

Map Intelligence Application Guide

Stationery Distribution Application

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APPLICATION VERSION INFORMATION

Map Intelligence

MI Client Excel - v 4.2
MI Server – SP – v 4.4

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STATIONERY DISTRIBUTION APPLICATION

INTRODUCTION

ABOUT THIS APPLICATION

This simple Map Intelligence application looks at fictitious data for a stationery company and its customers. Using data from an Excel workbook, we have plotted stationery warehouses and customer locations on a map; in this case the customers are local schools. Using the Travel Time selection tool we will discover which schools fall within the warehouse travel time catchment area and the areas that have no coverage. We will then take a closer look at a particular warehouse in detail and produce the best delivery route for the drivers, using the Routing visualization.



This demonstration was built using the MI Client for Excel, but can be built using any of the Map Intelligence BI integrations.

This Guide will take you through each step for

- viewing point information on a map;
- viewing additional information using the Location Information panel;
- using the Travel Time selection tool;
- zooming into the map; and
- using the Routing visualization

HOW TO ACCESS THE STATIONERY DISTRIBUTION APPLICATION

1. From the Integeio website, **Stationery Distribution** page, click the **Start Stationery Distribution Application** button.

START STATIONERY DISTRIBUTION APPLICATION

2. A browser will open launching the application.

EXPLORING MAP INTELLIGENCE

The MI Viewer will open displaying a map of Canberra, showing the location of stationery warehouses and local schools.

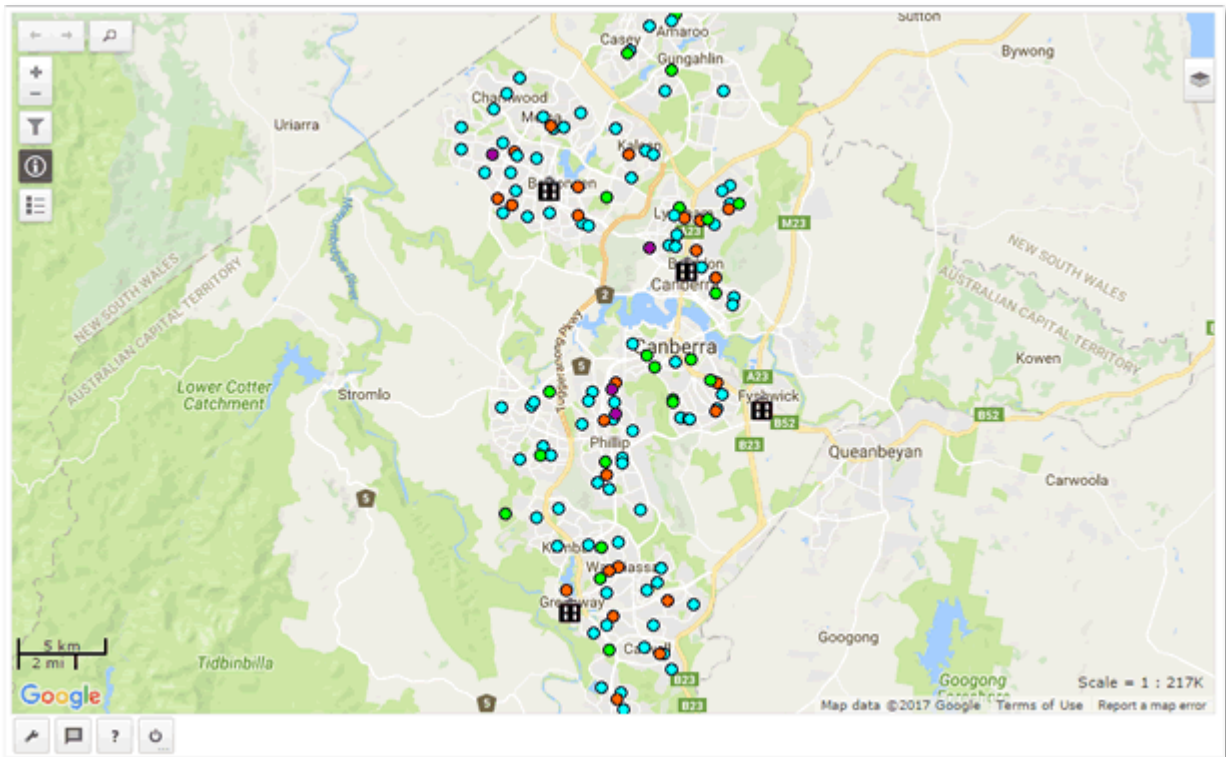


Figure 1. Map of Canberra showing location of warehouses and schools.

