

Landonline CPG – Plan Generation

MOR2-LSS

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BACKGROUND

What is the MapObjects Replacement 2 project

MapObjects is the software that currently enables the display of spatial information in Landonline. In essence, it provides the 'map' and some of the related spatial functionality that is required in various spatial windows in Landonline.

MapObjects has proven itself to be a highly reliable part of Landonline, however this software reached end of life a few years ago. While still highly reliable, the lack of maintenance since that time is starting to make itself known in that we can no longer upgrade various components in Landonline due to incompatibility with MapObjects. There are also increasing concerns in respect to the age of the software and business continuity if unexpected issues arise.

The MapObjects Replacement project seeks to remedy these risks by replacing MapObjects with an ArcGIS solution that we have internally branded as Landonline Spatial Services (LSS). LSS will provide us with a fully supported solution and will also contribute to the modernisation of Landonline under STEP.

The following Landonline sub systems are affected by this project:

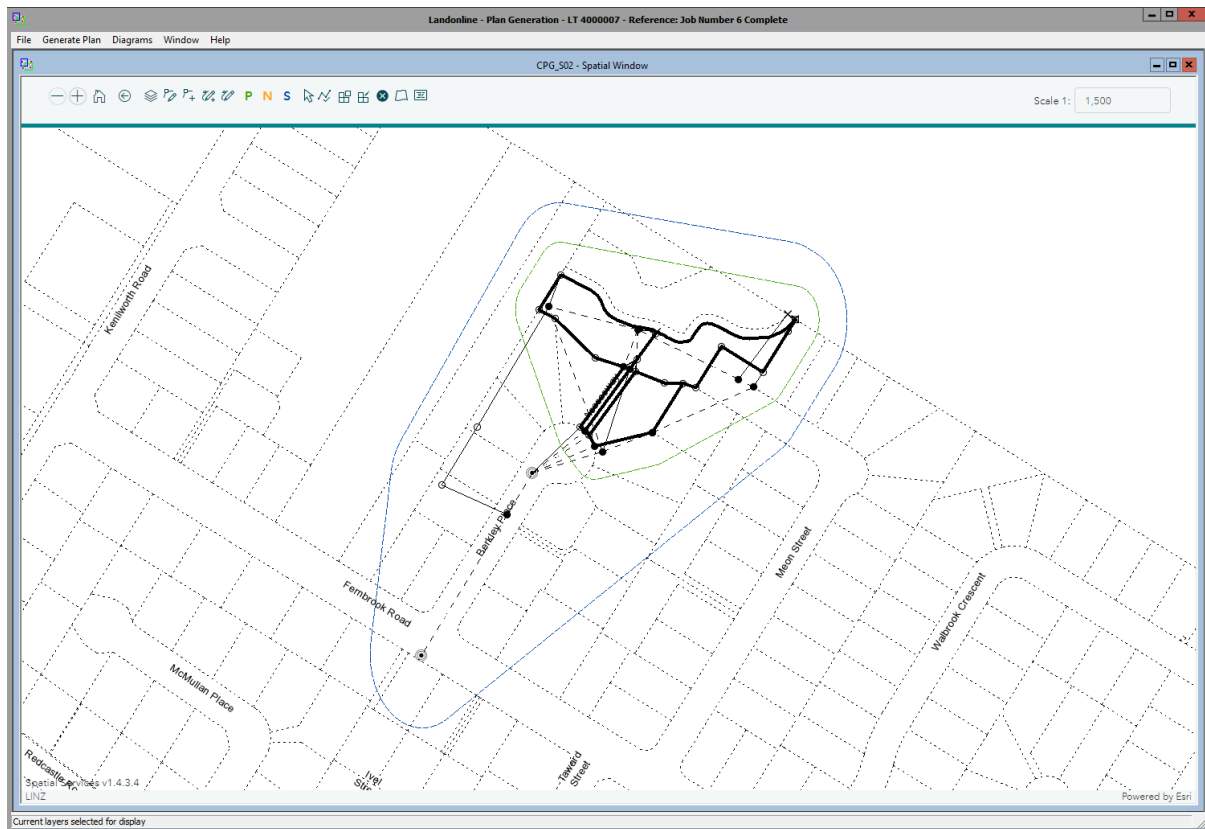
- CDE Data Enquiries (more commonly known as Searches)
- CSC Survey Capture
- CPG Plan Generation

