



Exploration Archives 4.5

Bin Grid

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1.0 Bin Grids

New in this version:

- » The inline/xline fields are now displaying to two decimal places of precision on the 'Calculate x/y or inline/xline' tool.

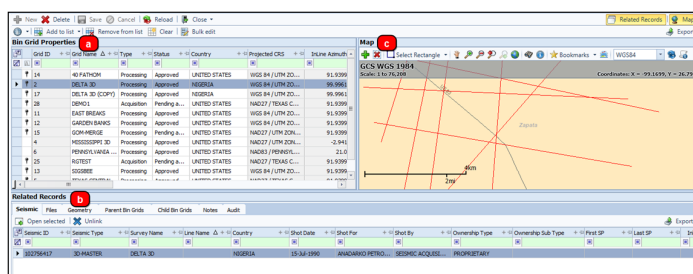
Create, edit and manage bin grids using the **Bin Grid** module.

The **Bin Grid** module is your interface for defining bin grids for acquisition or processing projects. The bin grids you create become available for linking to your seismic and associated SEG-Y files. You can also use the bin grid as a load sheet for loading data to a workstation.

To open items in the **Bin Grid** module:

1. Click **search** next to **Bin Grid** in the Navigation panel.
2. Select either **Bin Grid Search** or **Basic Bin Grid Search** from the menu.
3. Enter your filter values in the search window then click **Search**.

The results open in the **Bin Grid** module. The Work Area is divided into 3 Panels



- a. **Bin Grid Properties:** displays details about the Bin Grid
- b. **Related Records:** To view additional details for a Bin Grid, click on a row in the **Bin Grid Properties** and the associated details displaying the tabs.
- c. **Map:** To display the geographical location of a bin grid, click the Pin Icon at the head of an item from the **Bin Grid Properties** grid.

The map will zoom to the bin grid location.

To display the properties of a bin grid that is on the map, use a selection tool and add the bin grid to the **Bin Grid Properties** grid.

**Tip:**

When creating a new bin grid, the map is an effective tool for checking that positioning information is accurate and that the bin grid is located correctly.

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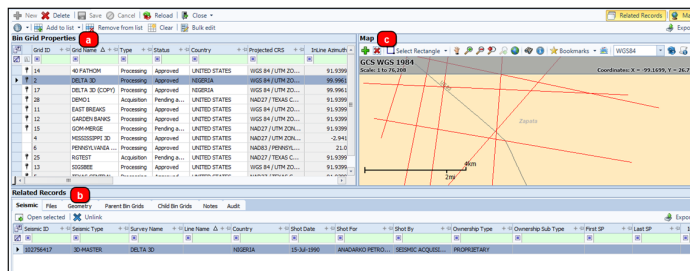
New in this version:

- » Added an Audit tab to the Bin Grid Related Records.
- » Added a new security tag for Bin Grid creation instead of having the Bin Grid edit security tag work for both create and edit.

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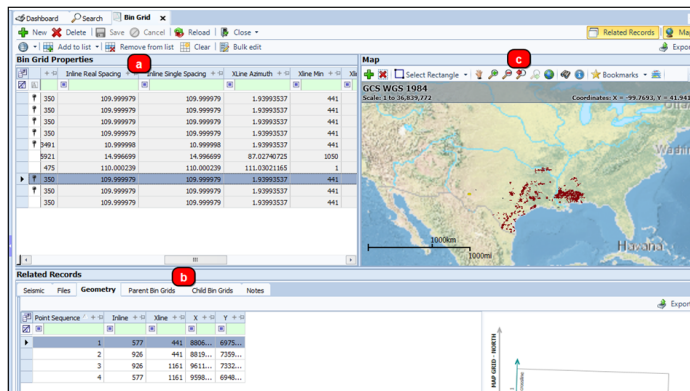
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2.0 Create a new bin grid