VIEWING THE LEGEND

To display the Map Intelligence Legend

1. Click the **Show Legend** button .

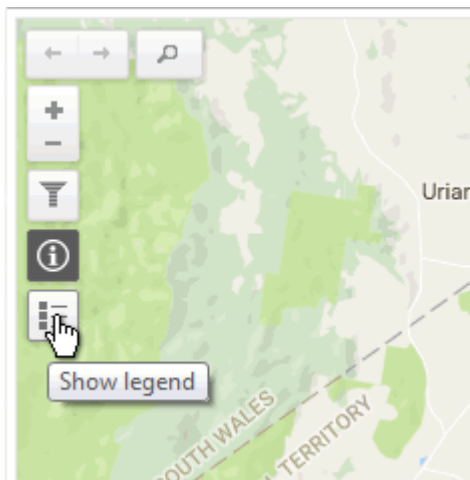


Figure 2. Selecting the Show Legend button.

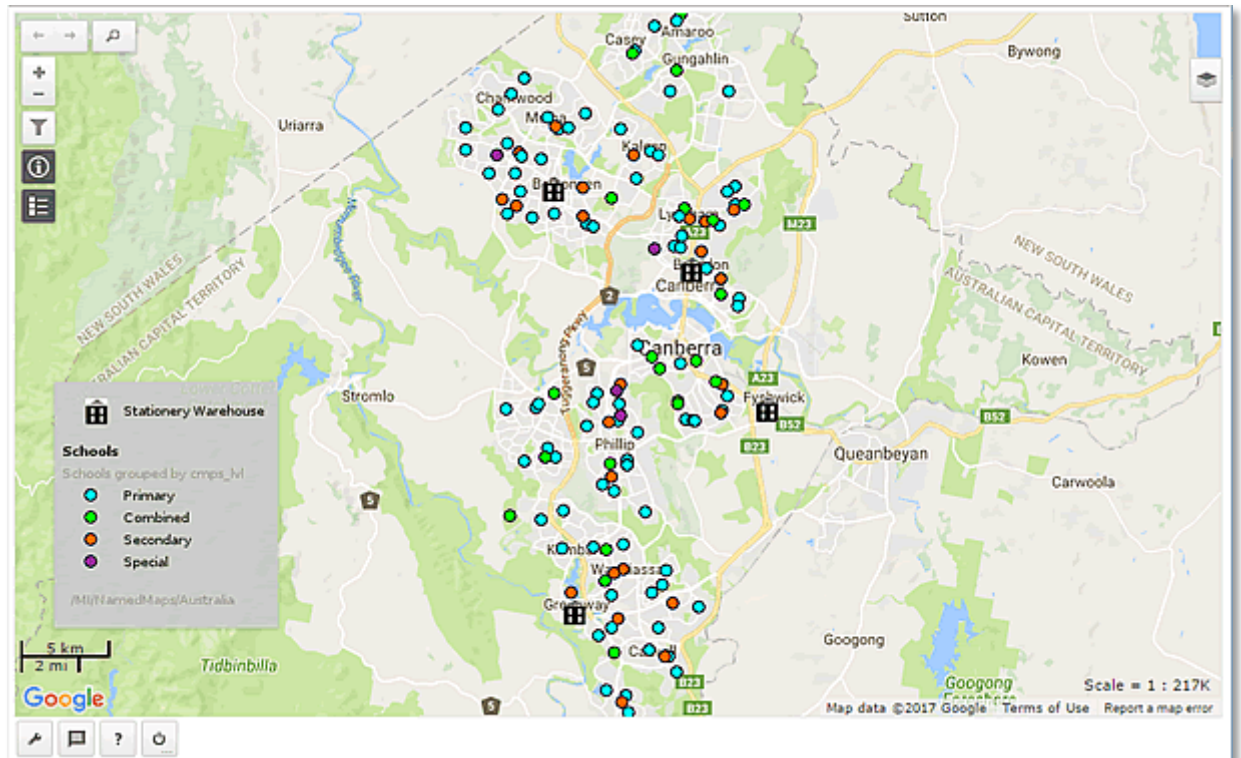



Figure 3. Map and legend .

We can see that the warehouses are denoted by the  symbol and the schools by colored circles, themed according to the type of school, for example  = Primary Schools and  = Secondary Schools.

Moving the Legend

1. Click the **Legend**, the mouse pointer changes from a Pointer to a pan pointer  .
2. Move to reposition the Legend and when in the correct position, release the mouse.


LOCATION INFORMATION

Further details about a location can be found by using the *Location Information* feature.

To activate Location Information

1. Ensure that the **Location Information** button  is active, if not click the button.



- Once activated the Location Information button will change to active mode , click again to turn Location Information off.
- By default the Location Information mode is active.

2. Clicking anywhere in the map, the click point will be highlighted by a *Location Information Marker* and the *Location Information panel* will open displaying the features found underneath the cursor.



Figure 4: Location Information marker

- Click on the **Belconnen Warehouse**, towards the top of the map. The *Location Information* panel will appear showing further information about the warehouse (Figure 5).

