

Diagnostic/Self-Monitoring Software Modules

Attributes	Definition
Behaviors	See physical device template (Software.wb3) for attributes
Data Inputs	
Data formats	The alphanumeric sequences representing data which are transmitted from one computer to another
Command formats	The alphanumeric sequences representing commands which are transmitted from one computer to another
Input sequences	The order in which data and command sequences are transmitted from one computer to another.
End messages	The alphanumeric sequences representing end of message which are transmitted from one computer to another
Process	
Diagnostic Modes or Functions	The program modes or functions used to diagnose problems with other parts of the system.
Self-monitoring modes	The program modes or functions used to monitor other parts of the system.
Functional Transformation	The transfer function that describes how the outputs are derived from the inputs
Bypass Functions	The functions that can be bypassed during operation
Initialization / Reset Mode	The condition that the system assumes upon startup or energization - both initially and after reset.
Exact sequence of operations	The sequence of operation and interlock conditions required for sequential logical operations
Abnormal events--errors & recovery	Software precautions to prevent other errors, and error recovery mechanisms in the software.
Data Outputs	
Data formats	The alphanumeric sequences representing data which are transmitted from this application
Command formats	The alphanumeric sequences representing commands which are transmitted from this application
Output sequences	The order in which data and command sequences are transmitted from one computer to another.
End messages	The alphanumeric sequences representing end of message which are transmitted from this application

Diagnostic/Self-Monitoring Software Modules

Attributes	Typical Source of Constraints	Typical Location of Constraints	Comments
Behaviors	See physical device template (Software.wb3) for attributes		
Data Inputs			
Data formats	Spec. of message formats	Physical Device Interface Requirements Document	
Command formats	Spec. of message formats	Physical Device Interface Requirements Document	
Input sequences	Spec. of message formats	Physical Device Interface Requirements Document	
End messages	Spec. of message formats	Physical Device Interface Requirements Document	
Process			
Diagnostic modes or functions	Integrity strategies, SAR	Protection System Specification	
Self-monitoring modes	Integrity strategies	Protection System Specification	
Functional Transformation	Integrity strategies	Protection System Specification	
Bypass Functions	Integrity strategies, SAR	Protection System Specification	
Initialization / Reset Mode	Defined safe state	Protection System Specification	
Exact sequence of operations	Integrity strategies	Protection System Specification	
Abnormal events--errors & recovery	Integrity strategies	System Safety Analysis	
Data Outputs			
Data formats	Spec. of message formats	Physical Device Interface Requirements Document	

Command formats	Spec. of message formats	Physical Device Interface Requirements Document	
Input sequences	Spec. of message formats	Physical Device Interface Requirements Document	
End messages	Spec. of message formats	Physical Device Interface Requirements Document	
Diagnostic/Self-Monitoring Software Modules			
Attributes	Safety Constraint	Source	Comments
See physical device template (Software.wb3) for attributes			
Behaviors			
Data Inputs			
Data formats			
Command formats			
Input sequences			
End messages			
Process			
Diagnostic Modes or Functions			
Self-monitoring modes			
Functional Transformation			
Bypass Functions			
Initialization / Reset Mode			
Exact sequence of operations			
Abnormal events--errors & recovery			
Display			
Screen formats & organization			
Window formats & organization			
User commands & responses			
Data Outputs			
Data formats			
Command formats			
Output sequences			
End messages			