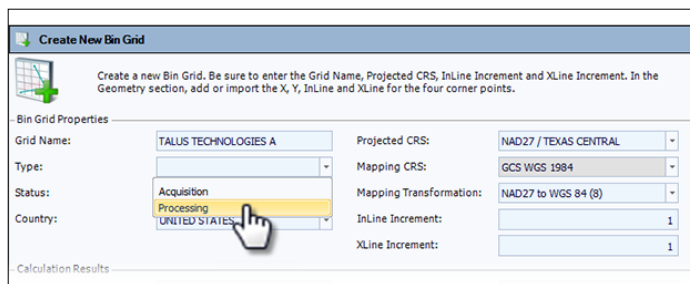
To create a new bin grid, click **New** in the workspace toolbar. The **Create New Bin Grid** window opens and displays three sections:

- » The **Bin Grid Properties** provides fields for specifying the bin grid and navigation properties.
- » The **Calculation Results** section populates the calculations according to your geometry related entries.
- » The **Geometry** section is for you to manually enter or import the geometry points.

To define your bin grid:

6. In the **Bin Grid Properties** section, enter a **Grid Name**.

Select the **Type**, **Status** and **Country**.



7. Select the **Projected CRS** and the **Mapping Transformation**.

**Note:**

The **Mapping CRS** is defined by the map format and cannot be changed.

8. Enter values for your inline and crossline increments.

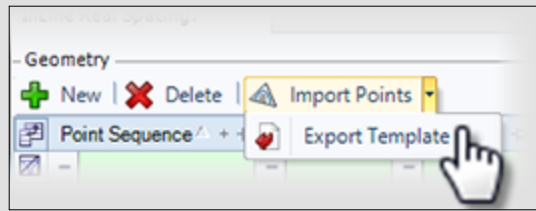
9. In the **Geometry** section, you can manually enter each point or import the points from Excel®.

- » To manually enter points, click **New** in the **Geometry** section and enter each value.

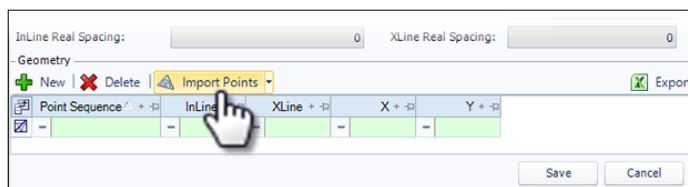


Tip:

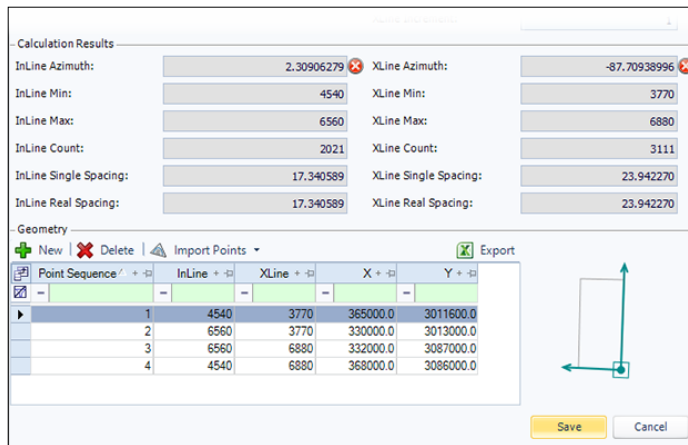
To reduce the chance of introducing errors when entering points manually, it may make more sense to enter the data into an Excel template with the correct format for importing points. Click the down arrow next to **Import Points** and select **Export Template**.



10. To import points from an Excel® file, click **Import Points** and navigate to the location of your Excel file.



11. Select the file to import and click **Open**. The points import to the **Geometry** grid and a preview drawing of your bin grid displays.



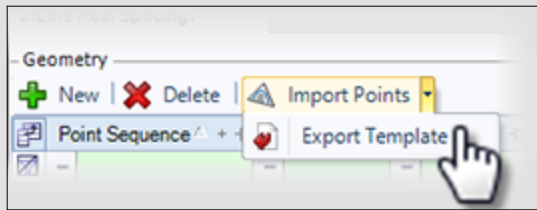
The **Calculation Results** section automatically updates and verifies the azimuth. A red x indicates that the azimuth calculation is beyond the allowable error threshold as set by your administrator.

You will not be able to save the bin grid unless you have security permission that allows you to ignore azimuth errors. To correct the error, edit the values in the grid or see your Geodesist.