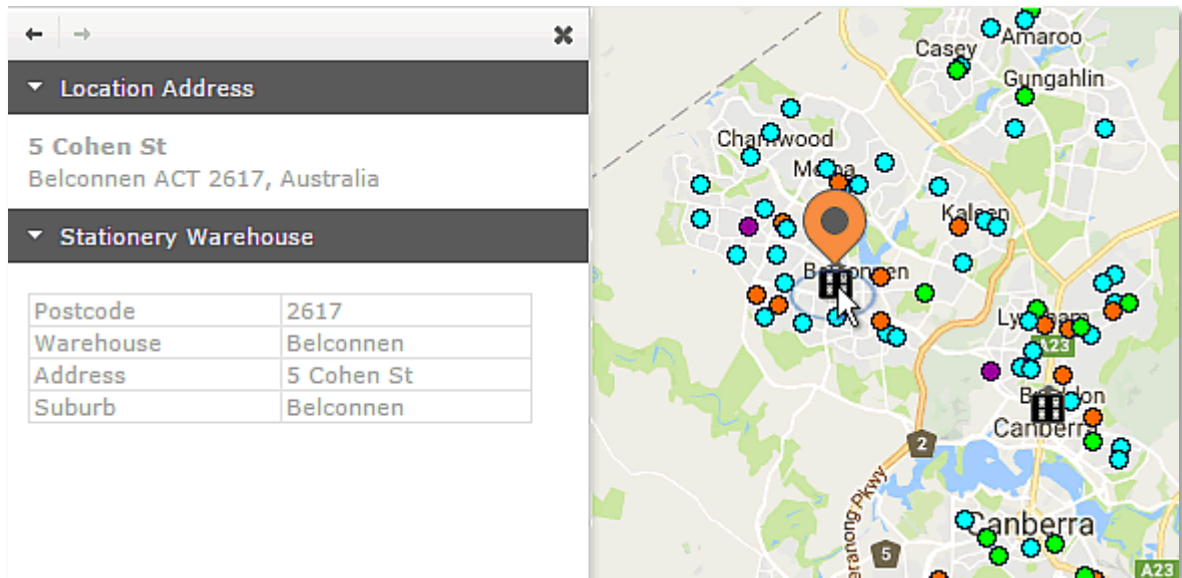


Figure 5. Location Information panel displaying information about the Belconnen warehouse.

- Click on a school point. The Location Information panel will update to show further information about the particular school (Figure 6).

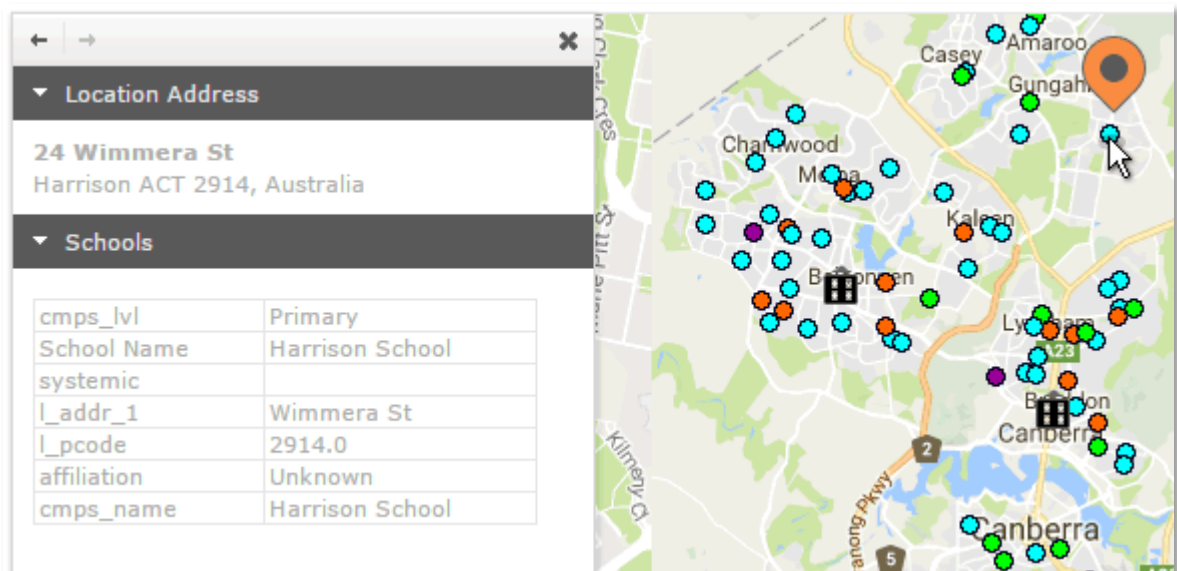





Figure 6. Location Information panel displaying information about Harrison School.

- By default, each group is expanded, use the   buttons to expand and collapse the query results.
- Click the **Close** button  to close the *Location Information* panel.

TRAVEL TIME SELECTION

Travel Time selection selects features that occur within a polygon determined by a specified distance along roads and highways from a starting point. Using this tool we will look at which schools fall within the warehouse travel time catchment area and the areas that have no coverage.



1. Click on the **Filter by Selection** button  on the left of the MI Viewer, to open the *Selection Tools* panel.



Figure 7: Selection Tools panel.

2. From the **Selection Tools** panel, click the **Select by travel time** button .



NOTE The *Filter by Selection* button will change to show that *Select by point* is active .

