

## 6 SPATIAL SEARCHING

### 6.1 Overview

Landonline allows you to search for information spatially. Spatial (or graphical) information consists of layers of information. An example of categories of layers are:

- parcels
- marks
- vectors.

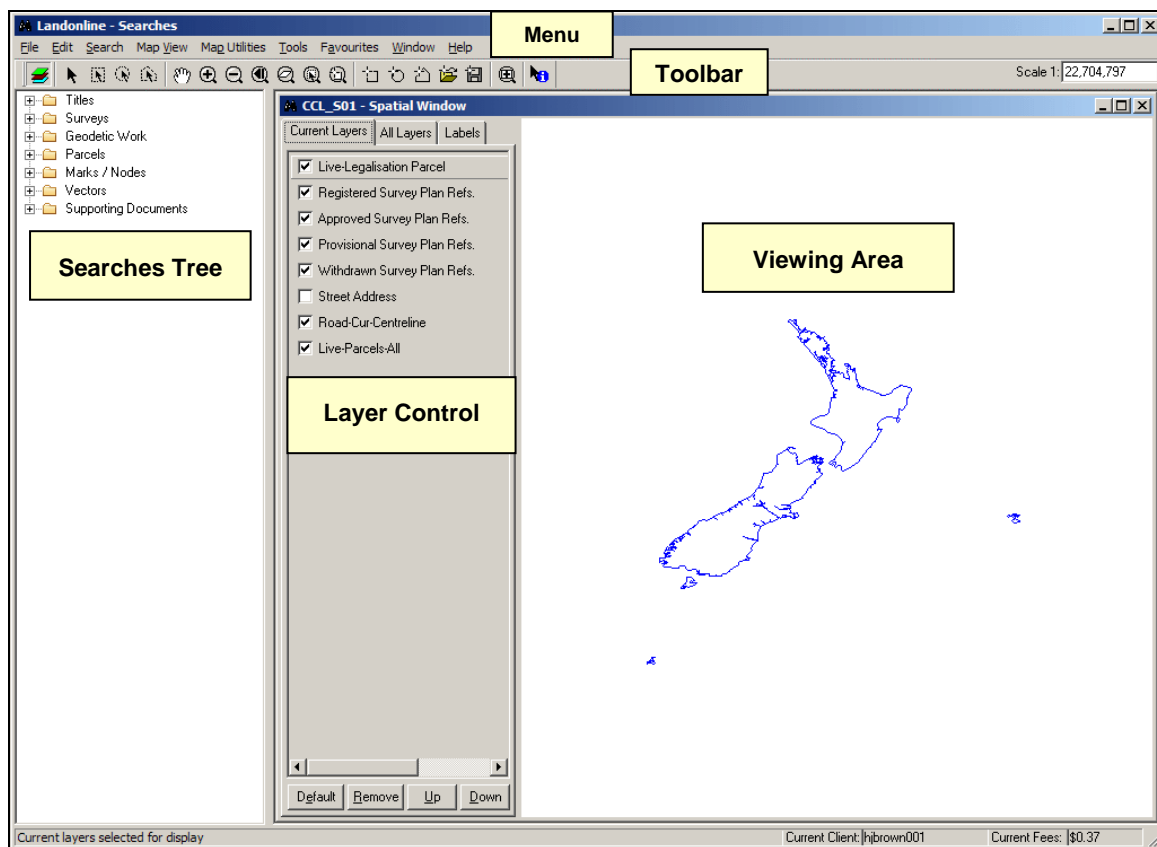
Landonline displays spatial information to allow you to:

- view objects and features in a spatial context
- search for objects and features
- switch layers of spatial data off and on
- navigate
- extract and print
- select an individual object or group of objects
- add objects to the Searches tree.

This chapter explains how to search spatially using the Spatial Window and the Spatial Searches screen. Specifically it describes:

- the elements of the Spatial Window
- how to use the Spatial Window to search for spatial information
- the elements of the Spatial Searches screen
- how to use the Spatial Searches screen to search for information and display this in the Spatial Window
- how to add objects to the Searches tree
- how to print and view spatial information
- how to view surveys spatially
- how to save and load an area of interest
- how to extract survey data and filter vectors
- how to prepare and run a transformation.

## 6.2 Spatial Window



The Spatial Window has these components:

- Menu
- Toolbar (includes scale field)
- Searches Tree
- Layer Control
- Viewing Area.

### 6.2.1 Menu

When you display the Spatial Window, the Map View menu and Map Utilities menu are activated. See [4.2.1.2 Map View menu](#) and [4.2.1.3 Map Utilities menu](#).

### 6.2.2 Toolbar








The toolbar displays the icons you use in the viewing area of the Spatial Window to:

- navigate to and select an object or feature.
- control viewing and display information about an object or feature.

You can also perform most of these functions using options selected in the Map View menu.

### 6.2.2.1 Navigation tools






**Table 6-1** describes the icons you can use to navigate in the Spatial Window.

Icon	Action
 Pan	Click and drag the visible area in any direction to display information outside the boundaries of the screen.
 Zoom In	Click to decrease the scale. Each time you click in the window, the point where you click displays 50% larger. Alternatively, click and drag to identify an area you want to enlarge.
 Zoom Out	Click to increase the scale. Each time you click in the window, the point where you click displays 50% smaller.
 Zoom Previous	Click to display the previous view.
 Zoom Layer	Click to display the minimum viewing scale of the active layer, or the maximum extent of the active layer if no scale has been defined.
 Zoom Selection	Click view the extent of the selected features or objects in the Spatial Window.
 Zoom Area of Interest	Click to zoom to the extent of the defined area.

**Table 6-1 Navigation tools**

### 6.2.2.2 Area of Interest tools





**Table 6-2** describes the icons you can use to define areas of interest in the Spatial Window.

Icon	Action
 Define area of Interest by Rectangle	Click and drag to define an area of interest using a rectangle.
 Define area of Interest by Circle	Click and drag to define an area of interest using a circle.
 Define area of Interest by Polygon	Click to specify a polygon shape to define an area of interest. Double click to close the polygon.
 Load Area of Interest	Click to load an area of interest previously defined and saved to a file.
 Save Area of Interest	Click to save a defined area of interest to a file.

**Table 6-2 Area of Interest tools**

### 6.2.2.3 Selection tools




**Table 6-3** describes the icons you can use to select objects in the Spatial Window.

Icon	Action
 Select Individual	Click to select spatial features individually in the active layer. To select more than one feature, hold Ctrl and click on each feature.
 Select by Rectangle	Click and drag using a rectangle to select spatial features in the active layer. Only features completely enclosed by the rectangle are selected.
 Select by Circle	Click and drag using a circle to select spatial features in the active layer. Only features completely enclosed by the circle are selected.
 Select by Polygon	Click and specify a polygon shape to features in the active layer. Double click to close the polygon. Only features completely enclosed by the polygon are selected.

**Table 6-3 Selection tools**

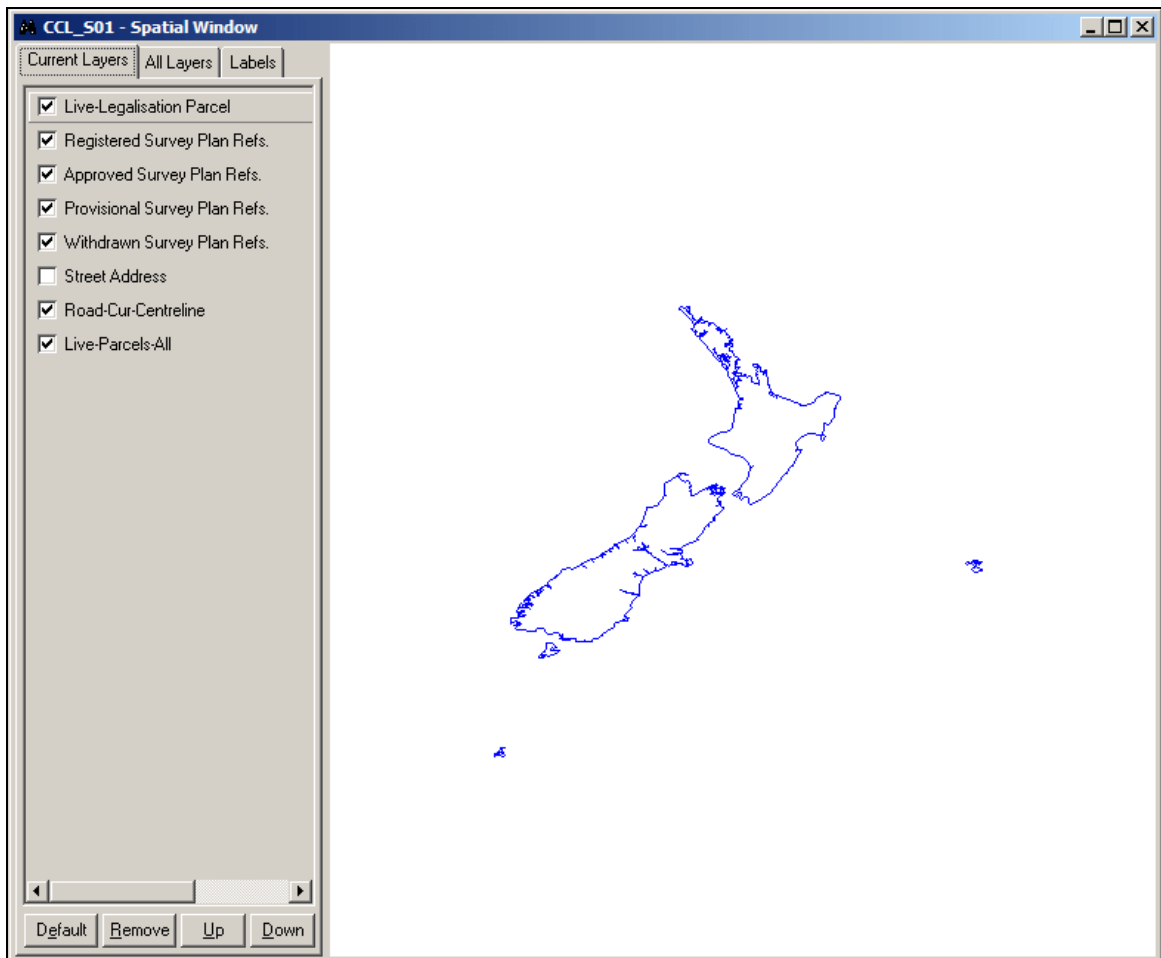
### 6.2.2.4 Other spatial tools

**Table 6-4** describes the other icons you can use in the Spatial Window.

Icon	Action
 Layer Control	Click to show or hide the Layer Control tabs in the Spatial Window.
 Magnify	Click and define the rectangular area of information to magnify. For more information, see <b>6.2.7.2 Magnify an area of the Spatial Window</b> .
 Object Information	Click and select a feature in the active layer to display information about a spatial feature in the Object Information Tool screen.

**Table 6-4 Other spatial tools**

## 6.2.3 Layer Control



The layer control area is where you manage layers and labels that display in the Spatial Window. The layer control area has three tabs:

- Current Layers tab
- All Layers tab
- Labels tab

Layers and labels automatically turn off and on, depending on the viewing scale of the Spatial Window. While layers are shown as being turned on the information relating to that layer may not be displayed in the Spatial Window. The layers display is controlled by viewing scales in the View Scale option of the Map View menu. For more information, see **4.2.1.2 Map View menu**.

