OpenPlant PowerPID Schema Hierarchy

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# Naming conventions

This document covers releases for SS3, SS4 and SS5. The version **01.0x** will apply to all. This version number would correspond to the specific schema version 01.01, 01.02, 01.03.

|  |  |
| --- | --- |
| **Schema name** | **Physical schema name** |
| OpenPlant | OpenPlant.01.0x.ecschema.xml |
| OpenPlant\_PID | OpenPlant\_PID.01.0x.ecschema.xml |
| Bmf | bmf.01.0x.ecschema.xml |
| Schematics | schematics.01.0x.ecschema.xml |
| Pid | pid.01.0x.ecschema.xml |

# General Overview

*OpenPlant PowerPID*  uses OpenPlant. This schema is shared by *OpenPlant Modeler*. Each project shares **OpenPlant\_PID**, whose classes derive from both the engineering content **OpenPlant** and the behavioral schemas (**bmf, schematics**, and **pid**).

**OpenPlant\_PID** was designed like **OpenPlant\_3D**, which is used by OpenPlant Modeler. **OpenPlant\_PID** classes have the same name as in **OpenPlant**. **OpenPlant\_PID** only contains classes which P&ID uses. Each class first has the **OpenPlant\_PID** base class, then the **OpenPlant** base class, then where applicable the behavioral base class.

OpenPlant\_ProjectProperties schema is a default template to be used by different projects in order to add a property(s) to a class(s).



# Schemas

Each schema has a purpose. It should only contain classes and/or properties related to that purpose.

## OpenPlant\_ProjectProperties

This schema is used to add project specific properties to the various **engineering content** classes. It contains the classes that would most likely be extended for a project. It is delivered under each project’s *Dataset\schemas* directory. If the project chooses to add a property(s), only the property definition should be added. No custom attributes should be put on the new property and no custom attributes should be put on any classes within this schema.

## OpenPlant

This schema is the common **engineering content** schema. It contains class definitions in accordance with *ISO15926*. It is shared by all **OpenPlant** applications. It is delivered under Workspace*\OPPowerPID\schemas* directory.

## Behavioral

The **behavioral schemas** contain class definitions, which are used by the application. They are tied to the .Net classes within the code. Therefore these should NEVER be modified by an end user. This are delivered under *PowerPID\schemas* directory.

### Bmf

This contains the lowest level of **behavioral** classes.

### Schematics

This contains **behavioral** classes common to any schematics application.

### Pid

This contains **behavioral** classes used by the OpenPlant PowerPID application.

## OpenPlant\_PID

This schema combines the **engineering content** classes with the behavioral classes for use by the OpenPlant PowerPID application. It is common to all OPPID projects. It is delivered under each project’s *Dataset\schemas* directory.

## Project Supplementals

These schemas are specific to a given OPPID project. The deliverable naming convention is **OpenPlant\_PID\_Supplemental\_\*,** where \* is Imperial, ISO, or Metric. The project specific named supplemental schema is delivered under that project’s *Dataset\schemas* directory.

## Tagging Supplemental

The **OpenPlant\_Supplemental\_Tagging** contains the component tagging information, which is shared by all OpenPlant applications. It is delivered under Workspace*\OPPowerPID\schemas* directory.

See the wiki site for details: [Tag Format - OPPID](http://communities.bentley.com/products/plant/design___engineering/w/plant_design_and_engineering__wiki/5217.aspx)

## Units Supplemental

The **OpenPlant\_Supplemental\_Units\_Imperial** and **OpenPlant\_Supplemental\_Units\_Metric** contain the unit specifications for various component properties. They are shared by all **OpenPlant** applications.

See the wiki site for detail locations [OPPID - Locations and Project Definitions Explained](http://communities.bentley.com/products/plant/design___engineering/w/plant_design_and_engineering__wiki/5718.aspx)

#  Custom Attribute Locations

Custom attributes are used to extend information about a class and/or a property. Each schema has a purpose and should only contain custom attributes related to that purpose. If the schema is shared by all **OpenPlant** applications, it must not have any **bmf**, **schematics**, or **pid** custom attributes! Also while **ExtendType** is defined in **EditorCustomAttributes**, the value of the Name is application specific. Therefore it belongs in either **OpenPlant\_PID**, when common for all projects, or one of the project supplements.

See the wiki site for details on custom attribute: [OPPID - Custom Attributes](http://communities.bentley.com/products/plant/design___engineering/w/plant_design_and_engineering__wiki/5713.aspx)