

precisely

GeoVision Australia Tree Risk

Getting Started Guide

Version 2020.07.0



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1 - Getting Started

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Introduction

GeoVision Tree Risk contains two layers **Aggregated Tree Risk** and **Raw Tree Values** (or three in the stand-alone product), each containing a range of information. The layers can be joined based on the unique **BUILDING_PID** value.

Data Specifications

Specification	Values
Geography	Nationwide
Update Frequency	Quarterly
File Format	Pipe-delimited text
Coverage	Australia
Character Encoding	UTF-8

Note: On the basis of specifications, buildings that have a tree risk are included.

Aggregated Tree Risk

The Aggregated Tree Risk layer contains the aggregated risk for each building, from each of eight directions (octants), plus from trees that extend directly over the building. The octants are represented in the diagram below.

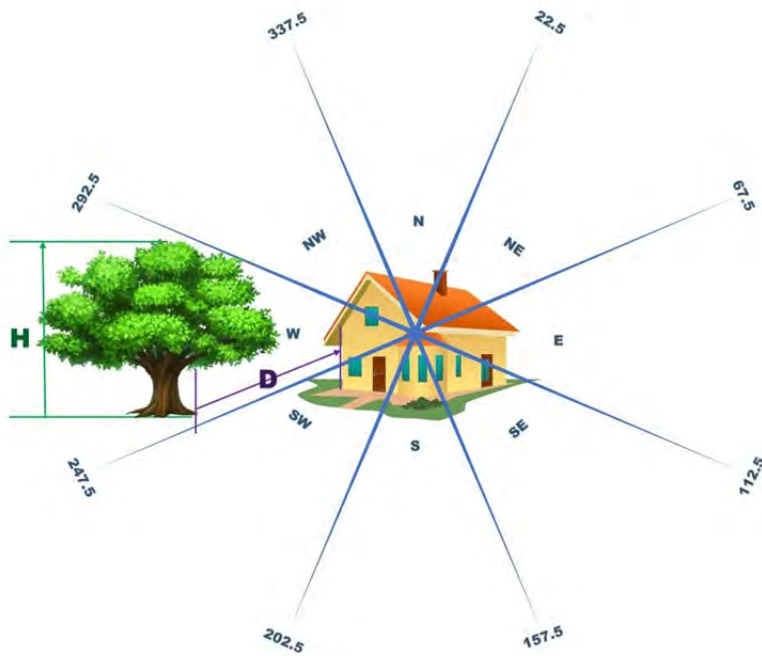


Table Structure

Field Name	Description
BUILDING_PID	Identifier of a building polygon
TreeRiskFactor_N	Risk for North octant
TreeRiskFactor_NE	Risk for Northeast octant
TreeRiskFactor_E	Risk for East octant
TreeRiskFactor_SE	Risk for Southeast octant
TreeRiskFactor_S	Risk for South octant
TreeRiskFactor_SW	Risk for Southwest octant

Field Name	Description
TreeRiskFactor_W	Risk for West octant
TreeRiskFactor_NW	Risk for Northwest octant
TreeRiskFactor_0	Risk for Trees over the roof

Raw Tree Values

The **Raw Tree Values** table contains a collection of information about each tree pixel, and its relationship to buildings. There may be multiple records for each tree pixel, and for each building.

Table structure

Field	Description
TreeID	Identifier for tree location
BUILDING_PID	Identifier for building polygon
Octant	Octants N, NE, E, SE, S, SW, W, NW, 0: location of tree pixel relative to the building
Height	Height of tree pixel in meters
Distance	Distance to building in meters
Bearing	Bearing of tree in relation to building
ImpactOnBuildings	Number of buildings this tree may impact

2 - Using Tree Risk Data

In this section

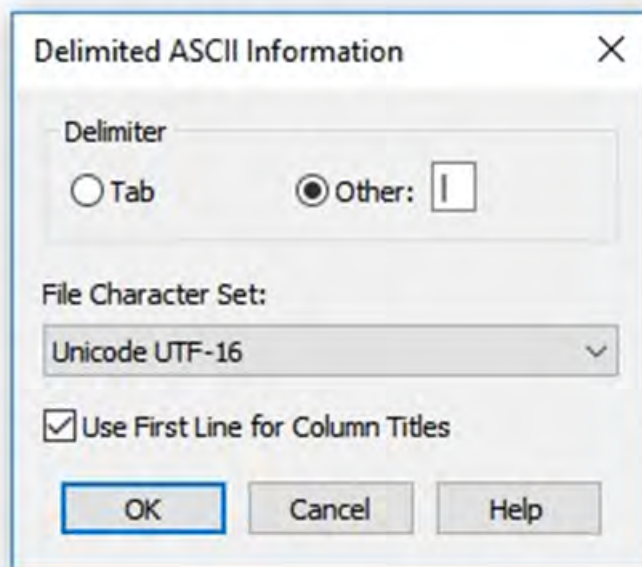
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In MapInfo Pro

To make use of this data in MapInfo Pro with the building footprints in GeoVision Australia, the text file must first be registered as a TAB file.

1. In MapInfo Pro, on the **Home** tab, select **Open – Table**.
2. Change the **Files of type**: drop down to **Delimited ASCII (*.txt)** and locate the **AggregatedTreeRisk.txt** file for your chosen state.
3. In the **Delimited ASCII** dialog, select **Other** and type a pipe (|) symbol in the box. Tick the **Use First Line for Column Titles** box and click **OK**.



