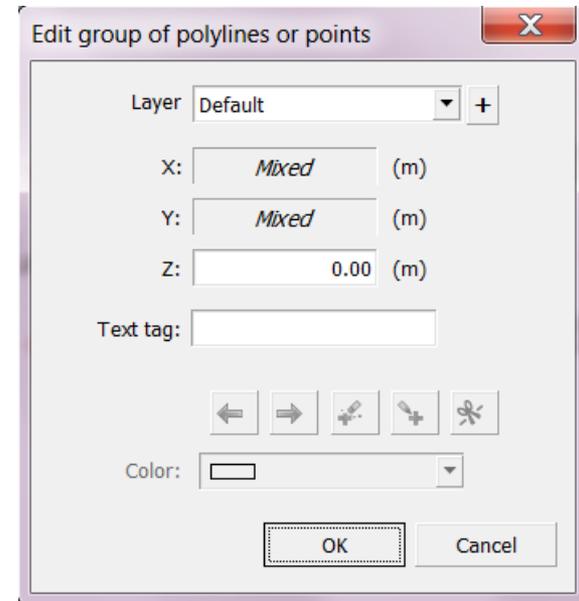
Apply OK Cancel

# MULTI-EDIT FUNCTION

1. When editing multiple items of the same type the coordinates will appear as Mixed

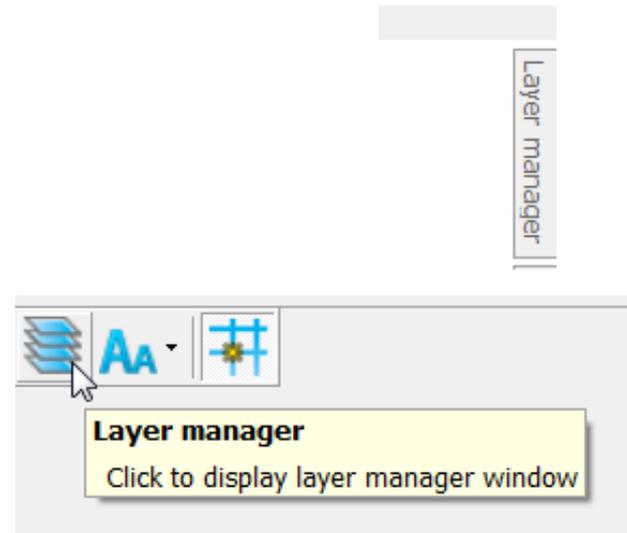
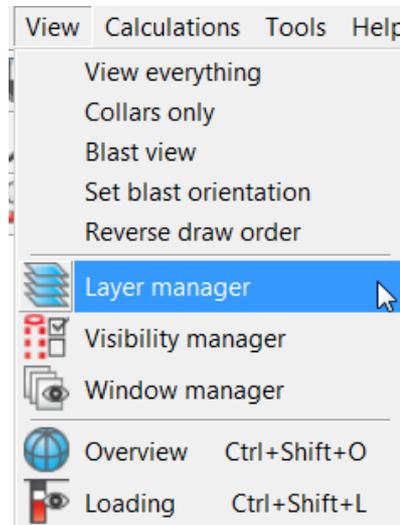
- › Changing the coordinates from Mixed to a number will affect all the items being edited

2. When editing multiple items of various types appropriate Edit dialogs will appear after you close the current one.



# LAYER MANAGER - ACCESS

1. Layer control appears as a quick panel on the left of the edit screen
  - › Click on the Layer manager tab to make it visible
2. Layer manager panel can be launched View / Layer manager menu, or
3. From the toolbar



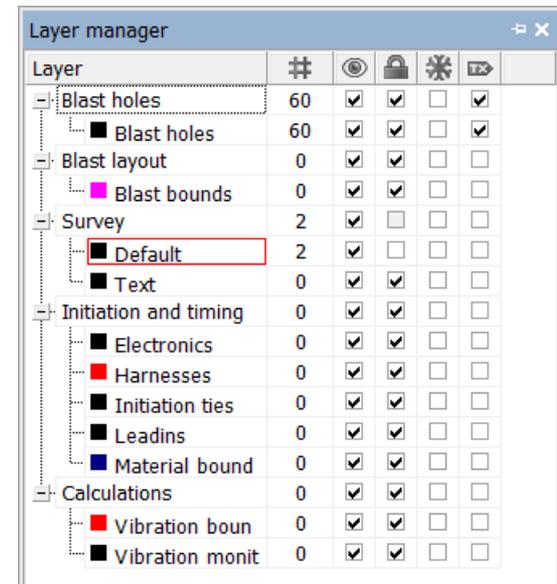
# LAYER MANAGER

1. Layers are grouped by a common group name

- › “+” and “-” controls open and collapse the layers belonging to the group

2. The columns are as follows

- › Layer name
- › Number of items on the layer
- › Layer visibility (**or double click on the name**)
- › Locked (items cannot be edited/moved)
- › Frozen (items cannot be selected)
- › Show text labels associated with the objects



Layer	#				
- Blast holes	60	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
■ Blast holes	60	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
- Blast layout	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
■ Blast bounds	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Survey	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
■ Default	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
■ Text	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Initiation and timing	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
■ Electronics	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
■ Harnesses	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
■ Initiation ties	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
■ Leadins	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
■ Material bound	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Calculations	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
■ Vibration boun	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
■ Vibration monit	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# ALTERNATE INTERFACE – RIGHT MOUSE CLICK



1. Layer management options
  - › Edit/Delete/New (groups and layers)
2. Layer selection options
  - › Isolate this layer/group – select this one only
  - › Make default – all new objects will be placed automatically on this layer (except special objects that have predefined layers set for them)
3. Layer objects alternate interface management
4. Layer objects selection/de-selection/deletion option
5. Layer groups
  - › Expand or collapse all layer groups