12. If permissible, click **Save**.

**Tip:**

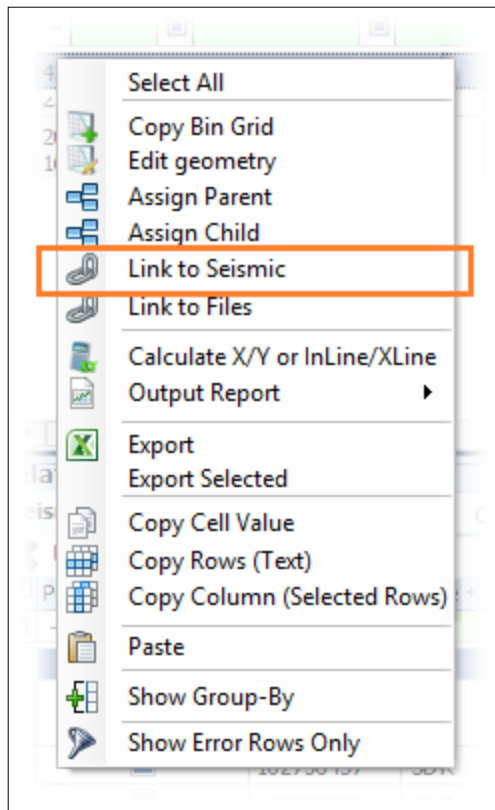
To reduce the chance of introducing errors when entering points manually, it may make more sense to enter the data into an Excel template with the correct format for importing points. Click the down arrow next to **Import Points** and select **Export Template**.



3.0 Link a bin grid to seismic

To link a bin grid to seismic:

1. From the **Bin Grid Properties** grid Click to select the bin grid.
2. Right-click and select **Link to Seismic**.



3. Select the option to either add links and keep existing or to add links and replace existing.
4. The seismic displayed in the grid is available for linking to the bin grid. To add seismic to the grid, click the down arrow next to **Add Seismic** and select a search.
5. Enter the search criteria and click **Search**. The results display in the grid in the **Link to Seismic** window.
6. In the **Link** column of the grid, select the seismic to link.

Link to Seismic

☒ Add links and keep existing
☐ Add links and replace existing

☒ Add Seismic ☒ Remove Seismic ☐ Select All ☒ Unselect All

Link	Seismic ID	Line Name	Survey Na	Seismic Type
☒	102756396	BULLSEYE 3D	BULLSEYE 3D - ...	3D-MASTER
☒	102756397	CARRINGTO...	CARRINGTON 3D	3D-MASTER
☒	102756438	CIMARRON 3D	CIMARRON 3D	3D-MASTER
☐	102422252	CO218_16	COLORADO	3D-CHILD
☒	102756437	CORNHUSKE...	CORNHUSKER 3D	3D-MASTER
☒	102756398	CRACKER CR...	CRACKER CREE...	3D-MASTER
☐	102756444	DIVIDE 3D	DIVIDE 3D	3D-MASTER
☒	102756431	EEL RIVER 3D	EEL RIVER 3D	3D-MASTER
☐	260000003	GOM-DESOT...	GOM-DESOTO...	3D-MASTER

Save Cancel

- Click **Save**.

The seismic links to the bin grid and displays in the **Seismic** tab of the **Related Records**.

Dashboard Search Bin Grid

☒ Add to list ☒ Remove from list ☐ Clear ☐ Bulk Edit ☐ Export

Bin Grid Properties

Grid ID	Grid Name	Type	Status	Country
43	TALUS TECHNOL...	ACQUISITION	PENDING APPROVAL	UNITED STATES
25	TALUS BDN GRID B	ACQUISITION	APPROVED	UNITED STATES
20	TALUS BDN GRID A	ACQUISITION	APPROVED	UNITED STATES
16	TALUS BDN GRID	PROCESSING	PENDING APPROVAL	UNITED STATES

Related Records

Seismic File Geometry Parent Bin Grid Child Bin Grid

☒ Unlink ☐ Open Selected ☐ Export

☒ Permit Sensitive ☐ Seismic ID ☐ Seismic Type ☐ Prospect/Project ☐ Line/Survey Name