**Note:** The number of layers you have listed in the Current Layers tab impacts on Spatial Window redraw times.

### 6.2.3.1 Hide and display the Layer Control

Hiding the Layer Control tabs increases the size of the Spatial Window.

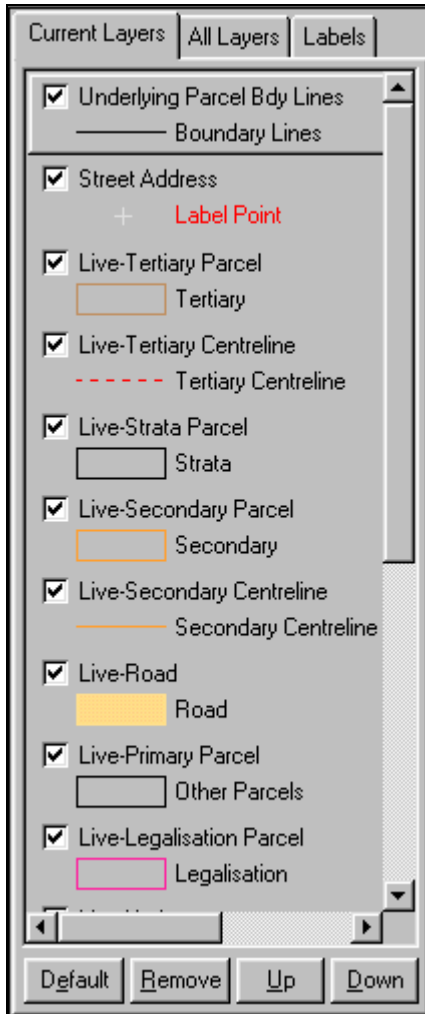
In the Spatial Window:

1. Click  (Layer Control).

2. Repeat step 1 to display the layer tabs again.

### 6.2.4 Current Layers tab

The Current Layers tab displays a list of the layers currently loaded in the Spatial Window.



You should have a minimum number of layers included in the Current Layers tab to maximise performance of the Spatial Window. The order in which the layers are listed in the Current Layers tab indicates the order they are drawn in the Spatial Window (ie the first layer in the list displays on top of other layers).

You can use the Current Layers tab as a legend to the map displayed in the Spatial Window. The symbol for each layer displays with the layer name. A layer will not be drawn if:

- it is temporarily turned off
- the Spatial Window display scale is outside the minimum and/or maximum display scales defined for the layer. See **Appendix I: Spatial layers**.

As you zoom in and out, or change display scales in any other way, Landonline updates the Current Layers tab to display the visible layers.

**Note:**

- If you want to remove several layers from the Current Layers tab, you should use the All Layers tab. All of the changes to the Spatial Window will be made in one refresh.
- You can save the currently displayed layers as your User Defined default theme. See **6.3.6 Save a User Defined theme.**

**Tasks:**

The tasks you can perform in the Current Layers tab are:

- Make a layer active.
- Change the order of layers.
- Turn a layer on or off in the Current Layers tab.
- Remove a layer.

The following headings correspond with these tasks and describe them in more detail.

#### 6.2.4.1 Make a layer active

You can perform actions in the Spatial Window on the active layer (eg to add an item to the Searches tree or view information about an object or feature).

In the Current Layers tab:

1. Click the layer name (not the check box, as this controls visibility).  
Landonline displays the layer in the Current Layers tab as a raised 3D bar.

**Note:** You can only perform actions on an active layer.

#### 6.2.4.2 Change the order of layers

In the Current Layers tab:

1. Select the layer name.
2. Drag and drop the layer name or click  or  to change the order.

**Note:** Each of these actions will initiate a redraw of the Spatial Window.

#### 6.2.4.3 Turn a layer off or on in the Current Layers tab

A layer is on when it is checked. You can temporarily turn off a layer to enable you to view information more clearly.

To turn a layer off, in the Current Layers tab:

1. Uncheck the check box in front of the layer name.
  - Landonline redraws the Spatial Window.

To turn a layer on, in the Current Layers tab:

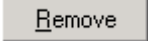
1. Check the check box next to the layer name.
  - Landonline redraws the Spatial Window.



**Note:** You should use the All Layers tab to add or remove several layers. All of the changes will be made to the Spatial Window in one refresh.

#### 6.2.4.4 Remove a layer

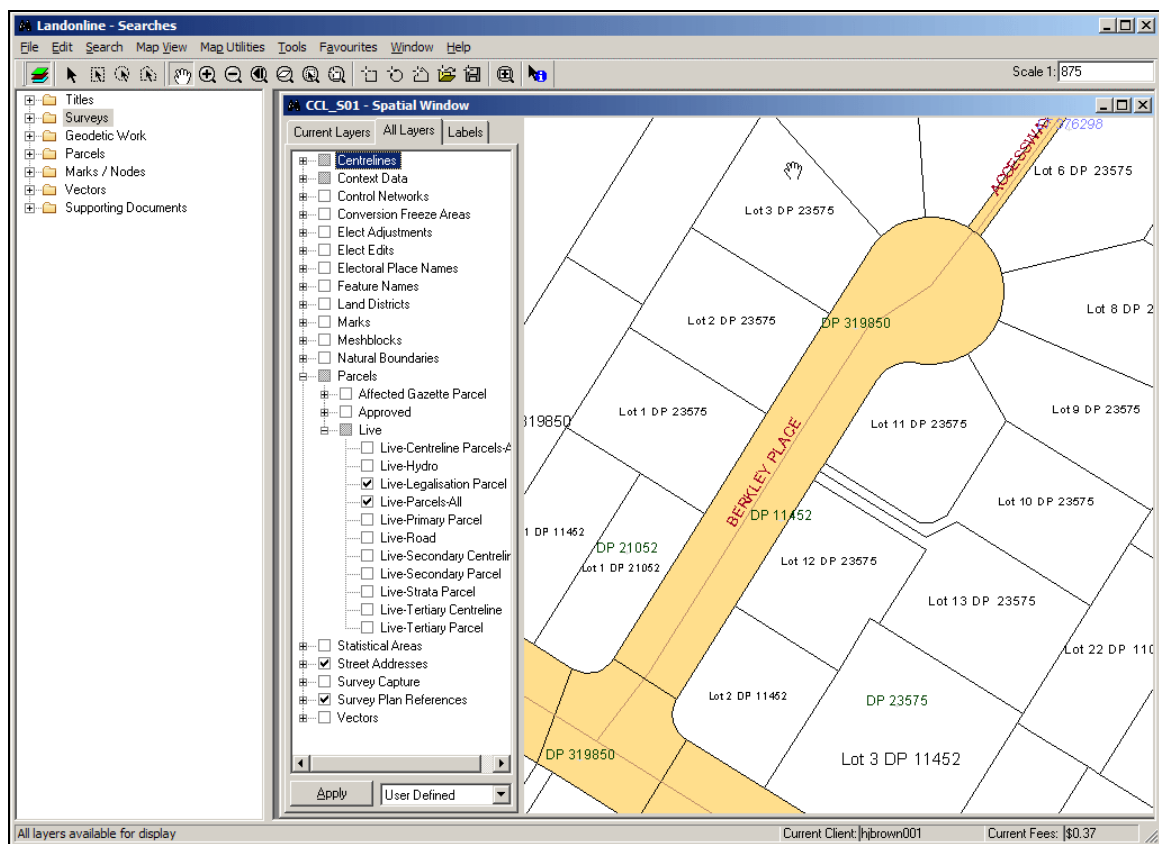
In the Spatial Window:

1. Select the layer name.
2. Click 

**Note:** You should use the All Layers tab to add or remove several layers. All of the changes will be made to the Spatial Window in one refresh.

#### 6.2.5 All Layers tab

Use the All Layers tab to customise the information you want to display by adding and removing layers.



When you use the All Layers tab to add or remove layers the Spatial Window will refresh only once. Alternatively you can select a theme of layers to display.

## Tasks:

The tasks you can perform with the All Layers tab are:

- Display the All Layers tab
- Add and remove layers.
- Select a spatial layer theme.

The following headings correspond with these tasks and describe them in more detail.

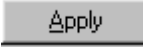
### 6.2.5.1 Display the All Layers tab



In the Spatial Window Layer Control area:

1. Select the All Layers tab.

### 6.2.5.2 Add and remove layers

In the All Layers tab:

1. Check or uncheck the box next to the group name to add or remove all layers within a group, or
2. Expand the group name and check or uncheck the box next to each layer name, as required, to add or remove those layers.
3. Click  to update the Spatial Window. The selected layers display in the Current Layers tab.

**Note:** If the box for a group is  (grey) the group has at least one layer selected. A  (ticked box) indicates all layers in the group have been selected.

### 6.2.5.3 Select a spatial layer theme

Themes are a combination of layers specific to user tasks. Landonline lists all layers available in the All Layers tab of the Spatial Window. You can select a theme from the drop down menu at the bottom of the All Layers tab. Other layers from this tab can be added to or deleted from the set of layers, allowing you to customise your own set of layers to display.

The most commonly used layer themes you can select to display in the All Layers tab of the Spatial Window are:



- Cadastral
- Remote User
- Titles

There are additional themes:

- Survey Capture theme, used for capturing an *e-survey*, is described in the *e-survey User Guide*.
- Electoral, Geodetic, and Topology and Geometry are for LINZ internal use.

You can save the current layers you have selected and displayed in the Spatial Window as your User Defined theme. See **6.3.6 Save a User Defined theme**. Any layer not already assigned to a theme can be added from the All Layers tab.

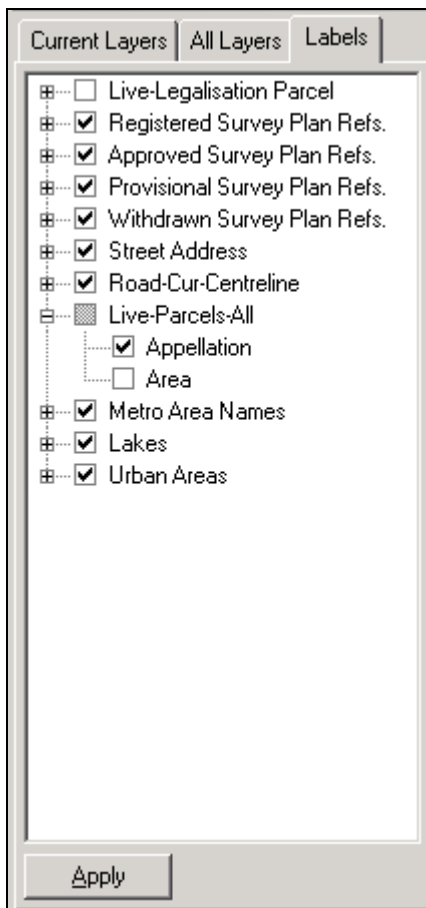
To select a theme of layers provided by Landonline to display in the Spatial Window, in the All Layers tab:

1. Select the name of the theme in the field next to   
The default set of layers for the theme have a tick next to each layer name.
2. Add any additional layers if required.
3. Click 

**Note:** While you may have selected the layers they will not display if they are outside the viewing scale range.

### 6.2.6 Labels tab

The Labels tab lists all labels available for layers representing objects in the Spatial Window.



The Labels tab allows you to turn labels for these layers off or on. The labels or information displayed for an object can be found by taking the corresponding name in the labels tab and expanding it to find the individual labels (eg parcels have an appellation label and an area label).

