



DPL Plan Presentation Validations

April 2021



Table of Contents

Introduction..... 2

 Overview 2

 Definitions 2

 Plan Purpose 2

 CAD Standard Validations 3

 PPG Valiations 11



Introduction

Overview

This document describes each of the validations undertaken at upload of a plan drawing (DWG) in the Electronic Plan Lodgement system. The validations undertaken for each DWG file are listed and described below.

Definitions

Term	Definition
CAD	Computer Aided Drafting
CSF	Combined Scale Factor
DPL	Digital Plan Lodgement
MGA	Map Grid Australia
PPG	Plan Presentation Guidelines

Plan Purpose

The plan purposes being validated through the DPL solution are:

- Amalgamation
- Division - Certified
- Division - Uncertified
- Division - Subdivision
- Easement Plan
- Outer Boundary
- Community Plan
- Lease Plan
- Community Strata

Note: Data Plans, Community Plans and Lease Plans are validated with some slight difference. The tables below show the validations that differ. Other Plans Purposes (amalgamation, division – certified, division – uncertified, division – subdivision, easement, outer boundary, and community strata) are reported against all validations.

CAD Standard Validations

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plan	Data Plans	Blocking Validation
Bearing Datum - Community Plan	Validates the plan contains a valid bearing datum by checking the bearing label matches the bearing datum and matches to the relevant corners.	<ol style="list-style-type: none"> Bearing label does not match Bearing Datum Could not resolve corner point 	✓	x	✓	x	No
Bearing Datum – Uncertified Plan	Validate the bearing is correct between the listed corner marks.	<ol style="list-style-type: none"> No valid bearing found in Bearing Datum No valid corner marks found in Bearing Datum x corners found in Bearing Datum (Expected 2) No mark found for corner Both corners at same location No lines between corners Bearing between corners differs by x decimal degrees from the Bearing Datum 	✓	x	x	✓	No

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plan	Data Plans	Blocking Validation
Bearing Datum – Exists	Validates that the bearing datum and derivation exist. Check that data exists in the bearing / datum panel in the title block (Either in A-BRNG-DATM layer or B-TTBL attributes).	1. Bearing datum or derivation do not exist	✓	x	x	✓	Yes
Block - Layer	Validates each block is placed on the correct layer(s) and matches a CAD Standard block layer.	1. Drawing contains blocks on the wrong layer	✓	x	x	✓	No
Block - Name	Validates every block name matches a CAD Standard block name.	1. Drawing contains blocks named incorrectly	✓	x	x	✓	No
Combined Scale Factor	Validates the Combined Scale Factor (CSF) and Origin Point to ensure they exist and appear only once in the plan (Either in A-CSF layer or B-TTBL attributes).	1. Combined Scale Factor does not exist 2. Combined Scale Factor exists more than once	✓	x	x	✓	No
Coordinate System Check	Validates the drawing has an appropriate coordinate system. The allowed coordinate systems are MGA 2020 and in Zone 52, 53 or 54.	1. Coordinate System does not exist 2. Coordinate System defined incorrectly 3. Coordinate System exists more than once	✓	x	x	✓	No
Data - Extent - Size	Maximum extent set to 10km to reduce processing time. Larger drawings need to be lodged as a TIFF	1. Data extent greater than acceptable limit	✓	x	x	✓	Yes

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plan	Data Plans	Blocking Validation
Data - Extent - Location	Validates the extent in the drawing is within an allowable area. Currently the allowable area is set to South Australia.	1. Data exists outside allowable area	✓	x	x	✓	Yes
Data - Layout	Validates data in model space appears at least once in paperspace	Invalid data highlighted in report	✓	✓	✓	✓	No
Diagram - Scale	Validates the drawing is scaled to an acceptable scale. Each viewport is checked to ensure it is scaled correctly.	1. Not an allowed scale	✓	x	x	✓	No
Diagram - Units	Validates the drawing is using metric units only.	1. Incorrect Linear Units	✓	x	x	✓	No
Features outside of Plot Area	Validates all objects in paperspace do not exist outside the A3 page layout bounds.	1. Data exists outside diagram sheet extents	✓	✓	✓	✓	Yes
Layer - Geometry	Validates each feature on each layer in the drawing has the correct geometry type for that layer. Annotation layers are tested they contain text only. Line layers are tested they contain lines only.	1. Drawing contains layers with incorrect geometry	✓	x	x	✓	No