Seismic ID	Seismic Type	Prospect/Project	Line/Survey Name
102756396	3D-MASTER	BULLSEYE 3D - TEST	BULLSEYE 3D
102756397	3D-MASTER	CARRINGTON 3D	CARRINGTON 3D
102756431	3D-MASTER	EEL RIVER 3D	EEL RIVER 3D

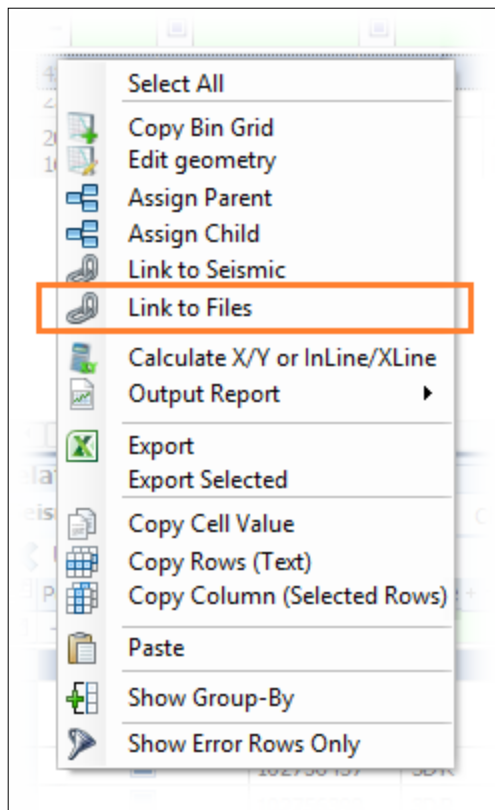
Count = 6

4.0 Link a bin grid to files

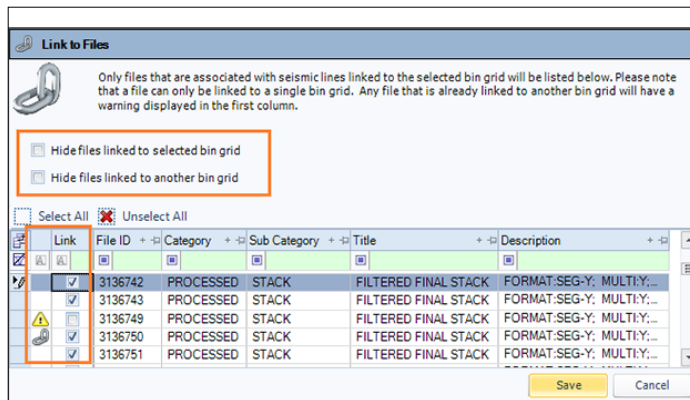
The seismic that is linked to a bin grid determines which files are available for linking to the bin grid. To create a link to a file, the file must be associated to seismic that is currently linked to the bin grid. To create seismic links refer to "Link a bin grid to seismic" on page 13.

To link a bin grid to files:

1. From the **Bin Grid Properties** grid Click to select the bin grid.
2. Right-click and select **Context menu**.



- The files available for linking display in a grid in the new window.



Since files can only be linked to a single bin grid, a warning  in the leader column indicates a file that has an existing link to another bin grid. If you create a new bin grid link to the file, the existing link will be removed.

A link in the leader column indicates a file that is already linked to the selected bin grid.

- » To help filter the list of files, select the option to hide files linked to another bin grid or linked to the selected bin grid.

- In the **Link** column, select the files to link.

- Click **Save**.

The files link to the bin grid and display in the **File** tab of the **Related Records**.

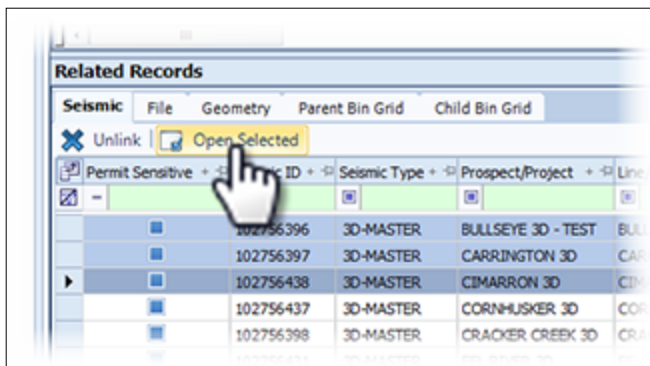
5.0 View linked seismic records and files

Any seismic and file records associated to a bin grid display in the **Related Records** tabs.