A high-level description of each is provided in Appendix A

This document outlines all the areas of change that affect the main spatial search window in Landonline (CDE – Data Enquiries)

QUICK OVERVIEW OF CHANGES TO THE SPATIAL WINDOW

When you open the Spatial Window in Plan Generation | Define Diagrams, the following window will display your captured data in it:

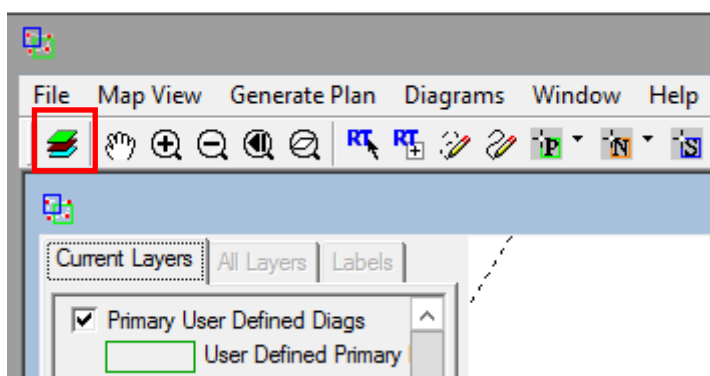


NOTE: Functionality for Maintain Diagram Layers window and Layout Sheets remain unchanged.

MAIN MENU BAR – DROP DOWN OPTIONS

Layer Control Icon:

- No longer displays as an icon on the menu bar – the layers are fixed in Define Diagrams

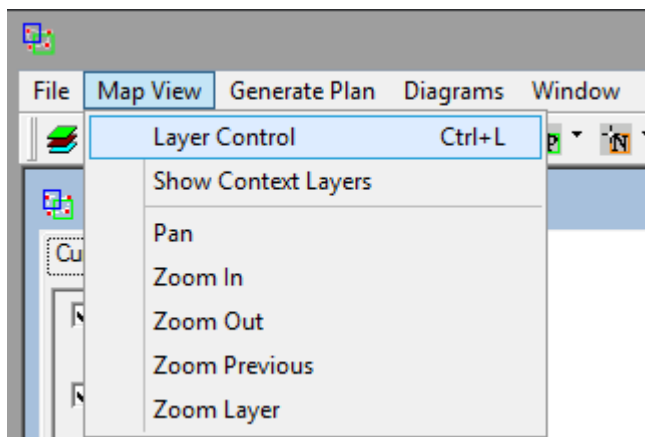


File:

- Options are unchanged

Map View:

- No longer appears as a drop-down option

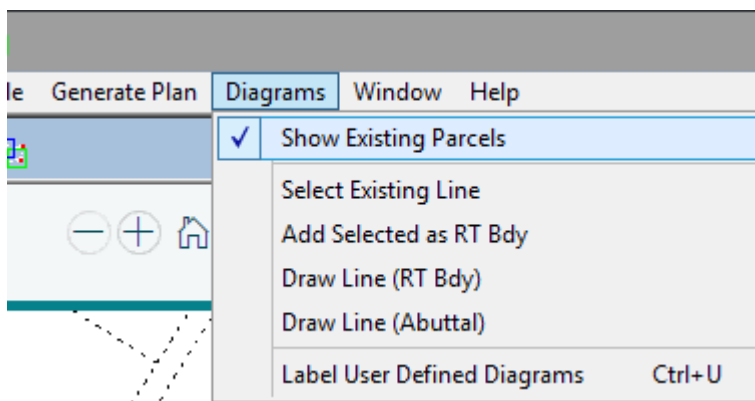


Generate Plan:

