DomainManager and DeviceManager instance level property value

Document WINNF-15-R0020

Version V1.0.0

29 May 2015

WIRELESS INNOVATION FORUM®

Driving the future of radio communications and systems worldwide

SDR forum version 2.0

Terms and Conditions

This document has been prepared by the SCA 4.1 Draft Adjudication Work Group to assist The Software Defined Radio Forum Inc. (or its successors or assigns, hereafter "the Forum"). It may be amended or withdrawn at a later time and it is not binding on any member of the Forum or of the SCA 4.1 Draft Adjudication Work Group.

Contributors to this document that have submitted copyrighted materials (the Submission) to the Forum for use in this document retain copyright ownership of their original work, while at the same time granting the Forum a non-exclusive, irrevocable, worldwide, perpetual, royalty-free license under the Submitter's copyrights in the Submission to reproduce, distribute, publish, display, perform, and create derivative works of the Submission based on that original work for the purpose of developing this document under the Forum's own copyright.

Permission is granted to the Forum's participants to copy any portion of this document for legitimate purposes of the Forum. Copying for monetary gain or for other non-Forum related purposes is prohibited.

Driving the future of radio communications and systems worldwide

Intellectual Property Rights
Use this chart in all contributions

THIS DOCUMENT IS BEING OFFERED WITHOUT ANY WARRANTY WHATSOEVER, AND IN PARTICULAR, ANY WARRANTY OF NON-INFRINGEMENT IS EXPRESSLY DISCLAIMED. ANY USE OF THIS SPECIFICATION SHALL BE MADE ENTIRELY AT THE IMPLEMENTER'S OWN RISK, AND NEITHER THE FORUM, NOR ANY OF ITS MEMBERS OR SUBMITTERS, SHALL HAVE ANY LIABILITY WHATSOEVER TO ANY IMPLEMENTER OR THIRD PARTY FOR ANY DAMAGES OF ANY NATURE WHATSOEVER, DIRECTLY OR INDIRECTLY, ARISING FROM THE USE OF THIS DOCUMENT.

Recipients of this document are requested to submit, with their comments, notification of any relevant patent claims or other intellectual property rights of which they may be aware that might be infringed by any implementation of the specification set forth in this document, and to provide supporting documentation.

WIRELESS INNOVATION FORUM

Driving the future of radio communications and systems worldwide

SDR forum version 2.0

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.

Proposal author:

- François Lévesque, NordiaSoft

Proposal reviewers:

- Jerry Bickle, Raytheon

Driving the future of radio communications and systems worldwide

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

Description of the Issue

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.

Summary of the Proposal

Add an optional componentproperties sub-element to the devicemanagersoftpkg element to allow overriding property values for the device manager instance.

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

Detailed Proposal

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

WIRELESS INNOVATION FORUM®

Driving the future of radio communications and systems worldwide

Detailed Proposal

in D-1.6.1. If no values are found in the sources above, the property is discarded.

<!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 *deployondevice* element is not specified then the DCD

Detailed Proposal

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.

WIRELESS INNOVATION FORUM®

Driving the future of radio communications and systems worldwide

SDR forum
version 2.0

Detailed Proposal

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

WIRELESS
INNOVATION
FORUM®
Driving the future of radio communications and systems worldwide

SDR forum version 2.0

Detailed Proposal

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

WIRELESS INNOVATION FORUM®

Driving the future of radio communications and systems worldwide