To view the extended detail of the files, open the record in the corresponding module.

To open the associated records in the **Seismic** or **File** module:

1. Click to select the bin grid in the **Bin Grid Properties** grid.
2. Click the **Seismic** or **File** tab in the **Related Records** to display the records.
3. Select the items in the grid to be opened.
4. Click **Open Selected** and the selected records open in the corresponding module.

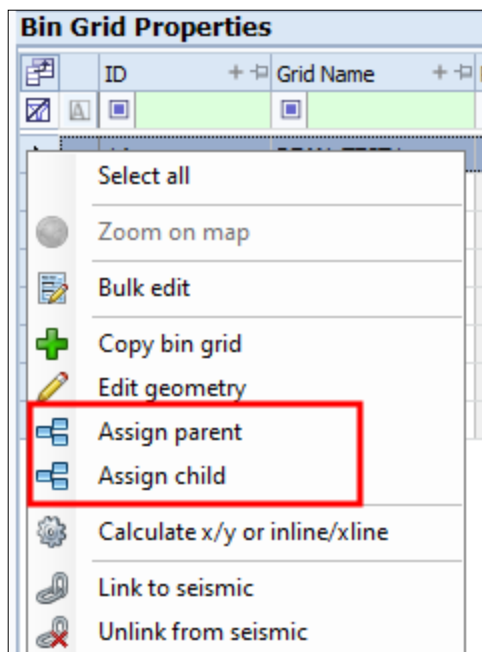


6.0 Assign a parent or child bin grid

The **Bin Grid** module accommodates various project requirements with the ability to represent bin grid relationships. The relationship identifies a bin grid that is generated from another bin grid. The association between a parent and child bin grid is defined by your company workflow.

To assign a parent or child to one or more bin grids:

1. Select the target bin grids in **Bin Grid Properties**.
2. Right-click and select **Assign Parent** or **Assign Child**.



3. In the new window, search for the bin grid to assign as parent or child and click to select.
4. Click **Save**.
The assigned parent or child bin grid displays in the associated tab of **Related Records**.

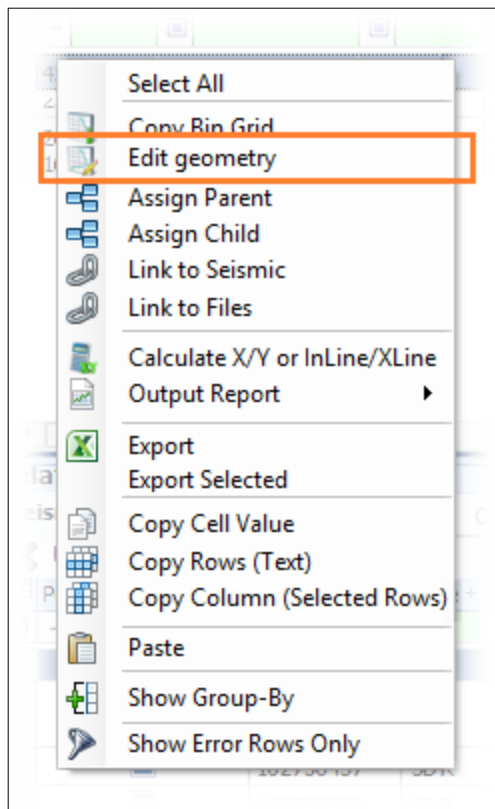
7.0 Edit an existing bin grid

The **Bin Grid** module presents the bin grid definitions in the **Bin Grid Properties** grid and the **Related Records** tabs. The information that affects the geometry calculations are uneditable in the grids.

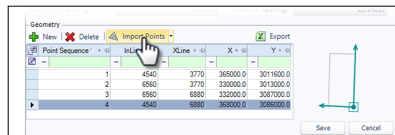
To edit geometry detail, and initiate new calculations, use the **Edit geometry** tool. Access to the tool requires a specific security setting for your profile. Contact your administrator to discuss changes for your security settings.