#### Tasks:

The tasks you can perform with the Labels tab are:

- Display the Labels tab.
- Turn labels on or off.

The following headings correspond with these tasks and describe them in more detail.


#### 6.2.6.1 Display the Labels tab

In the Spatial Window Layer Control area:


1. Select the Labels tab.

#### 6.2.6.2 Turn labels on or off

In the Labels tab:

1. Check or uncheck the box next to the group name to add or remove all labels in a group, or;
2. Expand the group name and check or uncheck the box next to each label name, as required, to turn those labels on or off.
3. Click  to update the Spatial Window.

#### Note:

- Some labels display as default. If the box for a group is  (grey) the group has at least one label selected. A  (ticked box) indicates all labels have been selected.
- While labels are selected for display they may not be visible on screen. This can be because the layer relating to the label is not visible, or the current scale for the screen is outside the display scale for the label. The viewing scale for labels can differ to its associated layer.

### 6.2.7 Viewing area

The viewing area of the Spatial Window displays spatial information.

#### 6.2.7.1 View scales for the Spatial Window

Layers and labels have predefined scales that determine the scale at which they turn on and off when displayed in the Spatial Window. This feature is to filter information for clarity. For example, parcel boundaries are not displaying with the parcel layer on. You will have the current scale for the Spatial Window outside the viewing range for the layer or label. When you open the Spatial Window it defaults to a set of viewing scales known as the Urban View.

To select a viewing scale, in the Spatial Window:



1. Select **Map View | View Scale |** and one of the following options:
  - Urban View: This is the default scale and it differs for each layer.
  - Rural View: Displays each layer at a default scale of 45,000.
  - Large Rural View: Displays each layer at a default scale of 245,000.

**Note:** You can also change the display scale for the Spatial Window by entering a number in

### 6.2.7.2 Magnify an area of the Spatial Window

Use the Magnify tool to view spatial information at a scale larger than 1:1.

To magnify an area of spatial information, in the Spatial Window:

1. Display the layers you require.
2. Click  (Magnify).
3. Click and drag to define the rectangular area of information you require magnified.
  - Landonline displays the selected area in the Spatial Magnify window.
4. Move the Spatial Magnify window to another area of the screen if required.
5. Resize the magnified image if required.
6. Click  to close the Spatial Magnify window.

**Note:** The Spatial Magnify window remains on top of the Spatial View until you close it.

### 6.2.8 Spatial Window Toolkit

**Table 6-5** lists other tools that assist with using the Spatial Window.

Tool	Description
Landonline Help	Press F1 in the Spatial Window to display more information.
Quick Reference Cards	Section: <i>e-search plus</i> . Topics: <ul style="list-style-type: none"> <li>• Use the Spatial Window.</li> <li>• Use Spatial Window Tools: Navigation and Selection.</li> <li>• Use Spatial Window Tools: Other Spatial Tools.</li> <li>• Use Spatial Window Layer Control.</li> </ul>

**Table 6-5 Spatial Window Toolkit**

## 6.3 View information in the Spatial Window

You can locate an object and view information in the Spatial Window in three ways:

1. Navigate in the Spatial Window.
2. Locate an item from the tree.
3. Use the Spatial Searches screen. See **6.5 Search using the Spatial Searches screen**.

### Tasks:

The tasks you can perform in the Spatial Window are:

- Display the Spatial Window.
- View information in the Spatial Window by navigating.
- View object information.
- Spatially locate information from the Searches tree.
- Display context layers.
- Save a User Defined theme.

The following headings correspond with these tasks and describe them in more detail.

### 6.3.1 Display the Spatial Window

In Searches:

1. Select Search | Spatial View...

### 6.3.2 View information in the Spatial Window by navigating

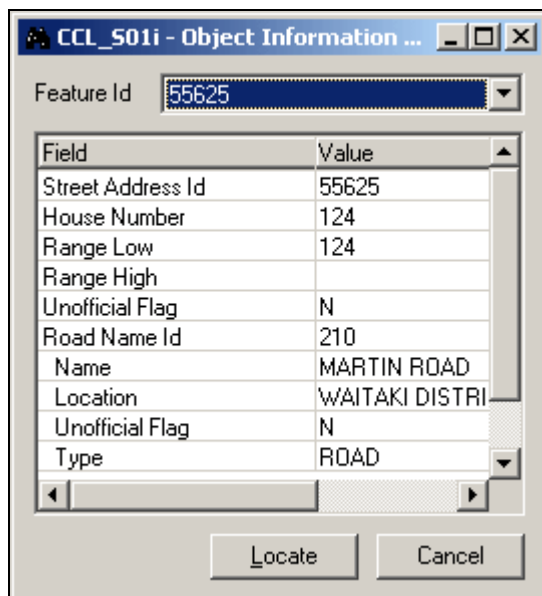
In the Spatial Window:

1. Use icons in the toolbar to navigate to the location you require. See 6.2.2 Toolbar.
2. Display the layer(s) of information you require.
3. Turn layers and labels off or on to view information as required. See **6.2.3 Layer Control**.
4. Select the viewing scale you require. See **6.2.7.1 View scales for the Spatial Window**.
5. Select objects and add them to the Searches tree to view their attributes, if required. See **6.6 Add objects to the Searches tree**.

**Note:** If Landonline displays the Conversion Freeze Areas layer, it indicates all parcels in this area have been selected for conversion.


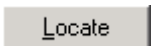
### 6.3.3 View object information

You can view information for mark, parcel and survey objects selected in the Spatial Window using the Object Information Tool screen.



The Object Information Tool screen lists the field name and value for the object. This tool is not limited to Searches. You can use it in the Spatial Window in other areas of Landonline to view a limited set of attributes for some layers (eg Survey Capture).

To view information for an object, in the Spatial Window:

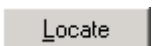
1. Make the appropriate layer active.
2. Click  (Object Information) or select **Map View | Object Information**.
3. Position the cursor over the spatial feature and click to display the Object Information Tools screen if attributes have been defined for the layer.
4. Click  in the Object Information Tool screen to see the feature flash again.
5. Repeat step 3 to refresh the window with details of a new object selected.

**Note:** If the Object Information Tool screen does not display when you select an object a message displays. Make sure the active layer is the correct layer or zoom to the object and try again. The active layer is not a layer that represents an object.

#### 6.3.3.1 View details when you select more than one object

If the scale of the Spatial Window is too small, you can select more than one object with the Object Information Tool screen, eg overlapping marks or marks in very close proximity to one another.

In the Object Information Tool screen:

1. Select the object from the drop down list of the Feature Id field.  
The information for the selected feature or object displays.
2. Click  to locate the feature or object in the Spatial Window.

### 6.3.4 Spatially locate information from the Searches tree

You can locate a survey, parcel or mark that has been added to the Searches tree and locate it in the Spatial Window.

In the Searches tree:

1. Select the survey, parcel or mark in the Searches tree.
2. Select **Map Utilities | Locate from Tree**.
  - Landonline positions the spatial display with the survey, parcel, or mark centred in the Spatial Window.
  - The parcel, survey reference points, or mark point, flashes four times.
3. Repeat Step 2 to see the object flash again.

### 6.3.5 Display context layers

Context layers (eg coastline, lakes, urban areas) display in the Spatial Window at scales smaller than 1:50,000. They exist to facilitate navigation and consist of generalised topographical information.

The context layers are not listed by default on the Current Layers tab of the Spatial Window.

To list context layers in the Current Layers tab, in the Spatial Window:

1. Select **Map View | Show Context Layers**.
2. Turn one or all of these layers off and on; or remove them from display.

**Note:** Context layers are always listed on the All Layers tab of the Spatial Window. For a complete list and description of these layers, see **6.3.5 Display context layers** and **Appendix I: Spatial layers**.

### 6.3.6 Save a User Defined theme

You can personalise your Spatial Window display and save it as your User Defined theme. The next time you open the Spatial Window your User Defined theme will display.

You can modify layers in your theme while working in the Spatial Window. Unless you save these modifications, your User Defined theme remains unchanged.

#### 6.3.6.1 Save a User Defined Theme

To create and save a User Defined theme, in the Spatial Window:

1. Display the layers you want to save as your theme.
2. Click **Default** in the Current Layers tab to save the layers displayed as your User Defined theme.

**Note:**


- Landonline saves these layers in the order you selected. It will not save the label setting.

- You can only have one User Defined theme. You can modify and save it as often as required.

### 6.3.6.2 Restore a User Defined theme

You can restore your User Defined theme if you have modified layers in the theme or have another theme displayed.

To restore your User Defined theme, in the Spatial Window:

1. Select the All Layers tab.
2. Select User Defined from the theme drop down list.
3. Click  to display your User Defined theme in the Spatial Window.
4. Select the Labels tab if you want to display labels. Turn labels for layers on or off as required.

**Note:** If you modify your User Defined theme you can save this as your new default. Landonline overwrites your previous User Defined theme.

### 6.3.7 View information in the Spatial Window Toolkit

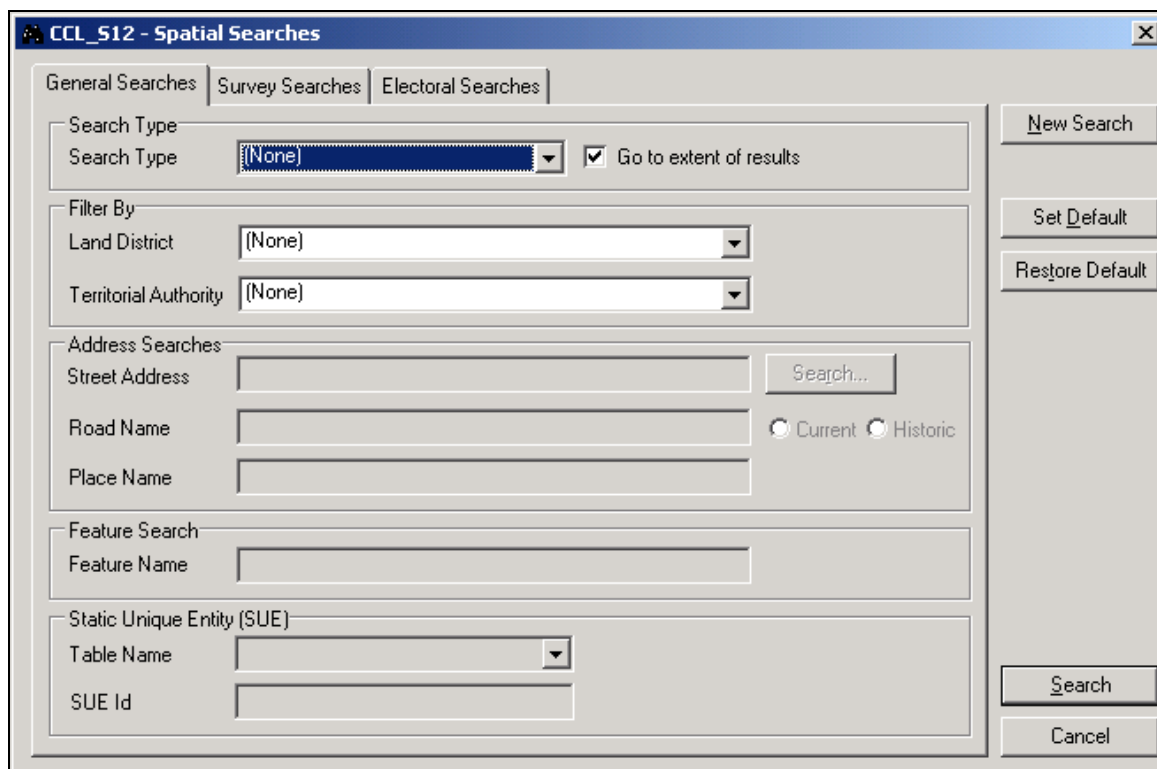
**Table 6-6** lists other tools that assist with viewing information in the Spatial Window.

