DomainManager and DeviceManager instance level property value

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Proposal

This document contains a proposal to add an optional child componentproperties element to the DCD devicemanagersoftpkg element to allow overriding property values for the device manager instance, and to the domainmanagersoftpkg element DMD domainmanagersoftpkg element to allow overriding property values for the domain manager instance.

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Recommendation

SCA v4.1 DomainManager and DeviceManager Instance Level Property Value
Topics

Description of the Issue
Summary of the Proposal
Detailed Proposal

Specifications Changes

• Main Specification
• Appendix D-1: PSM - Document Type Definition (DTD) Files Specification Changes
A Domain Manager and Device Manager components, like any other managed components, are described with SPD and SCD XML files. A particular instance of a Domain Manager is described within a DMD XML file while a particular instance of a Device Manager is described within a DCD XML file. The same component description (SPD and SCD) can be used to create multiple instances of these components (multiple DMDs/DCDs). However, unless using a proprietary solution, it is not possible to override property values for a Domain Manager instance in the DMD or for a Device Manager instance in the DCD.

This issue involves that DMD/DCD and SPD files must be duplicated, renamed, and lightly modified in the case that multiple instances of these components, that use different values for some properties, must be created.
Add an optional component properties sub-element to the devicemanagersoftpkg element to allow overriding property values for the device manager instance.

Add an optional component properties sub-element to the domainmanagersoftpkg element to allow overriding property values for the domain manager instance.
Add an optional componentproperties sub-element to the devicemanagersoftpkg element

D-1.11.1.2 devicemanagersoftpkg

The devicemanagersoftpkg element refers to the SPD for the DeviceManagerComponent that corresponds to this DCD. The SPD file is referenced by a localfile element. The referenced file can be used to describe the DeviceManagerComponent and to specify the usesports for the services (e.g. Log(s), etc.) used by the DeviceManagerComponent. See section D-1.6.1.4.1 for a description of the localfile element. The optional componentproperties element is a list of configure and/or execparam properties values that are used in creating the device manager component. The following sources will be searched in the given precedence order for initial values for simple properties with a kindtype of “execparam” or “configure” and a mode attribute of “readwrite” or “writeonly”: 1. The DCD devicemanagersoftpkg element, 2. The value, if any, from the SPD using the properties precedence stated.
in D-1.6.1. If no values are found in the sources above, the property is
discarded.

```xml
<!ELEMENT devicemanagersoftpkg
  ( localfile
    , componentproperties?
  )>
```

In semantics section for DeviceManagerComponent

### 3.1.3.3.2.4.3 Semantics

SCA450 A DeviceManagerComponent shall use the information in its DCD
for determining:

1. Services to be deployed for this DeviceManagerComponent (for
   example, \(\log(s)\)),

2. DeviceComponents to be created for this device manager (when the
   DCD \textit{deployondevice} element is not specified then the DCD
componentinstantiation element is deployed on the same hardware device as the device manager),

3. DeviceComponents to be deployed on (executing on) another DeviceComponent,

4. DeviceComponents to be aggregated to another DeviceComponent,

5. Mount point names for file systems,

6. The DeviceManagerComponent's identifier attribute value which is the DCD's id attribute value, and

7. DomainManagerComponent's ManagerRegistry and ComponentRegistry references,

8. Values for its properties.
Add an optional componentproperties sub-element to the domainmanagersoftpkg element

**D-1.12.1.2 domainmanagersoftpkg**

The *domainmanagersoftpkg* element refers to the SPD for the DomainManagerComponent. The SPD file is referenced by a *localfile* element. This SPD can be used to describe the DomainManagerComponent implementation and to specify the *usesports* for the services (Log(s), etc.) used by the DomainManagerComponent. See section D-1.6.1.4.1 for description of the *localfile* element. The optional componentproperties element is a list of configure and/or execparam properties values that are used in creating the domain manager component. The following sources will be searched in the given precedence order for initial values for simple properties with a kindtype of “execparam” or “configure” and a mode attribute of “readwrite” or “writeonly”: 1. The DMD domainmanagersoftpkg element, 2. The value, if any, from the SPD using the properties precedence stated
in D-1.6.1. If no values are found in the sources above, the property is discarded.

<!ELEMENT domainmanagersoftpkg
    ( localfile
        , componentproperties?
    ) >

In semantics section for DomainManagerComponent

3.1.3.3.2.3.3 Semantics

SCA177 The DomainManagerComponent identifier shall be identical to the domainmanagerconfiguration element id attribute of the DMD file.

SCAXXX A DomainManagerComponent shall use the information in its DMD for determining:

1. Services to be connected to (for example, log(s))
2. Properties for its configuration
3. Platform Channels for deployment considerations