- Options are unchanged

Diagrams:

Diagram options have changed and now only contains the following:



All other items that used to be displayed here are icons on the menu bar inside Define Diagrams spatial window

Window:








- Options are unchanged


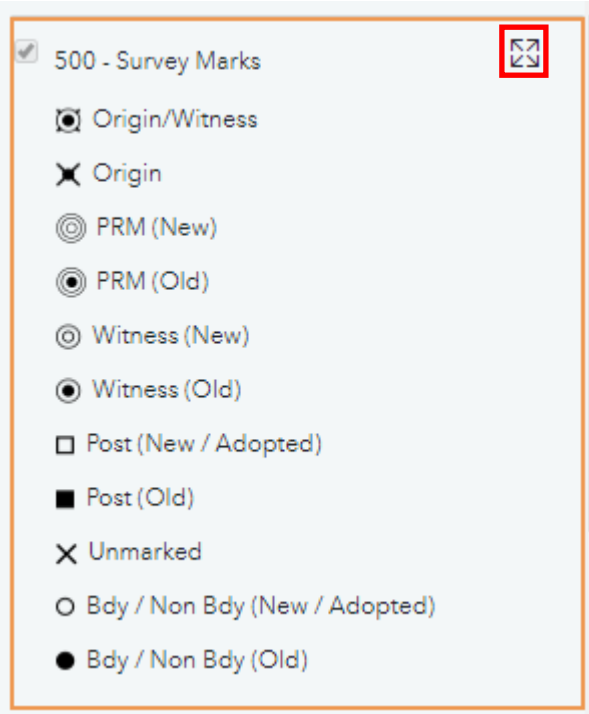










Help:




























- Options are unchanged but relevant details will be updated to reflect the new changes where applicable

















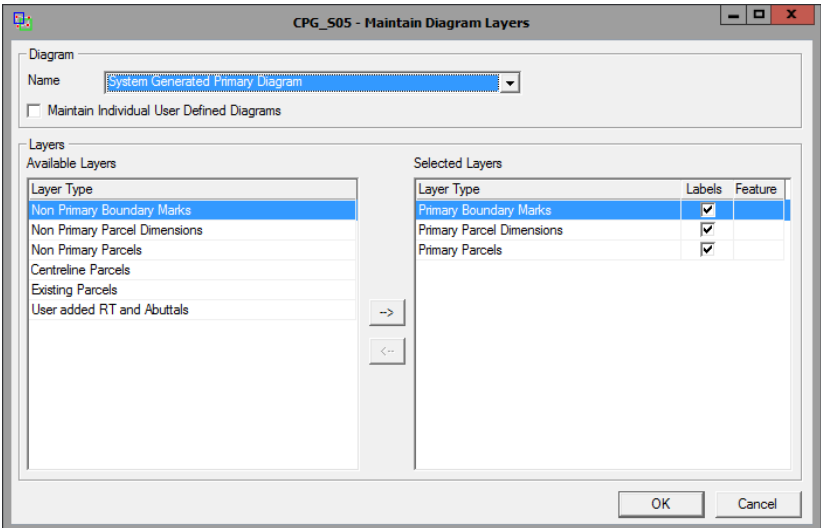

NEW ICONS EXPLAINED


All the new icons are in the separate bar above the Define Diagrams spatial window.