Tool	Description
Landonline Help	Press F1 in the Spatial Window to display more information about viewing information in the Spatial Window.
Quick Reference Cards	Section: <i>e-search plus</i> . Topics: <ul style="list-style-type: none"> <li>• Locate Objects Spatially.</li> <li>• Use Spatial Window Tools: Navigation and Selection</li> <li>• Use Spatial Window Tools: Other Spatial Tools.</li> <li>• Use Spatial Window Layer Control.</li> </ul>

**Table 6-6 View information in the Spatial Window Toolkit**

## 6.4 Spatial Searches screen

You can perform searches using the Spatial Searches screen to display features in the Spatial Window.



There are three tabs in the Spatial Searches screen:

- General Searches tab
- Survey Searches tab
- Electoral Searches tab (LINZ internal use).

You can locate objects in the Spatial Window using text based information in the Spatial Searches screen. You must have the Spatial Window open to perform this type of search.

If your search returns more than one search result, the Spatial Window zooms to display them all. When there are over 50 results to display, Landonline displays a message asking if you wish to continue.

### 6.4.1 General Searches tab

You use the General Searches tab of the Spatial Searches screen to search for a:

- Street address
- Place name
- Road name
- Feature name
- Static Unique Identity Id (SUE Id).

This is the default tab when you open the Spatial Searches screen.

### 6.4.1.1 Static Unique Entity Ids

Each spatial object has a unique number in Landonline. This is known as a Static Unique Entity Id (SUE Id). This number can be used to search for spatial objects (eg parcel Ids, mark Ids and node Ids) in the General Searches tab of the Spatial Searches screen.

You can find a SUE Id for a spatial object by:

- Querying using the Object Information tool. See **6.3.3 View object information**.
- Searching parcels by appellation. See **5.7 Search for a parcel**.

A SUE Id search will only return one result.

### 6.4.2 Survey Searches tab

You use the Survey Searches tab of the Spatial Searches screen to search for:

- Survey number
- Parcel appellation
- Mark.

## 6.5 Search using the Spatial Searches screen

Steps:

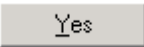
The steps required to search using the Spatial Searches screen are:

1. Display the Spatial Searches screen.
2. Perform a search using the General Searches tab.
3. Perform a search using the Survey Searches tab.

The following headings correspond with these steps and describe them in more detail.

### 6.5.1 Display the Spatial Searches screen

To display the Spatial Searches screen, in Searches:

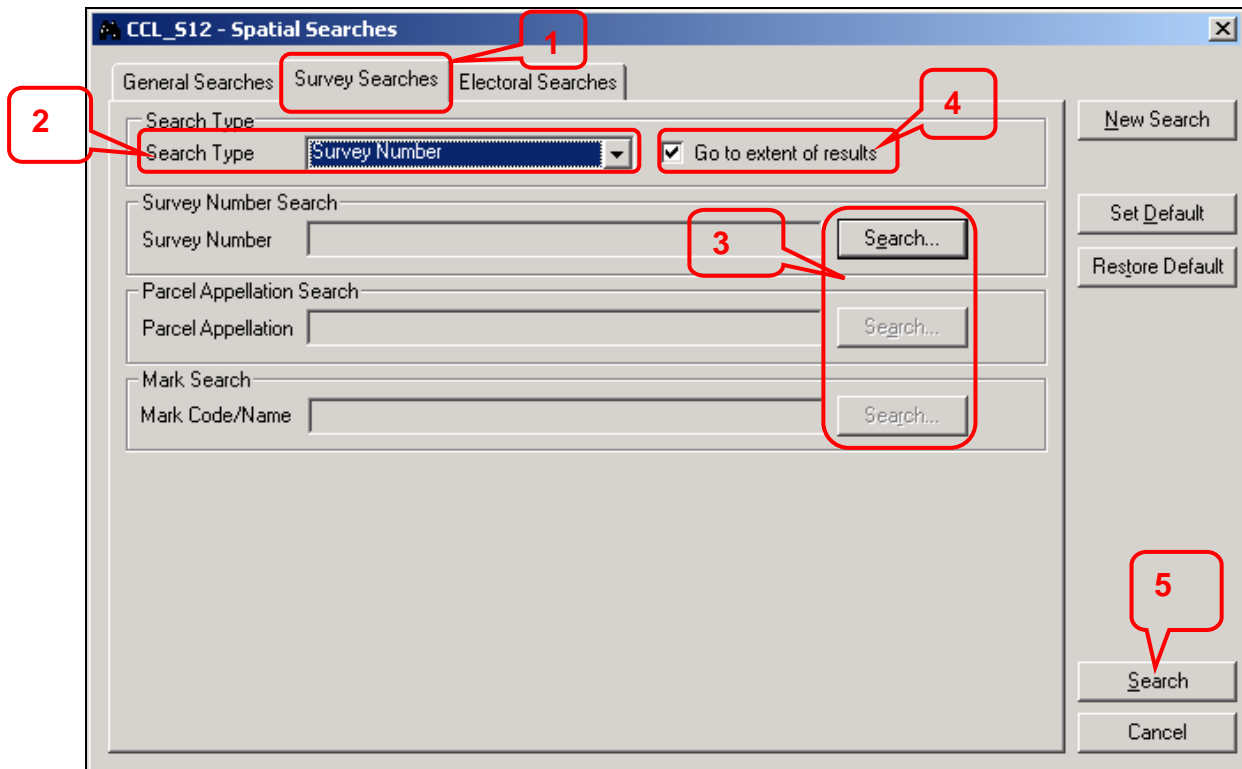
1. Select **Search | Spatial Search...** to display the Spatial Searches screen.
  - If the Spatial Window is not already open a message displays asking if you would like to open it.
  - Click  to display the Spatial Window and the Spatial Searches screen.

## 6.5.2 Perform a search using the General Searches tab

In the General tab of the Spatial Searches screen:

1. Select the type of search you want to perform in the Search Type field (ie Street Address, Road Name, Place Name, Feature or SUE Id). Landonline activates the appropriate fields or button.
2. Enter or select your search criteria:
  - Street Address. Click **Search...** to display the Street Address Search screen. Enter the street address and click **OK** to add the address in the Street Address field. See **5.10 Search by street address**.
  - Road Name. Enter the name of the road and indicate whether the name is Current or Historic. Historic dates from the implementation of Landonline in the Region.
  - Place Name. Enter the name of the place and add an asterisk (\*) immediately after (eg Hawea\*). This will retrieve the feature name even if the name you entered is not officially assigned by the NZ Geographic Board.
  - Feature Name. Enter the feature name (eg Lake Tekapo).
  - Static Unique Identity (SUE). Select the Table Name and type the SUE Id. For more information, see **6.4.1.1 Static Unique Entity Ids**.
3. Refine your search further by selecting the Land District and/or Territorial Authority if required. It is important to filter by these fields if you are searching for a road or street address.
4. Leave  **Go to extent of results** checked to display the full extent of the object centred in the Spatial Window.
5. Click **Search** to close the Spatial Searches screen and display the object(s) in the Spatial Window.

### 6.5.3 Perform a search using the Survey Searches tab



In the Spatial Searches screen:

1. Select the Survey Searches tab.
2. Select the type of survey search to perform in the Search Type field. This activates the appropriate  button.
3. Click  to display the appropriate search screen. Select a survey number, parcel appellation or mark to add it to the appropriate field in the Survey Searches tab.
  - Survey Number. The Search Survey screen displays. See **5.3 Search for a survey**.
  - Parcel Appellation. The Search Appellation screen displays. See **5.9 Search for a survey or title by appellation**.
  - Mark. The Search Mark screen displays. See **5.6 Search for a mark**.
4. Leave   checked to display the full extent of the object centred in the Spatial Window.
5. Click  to close the Spatial Searches screen and display the survey object in the Spatial Window.

### 6.5.4 Search using the Spatial Searches screen Toolkit

**Table 6-7** lists other tools that assist with searching using the Spatial Searches screen.

Tool	Description
Landonline Help	Press F1 in the Spatial Searches screen to display more information.
Quick Reference Cards	Section: <i>e-search plus</i> Topic: Use Text to Search Spatially.

**Table 6-7 Search using the Spatial Searches screen Toolkit**

## 6.6 Add objects to the Searches tree

You can select one or more objects in the Spatial Window and add them to the Searches tree. Objects you can add to the Searches tree from the Spatial Window are:

- Parcels
- Related titles for parcels
- Vectors
- Surveys
- Marks.

Adding objects to the Searches tree allows you to view information in:

- a Structured Text View (ie summary information). See **5.14.1 View structured text**.
- an Image View. See **5.14.2 View an image**.
- a spatial object view. See **5.14.3 View spatial information**.

Objects remain in the Searches tree until you close Searches.

You can save items added to the Searches tree during a session and recall it later. When you recall the saved session, you need to expand the Searches tree to view all details. See **4.7 Save and recall favourites**.

### Tasks:


You can:

- Add individual objects to the Searches tree.
- Add all objects in a defined area to the Searches tree.
- Add all titles for selected parcels to the Searches tree.
- Clear selected objects.

The following headings correspond with these tasks and describe them in more detail.

### 6.6.1 Add individual objects to the Searches tree




In the Spatial Window:

1. Navigate to the area you require using toolbar icons or the options in the Map View menu.
2. Display the relevant spatial layers for the object(s).
3. Make the layer in which the object resides active.
4. Click  (Select Individual) and select the object. Hold the Ctrl key and click each object to select more than one object in that layer.
5. Add the selected objects or related titles to the tree:
  - Select **Map Utilities | Add to Tree | Selected Object(s)** to add selected marks or vectors to the Searches tree.
  - Select **Map Utilities | Add to Tree | Related Title(s)** to add the title reference for the selected parcel to the Searches tree. This option is only available for parcels. Landonline adds the object(s) to the Searches tree.

**Note:** You can select an individual object in the Spatial Window and drag and drop it to the Searches tree. You cannot use this method to add titles to the Searches tree related to a selected parcel.

### 6.6.2 Add all objects in a defined area to the Searches tree

In the Spatial Window:

1. Navigate to the area you require using toolbar icons or the options in the Map View menu.
2. Display the relevant spatial layers.
3. Make the layer you require active.
4. Click  (Select by Rectangle),  (Select by Circle), or  (Select by Polygon) and define the area containing objects you require.
5. Select **Map Utilities | Add to Tree | Selected Object(s)**.  
Landonline adds details of all object(s) selected to the appropriate folder in the Searches tree for the displayed layers, if the layer contains objects that can be added to the Searches tree.

**Note:** When defining an area to select multiple parcels, take care to include the full extent of the parcels within the defined area.

### 6.6.3 Add all titles for selected parcels to the Searches tree

In the Spatial Window:

1. Navigate to the area you require using toolbar icons or the options in the Map View menu.
2. Display the relevant spatial layers.
3. Make the Live Primary Parcel layer active.
4. Select the parcel you require.
5. Select **Map Utilities | Add to Tree | Related Title(s)** to add all details of titles to the Titles folder on the Searches tree.
  - Not all spatial parcels have titles linked to them.
  - When none of the selected parcels are linked to titles, a message displays to advise.
  - For a parcel affected by a standard unit development or subsidiary unit developments, the Supplementary Record Sheed (SRS) for all developments will be added to the tree.