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plan	Data Plans	Blocking Validation
Layer - Name	Validates each layer name matches a CAD Standard layer name.	1. Drawing contains layers incorrectly named	✓	x	x	✓	No
Line - Type	Validates each line type matches a CAD Standard line type allowed for that layer.	1. Drawing contains invalid line types	✓	x	x	✓	No
Line - Weight	Validates the thickness of each line matches an allowable line thickness in the CAD Standard for that layer.	1. Drawing contains invalid line weights	✓	x	x	✓	No
Multiline Text - Left Justified	Validates each multiline text feature on each layer in the drawing is checked to ensure that it is left justified.	1. Drawing contains multiline text incorrectly justified	✓	✓	✓	✓	Yes
North Point	Validates each diagram sheet has a north point on B-NRTH-POIN layer and that it is oriented correctly and is at least 50mm	1. North Point does not agree with viewport orientation 2. Drawing contains north point incorrectly sized 3. No North Point Found 4. Could not determine page orientation	✓	✓	✓	✓	Yes

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plan	Data Plans	Blocking Validation
		5. Multiple Blocks found on North Point Layer					
Pieces - Area Bracketed	Validates each area for pieces is shown in brackets	Invalid data highlighted in report	✓	x	x	✓	No
Pieces – Asterisk	Validates each piece is marked with an asterisk	Invalid data highlighted in report	✓	x	x	✓	No
Pieces - Exists In Schedule	Validates each piece is listed in the Pieces Schedule	Invalid data highlighted in report	✓	x	x	✓	No
Pieces - Schedule	Validates the format of the Pieces Schedule by checking all the content on B-SCHD-PIEC layer and validating the contents and table.	<ol style="list-style-type: none"> 1. Heading missing or on wrong block/layer 2. Invalid content format 3. Invalid heading 4. Multiple text lines found in a cell 5. Table Cell height for row invalid (Expected 5mm) 	✓	x	x	✓	No

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plan	Data Plans	Blocking Validation
		6. Table cell width for TOTAL AREA invalid (Expected 40mm) 7. Table width for column ONE ALLOTMENT/ONE LOT COMPRISES invalid (Expected 70mm)					
Pieces – Schedule - Count	Validates the Pieces Schedule only exists once throughout the drawing.	1. More than 1 Pieces Schedule exists	✓	✓	✓	✓	Yes
Pieces - Total Area	Validates the total area in the pieces schedule matches the sum of the individual pieces	Invalid data highlighted in report	✓	x	x	✓	No
Sheet – Layout - Border	Validates the title block on each layout is centred 15mm from the edge of the sheet.	1. Drawing not centred within tolerance	✓	✓	✓	✓	Yes
Sheet – Layout - Data	Validates no blank diagram sheets exist - excludes the title block, border, and viewports.	1. Drawing does not contain data	✓	✓	✓	✓	Yes

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plan	Data Plans	Blocking Validation
Sheet – Layout - Name	Validates each diagram sheet conforms to the CAD Standard naming convention i.e., DS_(1), DS_(2), etc.	1. Drawing contains sheet named incorrectly	✓	✓	✓	✓	Yes
Sheet – Layout - Panels	Validates the title blocks have the correct panels and sizing. The first title block must contain plan number, version number, bearing datum/derivation, CSF/Origin Point and total area panels. All subsequent sheets must only contain plan number and version number panels.	1. Drawing contains panels defined incorrectly	✓	✓	✓	✓	Yes
Sheet – Size	Validates all diagram sheets are A3 in size.	1. Drawing page size not A3	✓	✓	✓	✓	Yes
Text - Alpha Capitals	Validates each text feature to ensure that only ALPHA CAPITALS are used, except for the following: Firm Identification Box, 'x' used to define limits and area units - m2, km2 and ha.	1. Drawing contains invalid lower-case text	✓	x	x	x	No
Text - Consistency	Validates the Font size is consistent in each layer and matches the PPG definition. Note if annotative, the scale of the text must match the scale of the viewport for the text to be rendered at the correct size.	1. Drawing contains text with inconsistent heights	✓	x	x	x	No
Text - Font	Validates each Font matches a CAD Standard font.	1. Drawing contains invalid font(s)	✓	✓	✓	✓	Yes

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plan	Data Plans	Blocking Validation
Text – Font - Consistency	Validates only one Font is used across all spaces in the drawing, with the exception of Dashed, where Dashed can be included with one other Font.	1. Drawing contains multiple fonts	✓	✓	✓	✓	No
Text - Size	Validates each text size matches a CAD Standard text size. Note if annotative, the scale of the text must match the scale of the viewport for the text to be rendered at the correct size.	1. Drawing contains text with invalid size	✓	x	x	✓	No
Text - Vertical	Validates each text feature (alpha and numeric characters) is vertical.	1. Drawing contains text oriented incorrectly – Pass with Warning	✓	x	x	✓	No
Text - Weight	Validates the text thickness matches a CAD Standard text weight.	1. Drawing contains text with incorrect weights	✓	x	x	✓	No
Text - Annotative Scale	Validates text only has one annotative scale.	Invalid data highlighted in report	✓	✓	✓	✓	Yes