4. The resulting table contains a **BUILDING_PID** field, which can be used in a query to join this table with the main **GEOVISION** table. Open the **GEOVISION** table for your chosen state. In this case I have opened the **NSW_GEOVISION.TAB** file.
5. On the **TABLE** tab, select **SQL Select**. The two tables can be joined by their **BUILDING_PID**:

SQL Select

Select Columns: *

from Tables: NSW_GEOVISION, NSW_AggregatedTreeRiskFactor

where Condition: NSW_GEOVISION.BUILDING_PID = NSW_AggregatedTreeRiskFactor.BUILDING_PID

Group by Columns:

Order by Columns:

into Table Named: Selection

Browse Results Find Results In Current Map Window
 Add Results To Current Map Window

OK Cancel Clear Verify Help

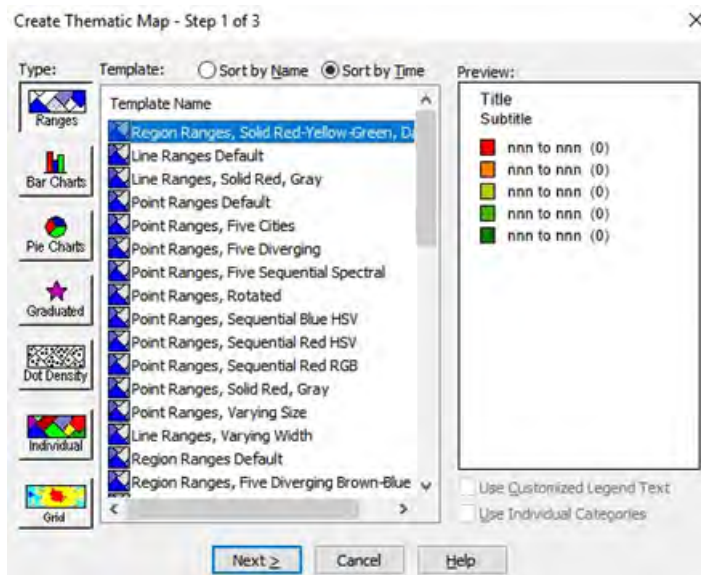
Tables ↓
Columns ↓
Operators ↓
Aggregates ↓
Functions ↓

Save Template
Load Template

- The resulting query could take many minutes to run, but once complete it will contain all the information for each building footprint, plus the risk values for each building in each octant. You may choose to save a copy of the query table at this point, to avoid having to re-run the query.

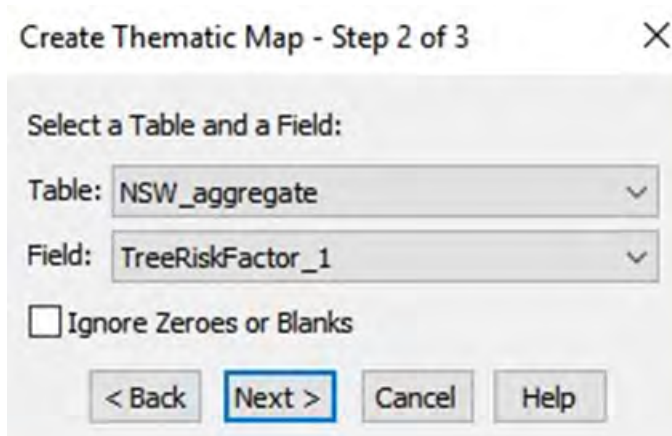
Creating a Thematic Map for Risk Values

1. In the **MAP** tab, click **Add Theme**.
2. You can choose any region range theme in the **Ranges** tab, but for this example, we'll use the "Region Ranges, Solid Red-Yellow-Green, Dark" theme.
3. Click **Next**.



4. In the next dialog, select the name of your joined table (may be Query1 or similar). In this case I have saved a copy of the table, called **NSW_aggregate**. Saving a copy is not necessary, but you may wish to avoid having to requery the original data.

There are eight risk factors available in the Tree Risk data. Select the octant risk factor you wish to display in your theme. Click **Next**.



5. The algorithm for the risk factor means that risk increases exponentially the closer the tree is to a building. This means that a few buildings have trees near that give them an extremely high risk (> 400,000), while the bulk of the buildings have a much lower risk factor, in the low hundreds.

For this reason, we recommend setting the thematic ranges low, and allowing the high outliers to fall into a wide range to form the high risk category. In the example below, I set nine ranges up to 900, then the remainder is in the tenth range.

Customize Ranges ×

Method: Custom

of Ranges: 10 Round By: 1

>= Min	<	%	#
50	100	7%	27232
100	200	5%	18500
200	300	2%	6782
300	400	1%	3449
400	500	1%	1939
500	600	0%	1265
600	700	0%	874
700	800	0%	624

Custom Ranges

>= Min: 900 < Max: 40,400,000

OK Cancel Help

6. The thematic map looks like the image below, showing risk from trees on the northeast side. The buildings with little to no risk are not included in the thematic.



Create a second thematic layer using another field to see the risk from a different octant.



3 - Product Support

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Product Feedback and Support

Contact our **Support** team for product support and additional product information. You can also submit your innovative ideas or comment on existing submissions in a way that is visible to all participants. Our Support site also includes information about our complete portfolio of Data products.



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