### 6.6.4 Clear selected objects

The objects, once selected, remain coloured or identified in yellow.

To clear the selected object, in the Spatial Window:

1. Select **Map View | Clear Selection**.

## 6.6.5 Add objects to the Searches tree Toolkit

**Table 6-8** lists other tools that assist with adding spatial objects to the Searches tree.

Tool	Description
Landonline Help	Press F1 in the Spatial Window to display more information.
Quick Reference Cards	Section: <i>e-search plus</i> . Topic: Add Spatial Objects to the Searches Tree.

**Table 6-8 Add objects to the Searches tree Toolkit**




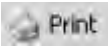

## 6.7 View spatial objects from the Searches tree

You can view details of all objects you added to the Searches tree from the Spatial Window. For more information about viewing the item you select, see **5.14 View items added to the Searches tree**.

## 6.8 Print a copy of a Spatial View

You can print an image of the data currently displayed in the Spatial Window. You can also print a Spatial View (ie Survey View and Parcel View) from the Searches tree. The image that prints depends on the current viewing scale of the Spatial Window and the print options selected in the Print To Scale screen.

To print the spatial image displayed, in the Spatial Window:

1. Display the area you require.
2. Display the layers and labels required.
3. Select **File | Print**.
  - The Print screen displays with UniPrint as the name of the printer.
4. Click  to display the Print To Scale screen.
5. Type a name for the image in the Title field if required.
6. Change the Scale of the image if required.
7. Select the page orientation (ie Portrait or Landscape).
8. Click  for additional printer options if required.
9. Click  to redraw the data displayed in the Spatial Window and continue to the UniPrint Preview screen (if this option is selected in your UniPrint settings).
  - The UniPrint Preview screen displays with a preview of the spatial view.
10. Click  to display the Print screen (if this option is selected in your UniPrint settings).
11. Select your print options if required.
12. Click 
  - After the image is printed the Spatial Window returns to its normal settings.

**Note:** There is no fee for printing a Spatial View.

If the image you printed does not contain all the information displayed in the Spatial Window (ie labels are missing) see topic **6.8.1 Printer troubleshooting**.

When printing you can set your computer to preview items using UniPrint or Acrobat Reader. The steps in this guide are for UniPrint. To print from Acrobat Reader, select **File | Print...** For more information, go to the *e-search* area of the Landonline website and select Printing, using the spatial window and viewing images FAQs and tips.

### 6.8.1 Printer troubleshooting

When printing a spatial image to scale using Windows 95, sometimes the images print with labels missing (eg road labels and appellation labels). This is due to the way 'Windows 95' printer drivers operate and the fonts loaded on the printer.

This usually happens when printers with fonts loaded take control of the font printing. When the printer tries to print labels that have been spun (ie road names) or dynamically sized (ie appellations), the printer cannot print them using the printer's loaded fonts so it does nothing.

You can correct this printing problem by changing your printer settings. See topic **6.8.2 Temporarily change your printer settings**.



This problem will not occur when printing from Windows NT, or if the font the mapping routine uses has been loaded in your printer.

You should only change the printer settings when printing spatial images, and only if required.

### 6.8.2 Temporarily change your printer settings

If the spatial image you printed from the Spatial Window does not contain all the labels or appellations, you can temporarily change the printer settings.

To change the printer settings to print a spatial image, in the Spatial Window:

1. Follow the Steps 1 to 8 in topic 6.8 Print a copy of a Spatial View.
2. Click  to display the Standard Properties screen.
3. Select each tab until you find a True Type font option (eg Download True Type fonts as bitmap soft fonts, Send True Type fonts as bitmaps). The options available depend on your driver.
4. Select the True Type font option to send to the printer as a bit map.
5. Click  to return to the Print To Scale screen.
6. Follow Steps 9 to 12 in topic **6.8 Print a copy of a Spatial View**.

**Note:** Return the printer settings to what they were when you finish printing spatial images.

### 6.8.3 Print a copy of a Spatial View Toolkit

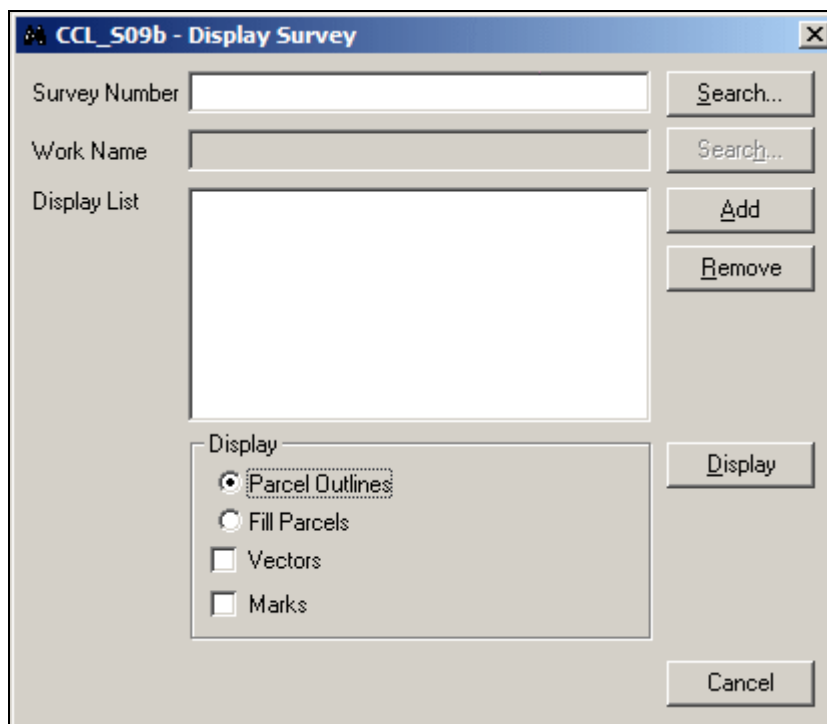
**Table 6-9** lists other tools that assist with printing a copy of a Spatial View from the Spatial Window.

Tool	Description
Landonline Help	Press F1 in the Searches to display more information about printing a copy of a Spatial View from the Spatial Window.
Quick Reference Cards	Section: <i>e-search plus</i> . Topic: Use the Spatial Window.


**Table 6-9** Print a copy of a Spatial View Toolkit

## 6.9 View surveys spatially

You can add the digital survey information for a survey to the Spatial Window using the Display Survey screen.



The survey displays in the Spatial Window in the colour you choose. You can add more than one survey and select a different colour for each.

To reduce screen clutter in the Spatial Window, by default, none of the objects displayed are labelled. You can use  (Object information) to view details about marks. See **6.3.3 View object information**.

**Note:** Surveys lodged prior to Landonline, and Flat or Unit plans without a survey sheet, will have little or no data to display in the Spatial Window.

## Steps:

The steps required to spatially view surveys are:

1. Display the Display Survey screen.
2. Select surveys to view.
3. Display vectors and marks.
4. Remove a survey from display.

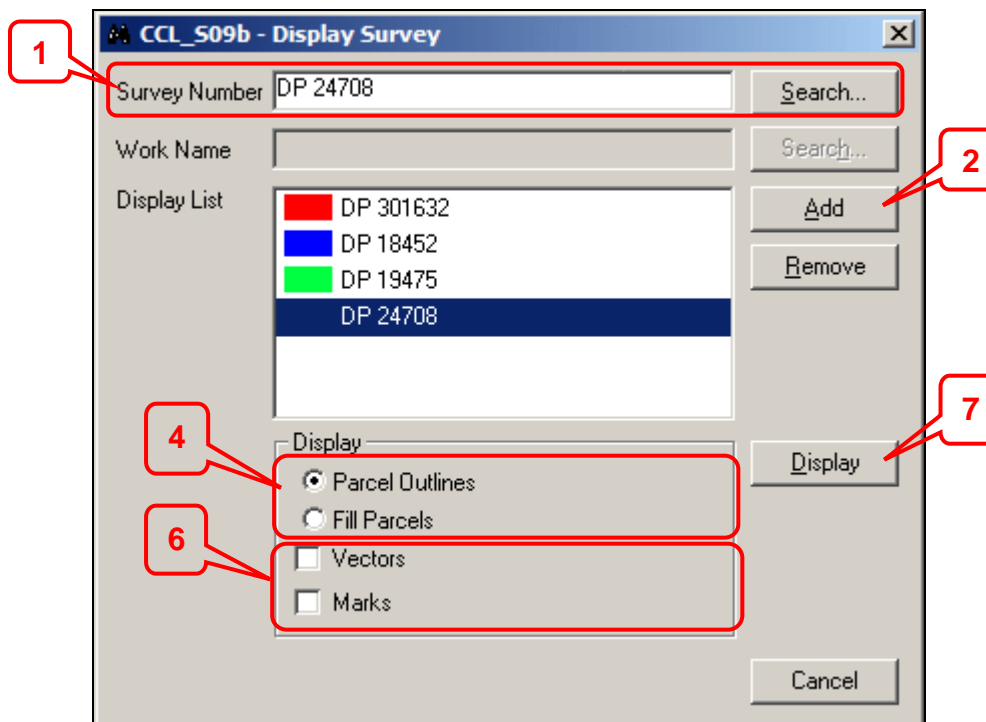
The following headings correspond with these steps and describe them in more detail.

### 6.9.1 Display the Display Survey screen

In Searches:

1. Display the Spatial Window.
2. Select **Map Utilities | Display Survey/Work...**

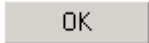
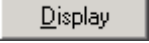

### 6.9.2 Select surveys to view



Henry Brown has added four surveys to the Display Survey screen. He can now view these surveys in the Spatial Window. Each survey will display in the Spatial Window in the colour Henry selected.

In the Display Survey screen:

1. Click in the Survey Number field and enter the survey number.
  - If you don't know the number, click **Search...** and search for the survey you require.
  - If there is more than one survey with the same number, the Select Survey Dataset screen displays for you to select the Land District.
2. Click **Add** to display the colour pallet.


3. Select the colour you want the survey to display in the Spatial Window and click  to add the survey number to the Display List with a sample of the selected colour next to it.
4. Select how to display parcels for the survey in the colour you chose:
  - Select Parcel Outlines for parcels outlined in the colour; or
  - Select Fill Parcels for parcels filled with the colour.
5. Repeat Steps 2 to 4 if you want to add other surveys to the list.
6. Check the Vectors check box and/or Marks check box if you want to display these layers. These selections apply to all surveys in the list.
7. Click  to display the survey(s) in the Spatial Window. The selected layers are listed on the Current Layers tab as DSP (Display) layers.
8. Select one of the DSP layers in the Current Layers tab to make it active.
9. Click  (Zoom Layer) to display the extent of the data for the selected DSP layer. For example, if you choose the polygon DSP layer for a survey, the extent of the live parcels for the survey will display.
10. Repeat steps 8 and 9 to display the extent of the data for another DSP layer. Depending on the data held in Landonline, some DSP layers may not contain data. For example, marks and vectors may not have been captured in Landonline for the selected survey.

**Note:**

- These surveys remain listed in the Display Survey screen until you remove them. See **6.9.4 Remove a survey from display**.
- The colours are reflected in the Current Layers tab.