Function	Description
Pan	<p>No icon required</p> <p>Pan is enabled by default</p> <p>To activate the Pan tool, hold the left mouse button down and drag</p> <p>The cursor will change from a pointer to a hand while panning.</p> <p>The arrow keys on the keyboard allow panning up/down and side to side</p>
Zoom Out 	<p>Multiple ways to Zoom Out</p> <ul style="list-style-type: none"> - Click the Zoom Out icon - Scroll downwards with the mouse wheel - Change the scale manually in the top right-hand corner of the spatial window
Zoom In 	<p>Multiple ways to Zoom In</p> <ul style="list-style-type: none"> - Click the Zoom In icon - Double-click on spatial window - While holding the shift key down, hold the left mouse button down and drag to draw a rectangle to zoom into that area - Scroll upwards with the mouse wheel - Change the scale manually in the top right-hand corner of the spatial window <p>Spatially search for an object</p>
Home 	<p>Takes you back to the extent of the captured data</p>
Zoom Previous 	<p>Zoom to the previous extent – takes you back one step</p> <p>If clicked again will take you forward one step (back to where you were)</p>
Layer Control 	<p>Icon turns red when selected  to show its active and opens the Layer Control options:</p> <div data-bbox="432 1709 1098 1816"> <div>Current Layers</div> <div>All Layers</div> <div>Labels</div> </div> <p>NOTE: 'All Layers' and 'Labels' tabs are not active in Plan Generation and 'Current Layers' are viewable only</p> <p> Click icon to close the Layer Control and deactivate</p>

<p>Zoom Layer</p> 	<p>Go to the full extent under the layer (found in the Current Layers tab)</p> <ul style="list-style-type: none"> Click on the 'Zoom Layer' icon on the right of the Layer you want Spatial window will zoom to the extent of that layer 
<p>Select Existing Line</p> 	<p>Icon turns red when selected  to show its active</p>
<p>Add Selected as RT Bdy</p> 	<p>Icon turns red when selected  to show its active</p>
<p>Draw Line (RT Bdy)</p> 	<p>Icon turns red when selected  to show its active</p>
<p>Draw Line (Abuttal)</p> 	<p>Icon turns red when selected  to show its active</p>
<p>Define Primary Diagram</p> 	<p>Click on icon and it changes to  and the following drop-down options for defining Primary diagrams appear:</p>

	<div>  = Define by Rectangle  = Define by Polygon  = Define by circle </div> <p>When one of the diagram options is selected the icon turns red along with the main icon to show its active:</p> <div>     </div>
Define Non-Primary Diagram 	<p>Click on icon and it changes to  and the following drop-down options for defining Non-Primary diagrams appear:</p> <div>  = Define by Rectangle  = Define by Polygon  = Define by Circle </div> <p>When one of the diagram options is selected the icon turns red along with the main icon to show its active:</p> <div>     </div>
Define Survey Diagram 	<p>Click on icon and it changes to  and the following drop-down options for defining Survey diagrams appear:</p> <div>  = Define by Rectangle  = Define by Polygon  = Define by Circle </div> <p>When one of the diagram options is selected the icon turns red along with the main icon to show its active:</p> <div>     </div>
Select Diagram 	<p>Icon turns red when selected  to show its active</p> <p>Click on icon to deactivate</p>

<p>Select Added Line</p> 	<p>Icon turns red when selected  to show its active</p> <p>Click on icon to deactivate</p>
<p>Enlarge a Diagram</p> 	<p>Icon turns red and the following options to enlarge the user defined diagram appear:</p> <p> = Enlarge a Diagram</p> <p> = Enlarge Diagram by Rectangle</p> <p> = Enlarge Diagram by Polygon</p> <p> = Enlarge Diagram by Circle</p>
<p>Reduce a Diagram</p> 	<p>Icon turns red and the following options to reduce the user defined diagram appear:</p> <p> = Reduce a Diagram</p> <p> = Reduce Diagram by Rectangle</p> <p> = Reduce Diagram by Polygon</p> <p> = Reduce Diagram by Circle</p>
<p>Delete Selected</p> 	<p>Turns red when selected  to show its active</p> <p>Once object is deleted icon deactivates</p>
<p>Maintain Diagrams Layers</p> 	<p>Icon turns red when selected  to show its active</p> <ul style="list-style-type: none"> Maintain Diagram Layers window opens:  <ul style="list-style-type: none"> Once all layers required have been selected, close this window <p> Click icon to deactivate</p>

Label Diagrams		Click on icon to label all user defined diagrams
Scale	Scale 1:	<input type="text" value="5,739"/>

