Configuring Data Variables for an M580 BMEH58•040 Hot Standby Application

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BMEH58•040 Hot Standby CPUs support the following data attributes:

Attribute	CPU	
	BMEH582040 / BMEH584040	BMEH586040
Exchange On STBY	X	X
Retain	–	X
X: Supports the attribute. –: Does not include the attribute, because all data is retained.		

For information on how to use the Unity Pro **Data Editor**, and display the Retain and **Exchange On STBY** attributes, refer to the *Unity Pro Operating Modes* manual.

Retain

The BMEH586040 Hot Standby CPU presents the **Retain** variable attribute. This attribute determines whether the variable value will persist after a warm start of the CPU. If the attribute is:

- Selected: Variable data persists and is applied to the variable after a warm start.
- De-selected: Variable data is lost after a warm start; the variable value is reset.

NOTE: In the event of a cold start of the CPU, both retained and non-retained data is reset.

The amount of maximum configurable retained data varies, depending on the CPU.

The **Retain** variable attribute is editable only for the BMEH586040 CPU. It is pre-selected and read-only for the BMEH582040 and BMEH584040 CPUs.

For the BMEH586040 CPU, you cannot edit the **Retain** attribute for a variable that existed at CPU start-up. When a variable is created online as part of a CCOTF change, you can edit the **Retain** attribute. which remains modifiable until the first build change is performed.

NOTE: The amount of retained data is presented as saved data in the **Memory Usage** window.

Exchange On STBY

Before each scan in a Hot Standby system, the primary Hot Standby CPU exchanges data with the standby CPU. It exchanges only that data with the **Exchange On STBY** attribute set to **YES**.

NOTE:

- When a reference is initialized inside the **Data Editor**, the initialization variable needs to be part of the same task as the reference. Otherwise, a detected error message will be included in the **Output Window** when the project is analyzed.
- The **Exchange On STBY** attribute is not editable for all variables.

You cannot edit the **Exchange On STBY** attribute for a variable that existed at CPU start-up. When a variable is created online as part of a CCOTF change, you can edit the **Exchange On STBY** attribute. which remains modifiable until the first build change is performed.

The amount of maximum configurable Hot Standby transfer data varies, depending on the CPU.

Each variable that is included in the Hot Standby exchange also presents a read-only **Task** attribute. The setting of the **Task** attribute is auto-generated by Unity Pro for each variable included in the Hot Standby exchange.