To edit the geometry of an existing bin grid:

1. From the **Bin Grid Properties** grid Click to select the bin grid.
2. Right-click and select **Edit Geometry**.



3. In the **Bin Grid Properties** section, make the appropriate changes.
4. In the **Geometry** section, you can manually edit the points or import the points from Excel®.
 - » To edit points manually, double-click in a cell and modify the contents.
 - » To import points, click **Import Points**.



Navigate to the location of your Excel file and click **Open**. The points import to the **Geometry** grid and a preview drawing of your new bin grid displays.



Note:

To avoid mistakes that may occur when entering points manually, you could export a template for an excel document and then import the revised data.

- » Click **Save**.



Note:

The values in the **Bin Grid Properties** section and the **Geometry** section work together to perform the calculations and generate the bin grid output. When making changes, verify that your detail in both areas are correct.

8.0 Calculate custom values

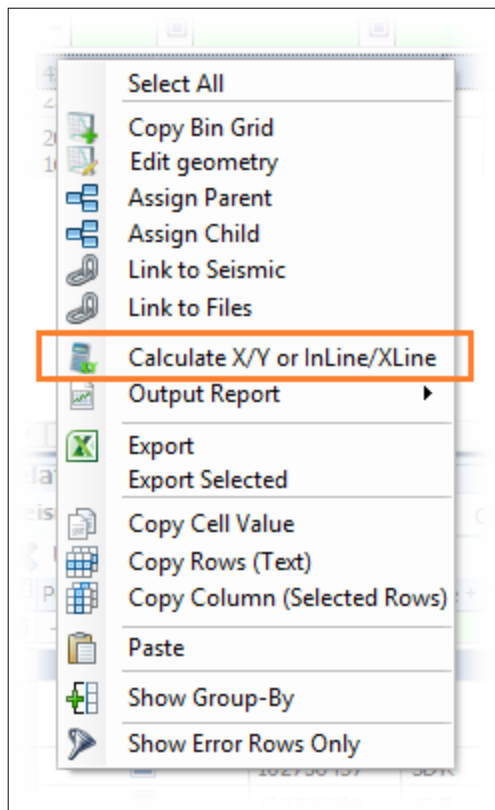
The **Bin Grid** module includes a tool for performing custom calculations associated to a bin grid.

The calculation tool performs two functions:

- » **Entering the X and Y coordinates** will calculate the corresponding inline and crossline locations.
- » **Entering the inline and crossline locations** will calculate the X and Y coordinates.

To calculate custom values with a bin grid:

1. From the **Bin Grid Properties** grid Click to select the bin grid.
2. Right-click and select **Calculate X/Y or InLine/XLine**.



3. The **Projected CRS** and the geographical drawing of the bin grid displays in the new window.
 - » To calculate the X and Y coordinates, enter the inline and crossline values in the given fields. Click **Calculate X/Y**.
 - » To calculate the inline and crossline locations, enter the X and Y coordinates in the given fields. Click **Calculate InLine/XLine**.

The geographical location displays on the bin grid in the window.

Calculate X/Y or InLine/XLine

Calculate custom X/Y values associated with user entered InLine/XLine values, or calculate custom InLine/XLine values associated with user entered X/Y values.

Projected CRS:

InLine:

XLine:

X:

Y:

The diagram illustrates the conversion between InLine/XLine and X/Y coordinates. It features a coordinate system with a vertical axis labeled 'MAP GRID - NORTH' and a horizontal axis labeled 'MAP GRID - EAST'. A point is marked with a red crosshair. A dashed orange line connects the 'Calculate X/Y' button to this point. A solid blue line connects the 'Calculate InLine/XLine' button to the same point. The angle between the horizontal axis and the blue line is labeled 'Increasing InLine $\phi = -87.71^\circ$ '. The angle between the vertical axis and the blue line is labeled 'Increasing XLine angle: 2.11° '.

Close

**Tip:**

Clicking directly on a position in the image populates the values for the X, Y, inline and crossline values in the associated fields.