HOW DO I... FAQs

DEFINE DIAGRAMS SPATIAL WINDOW:

1. How do I zoom in/out?

- Click on the '+' button to zoom in
- Click on the '-' button to zoom out
- Scroll the mouse wheel upwards to zoom in
- Scroll on the mouse wheel downwards to zoom out
- Click on the 'Zoom Previous' icon
- Zoom in by Rectangle – hold the shift key down, click and drag the curser then release mouse
- Double click the left mouse button to zoom in
- Manually adjust the scale in the Scale field
- Spatially search for your object

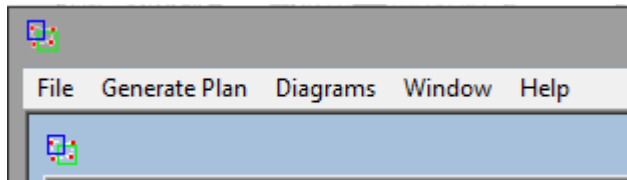
2. How do I zoom to a layer?

- Open the 'Layers Control' icon, in the 'Current Layers' tab make the required layer active and then click on the X next to Layer, to zoom to the maximum display scale for the layer

NOTE: In Plan Gen, 'Current Layers' are read only

3. Where are my drop-down options?


- In the main menu bar




4. How do I Pan?

- Left click the mouse, hold down, and drag in the spatial window
 - Cursor changes to a hand
 - Release the mouse to stop panning
 - Cursor changes back to a pointer
- OR
- The arrow keys on the keyboard allow panning up/down and side to side


5. How do I select an existing line?

- Click on the Select Existing Line icon 
- Wait for the spatial window to display the exiting lines in red
- Select the lines you need to include (**holding the Ctrl key down to select multiple lines**)
- Selected lines will highlight in the spatial window


6. How do I add RT lines?

- Once Existing lines have been selected (step 6) click on the 'Add Selected as RT Bdy' icon 
- Selected lines are added to the spatial window and will be viewable in Layout Sheets

7. How do I draw a line (RT Bdy)?

- Click on the Draw Line (RT Bdy) icon 
- Follow prompts to draw line

8. How do I draw line (Abuttal)?

- Click on Draw Line (Abuttal) icon 
- Follow prompts to draw line

9. How do I Define Diagrams by Rectangle?

- Select what layer diagram you wish to define from (Primary, Non-Primary, Survey):



- Choose the 'Rectangle' option (from the drop down menu)

NOTE: If a layer is not captured spatially then you cannot define a diagram in that layer. The drop down menu will be inactive

- Click once on the spatial window
- Release mouse button
- Drag cursor to position (rectangle will display and adjust as you move the mouse)
- Click once in the spatial screen to stop defining the rectangle

10. How do I Define Diagrams by Polygon?

- Select what layer diagram you wish to define from (Primary, Non-Primary, Survey):



- Choose the 'Polygon' option (from the drop down menu)

NOTE: If a layer is not captured spatially then you cannot define a diagram in that layer. The drop down menu will be inactive

- Click once on the spatial window to start
- Move the mouse and continue clicking in the spatial window to form the polygon
- Double click the last point on the spatial window to stop defining the polygon

11. How do I Define Diagrams by Circle?

- Select what layer diagram you wish to define from (Primary, Non-Primary, Survey):





- Choose the 'Circle' option (from the drop down menu)

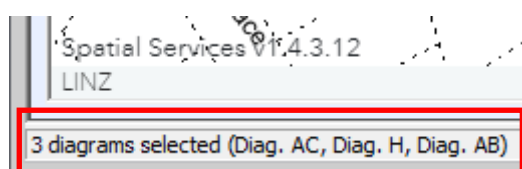
NOTE: If a layer is not captured spatially then you cannot define a diagram in that layer. The drop down menu will be inactive

- Click once on the spatial window
- Release mouse button
- Drag cursor to position (Circle will display and adjust as you move the mouse)
- Click once in the spatial screen to stop defining the circle