3. From the **Selection Toolbar**, **Cost** drop-down list, select **5**.
4. From the **Unit** drop-down list, select **minute**.

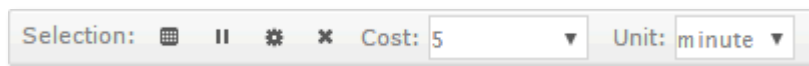



Figure 8 Selection Toolbar: Selection by travel time (5 minutes).

5. Click on each warehouse point .

The map will update displaying an orange polygon around each warehouse. The schools falling within the orange area can be reached within from the warehouse within 5 minutes.

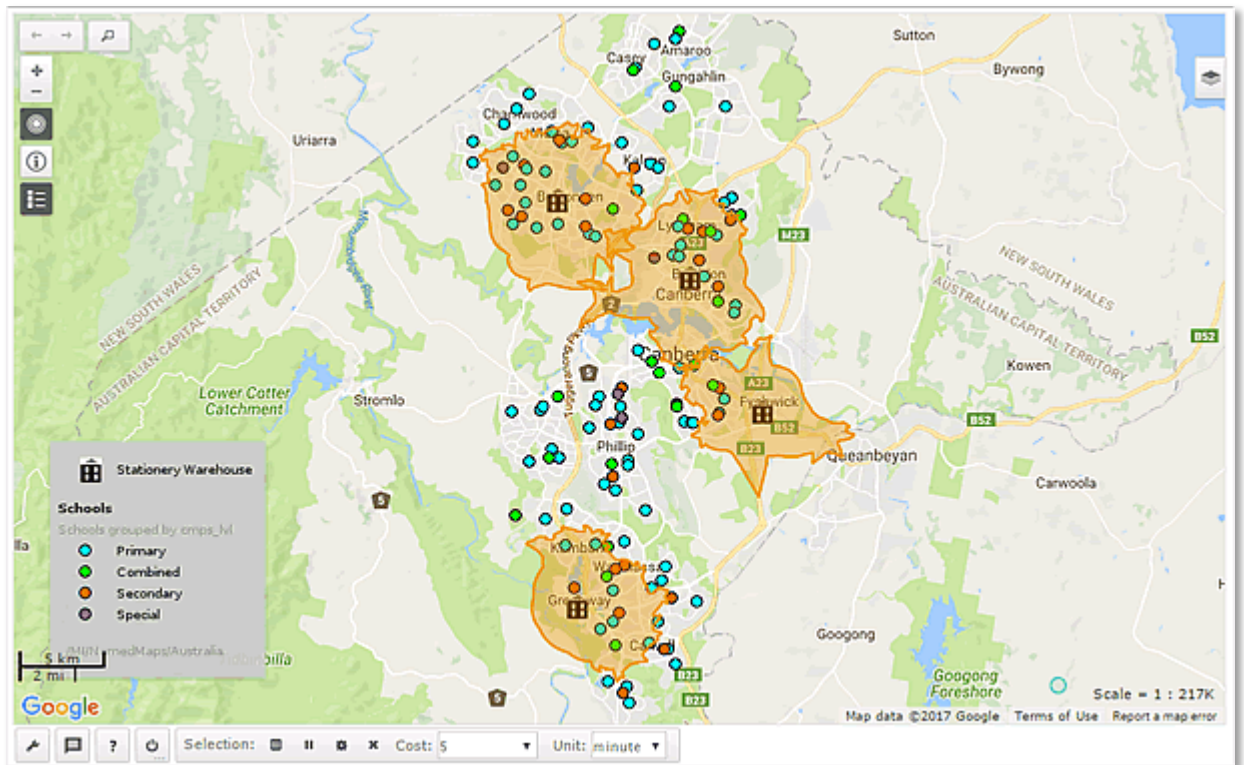


Figure 9 Map showing 5 minute travel time.

You can see that both the *Belconnen* and *Braddon* warehouses towards the top of the screen can reach the majority of schools within 5 minutes, whereas the *Fyshwick* warehouse can only service a few schools. We can also see that there is a large number of schools in the middle and at the top of the map not covered by any warehouse, these areas maybe be good locations for future warehouses.

We can extend the travel time to 10 minutes to make a comparison

- From the **Selection Toolbar**, **Cost** drop-down list, select **10**.

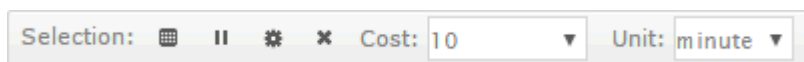



Figure 10 Selection Toolbar: Selection by travel time (10 minutes).

- Again, click on each warehouse point .

The map will update and display a 10 minute travel time overlay. We can see that the majority of schools can be serviced by any one of the warehouses within 10 minutes and easily identify those schools that cannot.

