Schema documentation for fdk_content.xsd

october 9, 2012

Table of Contents

Namespace: ""

Schema(s)

Main schema `fdk_content.xsd`

Namespace	No namespace
Annotations	This document provides specification for XML that describe drivers, applications and other software modules (from here on called modules) in the Atmel Software Framework. Upon start the parser will scan though the ASF directory structure for al asf.xml files, strip the "asf" tag and then include all elements into one XML file. The resulting XML file is used as a database for all software modules in the ASF. The database can be used to resolve dependencies for any module in the ASF, and find other information regarding the software modules.

Element(s)

Element `asf`

Namespace	No namespace
Annotations	Top level element for any build system XML file. Each XML file can be validated with this XML Schema.
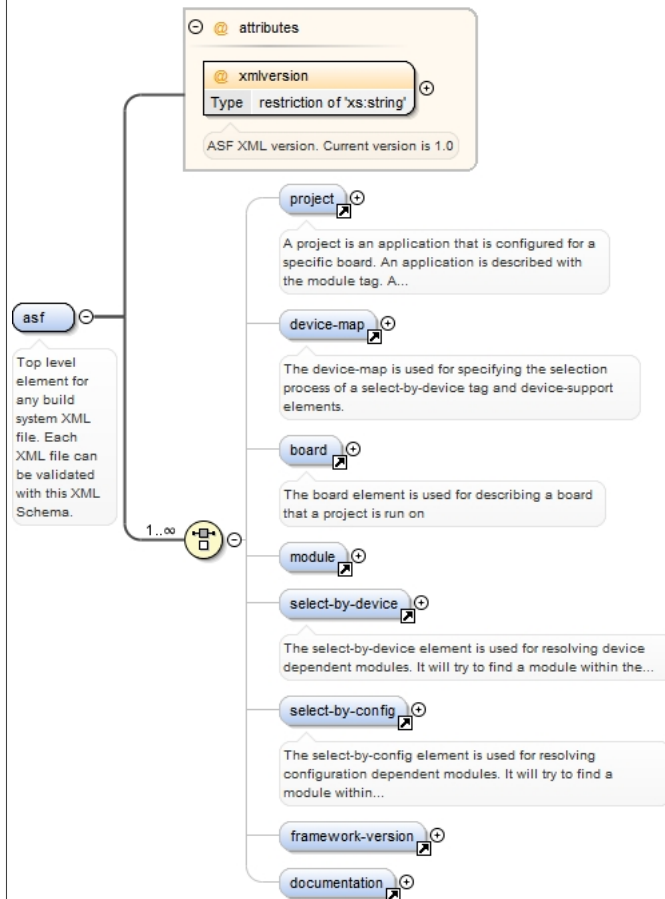
Diagram	
Model	project{0,1} | device-map{0,1} | board{0,1} | module{0,1} | select-by-device{0,1} | select-by-config{0,1} | framework-version{0,1} | documentation{0,1}
Children	board, device-map, documentation, framework-version, module, project, select-by-config, select-by-device

Instance	`<asf xmlversion="">`
	`  <project caption="" id="" type="" workspace-name="">{0,1}</project>`
	`  <device-map id="">{0,1}</device-map>`
	`  <board caption="" id="" mcu="" vendor="">{0,1}</board>`
	`  <module caption="" id="" type="">{0,1}</module>`
	`  <select-by-device caption="" id="">{0,1}</select-by-device>`
	`  <select-by-config caption="" default="" id="" name="">{0,1}</select-by-config>`
	`  <framework-version name="">{0,1}</framework-version>`
	`  <documentation baseurl="">{0,1}</documentation>`
	`</asf>`

Attributes	QName	Type	Fixed	Default	Use
	xmlversion	restriction of xs:string			required
		`ASF XML version. Current version is 1.0`			

Element `project`

Namespace	No namespace

Annotations	`A project is an application that is configured for a specific board. An application is described`
	` with the module tag.`
	
	`A project description is the starting point for the project generator, and must at least state:`
	
	`1. which board the project makes use of`
	
	`2. which project generators can be used`
	
	`3. which application the project is for`

Diagram	

Attributes block:
- @ id — Type: asfld — Unique id
- @ caption — Type: xs:string — Description of the project
- @ type — Type: restriction of 'xs:string' — Type of project
- @ workspace-name — Type: restriction of 'xs:string' — Optional name to use for the project in generated workspaces.

project — A project is an application that is configured for a specific board. An application is described with the module tag. A...