PPG Valiations

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plans	Data Plans	Blocking Validation
Abuttal	Validates that each abuttal is valid and located correctly.	<ol style="list-style-type: none"> 1. Incorrect label 2. Label not within viewport 3. No parcel at location 	✓	x	x	✓	No
Administrative – Name	Validates the administrative name is shown correctly.	<ol style="list-style-type: none"> 1. Label not within viewport 2. Name not matched 3. No 'value' at that location 4. Town of used to label town with "town" in the name 	✓	x	x	✓	No
Bearing - ALL	Validates the label ALL is not shown for bearings	Invalid data highlighted in report	✓	x	x	✓	No
Distance – Format	Validates that each distance label meets the PPG format standard.	<ol style="list-style-type: none"> 1. Invalid format 2. Label not within viewport 	✓	x	x	✓	No
Distance – Label	Validates that each distance label matches the line the label it is associated with.	<ol style="list-style-type: none"> 1. Label angle differs from line 2. Label too far from line 	✓	x	x	✓	No

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plans	Data Plans	Blocking Validation
		<ul style="list-style-type: none"> 3. Label invalid or not applicable 4. Label not within viewport 5. Line length differs by ... 6. Party wall label 7. Unassigned Wide Label 8. 'x' to define the limit 					
Easement - Duplicate Ids	Validates that each easement identifier shown is consistent across all diagram sheets.	<ul style="list-style-type: none"> 1. Drawing contains easement identifiers that don't match across diagram sheets 	✓	x	x	✓	No
Parcel - Duplicate Ids	Validates that each parcel identifier shown is consistent across all diagram sheets.	<ul style="list-style-type: none"> 1. Drawing contains parcel identifiers that don't match across diagram sheets 	✓	x	x	✓	No
Labels - Duplicate Bearings	Validates that each bearing label shown is consistent across all diagram sheets.	<ul style="list-style-type: none"> 1. Back Bearing 2. Label not within viewport 3. Mismatched labels 	✓	x	x	✓	No

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plans	Data Plans	Blocking Validation
		<ul style="list-style-type: none"> 4. Not applied to Line 5. 'x' to define the limit 					
Labels - Duplicate Distances	Validates that each distance label shown is consistent across all diagram sheets.	<ul style="list-style-type: none"> 1. Drawing contains distance labels that don't match across diagram sheets 2. Back Bearing 	✓	x	x	✓	No
Overlapping Lines	Validates lines in drawing that should not overlap.	Invalid data highlighted in report	✓	x	x	✓	No
Parcel - Identifier	Validates each parcel identifier is linked to a parcel.	<ul style="list-style-type: none"> 1. Label not within viewport 2. Not Applied to Parcel 	✓	x	x	✓	No
Parcel - In BBL	Validates each parcel inside the BBL has a parcel identifier.	1. No ID on parcel	✓	x	x	✓	No
PSM - Derivation	Validates the PSMs shown in the Bearing Datum/Derivation panel exist on the plan and in the reference marks schedule.	<ul style="list-style-type: none"> 1. Data Plan 2. GNSS 3. No symbol found 4. No valid pm_no's found in Derivation 	✓	x	x	x	No

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plans	Data Plans	Blocking Validation
		5. Not in reference schedule 6. Not in reference schedule and no symbol found 7. pm_no invalid					
Reference Mark - Schedule	Validates the format of the Reference Mark Schedule by checking all the content on B-SCHD-RMRK layer and validating table and contents.	1. Heading missing or on wrong block/layer 2. Inconsistent table sizes 3. Invalid content format 4. Invalid heading 5. Table Cell height for row invalid (Expected 5mm) 6. Table width for column BEARING invalid (Expected either 25mm/20mm) 7. Table width for column CNR invalid (Expected either 12.5mm/10mm) 8. Table width for column COMMENT invalid	✓	x	x	x	No