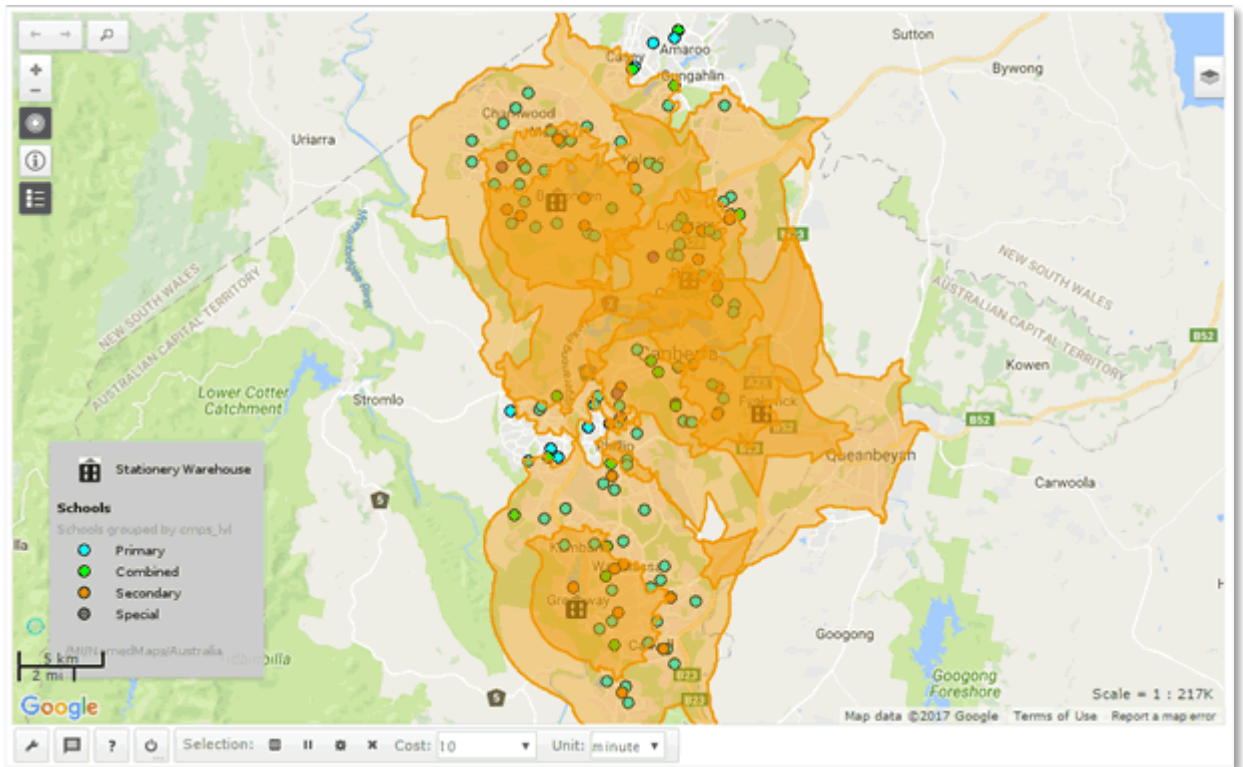


Figure 11 Map showing 10 minute travel time.

- From the **Selection Toolbar**, click the **Close** button, to exit selection mode. The Travel Time polygons will no longer appear.



Figure 12: Exit Selection mode.

ZOOMING IN FOR A CLOSER LOOK

Using the **Zoom to Marquee** navigation tool, we are now going to take a closer look at the *Belconnen* warehouse and surrounding schools.

- Move the mouse to a start point on the map, press the **SHIFT** key, click on the map and draw by dragging a rectangular shape around the Belconnen warehouse and local schools, as seen in Figure 13.

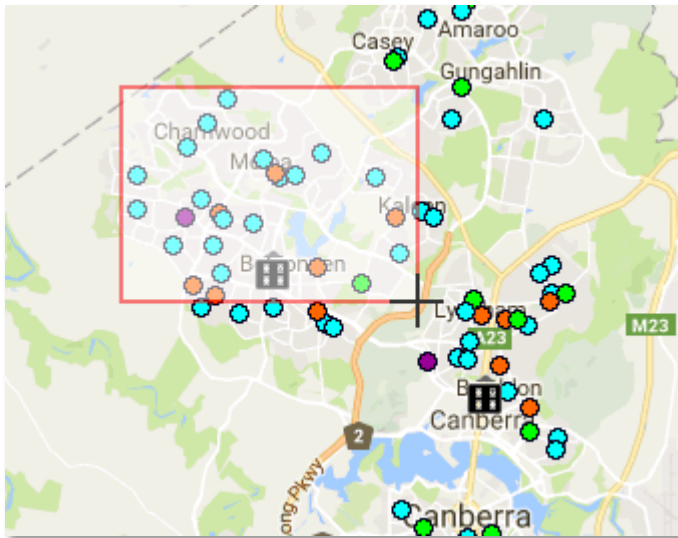


Figure 13. Zoom to Marquee – Shift-Click-Drag-Release.

2. Release the mouse and the map will zoom in to show a more detailed view of the area we want to analyze further (Figure 14).

