

# Template archives for Devices

A template archive is created using the [Device Definition](#) (or above specific device definition items) and/or other template archives. The purpose of the template archive is to create an archive object configuration template using the Device Definition. Based on this template, the [D2000 Archiv](#) process will create an instance of the template for all [Devices](#) that are based on this [Device Definition](#).

All four types of archives can be created using template archives:

- [Archive object values](#) - (primary archives) allow archiving of items of [Device Definition](#). Archiving can be either periodical or on value change.
- [Calculate archived values by statistical function](#) (statistical archives) - allows applying of a [statistical function](#) to a defined template archive.
- [Calculate archived values by defined statement](#) (evaluated archives) - allows defining a custom [formula](#) using existing objects of *Historical value* type. The formula is defined in the [Statement](#) tab. The results of the calculation are again values, that will be archived.
- [Fill archive from the script \(Value storage\)](#) - values can be written either from an [ESL](#) script or manually from the process [D2000 HI](#).

The following applies to all types of template archive objects:

- The "Publish values" option must be checked.
- The **Target object** (or **Target column** or **Target structure**) must be specified, which is the [Device Definition](#) item (e.g. *DD.Generator^PowerArc*).
- The template archive name is derived from the [Device Definition](#) name and the item name configured as the **Target object** (for example, if the Target object is *DD.Generator^PowerArc*, the template archive name will be *DD.Generator.PowerArc*).  
Note: this feature automatically ensures that no other template archive (or another template eval tag) is accidentally published to the same item.
- Access to archive values (from an ESL script, from a HI process, from a graph, etc.) is through an item of a specific [Device](#) (configured as a **Target Object**) that has this [Device Definition](#) (e.g. *DI.Generator1^PowerArc*).

