TBC A-SPEC Workflow

Version: A-SPEC V1.4 2023

Revision:

Revision:	Release Date:	Changes:
A-Spec V1.0 2023	11/11/2024	Original release
A-Spec V1.3 2023	7/01/2026	Updated the FXL file to match changes made by GISSA for V2.0.5 code lists
A-Spec V1.4 2023	13/05/2026	Updated FXL file to match changes made by GISSA for V2.0.9 code lists

Trimble Authorised Dealer

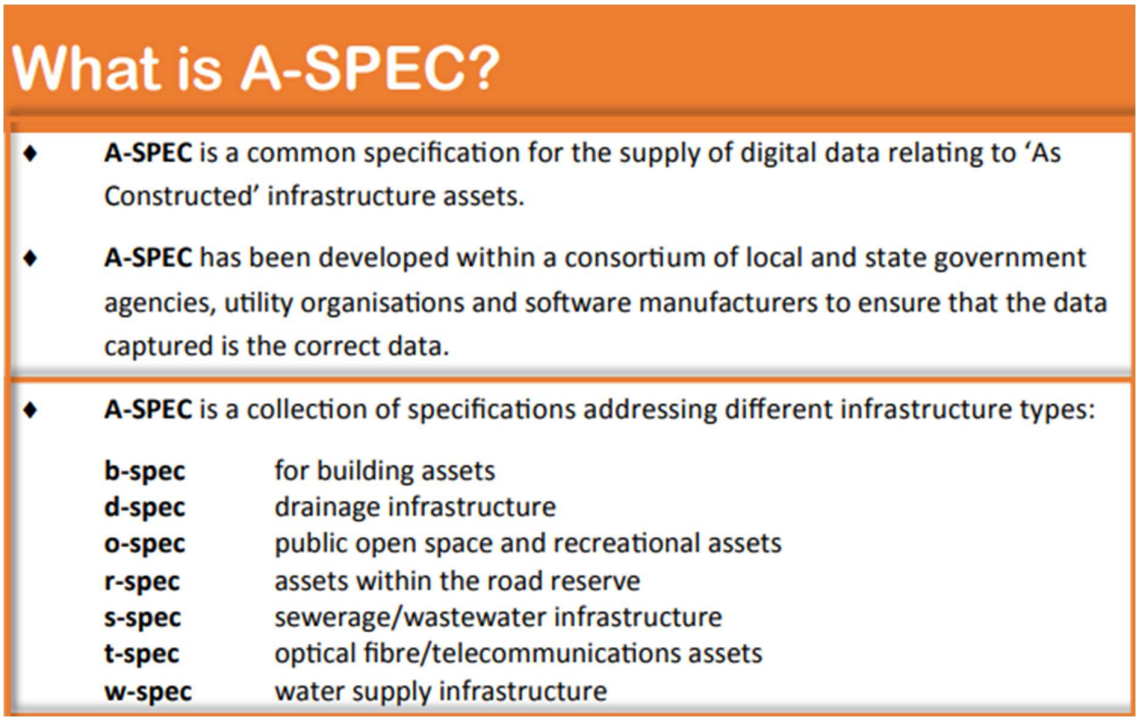
Contents

1. Introduction and Background information

This manual has been created to assist with utilising Trimble Business Center (TBC) software to process, edit and export new A-SPEC data.

This workflow assumes the user has a general understanding of FXL's, CAD commands and attribute editing in TBC.

More information about A-SPEC can be found https://www.a-specstandards.com.au/

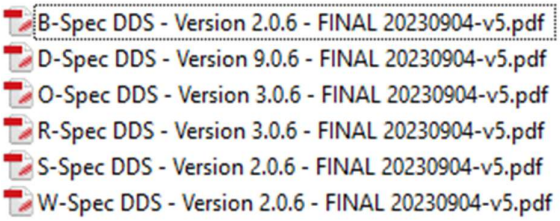


Current Published versions used:

Specifications	Version	Published Date
A-SPEC	V1.10v5	04/09/2023
B-Spec	V2.06v5	04/09/2023
D-Spec	V9.06v5	04/09/2023
O-Spec	V3.06v5	04/09/2023
R-Spec	V3.06v5	04/09/2023
S-Spec	V2.06v5	04/09/2023
W-Spec	V2.06v5	04/09/2023
X-Spec		Under Development

2. A-SPEC FXL

The **A-SPEC FXL** file has been made by UPG/SITECHCS using the documentation provided by GISSA, and the data has been correlated into a single FXL from the below PDF versions. It is for use when capturing **New Assets** under the **A-Spec schema 2023**.



