

# Landonline CSC - Capture

MOR2-LSS

NOVEMBER 2022

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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.

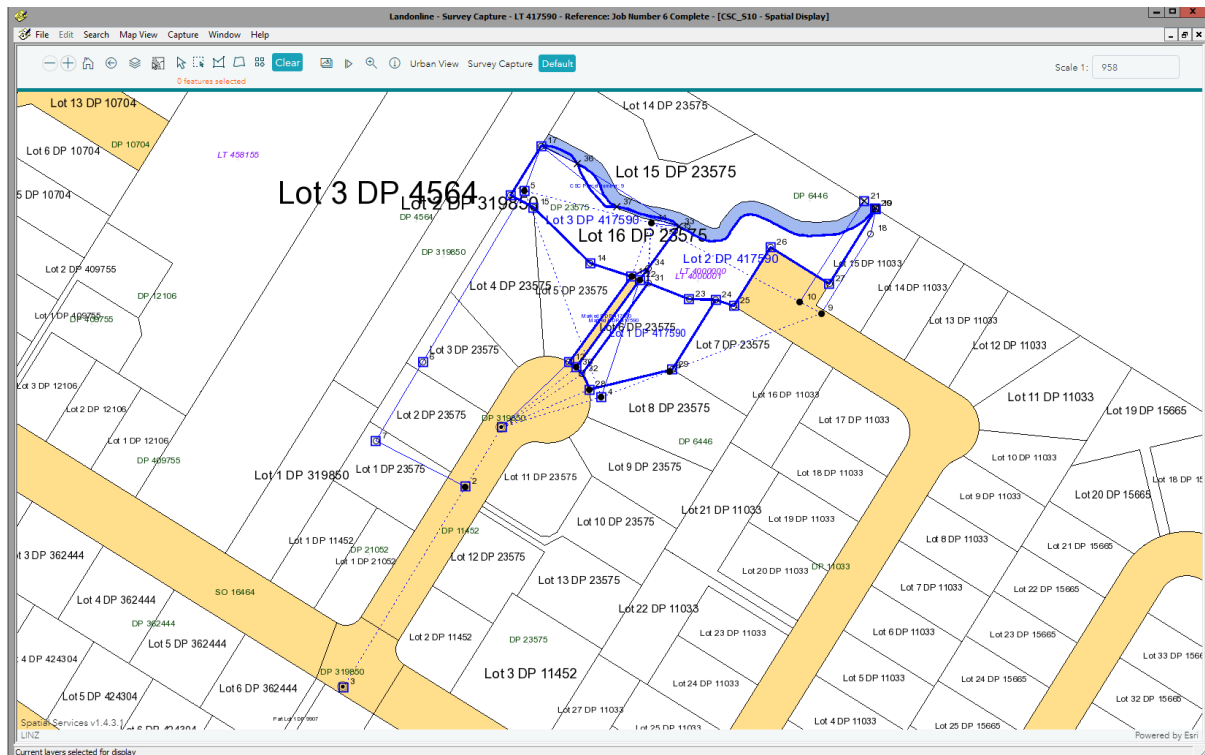
The following Landonline sub systems are affected by this project:

- 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)

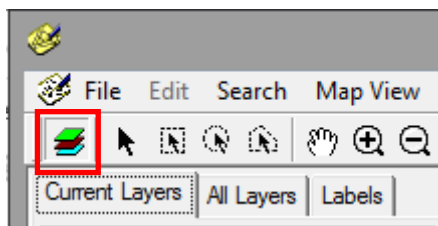
When you open the Spatial Window in Capture the following window will display with the default Capture settings and survey data displayed (**if captured**):



## MAIN MENU BAR – DROP DOWN OPTIONS

Layer Control Icon:

- No longer displays as an icon on the menu bar (refer now to Layer Control icon on new map)



File:

- Options are unchanged

Edit:

- Options are unchanged – still greyed out

Search:

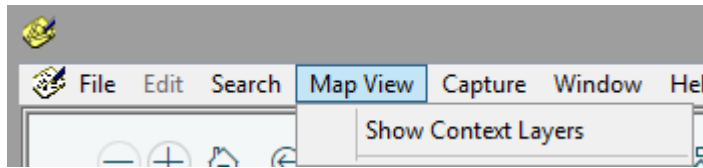
- Spatial View – you still click on this to open the spatial window (unchanged)
- Spatial Search – you still click on this to do your required spatial search options (unchanged)

#### Map View:

Map View has changed and now only contains the following:

- Show Context Layers

All other items that used to be displayed here have moved to new icons on the new spatial window.