- 0..∞ board-addon — The board-addon element is used to specify one or more add-ons to the board that should be mounted.
- 0..∞ build — The build element is used for specifying what files and defines is needed for a given module.
- 0..∞ require — The require element is used for specifying what other modules is needed by a module.
- 0..∞ require-external — The require-external element is used for specifying what other modules from a different extension is needed by a module.
- 0..∞ info — The info element is used for specifying additional information on a module
- 0..∞ config — The config element is used to set the value of a configuration setting.
- 0..∞ toolchain-config — The config element is used to set the value of a toolchain configuration.
- 0..∞ toolchain-config-list — The config element is used to add a value to a toolchain configuration.
- 0..∞ generator — Add a generator to a project.
- 0..∞ related-module — The related-module element is used to describe relations between modules.

(1..∞)

Used by	Element asf
Model	board-addon*	build*	require*	require-external*	info*	config*	toolchain-config*	toolchain-config-list*	generator*	related-module*
Children	board-addon, build, config, generator, info, related-module, require, require-external, toolchain-config, toolchain-config-list
Instance	

```
<project caption="" id="" type="" workspace-name="">
  <board-addon caption="" position="" vendor="">{0,unbounded}</board-addon>
  <build name="" subtype="" toolchain="" type="" value="">{0,unbounded}</build>
  <require idref="">{0,unbounded}</require>
```

```
    <require-external eidref="" idref="">{0,unbounded}</require-external>
    <info type="" value="">{0,unbounded}</info>
    <config name="" value="">{0,unbounded}</config>
    <toolchain-config name="" toolchain="" value="">{0,unbounded}</toolchain-config>
    <toolchain-config-list name="" toolchain="" value="">{0,unbounded}</toolchain-config-list>
    <generator default-mcu="" value="">{0,unbounded}</generator>
    <related-module module-id="" type="">{0,unbounded}</related-module>
</project>
```

Attributes	QName	Type	Fixed	Default	Use
	caption	xs:string			required
		Description of the project			
	id	asfId			required
		Unique id			
	type	restriction of xs:string			optional
		Type of project			
	workspace-name	restriction of xs:string			optional
		Optional name to use for the project in generated workspaces.			

Element `board-addon`

Namespace	No namespace
Annotations	The board-addon element is used to specify one or more add-ons to the board that should be mounted.
Diagram	
Used by	Element project

Attributes	QName	Type	Fixed	Default	Use
	caption	xs:string			required
		The string to use for presenting the add-on.			
	position	xs:string			optional
		The on-board position of the add-on			
	vendor	xs:string			optional
		The vendor of the add-on.			

Element `build`

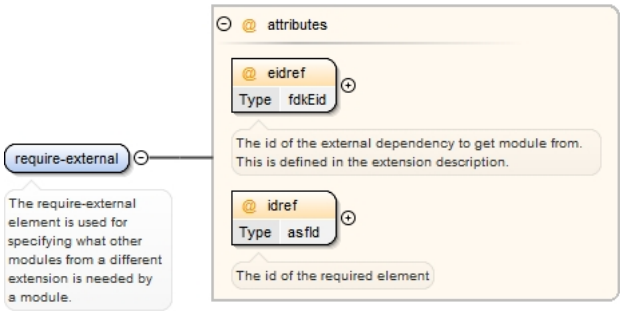| Namespace	No namespace
Annotations	The build element is used for specifying what files and defines is needed for a given module.

Diagram	
Used by	Elements board, module, project

Attributes	QName	Type	Fixed	Default	Use
	name	xs:string			optional
		The name of the build type. This is used for define builds.			
	subtype	restriction of xs:string			optional
		The subtype of build entity			
	toolchain	generatorType			optional
		Build element is only valid for the toolchain with the given name			
	type	restriction of xs:string			required
		The type of build entity			
	value	xs:string			required
		The build element			

Element `require`

Namespace	No namespace
Annotations	The require element is used for specifying what other modules is needed by a module.
Diagram	
Used by	Elements board, module, project

Attributes	QName	Type	Fixed	Default	Use
	idref	asfId			required
		The id of the required element			

Element `require-external`

Namespace	No namespace
Annotations	The require-external element is used for specifying what other modules from a different extension is needed by a module.