 **TIP** Touchscreen users **stretch to zoom in** and **pinch to zoom out**.

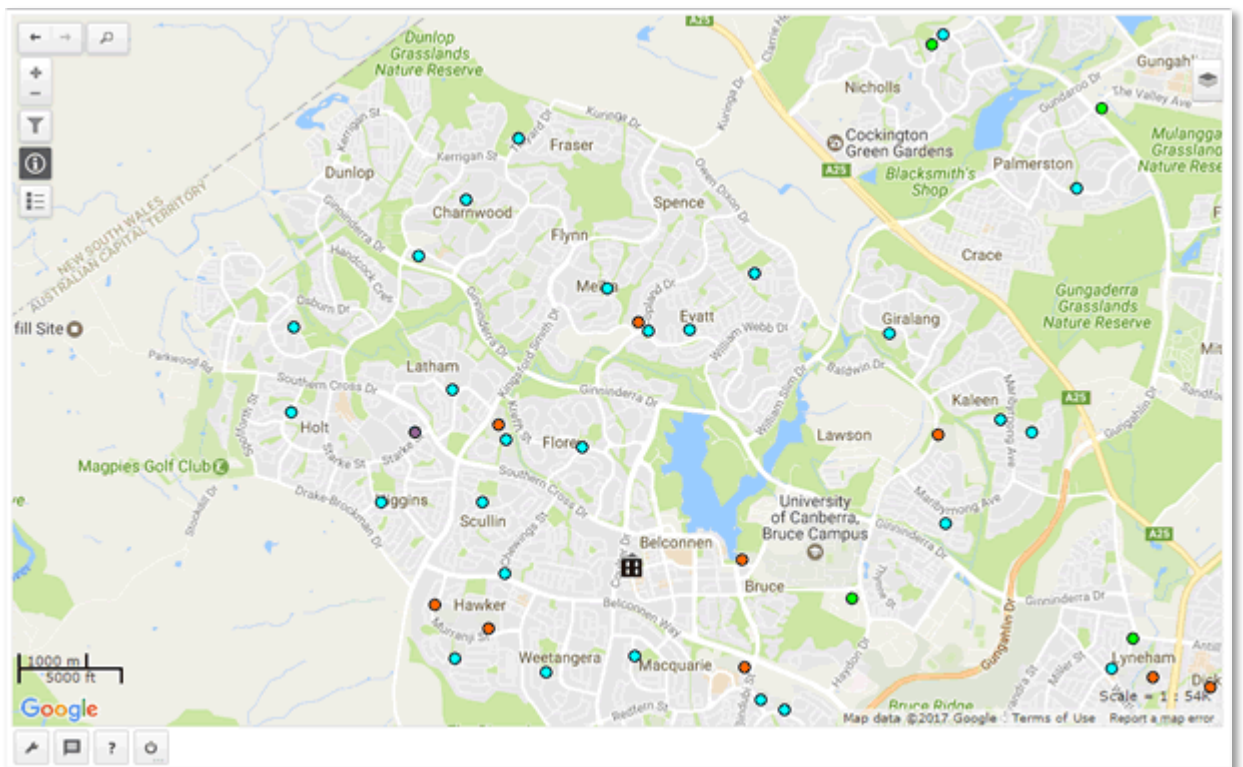




Figure 14. Zoomed in view

USING THE ROUTING VISUALIZATION

Using the Routing visualization we can display the most efficient path the warehouse driver should take when delivering to each of the schools within the area and easily export the information to give to the driver.

1. Click the **Layer Manager** button , located at the top right of the MI Viewer. The *Layer Manager* will open showing the *Thematic Layers* panel.


3. Click on the **Visualization layers** tab . The *Visualization* panel will open (Figure 18).

4. Click the **Routing** panel.



Figure 15: Opening Routing.

The Routing configuration panel will appear (Figure 19).

5. Set the **Opacity** slider to **100**.
6. From the **Layer** drop-down list, select **Schools**.
7. Click the **Start Point** button  and then click on the *Belconnen* warehouse. A green marker will denote the start point on the map.

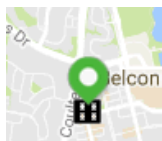


Figure 16: Start Point marker.

8. Click the **End Point** button  and then again click on the *Belconnen* warehouse. A red marker will denote the end point on the map.

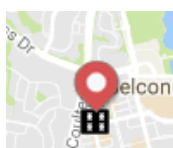


Figure 17: End Point marker.

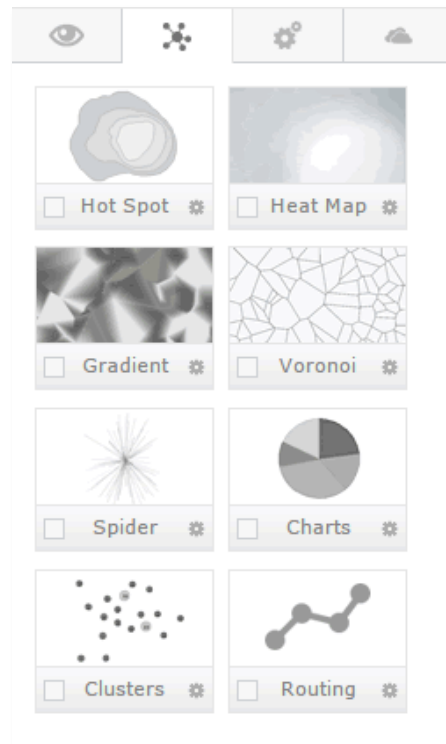


Figure 18. Thematic layers panel.