#### Capture:

- Options are unchanged

#### Window:









- Options are unchanged




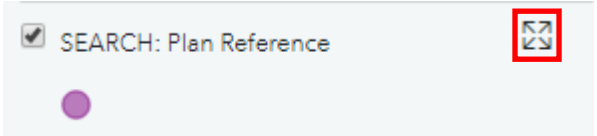







#### Help:








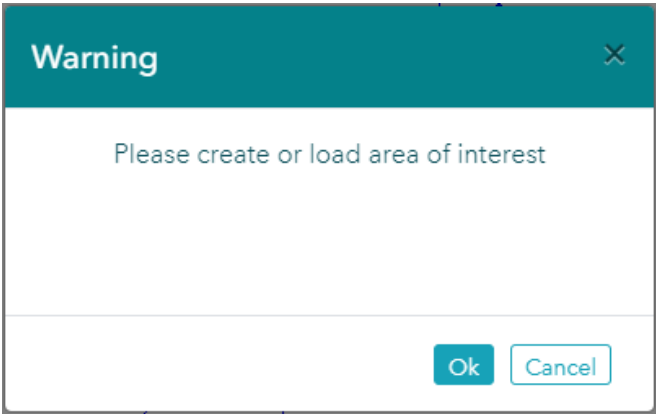


- Options are unchanged but relevant details will be updated to reflect the new changes where applicable.

## NEW ICONS EXPLAINED
















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

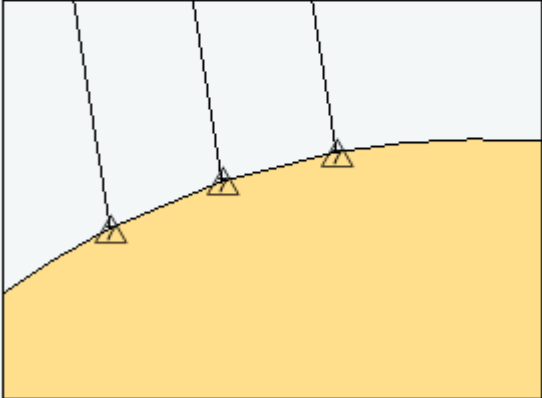

Function	Description
Pan 	No icon required Pan is enabled by default To activate the Pan tool, hold the left mouse button down and drag The cursor will change from a pointer to a hand while panning. The arrow keys on the keyboard allow panning up/down and side to side
Zoom Out 	Multiple ways to Zoom Out <ul style="list-style-type: none"> <li>- Click the Zoom Out icon</li> <li>- Scroll downwards with the mouse wheel</li> <li>- Change the scale manually in the top right-hand corner of the spatial window</li> </ul>
Zoom In 	Multiple ways to Zoom In <ul style="list-style-type: none"> <li>- Click the Zoom In icon</li> <li>- Double-click on spatial window</li> <li>- While holding the shift key down, hold the left mouse button down and drag to draw a rectangle to zoom into that area</li> <li>- Scroll upwards with the mouse wheel</li> <li>- Change the scale manually in the top right-hand corner of the spatial window</li> <li>- Spatially search for an object</li> </ul>
Home 	<ul style="list-style-type: none"> <li>• Takes you back to the extent of New Zealand (if no spatial data captured)</li> <li>or</li> <li>• Takes you back to the extent of the captured data</li> </ul>
Zoom Previous 	Zoom to the previous extent – takes you back one step  If clicked again will take you forward one step (back to where you were)
Layer Control 	Icon turns red when selected  to show its active  Allows you to add/ remove and turn on/off Layers and Labels  Click on icon to open the Layer Control options: <div data-bbox="432 1780 1096 1877"> <div>Current Layers</div> <div>All Layers</div> <div>Labels</div> </div> <p><b>NOTE – to set a Theme see ‘Themes’ further down this table</b></p> <div data-bbox="432 1982 486 2033">  </div> Click icon to close the Layer Control and deactivate


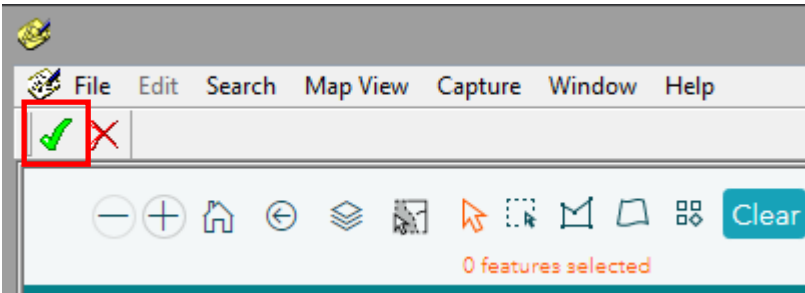
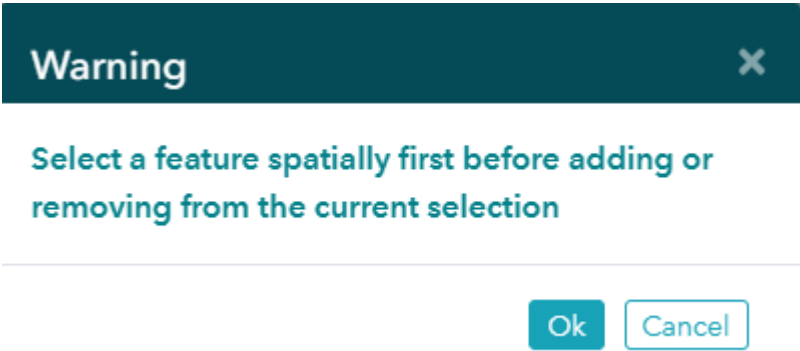

