

LandXML back capture error codes

During the LandXML (LXML) back-capture process, errors may be found on hard copy deposited plans that would render the LXML files unfit for purpose. Examples include:

- information may be unable to be captured due to the severity of the error
- if the plan is captured with the error, the LXML file may be unfit for its intended purpose.

Error codes have been created which identify insertion of corrected information into LXML files.

Due to the complexity, age and clarity of individual deposited plans involved in the LandXML back-capture project, the need for amendments to LXML files will continue.

Error codes used in the LandXML back-capture project

Error codes are placed in the feature's fieldnote (lines) or description field (points) to indicate that the data in the LXML file is different to the data in error on the plan. There may be some exceptions to these scenarios where unique error codes are used:

Derived by EPEP (external provider) the value has been investigated and provided by the external service provider carrying out the conversion process

Supplied by DPXML the value has been investigated and supplied by Spatial Services.

Error Code	Scenario
Illegible Text On Plan	Observations are illegible, text captured as best as possible
Bearing Derived By EP	Bearing shown on plan either incorrect or missing
Bearing Supplied By DPXML	Bearing shown on plan either incorrect or missing
Bearing Adopted From DP##	Another plan is used to obtain the correct bearing
Crossed Out Bearing Used	Bearing is crossed out on the plan but still used to capture the parcel as the correct bearing cannot be determined from surrounding plans
2 Bearings Shown	Two bearings shown for the same line on different sheets of the same plan, best match is used
Illegible Bearing	Data captured as best as possible from illegible text
Distance Missing	Plan contains RM with bearing and no distance, captured as a boundary mark with the bearing in the description field
Distance Derived By EP	Distance shown on plan either incorrect or missing
Distance Supplied By DPXML	Distance shown on plan either incorrect or missing
Distance Adopted From DP##	Another plan is used to obtain the correct distance

Error Code	Scenario
2 Distances Shown	Two distances shown for the same line on different sheets of the same plan, best match is used
Illegible Distance	Data captured as best as possible from illegible text
Bearing And Distance Derived By EP	Bearing and distance shown on plan either incorrect or missing
Bearing And Distance Supplied By DPXML	Bearing and distance shown on plan either incorrect or missing
Adopted From DP##	Observations missing and are adopted from another plan
Illegible Bearing And Distance	Data captured as best as possible from illegible text
Arc Missing	Arc length missing, captured as straight line
Arc Length Derived By EP	Arc shown on plan either incorrect or missing
Arc Supplied By DPXML	Arc shown on plan either incorrect or missing
Bearing And Arc Supplied By DPXML	Bearing and arc shown on plan either incorrect or missing
Bearing and Arc Adopted From DP##	Another plan is used to obtain the correct bearing and arc
Radius Supplied By DPXML	Radius shown on plan either incorrect or missing
Radius Adopted From DP##	Another plan is used to obtain the correct radius
Radius Not Shown On Plan - Arc ##	Radius length missing, captured as a straight line
Arc And Radius Supplied By DPXML	Arc and radius shown on plan either incorrect or missing
Bearing And Radius Supplied By DPXML	Bearing and radius shown on plan either incorrect or missing
Bearing Arc And Radius Supplied By DPXML	Bearing, arc and radius shown on plan either incorrect or missing
Bearing Distance And Arc Supplied by DPXML	Bearing, distance and arc shown on plan either incorrect or missing
Chord Supplied By DPXML	Chord shown on plan either incorrect or missing
Bearing And Chord Supplied By DPXML	Bearing and chord shown on plan either incorrect or missing
Curved Line Chord And Radius Not Shown	Curved line can only be captured as a straight line using the arc distance
Parcel Number Supplied By DPXML	Parcel number not shown on plan
Class And Order Supplied By DPXML	Class and order not shown on the plan for a mark in the SCIMS table
Mark Type Adopted From DP##	Another plan is used to obtain the correct type
Mark Type Provided By DPXML	Multiple plans and sources are used to investigate the correct type
Mark Type Not Specified	Mark type not specified
Plan in Error	A line is identified with an error but the correct values cannot be determined so the plan is captured using the identified incorrect value
Incorrect Setup Or Target	Line shown on plan to incorrect point
Coordinate Error	Used on each end point of a line identified with an error or on survey marks with SCIMS coordinate errors

Error Code	Scenario
SSM Number Referred From Six Maps By EP	SSM number shown on plan incorrectly, correct SSM number investigated using SIX Maps
Duplicate Datum Labels	Duplicate datum labels shown on a plan
Area Calculated	No area shown for a parcel on a plan or gross error in the area provided by the plan
Multipart Lot – All Parts Could Not Be Captured	One or more parts of a multipart lot cannot be captured as dimensions have not been provided or cannot be determined from other plans
Road Widening	Identifies dedicated road widening lines when road cannot be captured as a full parcel
Georeferenced	Any line traced from the plan image using the image and parent parcel to scale.
False Connection Line	Line created with a bearing of 90° and a generic distance of 999m. Use for plans with 2 parcels and no connection between them or currency in the DCDB.

Capture of line type errors using the NSW LandXML Recipe schema

In addition to error codes used to identify changes from the hard copy plan into the digital LandXML file, aspects of the NSW LandXML Recipe schema are used to further identify amendments made.