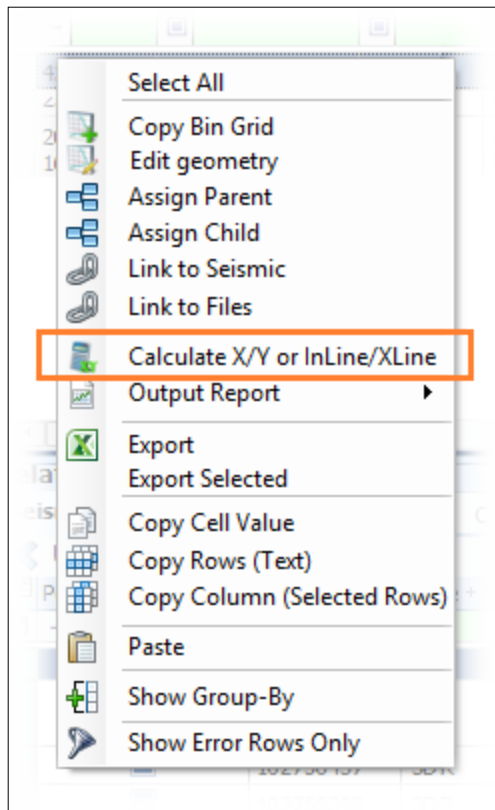
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XLine:

X:

Y:

The diagram illustrates the conversion between InLine/XLine and X/Y coordinates. It features a coordinate system with a vertical axis labeled 'MAP GRID - NORTH' and a horizontal axis labeled 'MAP GRID - EAST'. A point is marked on the grid, with a red dot and a black crosshair. A dashed orange line connects the 'Calculate X/Y' button to the point. A solid blue line connects the 'Calculate InLine/XLine' button to the point. The angle between the horizontal axis and the blue line is labeled 'Increasing InLine angle: -87.71°'. The angle between the vertical axis and the blue line is labeled 'Increasing XLine angle: 2.11°'.

Close

**Tip:**

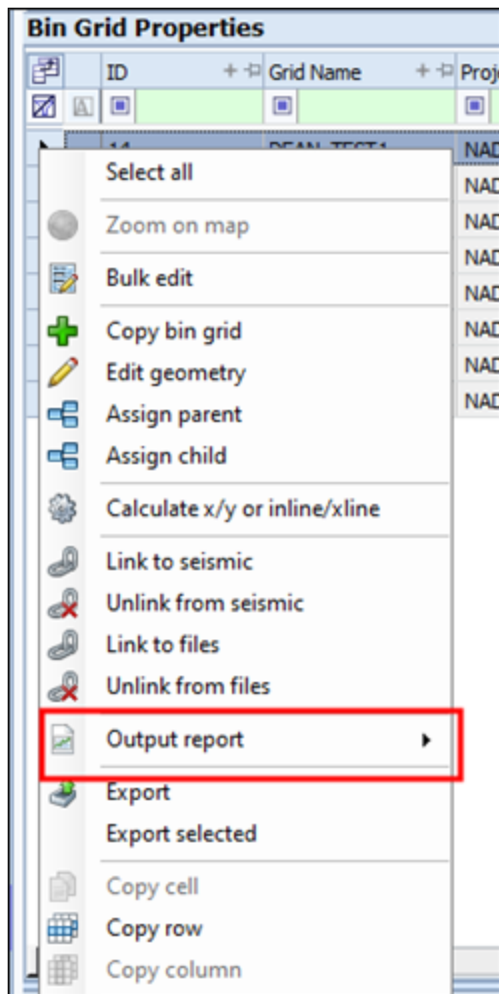
Clicking directly on a position in the image populates the values for the X, Y, inline and crossline values in the associated fields.

9.0 Export a load sheet

The bin grids in the Bin Grid module are available for exporting as load sheets for loading your seismic survey data to a workstation for interpretation.