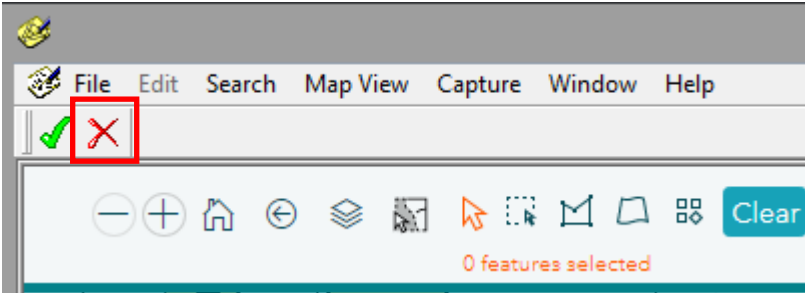
<p>Zoom Layer</p> 	<p>Go to the full extent under the layer (found in the Current Layers tab)</p> <p>To use</p> <ul style="list-style-type: none"> <li>• Activate the layer you wish to zoom to</li> <li>• Click on the Zoom Layer icon on the right</li> </ul> 
<p>Zoom Selection</p>	<p>Zoom into the selected features.</p> <p>To use this, from the layer control, click the Go to Extent option - this will zoom into the selections:</p> 
<p>Zoom Searched</p>	<p>Zoom into the searched features.</p> <p>To use this, from the layer control, click the Go to Extent option - this will zoom into the selections:</p> 
<p>Area of Interest Tools</p> 	<p>Icon turns red when selected  to show its active, and it will expand to show the Area of Interest (AOI) options to the right:</p>  <p> = Define an AOI by polygon</p> <p> = Save AOI (Note this is not active until an AOI is defined)</p> <p> = Load a previously saved AOI from your local drive</p> <p><b>NOTE - when you select any one of the above 3 icons it will turn red to help you identify what action you are performing. The icons will deactivate once the action is completed, or another icon is selected.</b></p> <p> = Zoom to AOI (Note this is not active until an AOI is defined or loaded).</p> <ul style="list-style-type: none"> <li>- When clicked, display will zoom into the AOI in the spatial window</li> </ul>


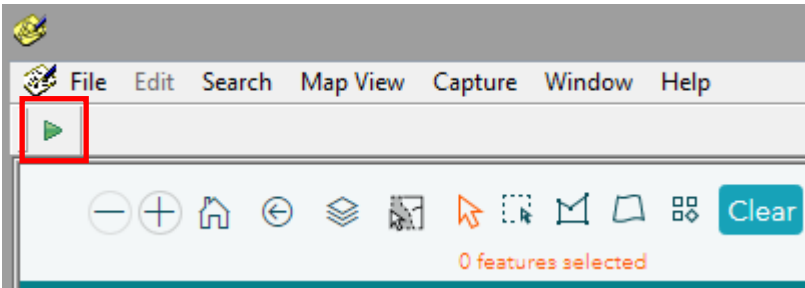
	 = Clear the AOI from the spatial window   Click on icon and it will close the AOI options and deactivate
Selection Tools (see icons listed)	 <p><b>NOTE – when you select one of the 5 icons it will turn red to help you identify what action you are performing. Select icon again to deactivate it.</b></p> <p> = Select an individual object</p> <p> = Select by rectangle</p> <p> = Select by polygon</p> <p> = Select by AOI</p> <p><b>NOTE: If an AOI is not defined spatially and you choose this option the following message appears:</b></p>  <p> = Add or remove features from the current selection</p> <p><b>NOTE:</b></p> <p>The  icon is initially greyed out until one spatial object has been selected. If this icon is clicked on before one spatial object is selected the following message appears:</p>



	<div> <div>Warning </div> <div>Select a feature spatially first before adding or removing from the current selection</div> <div> <div>Ok</div> <div>Cancel</div> </div> </div> <p>Once a spatial feature has been selected, the icon becomes active  and remains active until spatial features are cleared from the spatial window.</p> <p><span>0 object selected</span> = This indicates the number of objects spatially selected</p> <p><span>Clear</span> = Clears the selected features from the spatial window</p>
Irregular Boundary Image 	<p>Icon turns red when selected  to show its active, and it will expand to show the following image options to the right of it:</p> <div>  </div> <p> = Load Image, takes you to your local drives to select your Image ready to load</p> <p> = Open Image icon is inactive until an image is selected</p> <p> = Click on icon to display the image</p> <p> = Close Image icon is inactive until an image is displayed</p> <p> = Click on icon to close the image (clicking on  also closes image)</p> <p> = Click on icon to close image options</p>
Refresh 	<p>Click on icon to refresh the spatial window</p>
Magnify 	<p>Icon turns red when selected  to show its active</p> <p>Once a spatial area has been magnified the following window appears:</p>