### 6.9.3 Label vectors or marks

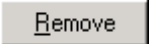
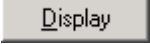
In the Spatial Window:

1. Select the Label tab.
2. Expand the tree and check the DSP label layer you require. Landonline identifies the label layer by survey number (eg DSP: DP 24708 (Vct)).
3. Click .

### 6.9.4 Remove a survey from display

Surveys listed in the Display Survey screen remain in this screen until you remove them.

In the Display Survey screen:

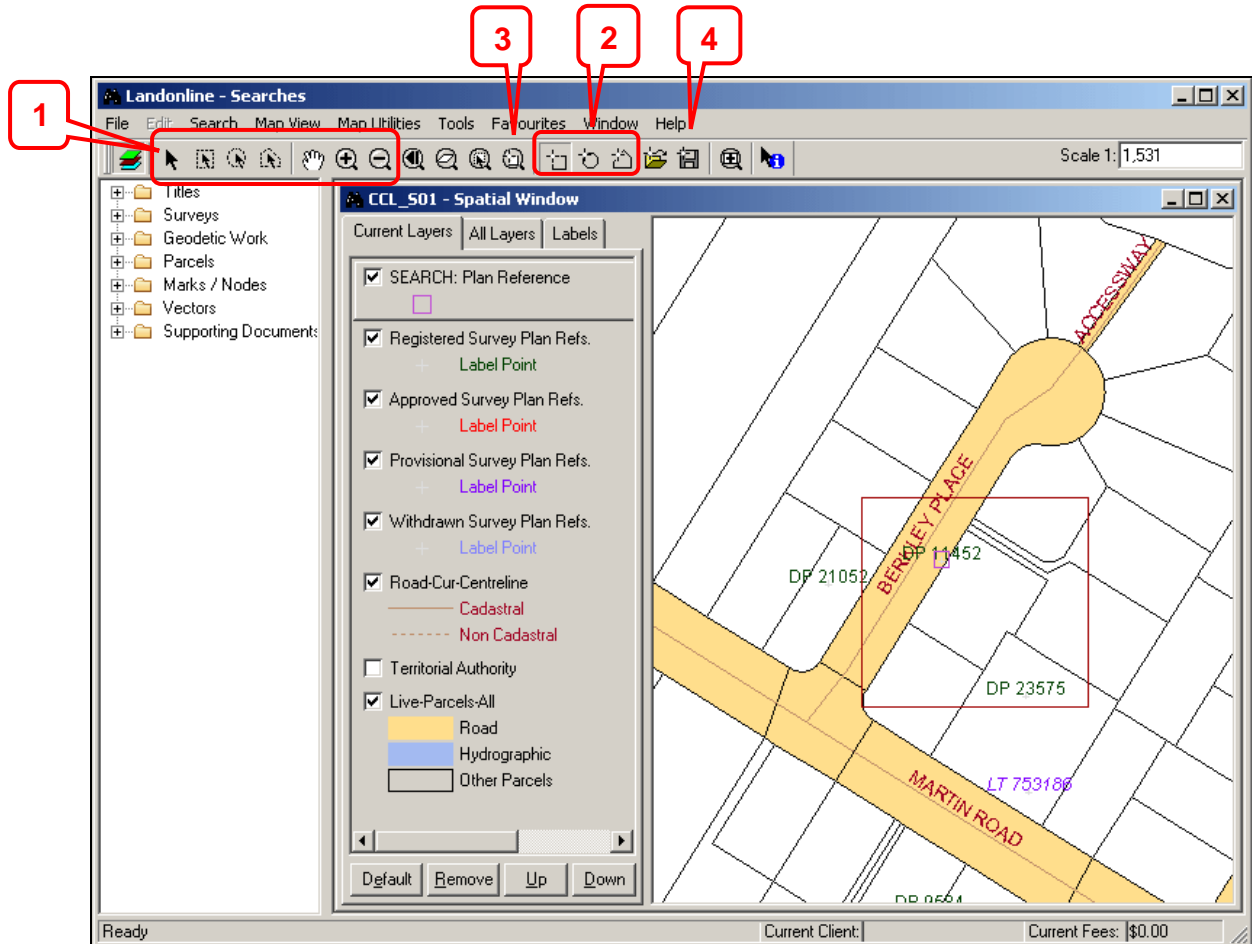
1. Select the survey in the Display List to remove.
2. Click .
3. Click  to refresh the Spatial Window with the remaining surveys.

## 6.10 Save and load an area of interest






You can define an area of interest in the Spatial Window and save it to a file to load and reference at a later time (eg if you are working on several areas at a time). When you reload an area of interest, you can quickly go to that area in the Spatial Window.

**Note:** Saving a defined area of interest does not save session details (eg layers loaded, Searches tree items, etc). It only saves the definition of the area of interest.

### 6.10.1 Define and save an area of interest



In the Spatial Window:


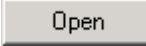

1. Navigate to the area you require.
2. Click  (Define by Rectangle),  (Define by Circle), or  (Define by Polygon) and define your area of interest. For more information, see **6.2.2.2 Area of Interest tools**.
  - If you make a mistake when defining the area, select **Map View | Define Area of Interest | Clear** to remove. Alternatively, click the left mouse or double click for a polygon.
3. Click  (Zoom Area of Interest) to zoom to your area of interest.
4. Click  (Save Area of Interest) to display the Select File screen.
5. Select the path and enter the file name to save to a location on your computer.

6. Click 

### 6.10.2 Load a saved area of interest

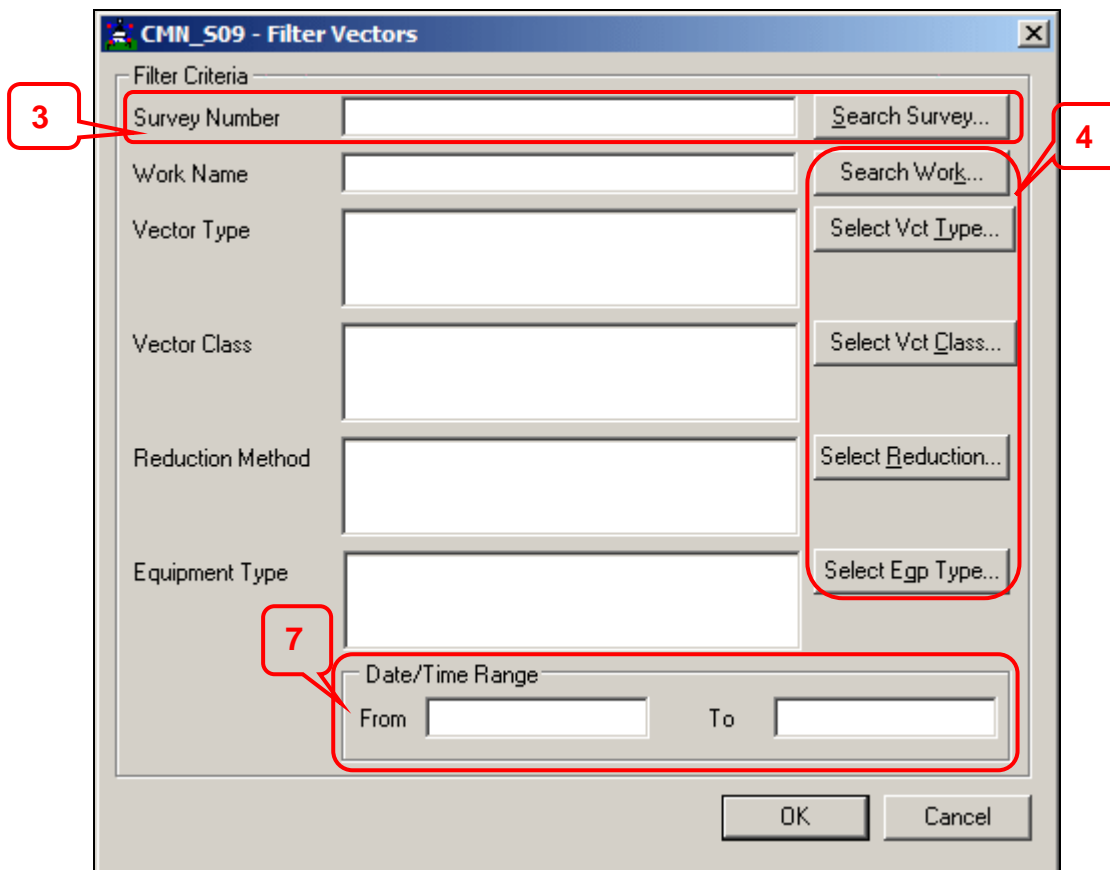
You can retrieve an area of interest previously saved to a file on your computer.

In the Spatial Window:


1. Click  (Load Area of Interest) to display the Select Item screen.
2. Select the path and name of the file to load.
3. Click  to display the defined working area in the Spatial Window.
4. Click  (Zoom Area of Interest) if necessary.
5. Display the layer information you require.

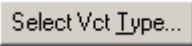
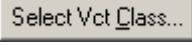
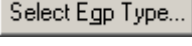
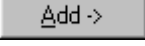
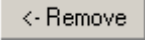

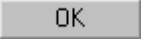
### 6.11 Filter vectors

You limit the vectors you view in the Spatial Window using the Filter Vectors screen. Your filter can be based on one or a combination of fields on this screen.


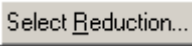


To filter vectors, in the Spatial Window:

1. Make the appropriate vector layer active.
2. Select **Capture | Filter Vectors | Apply Filter...** to display the Filter Vectors screen.
3. Enter the number of the survey in the Survey Number field if you want to filter vectors only for this survey to display. Alternatively, click  to search for the survey. See **5.3 Search for a survey**.

4. Click one of the Select buttons to display the Select Items screen to refine your filter criteria if required. The criteria that displays will depend on the button you select.
  - Click  to display Vector Type options.
  - Click  to display Vector Class options.
  - Click  to display Equipment Type options.
5. Select the items you require from the Select Items screen:
  - Select one or more items in the Items available for selection list.
  - Click  to add items to the Selected Items list.
  - Click  to remove items from the Selected Items list.
  - Click  to return to the Filter Vectors screen.
6. Repeat Steps 4 and 5 if required.
7. Enter dates in the Date/Time Range fields if required. Each vector has a date of survey recorded with it.
8. Click  to display the filtered information in the Spatial Window.

