



Base Assembly Controller Component

FM3TR Waveform Reference Implementation

SDR Forum Contract

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Revision 1.0

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1 Component Name

BaseAssemblyController

2 Component Processing Summary

The assembly controller is responsible for the control and configuration of all waveform components. The application delegates the start(), stop(), runTest(), configure() and query() calls to the assembly controller. It is the assembly controller's responsibility to know how to further delegate these calls according to the waveform functional design.

Further information about the Base Assembly Controller component can be found in the Design Considerations document.

3 Where used

The Base Assembly Controller component is used in both the audio and data waveforms.

4 Data Input and Output Ports

The Base Assembly Controller component does not have data input or output ports as it is not involved in the processing of the data. It uses the BaseAssemblyControllerPin1 port to connect to all the waveform components. During application creation, the Application Factory passes the reference of each Resource component to the Base Assembly Controller per the connections defined in the SAD. The Base Assembly Controller then uses these references to delegate the start(), stop(), runTest(), configure() and query() operations.

5 Control Interfaces

The Base Assembly Controller component inherits the control interfaces from CF::Resource.

6 Component SCA Properties

In addition to the DLL execparams, the Base Assembly Controller component has a corresponding property for each "configure" type property of each waveform component. The mapping between the Base Assembly Controller properties and the waveform component properties are defined in the BaseAssemblyControllerPropMappingDB.h file.

7 Component Attributes/Key Variables

Below is a list of several key variables to the Base Assembly Controller component with a brief description of their purpose.

m_prop_mappings	A list of all property mappings based on the definitions in the
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	BaseAssemblyControllerPropMappingDB.h file.
m_ResHead	A linked list of all Resource components that are connected to the Base Assembly Controller via the BaseAssemblyControllerPin1 port.

8 Processing Details

Additional details about the Base Assembly Controller component can be found in the Design Considerations document.