	<div data-bbox="432 114 1013 743"> <div>Magnify</div> <div>re-magnify cancel</div> <div>click, hold and drag on the map</div>  </div> <ul style="list-style-type: none"> <li>• 'Re-magnify' – allows a new area on the spatial window to be magnified</li> <li>• 'Cancel' – stops the magnify process but keeps the window open to allow panning, zooming in/out to happen</li> </ul> <div data-bbox="432 920 485 976"> </div> <div data-bbox="485 947 1142 981">Click icon to close the magnify window and deactivate</div>
<div data-bbox="204 1070 408 1104">Information Icon</div> <div data-bbox="204 1104 269 1171"> </div>	<div data-bbox="432 1070 1056 1115">Icon turns red when selected  to show its active</div> <div data-bbox="432 1151 750 1184">Click on icon to deactivate</div>
<div data-bbox="204 1408 344 1442">Scale Views</div>	<div data-bbox="432 1223 1347 1290">Click on the drop down list at the top of the Spatial screen to select the Map View you wish to use:</div> <div data-bbox="432 1328 667 1592"> <div>Urban View ▼</div> <div>Urban View</div> <div>Rural View</div> <div>Large Rural View</div> <div>Off</div> </div>
<div data-bbox="204 1711 301 1744">Themes</div>	<div data-bbox="432 1644 1165 1677">Theme options are displayed at the top of the spatial screen:</div> <div data-bbox="432 1711 627 1778"> <div>User Defined ▼</div> </div>
<div data-bbox="204 1924 296 1957">Default</div>	<div data-bbox="432 1928 569 2018"> <div>Default</div> </div>

<p>Scale</p>	<p>Clear the existing scale BEFORE adding the required scale:</p> <p>Scale 1: 5,739</p>
<p>Include Displayed Missed Marks</p> 	<p>This icon appears if there are <b>mandatory</b> missed marks to be included in the survey</p>  <ul style="list-style-type: none"> <li>- The icon appears between the main menu and new spatial menu</li> <li>- Once the icon is clicked on, the following message will appear</li> </ul>  <ul style="list-style-type: none"> <li>- Select ok to the message and continue linking parcels</li> </ul>
<p>Exclude Displayed Missed Marks</p> 	<p>This icon appears if there are <b>mandatory</b> missed marks to be excluded in the survey (only select if captured marks should have been linked to the corresponding Landonline mark)</p>  <ul style="list-style-type: none"> <li>- The icon appears between the main menu and the new spatial menu</li> <li>- Once the icon is clicked on, the following message will appear</li> </ul>

	<div><div><div>Warning</div><div><div></div></div></div><div>Select a feature spatially first before adding or removing from the current selection</div><div><div>Ok</div><div>Cancel</div></div><div><ul style="list-style-type: none"><li>- Select ok to the message and continue linking parcels</li></ul></div></div>
<div>Continue Current Process</div> <div></div>	<div>This icon appears when:</div> <div><div>Linking Parcels:</div><ul style="list-style-type: none"><li>• There are mandatory or optional missed marks displayed to either select or not during the linking of parcels</li><li>• Completing the linking parcel process</li></ul></div> <div><div>Digitising Irregular Lines:</div><ul style="list-style-type: none"><li>• When stepping through the digitising process to continue steps</li><li>• The digitising process is required to be stopped at certain steps</li></ul></div> <div></div> <div>The icon appears between the main menu and the new spatial menu</div>

## HOW DO I.... FAQs

### 1. How do I load the layers?

- a) Click the 'Layers Control' icon
- b) Go to 'All Layers' tab – a list of layer headers appears
- c) Scroll down and click on the arrow next to the header of the layer required (some layers have sub layers so repeat this step until you see the list of layers you need)
- d) Click on the required layer(s), an orange bordered box around the layer(s) selected appears
- e) Go to 'Current Layers' tab to see the selected layers added.
- f) The last layer added will be the Active layer by default at the top of the 'Current Layers'

### 2. How do I remove layers?

- a) Open 'Layers Control' icon
- b) Go to 'All Layers' tab and find the required layer to be removed
- c) The selected layers are surrounded by an orange bordered box
- d) Click on the one you want to remove - the orange box will disappear
- e) Layer no longer displays in 'Current Layers' tab

### 3. How do I activate a layer?

- a) Open the 'Layers Control' icon
- b) In the 'Current Layers' tab, select on the text of the layer required – two things happen:
  - The layer selected will be surrounded by an orange bordered box
  - The layer will show a tick in the check box

**Note – the spatial window needs to be at the appropriate scale to view the layer spatially**

### 4. How do I turn off(hide) a layer but keep it in Current Layers tab?

- a) Open the 'Layers Control' icon
- b) Click on the check box next to the active layer in the 'Current Layers' tab:
  - The tick disappears against the layer
  - The theme shown against the layer is no longer showing
  - The layer no longer displays spatially