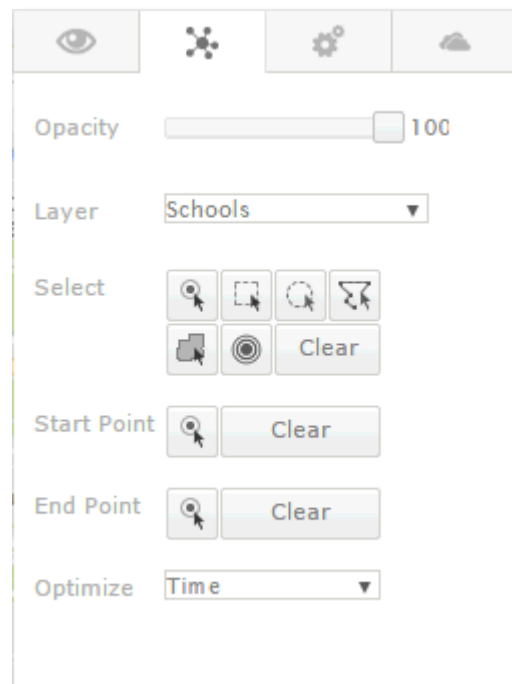



Figure 19. Visualization Layer: Configure Routing.

9. Ensure **Optimize** is set to **Time**.

10. From the **Select** option, click the **Polygon** button .

11. Draw a polygon around the Belconnen warehouse and the schools you want to include in the delivery run by clicking and releasing. Closing the polygon is achieved by double-clicking (Figure 20).

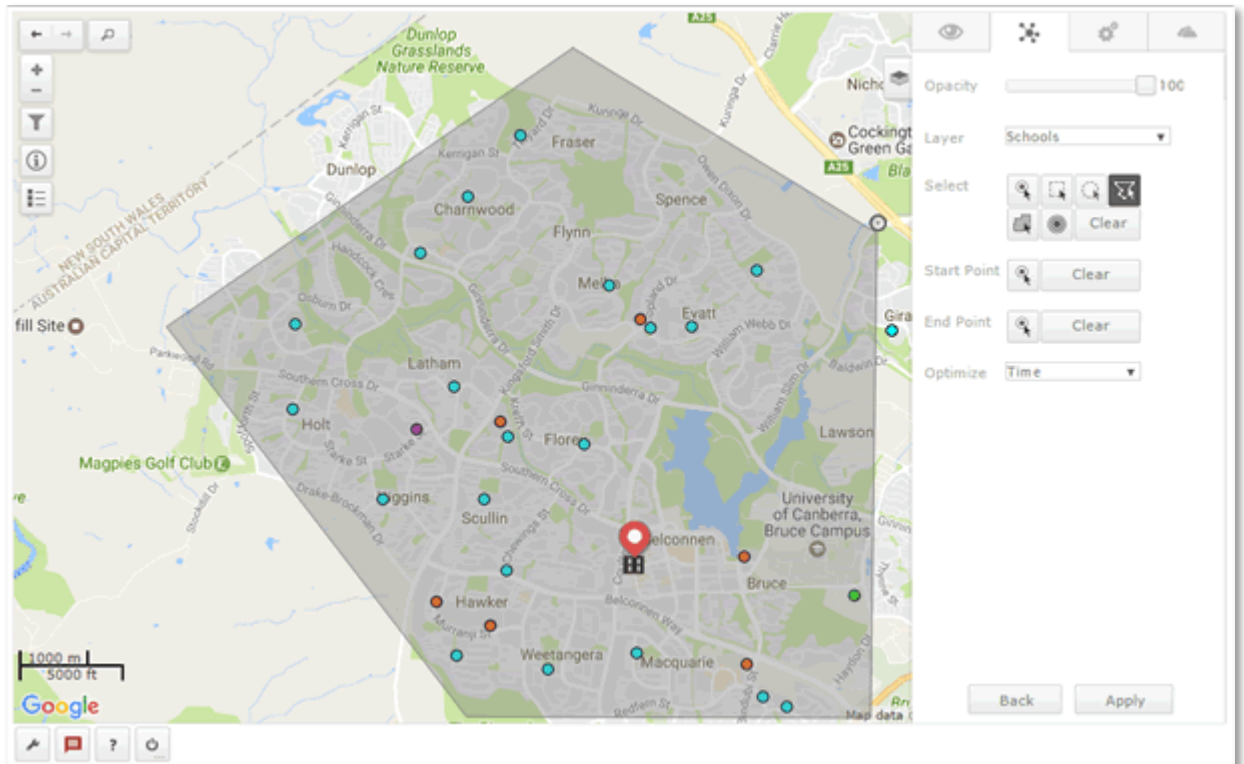



Figure 20. Drawing the polygon around the warehouse and schools.

