OPPID- DGN, Database Guid and Keytag Storage and Usage

**Document Type:** TechNote

**Product(s):** OpenPlant PowerPID

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### Description

This document will explain how the GUID value is used and matched with Database GUID values for synchronization.

# Terminology

**Guid**

A unique value that is stored on component ECInstances.

**Keytag**

APFW Database unique key

# GUID database storage

* The **KEYTAG\_GUID\_PK** is an auto-generated field (and like columns)



 This means this field gets a “GUID” type value for every new record: TAG\_REG, EQUIP EQP\_LNK,…

* OPPID uses the **Tag Registry** table for storing the DGN defined GUID. If the class does not have a Tag Registry table, it is stored in the Source table.
	+ TAG\_REG
	+ INSTR
	+ PIPE\_RUN
	+ PID\_TOFR
* When a component is placed in OPPID
	+ A Unique GUID is a assigned to the EC GUID Property.
	+ A Sync to database writes this property value to the database
	+ This Creates a “unique” match between Drawing Instance and database record
* The GUID in the Source tables is NOT USED where the component has a tag storage table.

List of source tables where the GUID is present but not used.

* + PROCESS
	+ VALVE
	+ EQUIP
	+ …

**To check this**

1. place a component (Pipeline)
2. sync to database
3. Select Pipeline
4. Dump (pid component dump)
	1. View the “GUID” value
5. View the TAG \_REG table and find the **KEYTAG\_GUID\_PK** column
	1. The values are not case sensitive



| **TAG\_REG** |
| --- |
| **KEYTAG\_GUID\_PK** |
| {B47F83CF-11A4-4FB8-8CC5-156C79660C30} |

# PSV Keytag Storage

* PSV are data change components
	+ Their foreign key values are stored in the **RUN\_CONN** table
		- It is possible that the pipe runs have their own Pipeline

| **INSTR** |
| --- |
| **KEYTAG** | **TAG\_TYPE** |
| 0000000605 | AT\_PSV |

| **RUN\_CONN** |
| --- |
| **KEYTAG** | **RUN\_ID** |
| 0000000605 | 0000000603 |
| 0000000605 | 0000000604 |

| **PIPE\_RUN** |
| --- |
| **KEYTAG** | **LINE\_ID** |
| 0000000603 | 0000000602 |
| 0000000604 | 0000000602 |

* Mapping in PlantProjectSchema.01.02\_Autoplant\_PIW.01.02.mapping.xml
	+ Search <Column name="RUN\_CONN.RUN\_ID" />
		- This will show all relationships that use the **RUN\_CONN** table

### PLANT\_KEY

* PLANT\_KEY column stores the Pipeline KEYTAG
* Types that use **PLANT\_KEY** column
	+ Instrument Bubbles
	+ Flow Elements
	+ Control Valves
* Mapping in PlantProjectSchema.01.02\_Autoplant\_PIW.01.02.mapping.xml
	+ Search <Column name="INSTR.PLANT\_KEY" />
		- This will show all relationships that use **PLANT\_KEY**