### 5. How do I turn on (show) a layer in the Current Layers tab?

- a) To turn the layer on, click on the check box against that layer  
**OR**
- b) Click anywhere on the text against the layer in the 'Current Layers' tab
  - the layer becomes the active layer
- c) For both options the following occurs:
  - The tick appears against the layer
  - The theme against the layer is now showing
  - The layer displays spatially

### 6. How do I spatially select individual objects?

- a) Activate the required layer you wish to select from in the 'Current Layers' tab
- b) Select the individual arrow icon
- c) Spatially click on the feature you wish to select

### 7. How do I select by Rectangle?

- Activate the required layer to be selected from the 'Current Layers' tab
- Select the rectangle icon
- Click on the screen once (do not hold mouse down)
- Move the mouse across/down in the spatial window to define the rectangle area required
- Click once in spatial to close the rectangle


### 8. How do I select by Polygon?

- Activate the required layer to be selected from the 'Current Layers' tab
- Select the polygon icon
- Click on the screen to start the polygon
- Continue to click on the spatial window to define your polygon
- Double click to close the polygon

### 9. How do I select by Area of Interest?

- Define an area of interest first (see #18 below)
- Activate the required layer to be selected from the 'Current Layers' tab
- Focusing back on the selection icons, select the 'Area of Interest' icon


### 10. How do I select multiple objects?

- Activate the required layer you wish to select from in the 'Current Layers' tab
- From the Selection icons, choose one of the following selection options.
  - Select by 'Point'
  - Select by 'Polygon'
  - Select by 'Rectangle'
  - Select 'by Area of Interest' – to do this option an AOI must be defined first
- After the select option has been chosen, **and you have made your first spatial selection**, click on the  icon (this allows you to select more features and add them to the already selected features)


**NOTE: re-selection of an already selected feature will deselect it**

- Spatially select all the objects required from the chosen layer

### 11. How do I stop selecting multiple objects?

- Click on  icon
- Selection mode has been reverted to single select mode for the select option you had open e.g., by Point, by Polygon or by Rectangle

### 12. How do I clear selected objects?

- Select 
- All spatially selected objects will be de-selected

### 13. How do I turn off/close a selected icon?

- Simply click on the active icon (it will be red)
- The icon will deactivate

**14. How do I pan?**

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


**15. How do I zoom in/out?**

- a) Click on the '-' button to zoom out
- b) Click on the '+' button to zoom in
- c) Scroll the mouse wheel upwards to zoom in
- d) Scroll on the mouse wheel downwards to zoom out
- e) Click on the 'Zoom Previous' icon
- f) Zoom in by Rectangle – hold the shift key down, click and drag the cursor then release mouse.
- g) Double click the left mouse button to zoom in
- h) Manually adjust the scale in the 'Scale' field
- i) Spatially search for your object


**16. How do I zoom to a layer?**

- a) 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

**17. How do I zoom to a selected feature?**

- a) Spatially select the feature
- b) Open the 'Layers Control' icon
- c) At the top of the layers, the selection appears as a Layer
- d) Click on the  to the right of the selection box


**18. How do I define area of interest (AOI)?**

- a) Click on the 'Area of Interest Tools' icon
- b) Icons expand to the right of the AOI icon
- c) Select  icon to define AOI by Polygon
- d) Click on the Spatial window to start defining the AOI
- e) Continue to click until Polygon is defined
- f) To close the polygon double click on the screen


**19. How do I save AOI?**

- a) After an AOI has been defined select the 'Save AOI' icon
- b) Your local drive options appear
- c) Save to appropriate 'Drive'

## 20. How do I load an AOI?

- Click on the 'Area of Interest Tools' icon (do this if this is not already clicked on)
- Icons expand to the right of the AOI icon
- Select the folder icon 'Recall AOI' 
- Local drives open
- Locate the drive where the saved AOI was placed
- Select file required and select 'Open' or double click the file
- The spatial window will zoom to the loaded AOI

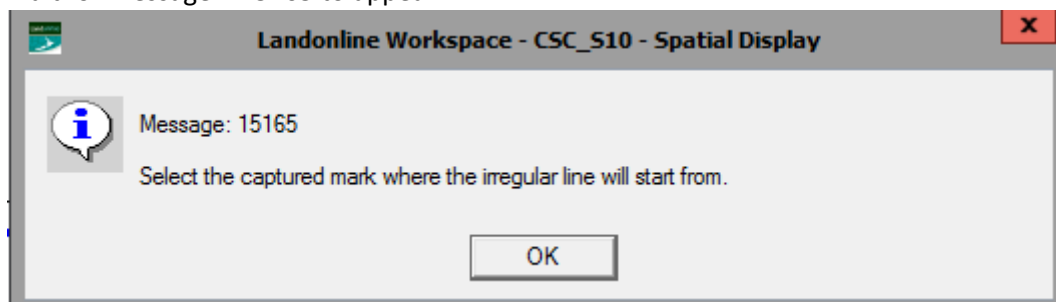
## 21. How do I clear an AOI?