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plans	Data Plans	Blocking Validation
		<p>(Expected either 35mm/28mm)</p> <p>9. Table width for column DIST invalid (Expected either 15mm/12mm)</p> <p>10. Table width for column FROM invalid (Expected either 20mm/16mm)</p> <p>11. Table width for column PSM NO. invalid (Expected either 25mm/20mm)</p>					
Reference Mark - Schedule - Bearing	Validates the bearing in the reference marks schedule matches the connection line to the PSM.	<p>1. Actual line bearing differs by ...</p> <p>2. Merged Mark symbol has no valid connection line</p> <p>3. Not matched to mark symbol</p>	✓	x	x	x	No
Reference Mark - Schedule - Count	Validates the Reference Mark Schedule only exists once per diagram sheet.	<p>1. More than 1 Reference Marks Table exists</p>	✓	x	x	x	Yes

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plans	Data Plans	Blocking Validation
Reference Mark - Schedule - Distance	Validates the distance in the reference marks schedule matches the connection line to the PSM.	<ol style="list-style-type: none"> Actual line length differs by ... Merged Mark symbol has no valid connection line Not matched to mark symbol 	✓	x	x	x	No
Road Name	Validates road name and road type are correct and is in the right location.	<ol style="list-style-type: none"> Did not match full road name Label not within viewport No road at location Not matched Public/Private roads not tested 	✓	x	x	✓	No
Road Name - Abuttal	Validates road name is shown for all roads abutting the subject land.	<ol style="list-style-type: none"> Road intersects drawing parcel Road intersects reference parcel Road intersects subject land 	✓	x	x	✓	No

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plans	Data Plans	Blocking Validation
		4. Road not labelled					
Road Name - Location	Validates road names are shown wholly within the road boundaries, except where arrowed out, and do not straddle boundaries.	1. Road intersects parcel	✓	x	x	✓	No
Road Name - Public / Private	Validates that named roads are not labelled as public or private. Does not validate that a public/private road exists	Invalid data highlighted in report	✓	x	x	✓	No
Survey Mark - Attributes	Validates all Survey Marks are correctly attributed with CNR, BEARING, FROM, DIST, PSM NO and Comment.(where required)	1. Format 2. Mandatory	✓	x	x	x	No
Survey Mark – Exaggerated	Validates all survey marks on the exaggerated layer have a corresponding mark on the true layer and visa-versa.	1. Attributes differ 2. No exaggerated mark 3. No true mark 4. No true mark (Is the mark on B-RMRK instead of B-RMRK-TRUE?)	✓	x	x	x	No
Survey Mark - Location	Validates the survey mark location is correct with respect to the survey mark database.	1. Drawing contains survey marks in an incorrect location	✓	x	x	x	No
Survey Mark – Plan Type	Validates survey marks exist or do not exist based on the plan type.	1. Plans of type "Certified Deposited Plan" must have survey marks	✓	x	✓	✓	No

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plans	Data Plans	Blocking Validation
		<ul style="list-style-type: none"> 2. Plans of type "Certified Filed Plan" must have survey marks 3. Plans of type "Uncertified Deposited Plan" a PSM must not exist 4. Plans of type "Uncertified Filed Plan" a PSM must not exist 					
Survey Mark - Symbol	Validates the survey mark symbol is correct, this validation excludes the Survey Marks on the B-RMRK-TRUE as they will not be visible on the final TIF.	<ul style="list-style-type: none"> 1. Incorrect block name 2. Mark not found in database 3. Mark not yet placed 4. Mark type is not validated 	✓	x	x	x	No
Survey Mark - Exists in Schedule	Validates each survey mark is listed in the Reference Mark Schedule in the same diagram sheet.	<ul style="list-style-type: none"> 1. Drawing contains marks not listed in the reference mark schedule 	✓	x	x	x	No

Validation	Description	Report Reasons	Other Plan Purposes	Lease Plans	Community Plans	Data Plans	Blocking Validation
Survey Mark - Symbol Exists	Validates each survey mark listed in the Reference Mark Schedule is shown in the same diagram sheet.	1. Reference mark schedule contains marks not in the drawing	✓	x	x	x	No
Textual Sheet - Area Name	Validates the area name listed on the textual sheet is correct.	1. Area name invalid	✓	x	x	✓	No
Textual Sheet - Council Name	Validates the council name listed on the textual sheet is correct.	1. Council name invalid	✓	x	x	✓	No
Textual Sheet - Hundred / IA / Division	Validates the hundred name listed on the textual sheet is correct.	1. Hundred name invalid	✓	x	x	✓	No
Textual Sheet - Map Reference	Validates the map reference listed on the textual sheet is correct.	1. Map reference invalid	✓	x	x	✓	No
Total Area	Validates the total area exists for Plans of Outer Boundary, Plans of Division of more than 5 allotments that contain an area and Community Plans	1. Total Area should exist for this plan type 2. Total Area should not exist for this plan type	✓	x	x	✓	No