12. Click the **Apply** button , the map will update and the results will appear in the Routing panel (Figure 21).

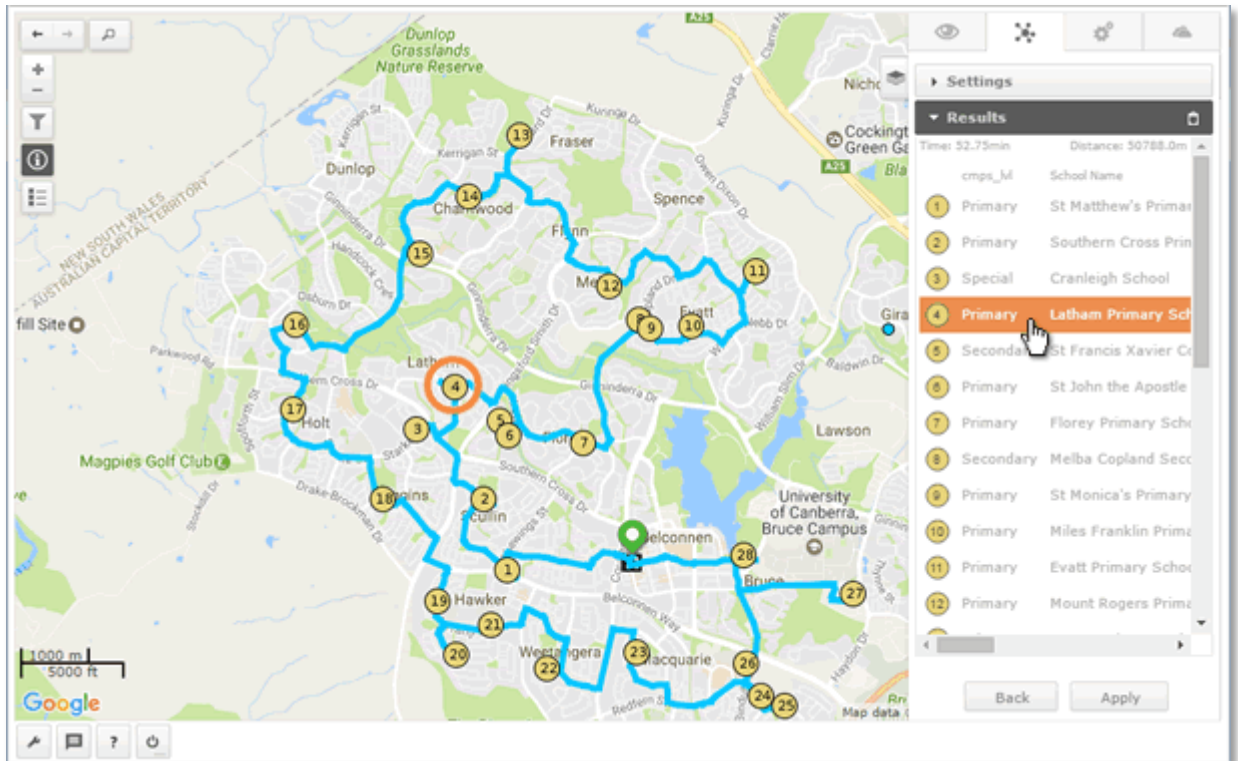


Figure 21. Map showing the routing visualization.

- The total time and distance taken by the route is displayed at the top of the results panel.

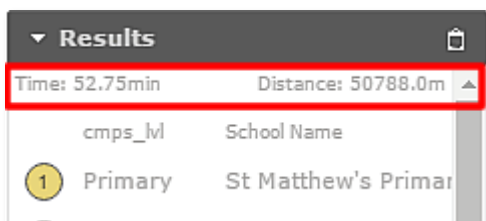


Figure 22. Results: Total time and distance.

- Hover over a point in the results panel and it will be highlighted on the map (Figure 21).
- Click on a point in the results panel, the map will centre on that point. If you zoom in to a level where you can see just a few points along the path this will allow you to use this centre option to follow the path.
- Click the **Clipboard** button in the Results title bar to copy the data to the clipboard. The copied data will be in csv format. This can be given as a delivery schedule to the drive.

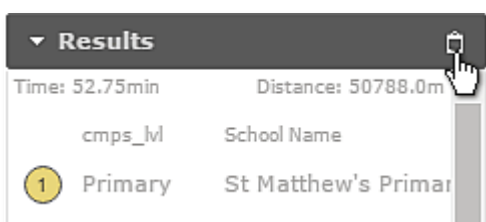




Figure 23. Export results.

This has been a very simple demonstration, showing only a few of the analytical tools available in Map Intelligence.

You can find out more information about Map Intelligence tools by clicking the Help button  on the toolbar.

CLOSING MAP INTELLIGENCE

Before we close the MI Viewer, you need to end your Map Intelligence session.

1. Click the **End Session** button  to end your current Map Intelligence session.
2. Close your browser.