- Click on the 'Area of Interest Tools' icon (do this if this is not already clicked on)
- Icons expand to the right of the AOI icon
- Select the 'Clear AOI' icon 
- The AOI no longer displays spatially

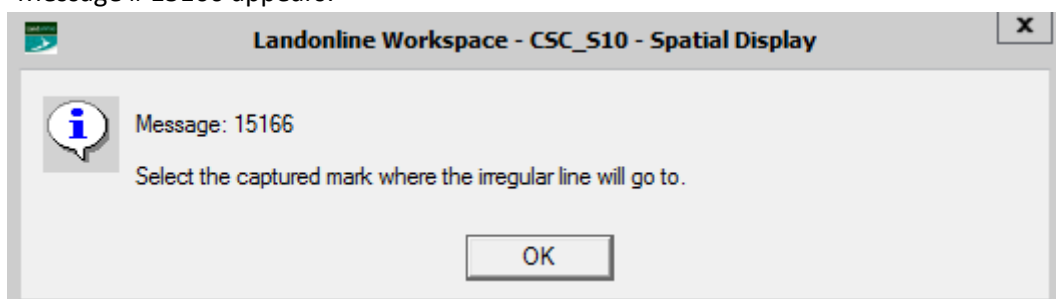
## 22. How do I digitise off a .tif image?


- Click on the 'Irregular Boundary' Image icon
- Click on the 'Folder' icon – your local drive opens
- Locate saved .tif image and either select 'Open' or double click on the file
- The image file is loaded but not yet viewable
- To start digitising:

- Click on the  icon
- Wait for message # 15165 to appear:

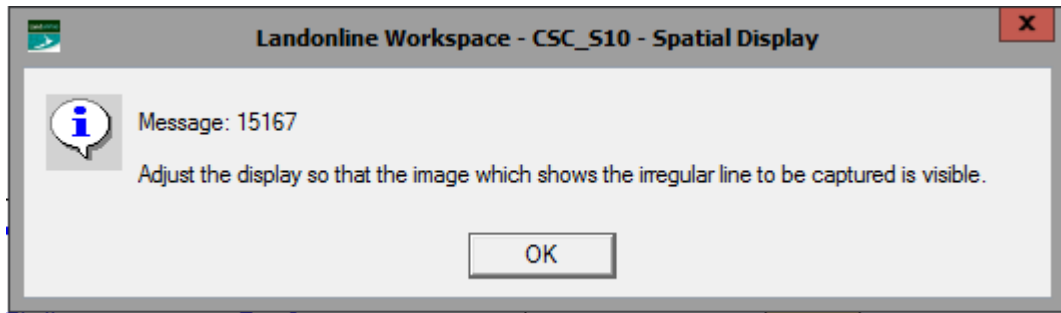



- Select 'Ok' to message
- Select start node in spatial window
- Click on the 'Continue' icon 
- Message # 15166 appears:



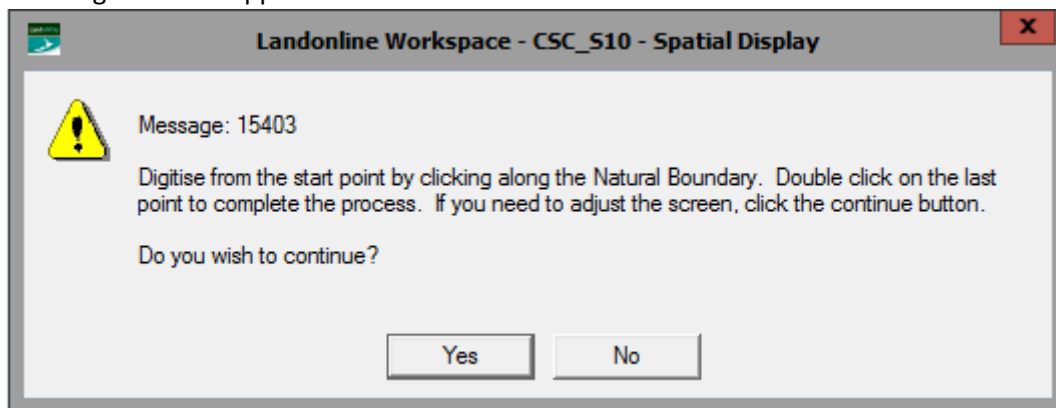
- Select 'Ok' to message
- Select end node in spatial window
- Click on the 'Continue' icon 
- Message # 15167 appears:








- Select 'Ok' to message
- Image now opens up
- Adjust the image (zoom in, pan etc) to see the line you wish to digitise from
- Click on the 'Continue' icon 

