

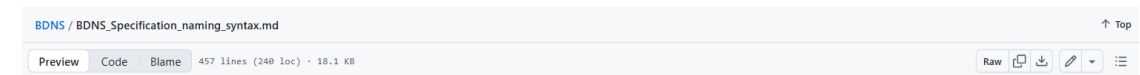
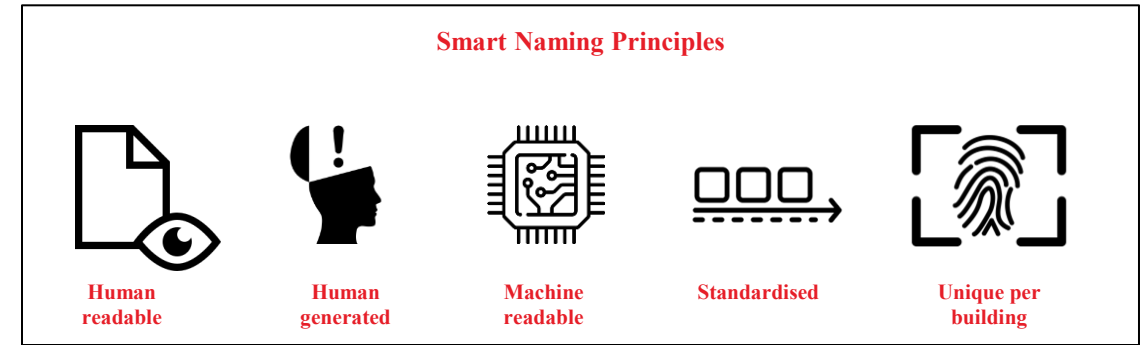
Using BDNS in Arup

Use cases and workflows

BDNS, Smart Buildings and other disciplines

Collaboration across disciplines

- The need for a smart asset naming convention
- Arup's benefits in using BDNS
- Description of the standard
- Description of the scope
- Description of the workflow
- Sources and examples



Device/Asset type (asset.type)

Definition

The device or asset type is a human-generated identifier that is unique for a type of assets to the building. It combines a standard abbreviation for device/asset types and a numerical ID that is unique to each specific device/asset type.

Originator

Generated by the BIM operator, design team, project team or facilities team, depending on project stage.

Format

`<X><Z>`

where:

`X` = `<type_abbreviation>` (alphabetic characters only, variable length, between 2 and 6 characters)

`Z` = `<asset_type_incremental_number>` (variable length, optional unique integer numbers by asset type in each building, non zero padded)

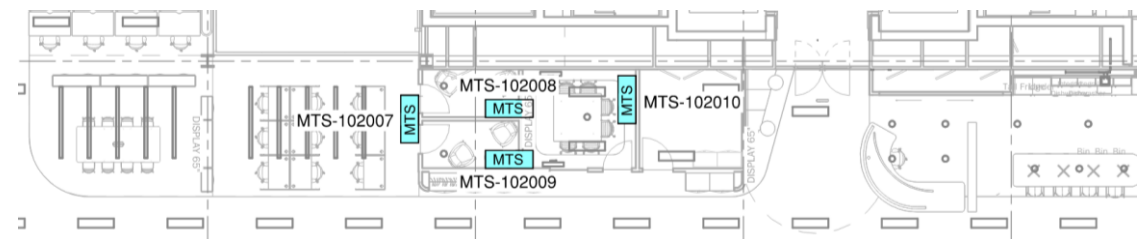
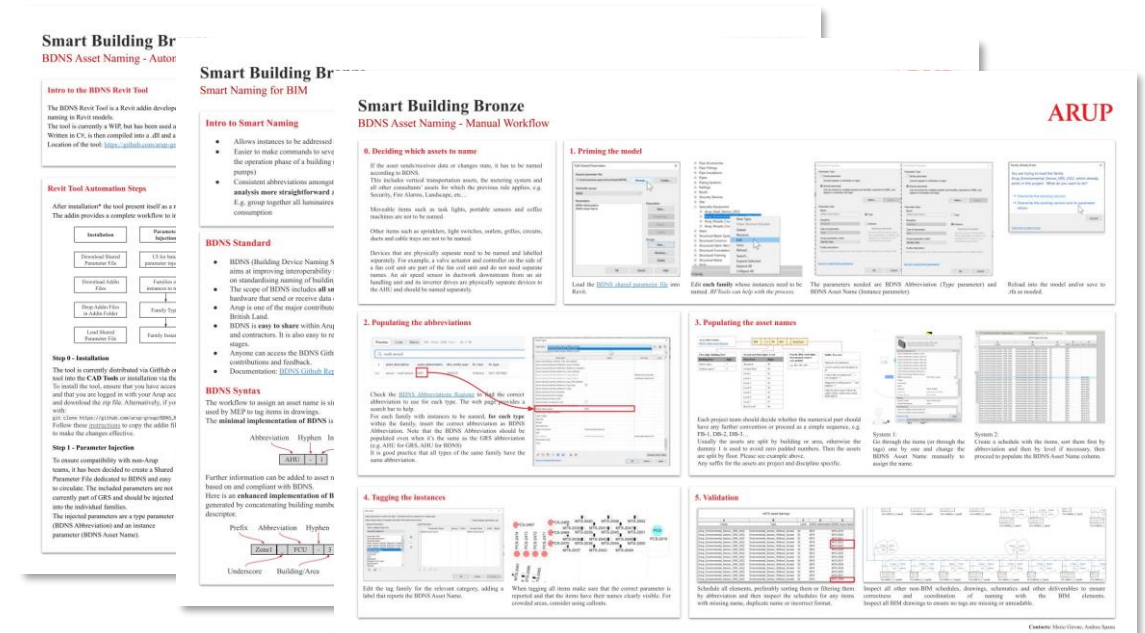
The type abbreviation shall be according to the [Building Device and Asset Abbreviation Registry](#).

The format is composed of a 2 to 6 uppercase alphabetical characters long type abbreviation according to the name abbreviation (`X`) and a variable length character numeric sequence that is unique to the building (`Z`) for each asset type. No leading zeros are allowed in the asset

BDNS, Arup and BIM

Internal standards, tools and workflows

- Arup internal standards
- The families' setup
- The manual workflow
- The automated workflow
- Other ways of automating naming
- Validation scripts



BDNS, Arup and Contractors

Specifications, coordination and validation

- Smart naming in specifications
- Smart naming in Contractors' deliverables
- Providing assistance to Contractors
- Validation on site

```
{ } metadata.json > { } pointset > { } points
1  {
2    "version": "1.1.4",
3    "timestamp": "2025-06-02T23:03:07.055267",
4    "system": {
5      "location": {
6        "site": "GB-LON-ANON"
7      },
8      "physical_tag": {
9        "asset": {
10         "site": "GB-LON-ANON",
11         "guid": "c40797b7-08e8-4026-a8ca-171d7541c8a8",
12         "name": "CAM-100018"
13       }
14     }
15   }
```

Entity Types Summary

Device Type	Quantity
CAM	36
CTRL	8
DB	3
DL	362
EL	56

Total: 465

Invalid names: None detected [OK]

Contact



Rita Lavasa

Rita.Lavasa@arup.com



Andrea Spanu

Andrea.Spanu@arup.com

ARUP