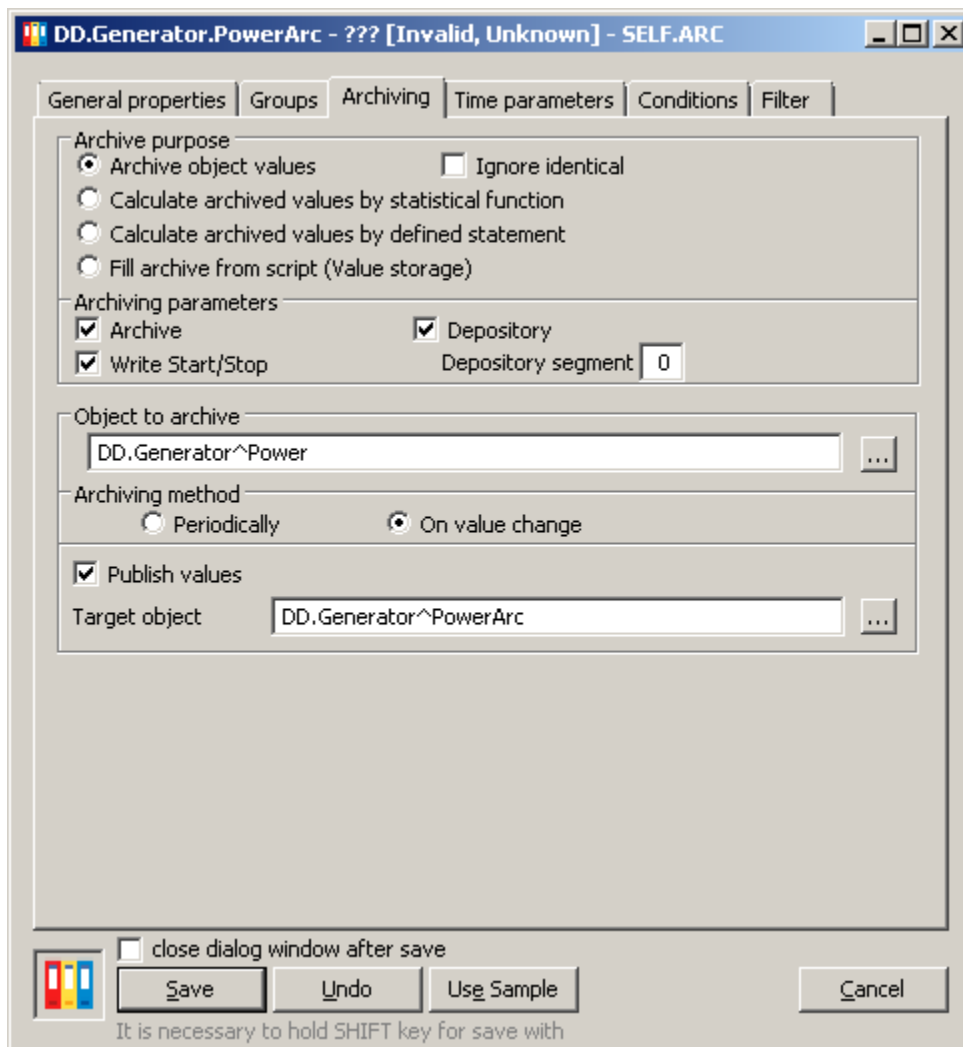
## ARCHIVE OBJECT VALUES

This archive allows defining a **template primary archive** that provides primary archiving of [Devices](#) that are based on this [Device Definition](#).

The archived object or source of values must be a device item (e.g. *DD.Generator^Power*).

The **Target object** must be an item of [Device Definition](#) (e.g. *DD.Generator^PowerArc*) - it must be the same [Device Definition](#) that is configured as an [Archived object](#) (but of course, the column must be different).

Figure 1: Example configuration of the *DD.Generator.PowerArc* **template primary archive**, which archives the *Power* item from the *DD.Generator* [Device Definition](#) and publishes it to the *PowerArc* item of the same *DD.Generator* [Device Definition](#).