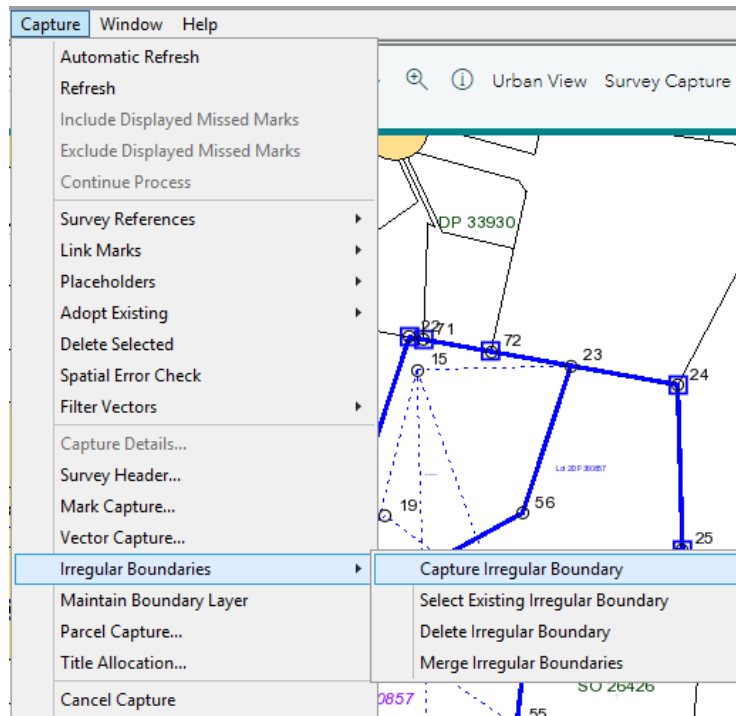
- Message # 15403 appears:



- Select 'Yes' to continue digitising
- Click once on image to activate the  symbol
- Commence digitising by clicking over the line in the image – double click to finish (you can zoom in and pan as you perform this process)
- Click on either the  in the far top corner of the image or  to close the image
- The newly digitised irregular line displays in the spatial window

### 23. How do I digitise a line from the spatial window?

a) Select 'Capture|Irregular Boundaries|Capture Irregular Boundary':



b) Once you initiate this process, the Image icon is active but the icons to the right of this are



made inactive and not selectable

c) A series of prompts/actions will appear, follow them to digitise directly into the spatial window

d) Once digitising from the Spatial window is completed, the icons to the right of the Image icon



are made active again

### 24. How do I undo my last digitised vertex point(s)?

- Select Ctrl Z or
- Select backspace
- Click again in spatial to carry on digitising

### 25. How do I cancel a digitised line?

a) Cancelling digitising directly into the Spatial window:

#### OPTION 1:

If digitising in the spatial window is not finished and you wish to delete the entire line:

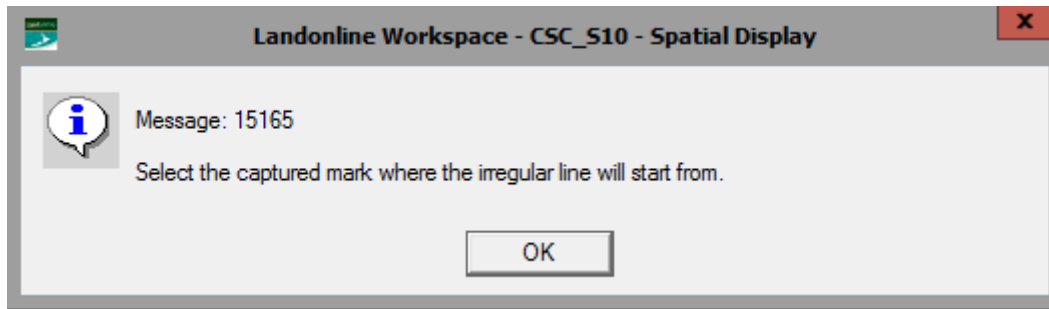
- Select 'Esc' key to cancel the draw
- To re-start the digitising process from the start, select 'Capture|Irregular Boundaries|Capture Irregular Boundary'


(NOTE: the image icon is greyed out once you start this process)

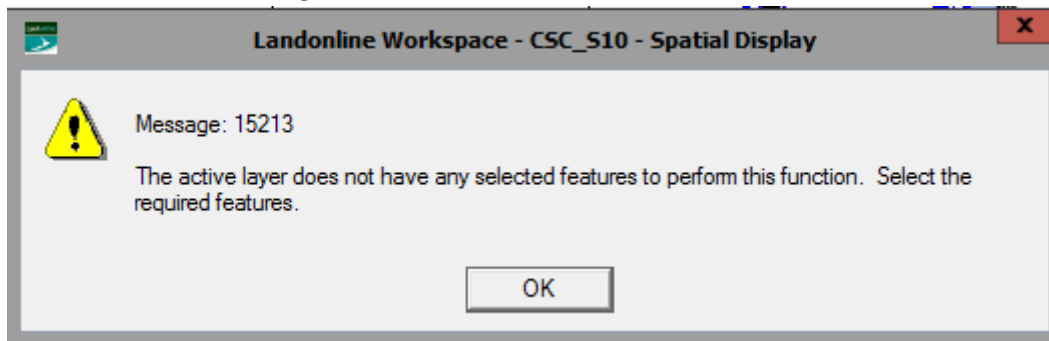
#### OPTION 2:

If after selecting 'Capture|Irregular Boundaries|Capture Irregular Boundary' you realise you don't want to do this action:

- Select 'OK' to message #15165






- Do not select start point
- Click on the 'Continue' icon 
- Select 'OK' to message #15213

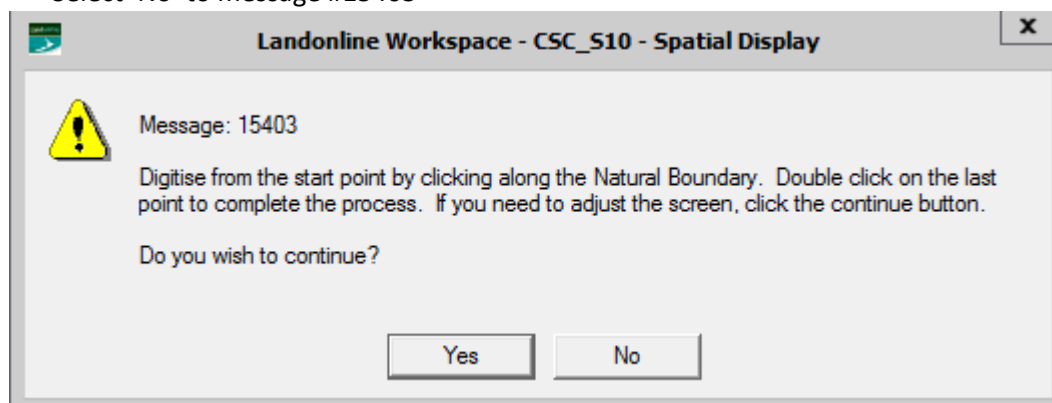


- Digitising process has been cancelled

b) Cancelling digitising off a loaded image:

If digitising from the image loaded is not finished:

- Select 'Esc' key to cancel the draw
- Then close the image window using  or 
- Select the 'Continue' icon 
- Select 'No' to message #15403



- Digitising process has been cancelled

**NOTE: If at any time message 15403 is displayed and you select 'NO' - digitising will be cancelled.**

c) If digitising is completed:

Regardless of how it was done, do the following in the spatial window:

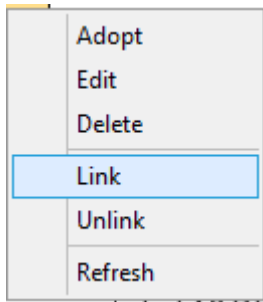
- Select the irregular line and delete it

## 26. How do I link marks spatially?

There are several ways to carry out linking marks:

Spatially:

- a) Right click mouse and select 'Link'



- b) Select 'Capture | Link Marks | Manual'
- c) Select 'Capture | Link Marks | Automatic' and choose a tolerance option from the drop down menu

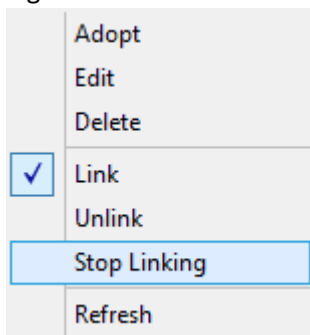
From the Mark Detail Screen:

**NOTE: you need to know the correct mark name, node, or mark id to do this**

- a) Select mark spatially and right click mouse and select 'Edit'
- b) Select 'Link Mark' button
- c) Enter the node id or mark id into the respective field
- d) Select 'Enter'
- e) Click on 'Select' button (or hit 'Enter' to accept the result)

## 27. How do I stop linking marks spatially

- a) Change the Layer selected in the 'Current Layers' tab or use the **new functionality**:
- b) Right click mouse and select 'Stop Linking'

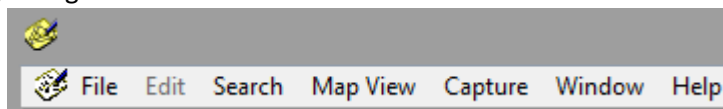


## 28. How do I adjust the scale via scale box?

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

## 29. Where are my drop-down options?

- a) Along the main menu bar



## 30. How do I Refresh the spatial window?

- a) Click on the Refresh icon

**31. How do I magnify a feature spatially?**

- a) Click on the 'Magnify' icon
- b) Click and drag to define a small box over the feature you wish to magnify
- c) A magnify window opens
- d) Click on 'Cancel' in the magnify window to pan/adjust the spatial window
- e) Click on 'Re-magnify' to magnify another area
- f) Click on the 'Magnify' icon to close the magnify window

**32. How do I print from the spatial window?**

- a) Adjust your spatial screen to the area you wish to print
- b) Make sure you have closed all the opened icons on the screen
- c) Select File/Print (Displayed item)
- d) Select your print options A4 Portrait or Landscape or A3 Portrait or Landscape
- e) Select OK to enter the preview document
- f) Select the printer icon on the top right to activate the installed print driver (Note: if you install a new printer during the process of printing, you will need to close out of spatial for the new printer to be listed.)
- g) Check printer preferences match those of Print to Scale orientation for correct printing

## 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