3. A-SPEC Workflow in TBC

The process for creating final deliverables for new assets under the ASPEC schema centres around the use of the A-SPEC FXL in Trimble Business Center and Trimble Access software. This FXL can be requested by emailing anztoolbox@sitechcs.com

A code has been made for each feature and this is detailed in the code list document ***A-SPEC V1.4 Codelist - 2023.pdf***. Attributes that will be filled out in the office have been set to "*Office use only*" so that they will not display on the data collector to keep the list to a minimum. The codes and the attribute input method can be changed in the FXL by the end user if required.

The data captured in the field using the FXL is processed in TBC and reviewed using the **ASPEC Manager** to make sure all attributes have been completed as required. The **ASPEC Manager** command can be found in the ANZ Tools ribbon and includes all the necessary tools to process and export A-SPEC data.

Below are the steps required to prepare A-SPEC data in TBC. Further information about the specific commands used in TBC can be found in the help by pressing F1 when the command is open.

Step 1

Complete the field survey using the *A-SPEC FXL* file. In the FXL there are several "*working*" points that will need to be used for processing data in D-SPEC and S/W-SPEC.

- The D-SPEC "*Pit Centre*" points are used to move the ends of the pipes to the pit centre and transfer position, depth and pit name to attributes on the pit polygon feature.
- The S/W-SPEC "*Pump stn at Level*" points are used to fill the attributes for the position at the locator point and FSL on the pump station polygon features.

Step 2

In TBC start a new project and set the coordinate system. Import the FXL file and the field survey JXL file and process the feature codes. Do any CAD edits and extra modelling of objects required.

Step 3

Open the **ASPEC Manager** which will become a new window in TBC. Select the data you are working on and press the "*Check Empty*" button to list all the empty attributes that require values to still be filled.

If working with D-SPEC pipes and conduits or S/W-SPEC pump stations, then use the **Connections** command to work through each object and update the attributes and pipe positions. *(See the help for how to use **Process ASPEC Connections**)*. If not, then open the **ASPEC Auto-Fill** command and enter the "*AOW ID"* and "*Currency"* value. If the feature does not have a "*Unique ID*" value already assigned, then a numeric number will be added in this process but will not overwrite any existing ones.

Continue to fill in any remaining empty attribute values until the list has been cleared.

Step 4

Once the data is ready it can be exported by selecting all the required features and pressing the "*Export*" button within ASPEC Manager. This will export shape files for each feature into a single folder ready to be delivered. ***Note:** that if the data exported is 3D, then it will also be this way in the shape files. You may wish to copy the data and remove levels prior to export.*

The ***A-SPEC Certification Form Template*.csv** needs to be filled out to accompany the digital data submission.

Known Limitations

Due to the merging of all the SPEC's within one FXL file it is noted that there was a feature that had the same name but different attributes. The name was altered by removing an "s" at the end as the FXL cannot have the same name repeated.

SPEC	True Name	SPEC	Name Changed to
B-Spec	Signs	R-Spec	Sign

Photo_ref attributes are for referencing files names of an image or documents containing multiple relevant photographs of new and existing assets and are set as "Text" attributes in the FXL. Photos can be taken directly on the controller and assigned to a point number but will then need to have the image name entered in this attribute field in the office. The default value is set to **NA**.

Shapefiles do not support true parametric curves, including circular arcs, ellipses, and Bézier curves, so these shapes will be stored as straight segments.

4. Associated Files and Documents

These files and documents are required to be able to complete the workflow.

- ***A-SPEC V1.4 - 2023.fxl*** *(and .MCD file)*

Line control codes used in the A-SPEC fxl file.

Name	Code
Circle Edge - Start	CIR
Close Line	CL
Horizontal Offset	H
Join to Point	JPT
Line - End	E
Line - Start	S
Non - Tangential Arc - Start	PCNT
Non-Tangential Arc - End	PTNT
Smooth Curve - End	CE
Smooth Curve - Start	CS
Tangential Arc - End	PT
Tangential Arc - Start	PC
Vertical Offset	V

- ***A-SPEC V1.4 Codelist - 2023.pdf***
- ***2023 A-SPEC Certification Form Template 20241101.csv***

5. File Validation

Once the data is complete and exported from TBC, if you require it to be validated prior to summitting to a client there is an option to use the GDV Hub run by 1Spatial.