**Note:**

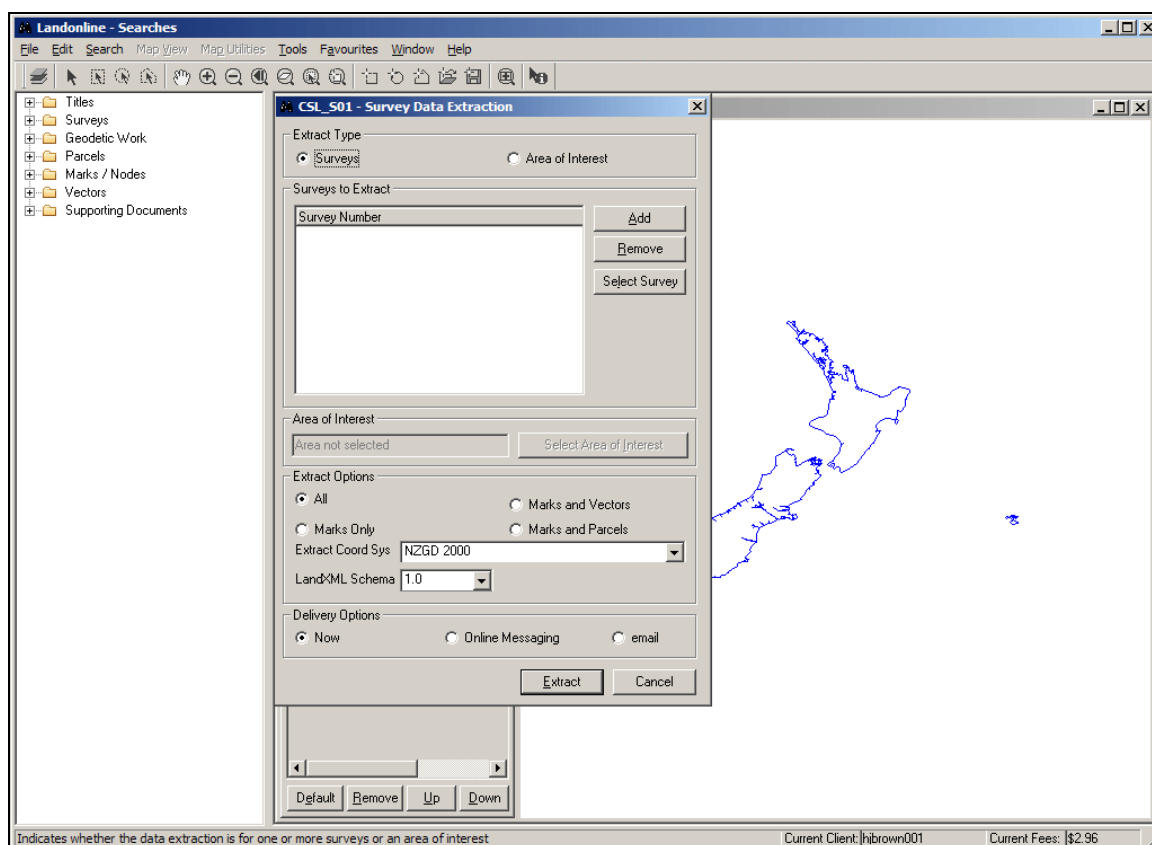
- If you have already filtered vector you must remove the filter criteria before performing a new filter.
- Only vectors that meet the search criteria will display. The Work Name field, Reduction Method field,  and  are used by LINZ.

To remove the vector filter, in the Spatial Window:

1. Select **Capture | Filter Vectors | Remove Filter**.

## 6.12 About extracting survey data

You extract existing data from Landonline using the Survey Data Extraction screen.



You can extract existing data from one or more surveys by:

- entering survey numbers directly into the Survey Data Extraction screen
- selecting survey numbers in the Spatial Window
- defining an area of interest in the Spatial Window.

There are no fees charged for data extraction.

**Note:** Once you complete your first survey data extract, Landonline uses the options you selected as defaults for the next time you extract data.

### Extract by Surveys

Extracting by survey number is useful when the survey vectors and parcels cover a large area. This method of extraction may include the trig vector and trig mark information in the XML file. See section **6.13.2 Extract by survey number**.

When you extract by survey number, the XML file contains all information for the survey at the time of deposit or approval. If you extract more than one survey at a time, some vectors can be in the XML file more than once. This is because the vector was used by more than one of the surveys extracted. In this instance, the vector information may differ. You will need to determine which vector is the current one as held by Landonline.

The Spatial Window does not need to be open to use this method. If the Spatial Window is open, you can spatially select referenced labels then open the Survey Data Extract screen

and click **Select Survey** to add the survey(s). See section **6.13.3 Select a survey to extract from in the Spatial Window**.

### Extract by Area of Interest

When you extract by Area of Interest you must use the Spatial Window. Only vectors, marks and parcels that fall wholly within the area defined will be extracted. The benefit of using this method is you will get the current vector and mark information for the surveys in the area defined and this information will not be repeated. See section **6.13.4 Extract by area of interest**.

## 6.12.1 Data extract options

The maximum size for a survey extract file is 2mb. Other restrictions are:

- Extract by Surveys – up to a maximum of 20 surveys (provided the size of the extract file is within 2mb).
- Extract by Area of Interest – up to a maximum of 20,000 objects (provided the size of the extract file is within 2mb).

**Table 6-10** describes the information Landonline extracts for each extract option in the Survey Data Extraction screen. For a description of data extracted for each option, see **Appendix F: Details of extracted objects**.

Extract Option	Information Extracted	Extract limit
All	Marks, nodes, coordinates, vectors, parcels (ie live and approved parcels), lines, vertices and survey header information.	6,000 marks and vectors.
Marks Only	Marks, nodes, coordinates and survey header information.	20,000 marks.
Marks and Vectors	Marks, nodes, coordinates, vectors and survey header information.	15,000 marks and vectors.
Marks and Parcels	Marks, nodes, coordinates, parcels (ie live and approved parcels), lines, vertices and survey header information.	8,000 marks and parcels.

**Table 6-10 Data extract options**

## 6.12.2 Coordinates

Landonline holds an NZGD 2000 coordinate for every mark recorded in the database. When you extract data from Landonline, you can choose to transform the coordinates into another coordinate system. This transformation doesn't modify details of the survey vectors extracted. These transformations are automatically performed when you select a coordinate system in the Extract Coord System field of the Survey Data Extraction screen.

You cannot transform coordinates to Old Cadastral Datum because transformations between NZGD 2000 and Old Cadastral Datum are not available.

## 6.12.3 Delivery Options

Landonline delivers a file to you in XML format. XML is the standard format used in Landonline to transfer survey data. There are restrictions on the size of file you can download.

If you select Now as your delivery option, the file starts downloading once the information is extracted from Landonline. You cannot perform other functions in Landonline until the file has finished downloading.

If you request the XML file via Online Message or email, Landonline processes your request in a batch and delivers it once the batch is complete.

## 6.13 Extract survey data

<p>Tasks:</p> <p>You can:</p> <ul style="list-style-type: none"><li>• Display the Survey Data Extraction screen.</li><li>• Extract by survey number.</li><li>• Select a survey to extract from in the Spatial Window.</li><li>• Extract by area of interest.</li></ul>
--

The following headings correspond with these tasks and describe them in more detail.

### 6.13.1 Display the Survey Data Extraction screen

In Searches:

1. Select **Tools | Extract Survey Data...**

**Note:** If you want to select a survey spatially, select it in the Spatial Window before you display the Survey Data Extraction screen. See **6.13.3 Select a survey to extract from in the Spatial Window.**

## 6.13.2 Extract by survey number

You must know the number of the survey you want to extract underlying data from.

In the Survey Data Extraction screen:

1. Click  to insert a blank row in the Surveys to Extract list.
2. Enter the Survey Number.
3. Repeat Steps 1 and 2 to add another survey as required. You can add up to 20 surveys.
  - Select the number and click  to remove a survey number from the list.
4. Select the Extract Options you require:
  - Select All, Marks Only, Marks and Vectors or Marks and Parcels only. See **6.12.1 Data extract options**.
  - Select the coordinate system in which you want the coordinates to be extracted.
  - Select the LandXML Schema version to use in the LandXML Schema field drop down list. If your survey contains a marginal strip parcel, select the latest Schema version.

5. Select your Delivery Options for the XML file:
  - Select Now to start downloading the information once you have selected to extract the data from Landonline.
  - Select Online Messaging to receive a message in your My Messages folder in Workspace. The XML file of exported data will be an attachment to the message.
  - Select email to receive a message via email. The XML file of exported data will be an attachment to the email.
6. Click  to display a message advising the size of the extract file. Click  if you want to continue. If the message advises the size of the file is not supported, click . Redefine your criteria to reduce the size of the extract file and repeat this step.
  - If you selected Now as your delivery option, Landonline displays a Save As window for you to select a location and name of the file.
  - If you requested to receive the XML file by Online Message or email, Landonline processes your request in a batch and delivers it once the batch is complete.

**Note:**

- If you select Now as your delivery option, you cannot perform other functions in Landonline until the file has finished downloading.
- If your survey contains a marginal strip parcel, always select the latest LandXML Schema version for the extraction. If you select an old XML Schema version, you will need to manually correct the Parcel Intent and Topology on the marginal strip parcel and re-link the parcel in Landonline using Survey Capture. For more information, refer to the **e-survey User Guide**.

### 6.13.3 Select a survey to extract from in the Spatial Window

In the Spatial Window:

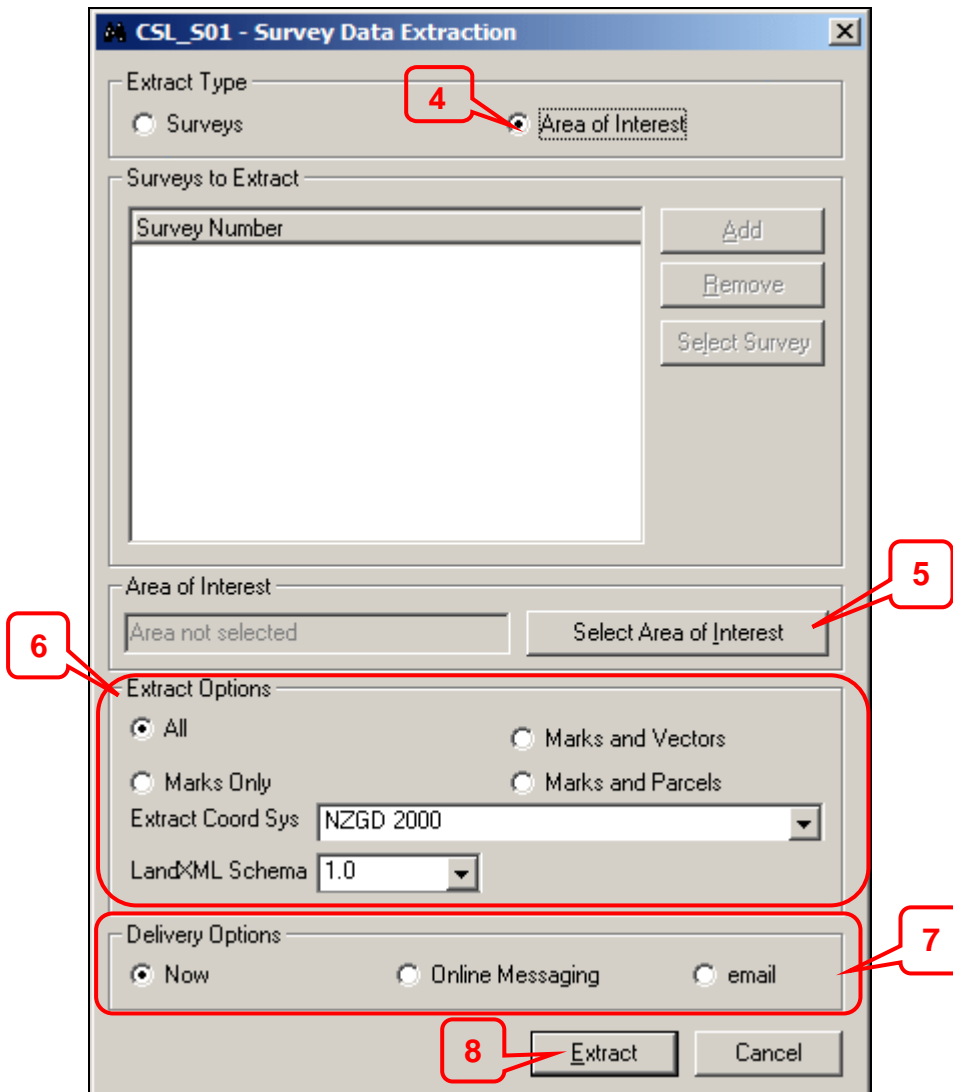
1. Make the appropriate layer(s) active (eg Registered Survey Plan Reference layer, Approved Survey Plan Reference layer).
2. Navigate to the area you require.
3. Select one or more survey numbers using any of the Spatial Window selection tools (eg click and drag over the plan reference labels).
4. Select **Tools | Extract Survey Data...** to display the Survey Data Extraction screen.
5. Select Surveys as the Extract Type. This is the default.
6. Click  to list the survey numbers you selected in the Spatial Window in the Surveys to Extract list.
7. Select the Extract Options you require:
  - Select All, Marks Only, Marks and Vectors or Marks and Parcels only. See **6.12.1 Data extract options**.
  - Select the coordinate system in which you want the coordinates to be extracted.
  - Select the LandXML Schema version to use in the LandXML Schema field drop down list. If your survey contains a marginal strip parcel, select the latest Schema version.

