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# Classes

## FirmwareCollection

Applied stereotypes:

* OpenModelClass
* support: MANDATORY
* OpenInterfaceModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO

Attributes for FirmwareCollection

Table 1: Attributes for FirmwareCollection

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| \_firmwareComponentList | FirmwareComponent  ./. | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |
| download | DownloadType  ./. | 1 | RW | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | List of currently on-going downloads. |

## FirmwareComponent

Applied stereotypes:

* OpenModelClass
* support: MANDATORY
* OpenInterfaceModelClass
* objectCreationNotification: YES
* objectDeletionNotification: YES

Attributes for FirmwareComponent

Table 1: Attributes for FirmwareComponent

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| \_firmwareComponent\_Pac | FirmwareComponent\_Pac  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  PassedByReference  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |
| \_subordinateFirmwareComponentList | FirmwareComponent  ./. | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  PassedByReference  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |

## FirmwareComponentCapability

Applied stereotypes:

* OpenModelClass
* support: MANDATORY
* OpenInterfaceModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO

Attributes for FirmwareComponentCapability

Table 1: Attributes for FirmwareComponentCapability

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| firmwareComponentKind | FirmwareComponentKindType  NOT\_YET\_DEFINED | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | Kind of firmware component (e.g. package, image). |
| firmwareComponentName | String  Firmware component name not yet defined. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | Name of the firmware component. |
| firmwareComponentVersion | String  Firmware component version not yet defined. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | Version of the firmware component. |
| firmwareComponentClass | FirmwareComponentClassType  UNKNOWN | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | Class of firmware component. |
| individualActivationIsAvail | Boolean  false | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | True = Firmware component could be individually activated. False = Firmware component would be activated together with a superior component. |
| kindsOfEquipmentUsingThisFirmwareComponent | String  Affected equipment types not yet defined. | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NA  • bitLength: NA | Kinds of equipment using this firmware component after activation. Values should be identical with entries in Equipment::ManufacturedThing::EquipmentType::modelIdentifier attribute. |

## FirmwareComponentStatus

Applied stereotypes:

* OpenModelClass
* support: MANDATORY
* OpenInterfaceModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO

Attributes for FirmwareComponentStatus

Table 1: Attributes for FirmwareComponentStatus

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| firmwareComponentStatus | FirmwareComponentStatusType  NOT\_YET\_DEFINED | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: YES  • bitLength: NA | Operational status of the firmware. |
| firmwareComponentActivationDate | DateTime  2010-11-20T14:00:00+01:00 | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | Date and time of the activation of this firmware component. |
| \_firmwareComponentIsActiveOnEquipmentList | Equipment  ./. | 0..\* | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: false  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |

## FirmwareComponent\_Pac

Applied stereotypes:

* OpenModelClass
* support: MANDATORY
* OpenInterfaceModelClass
* objectCreationNotification: NO
* objectDeletionNotification: NO

Attributes for FirmwareComponent\_Pac

Table 1: Attributes for FirmwareComponent\_Pac

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| \_firmwareComponentCapability | FirmwareComponentCapability  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |
| \_firmwareComponentStatus | FirmwareComponentStatus  ./. | 1 | R | OpenModelAttribute  • partOfObjectKey: 0  • isInvariant: true  • valueRange: no range constraint  • unit: no unit defined  • support: MANDATORY  OpenInterfaceModelAttribute  • AVC: NO  • bitLength: NA | See referenced class |

# Data Types

## DownloadType

Applied Stereotypes:

Attributes for DownloadType

Table 1: Attributes for DownloadType

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Type** | **Multiplicity** | **Access** | **Stereotypes** | **Description** |
| filename | String  Filename not yet defined. | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA |  |
| downloadStatus | DownloadStatusType  NOT\_YET\_DEFINED | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA | Status of the download, which had been initiated last. |
| downloadStatusDescription | String  Status description not yet defined. | 1 | R | OpenModelAttribute   * partOfObjectKey: 0 * isInvariant: false * valueRange: no range constraint * unit: no unit defined * support: MANDATORY   OpenInterfaceModelAttribute   * AVC: NO * bitLength: NA | Free text field for additional information about the download status. |

# Enumeration Types

## DownloadStatusType

Current status of the download.

Contains Enumeration Literals:

* SUCCESSFUL:
* INVALID\_URI:
* AUTHENTICATION\_FAILED:
* UNABLE\_TO\_CONNECT\_TO\_SERVER:
* FILE\_NOT\_FOUND:
* INCOMPATIBLE\_FILE:
* NETWORK\_FAILURE:
* TRANSFER\_MECHANISM\_NOT\_AVAILABLE:
* NO\_SPACE\_AVAILABLE:
* ALIGNMENT\_FAILURE:
* SW\_UNIT\_CHECK\_FAILURE:
* SW\_RELEASE\_CHECK\_FAILURE:
* ABORTED:
* INTERNAL\_ERROR:
* FAILED:
* DOWNLOAD\_IN\_PROGRESS:
* IDLE:
* NOT\_YET\_DEFINED:

## FirmwareComponentClassType

Contains Enumeration Literals:

* UNKNOWN:
* OTHER:
* DRIVER:
* CONFIGURATION\_DATA:
* CONFIGURATION\_SOFTWARE:
* APPLICATION\_SOFTWARE:
* INSTRUMENTATION:
* FIRMWARE\_BIOS:
* DIAGNOSTIC\_SOFTWARE:
* OPERATING\_SYSTEM:
* MIDDLEWARE:
* FIRMWARE:
* BIOS\_FCODE:
* SUPPORT\_SERVICE\_PACK:
* SOFTWARE\_BUNDLE:
* RESERVE:
* DOWNSTREAM\_DEVICE:

## FirmwareComponentKindType

Contains Enumeration Literals:

* PACKAGE:
* IMAGE:
* NOT\_YET\_DEFINED:

## FirmwareComponentStatusType

Current status of the firmware component.

Contains Enumeration Literals:

* ACTIVE:
* STAND\_BY:
* COMMITTED:
  + Firmware component will be used after reboot.
* LIKE\_SUPERIOR\_FIRMWARE\_COMPONENT:
* NOT\_APPLICABLE:
* INCOMPLETE:
* NOT\_YET\_DEFINED:

# Primitive Types