12. How do I Select a Diagram and Delete it?



- Click on the  icon
- Select a user defined diagram from the spatial window (highlights opaque yellow)
- Click on the  icon
- Diagram now deleted

NOTE: Hold the 'Ctrl' key down to select multiple diagrams. The diagrams selected will be Indicated in the bottom left corner of the screen:





13. How do I deselect a Diagram?

If you have a diagram selected in the spatial window:



- The diagram selected is highlighted opaque yellow
- The  icon is red
- Click anywhere in the spatial window, away from any diagrams defined, to deselect the diagram
- Click on the  icon or click another icon to deactivate the select diagram icon

14. How do I Select an Added Line and Delete it?



- Click on the  icon
- Select the Added RT or Added Abuttal line from the spatial window
- Click on the  icon
- User added line now deleted

NOTE: Hold the 'Ctrl' key down to select multiple lines



15. How do I Enlarge a User Defined Diagram by Rectangle?

- Click on the  icon
 - Click on a user defined diagram in the spatial window
 - Click on the 'Enlarge Diagram' icon 
 - Select the 'Rectangle' option from the drop down menu
- NOTE: when enlarging the diagram, ensure you intersect a portion of the existing diagram**
- Click once in the spatial window to start the enlargement by rectangle
 - Release the mouse button
 - Drag the mouse over the portion of the 'User Defined Diagram' you wish to enlarge
 - Click once in the spatial window to stop defining the rectangle
 - The spatial window will enlarge the selected diagram
 - Select OK to the following message if you wish to save it (Cancel to revert it)
 - The spatial window refreshes and displays the newly enlarged diagram

16. How do I Enlarge a User Defined Diagram by Polygon?



- Click on the  icon
 - Click on a user defined diagram in the spatial window
 - Click on the 'Enlarge Diagram' icon 
 - Select the 'Polygon' option from the drop down menu
- NOTE: when enlarging the diagram, ensure you intersect a portion of the existing diagram**
- Click once on the spatial window to start the enlargement by polygon
 - Continue clicking over the portion of the 'User Defined Diagram' you wish to enlarge
 - Double click the last point on the spatial window to stop defining the polygon
 - The spatial window will enlarge the selected diagram
 - Select OK to the following message if you wish to save it (Cancel to revert it)
 - The spatial window refreshes and displays the newly enlarged diagram

17. How do I Enlarge a User Defined Diagram by Circle?



- Click on the  icon
- Click on a user defined diagram in the spatial window
- Click on the 'Enlarge Diagram' icon 

- d) Select the 'Circle' option from the drop down menu
- NOTE: when enlarging the diagram, ensure you intersect a portion of the existing diagram**
- e) Click once on the spatial window to start the enlargement by circle
- f) Release the mouse button
- g) Drag the mouse over the area of the 'User Defined Diagram' you wish to enlarge
- h) Click once in the spatial window to stop defining the circle
- i) The spatial window will enlarge the selected diagram
- j) Select OK to the following message if you wish to save it (Cancel to revert it)
- k) The spatial window refreshes and displays the newly enlarged diagram



18. How do I Reduce a User Defined Diagram by Rectangle?

- a) Click on the  icon
- b) Click on a user defined diagram in the spatial window
- c) Click on the 'Reduce Diagram' icon 
- d) Select the 'Rectangle' option from the drop down menu
- NOTE: when reducing the diagram, ensure you intersect a portion of the existing diagram**
- e) Click once in the spatial window to start the reduction by rectangle
- f) Release the mouse
- g) Drag the mouse over the area of the 'User Defined Diagram' you wish to reduce
- h) Click once in the spatial window to stop defining the rectangle
- i) The spatial window will reduce the selected diagram
- j) Select OK to the following message if you wish to save it (Cancel to revert it)
- k) The spatial window refreshes and displays the newly reduced diagram