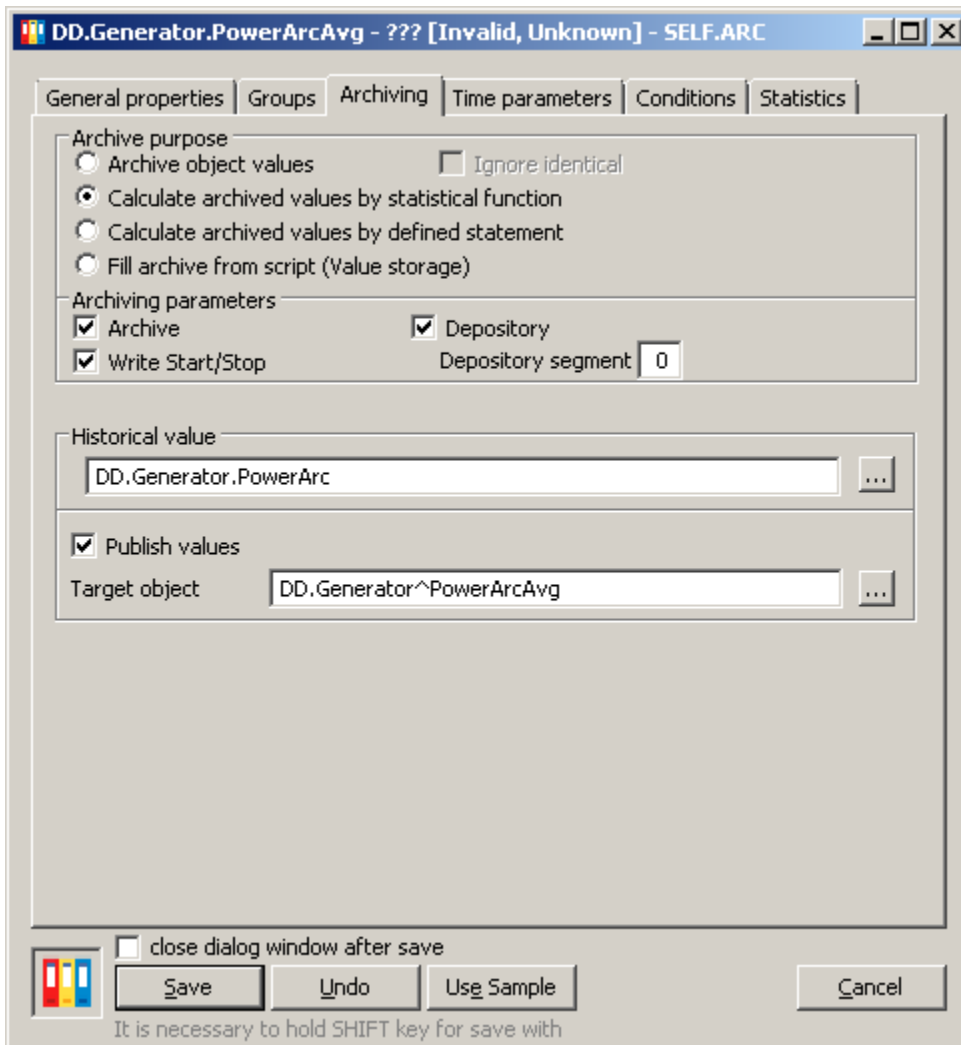


## **CALCULATE ARCHIVED VALUES BY STATISTICAL FUNCTION**

This archive allows the definition of a **template statistical archive**, which ensures the calculation of a statistical function over another source archive - a [Historical value](#), which must be another template archive.

The **Target object** must be an item of [Device Definition](#) (e.g. *DD.Generator^PowerArcAvg*) - it must be the same [Device Definition](#) that the source archive configured as a [Historical value](#) has as a **Target object** (but of course, the column must be different).

Figure 2: Example of the *DD.Generator.PowerArcAvg* **template statistics archive** configuration, which calculates statistics over the *DD.Generator.PowerArc* **template archive** (see [Figure 1](#)) and publishes it to the *PowerArcAvg* item of *DD.Generator* [Device Definition](#).



## CALCULATE ARCHIVED VALUES BY DEFINED STATEMENT

### **Todo - unimplemented**

This archive allows you to define a **template calculated archive** over other template archives and, possibly, over other non-template archives. The following must be true:

- only template archives that work with the same [Device Definition](#) that is configured as a **Target column** of this template archive can appear in the expression
- other, non-template archives may appear in the expression. However, zero-index structured archive entries must not occur (e.g. *H.MyStruct[0]^Col1* or *H.MyStructCol[0]*)

## FILL ARCHIVE FROM SCRIPT (VALUE STORAGE)

This archive allows you to define a **template value storage**. No source is specified when configuring the value store. The **Target structure** must be an item of [Device Definition](#) (e.g. *DD.Generator^PlanArc*).

Figure 4: Example of the *DD.Generator.PlanArc* **template value storage** configuration, which publishes values to the *PlanArc* item of *DD.Generator* [Device Definition](#).

DD.Generator.PlanArc - ??? [Invalid, Unknown] - SELF.ARC

General properties Groups Archiving Time parameters Conditions Filter

Archive purpose

- ☐ Archive object values ☐ Ignore identical
- ☐ Calculate archived values by statistical function
- ☐ Calculate archived values by defined statement
- ☒ Fill archive from script (Value storage)

Archiving parameters


- ☒ Archive ☒ Depository
- ☒ Write Start/Stop Depository segment

☐ Inserted values are periodical

☒ Publish values ☐ Archive playback

Target structure  ...

☐ close dialog window after save



It is necessary to hold SHIFT key for save with



**Related pages:**

[Historical values](#)

[Configuration Dialog Box \(D2000/Data Archiving in D2000 System/Historical Values\)](#)