8. Select your Delivery Options for the XML file:
  - Select Now to start downloading the information once you have selected to extract the data from Landonline.
  - Select Online Messaging to receive a message in your My Messages folder in Workspace. The XML file of exported data will be an attachment to the message.
  - Select email to receive a message via email. The XML file of exported data will be an attachment to the email.
9. Click  to display a message advising the size of the extract file. Click  if you want to continue. If the message advises the size of the file is not supported, click . Redefine your criteria to reduce the size of the extract file and repeat this step.
  - If you selected Now as your delivery option, Landonline displays a Save As window for you to select a location and name of the file.
  - If you requested to receive the XML file by Online Message or email, Landonline processes your request in a batch and delivers it once the batch is complete.

**Note:**

- If you select Now as your delivery option, you cannot perform other functions in Landonline until the file has finished downloading.
- If your survey contains a marginal strip parcel, always select the latest LandXML Schema version for the extraction. If you select an old XML Schema version, you will need to manually correct the Parcel Intent and Topology on the marginal strip parcel and re-link the parcel in Landonline using Survey Capture. For more information, refer to the *e-survey User Guide*.




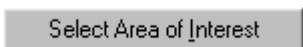
### 6.13.4 Extract by area of interest



You can extract existing Landonline data using an area of interest previously marked in the Spatial Window. There are several methods you can use to extract information from an area of interest. The steps below outline the recommended method to use.

**Note:** Only information completely contained within the area of interest will be extracted.

In the Spatial Window:

1. Navigate to the area you require.
2. Click  (Define by Rectangle),  (Define by Circle), or  (Define by Polygon) and define your area of interest. The items you select to extract must be completely contained within your area of interest. You can select up to 20,000 objects.
3. Select **Tools | Extract Survey Data...** to display the Survey Data Extraction screen.
4. Select Area of Interest as the Extract Type.
5. Click 
6. Select the Extract Options you require:
  - Select All, Marks Only, Marks and Vectors or Marks and Parcels only. See **6.12.1 Data extract options**.

- Select the coordinate system in which you want the coordinates to be extracted from.
  - Select the LandXML Schema version to use in the LandXML Schema field drop down list. If your survey contains a marginal strip parcel, select the latest Schema version.
7. Select your Delivery Options for the XML file:
- Select Now to start downloading the information once you have selected to extract data from Landonline.
  - Select Online Messaging to receive a message in your My Messages folder in Workspace. The XML file of exported data will be an attachment to the message.
  - Select email to receive a message via email. The XML file of exported data will be an attachment to the email.
8. Click  to display a message advising the size of the extract file. Click  if you want to continue. If the message advises the size of the file is not supported, click . Redefine your criteria to reduce the size of the extract file and repeat this step.
- If you selected Now as your delivery option, Landonline displays a Save As window for you to select a location and name of the file.
  - If you requested to receive the XML file by Online Message or email, Landonline processes your request in a batch and delivers it once the batch is complete.

**Note:**

- If you select Now as your delivery option, you cannot perform other functions in Landonline until the file has finished downloading.
- If your survey contains a marginal strip parcel, always select the latest LandXML Schema version for the extraction. If you select an old XML Schema version, you will need to manually correct the Parcel Intent and Topology on the marginal strip parcel and re-link the parcel in Landonline using Survey Capture. For more information, refer to the *e-survey User Guide*.

### 6.13.5 Extract survey data Toolkit

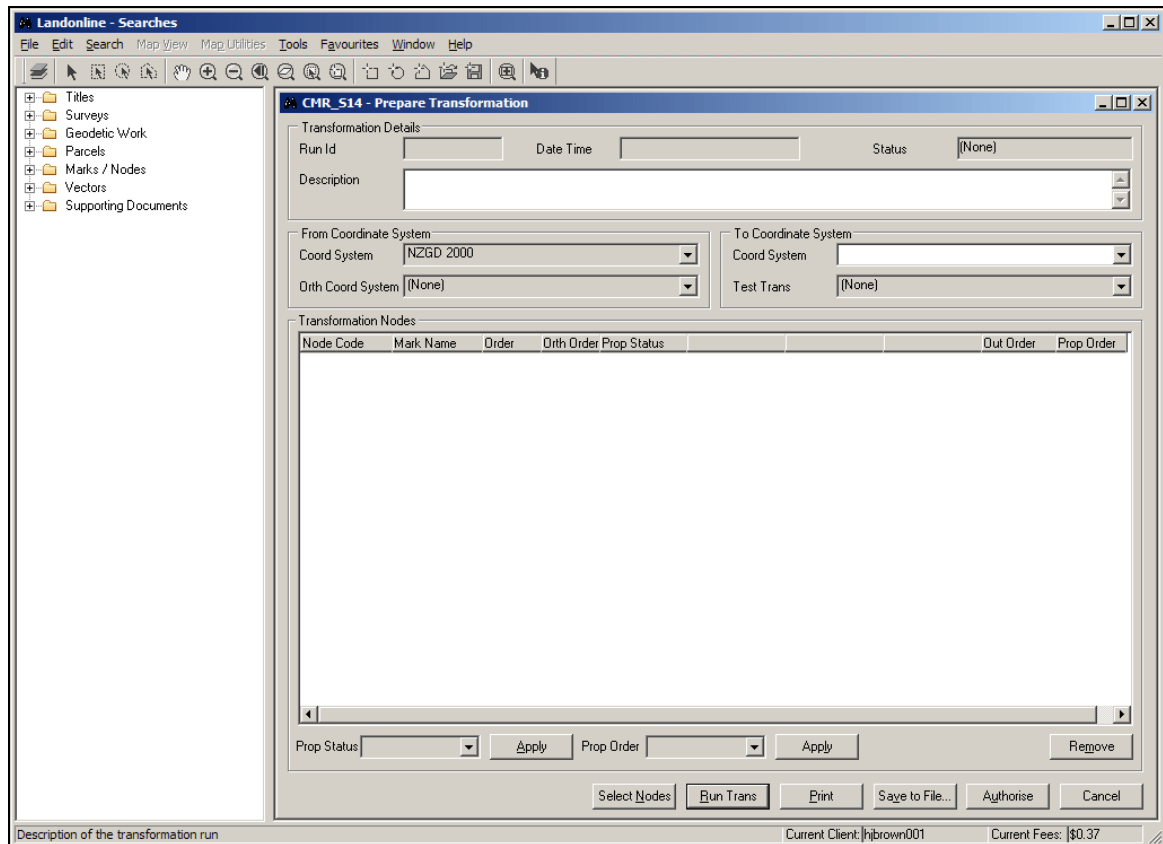
Table 6-11 lists other tools that assist with extracting existing survey data.

Tool	Description
Landonline Help	Press F1 in the Survey Data Extraction screen to display more information about extracting existing survey data from Landonline.

**Table 6-11 Extract survey data Toolkit**

## 6.14 Prepare and run a transformation

You can prepare and run a transformation to convert coordinates using another coordinate system in the Prepare Transformation screen.



You run a transformation to convert NZGD2000 coordinate values for Landonline marks to values for other coordinate systems (except Old Cadastral, because the transformations do not exist). You cannot save a transformation in Landonline. You can print a Transformation Report or save the transformation mark details to a file on your computer.

### Steps:

The steps required to prepare and run a transformation are:

1. Display the Prepare Transformation screen.
2. Prepare a transformation.
3. Run a transformation.
4. Print a Transformation Report.
5. Save a transformation to a file on your computer.

The following headings correspond with these steps and describe them in more detail.

### 6.14.1 Display the Prepare Transformation screen

In Searches:

1. Select **Tools | Prepare Transformation...**

## 6.14.2 Prepare a Transformation

In the Prepare Transformation screen:

1. Enter a description for your transformation. This is optional. If you enter a description it displays in the Transformation Report.
  - To create a new line for your description, hold the Ctrl key and press the Enter key.
2. Select the To Coordinate System in which the marks are to be defined in the To Coord System field. Landonline defaults the From coordinate to NZGD2000. (You cannot transform to Old Cadastral Datum.)
3. Click  to display the Spatial Window.
4. Navigate to the area you require.
5. Make the appropriate mark layer active.
6. Define an area, or select the marks individually using the spatial tools. Each time you select a mark, Landonline colours it with a yellow cross.
  - If you select a mark in error, click the mark again to remove the selection. You can also remove marks from the list in the Prepare Transformation screen.
7. Select **Map Utilities | Add to Transformation**.
8. Repeat steps 6 and 7 until all the marks you want to transform have been added.
9. Select **Window | Prepare Transformation** to return to the Prepare Transformation screen. Landonline lists the selected marks in this screen.
10. Review the list of marks:
  - If any marks are not required, select the mark and click  to delete them from the list.
  - To reorder the coordinates listed, click any of the column headings.

## 6.14.3 Run a transformation

In the Prepare Transformation screen:

1. Click  to run the transformation and display the results of the transformation in the Ordinate Value fields.
  - If you attempt to change the To Coordinate System after you have run a transformation, Landonline displays a warning message.
  - Click  to keep the transformation results, or
  - Click  to clear the transformation results and select a new To Coordinate System in the To Coord System field. See **6.14.2 Prepare a Transformation** and follow the steps from step 3.

## 6.14.4 Print a Transformation Report

In the Prepare Transformation screen:

1. Click 
  - For more information about the Transformation report, see **6.14.4.1 Transformation Report details**.

#### 6.14.4.1 Transformation Report details

**Table 6-12** lists the information that displays in a Transformation Report.

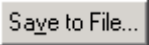
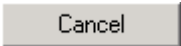
Section	Description
Transformation Details	Date and time of the transformation and a description (if you entered a description in the Prepare Transformation screen).
Coordinate Information	From and To coordinate system for the transformation.
Transformation Nodes	Details of marks transformed as follows: <ul style="list-style-type: none"><li>• Name or Id of the mark (current name).</li><li>• Geodetic code for the mark (if applicable).</li><li>• Existing order of the authoritative coordinate.</li><li>• Coordinate order of the mark.</li><li>• Ordinate values (eg Northing, Easting).</li><li>• Transformed order as assigned by the transformation for the specified To Coordinate System.</li></ul>

**Table 6-12 Transformation Report details**

#### 6.14.5 Save a transformation to a file on your computer

You can save the transformation results to a file on your computer.

In the Prepare Transformation screen:

1. Click 
2. Select the path and enter the file name.
3. Select a file type from the drop down list.
4. Click  to close the screen.