The table below identifies how the 'distanceType', 'azimuthType' and 'arcType' attributes of a feature are captured with information differing from that shown on the hard copy plan. This is usually due to error of that data on the plan.

Error Code - Captured as Field Notes	Straight Line/Arc	Straight Lines Only		Arcs only
		distanceType'	azimuthType'	arcType'
Illegible Text On Plan	Straight Line/Arc	Modified	Modified	Modified
Bearing Derived By EP	Straight Line/Arc	Measured	Calculated	Modified
Bearing Supplied By DPXML	Straight Line/Arc	Measured	Modified	Modified
2 Bearings Shown Or 2 Distances Shown	Straight Line	Measured	Measured	Measured
Distance Derived By EP	Straight Line/Arc	Calculated	Measured	Modified
Distance Supplied By DPXML	Straight Line/Arc	Modified	Measured	Modified
Bearing And Distance Derived By EP	Straight Line/Arc	Calculated	Calculated	Calculated
Bearing And Distance Supplied By DPXML	Straight Line/Arc	Modified	Modified	Modified
Adopted From DP##	Straight Line/Arc	Modified	Modified	Modified
Arc Missing	Arc	Modified	Modified	N/A
Arc Missing Supplied By DPXML	Arc	N/A	N/A	Modified
Illegible Text On Plan	Straight Line/Arc	Modified	Modified	Modified
Bearing Derived By EP	Straight Line/Arc	Measured	Calculated	Modified
Bearing Supplied By DPXML	Straight Line/Arc	Measured	Modified	Modified
2 Bearings Shown Or 2 Distances Shown	Straight Line	Measured	Measured	Measured

Error Code - Captured as Field Notes	Straight Line/Arc	distanceType'	azimuthType'	arcType'
Distance Derived By EP	Straight Line/Arc	Calculated	Measured	Modified
Distance Supplied By DPXML	Straight Line/Arc	Modified	Measured	Modified
Bearing And Distance Derived By EP	Straight Line/Arc	Calculated	Calculated	Calculated
Bearing And Distance Supplied By DPXML	Straight Line/Arc	Modified	Modified	Modified
Adopted From DP##	Straight Line/Arc	Modified	Modified	Modified
Arc Missing	Arc	Modified	Modified	N/A
Arc Missing Supplied By DPXML	Arc	N/A	N/A	Modified
Bearing And Arc Supplied By DPXML	Arc	N/A	N/A	Modified
Bearing Distance And Arc Supplied By DPXML	Arc	N/A	N/A	Modified
Radius Supplied By DPXML	Arc	N/A	N/A	Modified
Radius Adopted From	Arc	N/A	N/A	Modified
Bearing And Radius Supplied By DPXML	Arc	N/A	N/A	Modified
Plan In Error	Straight Line/Arc	Modified	Modified	Modified
Dummy Connection Line	Straight Line/Arc	Calculated	Calculated	Calculated
Traverse Used As Boundary	Straight Line	Measured	Measured	Modified
Incorrect Set Up Or Target	Straight Line	Modified	Modified	Modified
Additional scenarios (no error code)				
Line created to close road parcel		Calculated	Calculated	
Plans with parcel lines with 'calc' or 'calculated'		Calculated	Calculated	Calculated
Plans with parcel lines distance 'by Deduction'		Deducted	Measured	Deducted
Plans with parcel lines distance PO or DP##		Compiled	Compiled	Compiled
Georeferenced	Straight Line	Scaled	Scaled	
False Connection Line	Straight Line	Modified	Modified	

Error codes displayed in LandXML

Below is an example of how an error code is captured in a LandXML file, please note the capture of the distanceType and azimuthType.

```
</ReducedObservation>
- <ReduceObservation name="13" desc="Connection" setupID="IS3" target SetupID="IS14" azimuth="88.3240" horizDistance="562.905"
  distanceType="Calculated" azimuthType="Calculated">
  <FieldNote>BEARING AND DISTANCE SUPPLIED BY DPXML</FieldNote>
</ReducedObservation>
<ReduceObservation name="14" desc="Boundary" setupID="IS14" targetSetupID="IS15" azimuth="93.3500" horizDistance="62.56"/>
<ReduceObservation name="15" desc="Boundary" setupID="IS15" targetSetupID="IS16" azimuth="179.0900" horizDistance="621.8"/>
<ReduceObservation name="16" desc="Road" setupID="IS10" targetSetupID="IS23" azimuth="260.0000" horizDistance="126.74"/>
<ReduceObservation name="17" desc="Boundary" setupID="IS23" targetSetupID="IS24" azimuth="0.0000"horizDistance="925.4"
  distanceType="Calculated" azimuthType="Calculated">
  <FieldNote>ADOPTED FROM DP0517958P</FieldNote>
</ReducedObservation>
- <ReduceObservation name="18" desc="Boundary" setupID="IS24" targetSetupID="IS25" azimuth="109.0400" horizDistance="126.74"
  distanceType="Calculated" azimuthType="Calculated">
  <FieldNote>ADOPTED FROM DP0194851P</FieldNote>
</ReducedObservation>
```

Where can I find out more?

P: 1300 780 866

W: https://www.spatial.nsw.gov.au/contact_us