19. How do I Reduce a User Defined Diagram by Polygon?

- a) Click on the  icon
- b) Click on a user defined diagram in the spatial window
- c) Click on the 'Reduce Diagram' icon 
- d) Select the 'Polygon' option from the drop down menu
- NOTE: when reducing the diagram, ensure you intersect a portion of the existing diagram**
- e) Click once on the spatial window to start the reduction by polygon
- f) Continue clicking over the portion of the 'User Defined Diagram' you wish to reduce
- g) Double click the last point on the spatial window to stop defining the polygon
- h) The spatial window will reduce the selected diagram
- i) Select OK to the following message if you wish to save it (Cancel to revert it)
- j) The spatial window refreshes and displays the newly reduced diagram

20. How do I Reduce a User Defined Diagram by Circle?

- a) Click on the  icon
- b) Click on a user defined diagram in the spatial window
- c) Click on the 'Reduce Diagram' icon 
- d) Select the 'Circle' option from the drop down menu
- NOTE: when reducing the diagram, ensure you intersect a portion of the existing diagram**
- e) Click once in the spatial window to start the reduction by circle
- f) Release the mouse
- g) Drag the mouse over the area of the 'User Defined Diagram' you wish to reduce
- h) Click once in the spatial window to stop defining the circle
- i) The spatial window will reduce the selected diagram

- j) Select OK to the following message if you wish to save it (Cancel to revert it)
- k) The spatial window refreshes and displays the newly reduced diagram

21. How do I Maintain Diagram Layers?

- a) Click on the Maintain Diagram Layers icon
OR
- b) Select diagram(s) and right click on the spatial window and select Maintain Diagram Layers

22. How do I Label User Defined Diagrams?

- a) Click on the Label Diagrams icon

23. How do I adjust the scale via scale box?

- a) Highlight the current scale and delete it
- b) Type new scale, then select 'Enter

Appendix A – Landonline subsystems that utilise MapObjects

CDE - Data Enquiries (aka Searches)

This subsystem provides the ability to search and view standard search products provided by Landonline.

Functions include searching for:

- Street Address and Place Names
- Titles
- Surveys
- Legal Description
- Parcels
- Geodetic Work
- Marks
- Instruments
- Images
- Users (within a firm)
- Fees Report
- Supporting Document

Users can also:

- Save and retrieve favourite searches
- Request a copy of an unconverted record
- Request an image of a survey, title, or instrument to be sent by email
- View and print a list of fees incurred for searching
- Enter a reference for a client for searching
- Print a guaranteed (title) search
- Copy selected rows from the Search Results to the clipboard for pasting into another application
- Print selected rows from the Search Results
- Save selected rows from the Search results to file
- Obtain or print a guaranteed search of a title

Searching for an object can be completed either textually or spatially. Spatial searching is provided through the 'spatial search window'.

CSC - Survey Capture

This subsystem is an integral part of the overall survey lodgement and approval process in Survey Lodgement. As such CSC has a dual focus of having to support the current LINZ internal process of survey plan capture based off physical survey plans as well as providing an interface through which external users can capture their own survey information.

This sub-system provides functionality to:

1. Allow a LINZ internal capture user to fully capture the survey information from a physical paper survey plan.
2. Allow an external capture user to fully capture survey information when they do not have survey software that supports the export of a digital survey data file in LandXML, i.e., for import to Landonline.

3. Allow an external capture user to supplement or augment survey information imported from their survey software.

CPG - Plan Generation

This subsystem supports the semi-automated generation of Survey Plan and/or Title Plan and Title Diagram equivalent images from the digital survey information provided by the surveyor. This enables creation of plans from a combination of Survey Capture and current Landonline data.

The functionality provided enables:

- Automated Generation of System Diagrams required in Layout Plan Sheets
- Define Diagrams – the spatial definition of additional user defined diagrams and the management of the Diagram Layers
- Spatial definition of CT boundaries where required in Layout Plan Sheets
- Integration with Layout Plan Sheets, the plan layout software provided by Onstream software (now owned by Objective).
- Generation of Plan images