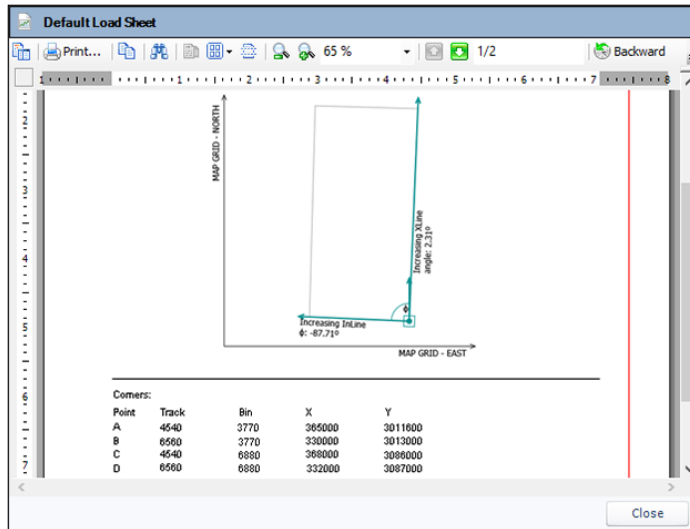
To export a load sheet:

1. Click to select the bin grid in the **Bin Grid Properties** grid.
2. Right-click and point to **Output Report**.



3. Click the load sheet you want to download.

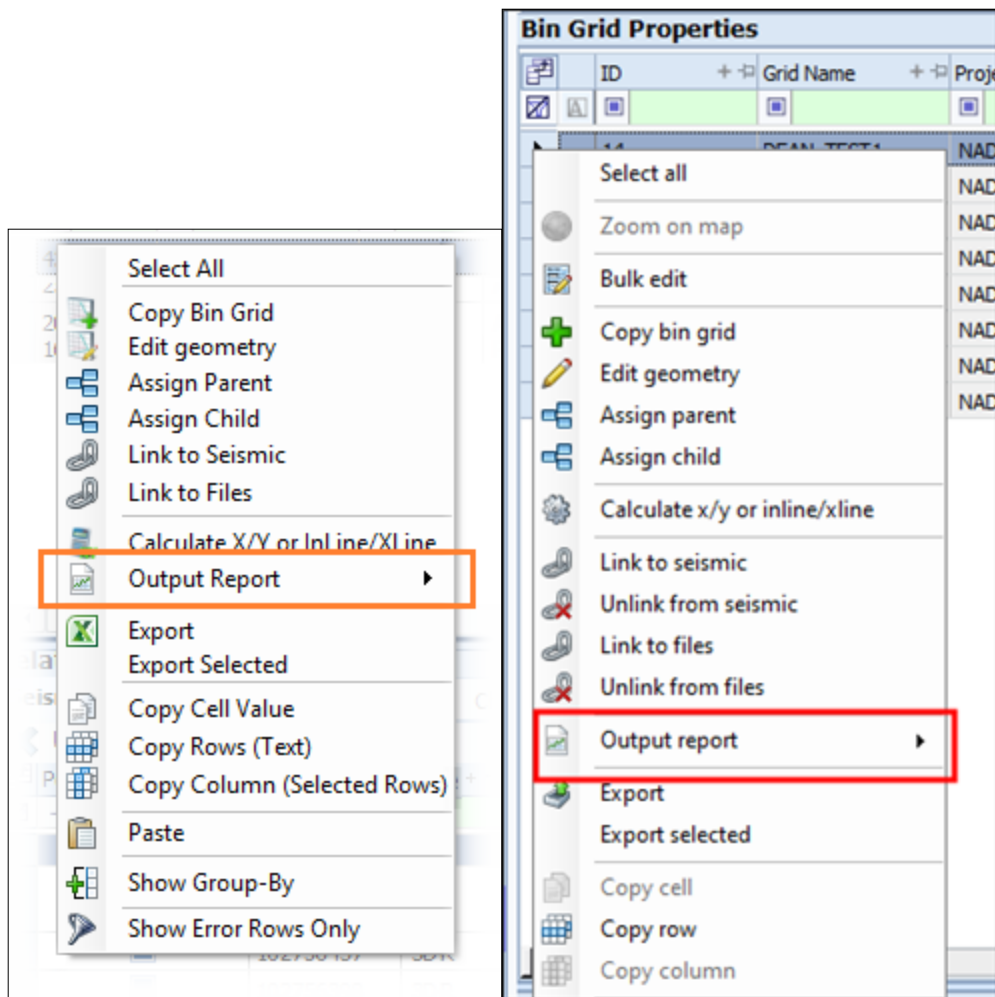
The load sheet opens in a new window.



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