Diagram	
Used by	Elements board, module, project

Attributes	QName	Type	Fixed	Default	Use
	eidref	fdkEid			required
		The id of the external dependency to get module from. This is defined in the extension description.			
	idref	asfId			required
		The id of the required element			

Element `info`

Namespace	No namespace
Annotations	The info element is used for specifying additional information on a module
Diagram	
Used by	Elements board, module, project, select-by-config, select-by-device
Model	keyword
Children	keyword

Instance	`<info type="" value="">`
	  `<keyword value="">{1,1}</keyword>`
	`</info>`

Attributes	QName	Type	Fixed	Default	Use
	type	restriction of xs:string			optional
		The type of information entity. The following types are supported: - keyword TBD - appnote Appnote number for related appnote. Ex: AVR123 - description Textual description of the module. Can be of type: * summary - Quick "one line" description. * detailed - Longer, more detailed description. The exact guidelines are TBD.			
	value	xs:string			required
		The actual information, or category for blocks of keywords:			

QName	Type	Fixed	Default	Use
	- kit			
	- device			
	- technology			
	- application			

Element `keyword`
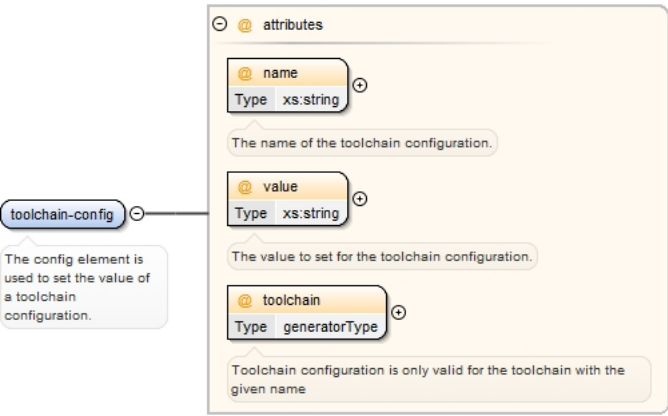
Namespace	No namespace			
Diagram				
Used by	Element info			
Attributes	**QName**	**Type**	**Fixed**	**Default**	**Use**
	value	xs:string			required
		A keyword.			

Element `config`
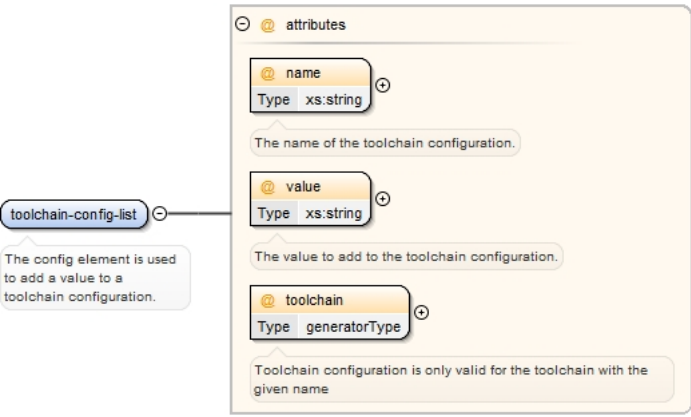
Namespace	No namespace			
Annotations	The config element is used to set the value of a configuration setting.			
Diagram				
Used by	Elements board, project			
Attributes	**QName**	**Type**	**Fixed**	**Default**	**Use**
	name	xs:string			required
		The name of the configuration setting.			
	value	xs:string			required
		The value to set for the configuration.			

Element `toolchain-config`

Namespace	No namespace
Annotations	The config element is used to set the value of a toolchain configuration.

Diagram	

Used by	Elements	board, project			

Attributes	QName	Type	Fixed	Default	Use
	name	xs:string			required
	The name of the toolchain configuration.				
	toolchain	generatorType			required
	Toolchain configuration is only valid for the toolchain with the given name				
	value	xs:string			required
	The value to set for the toolchain configuration.				

Element `toolchain-config-list`

Namespace	No namespace
Annotations	The config element is used to add a value to a toolchain configuration.
Diagram	

Used by	Elements	board, project			

Attributes	QName	Type	Fixed	Default	Use
	name	xs:string			required
	The name of the toolchain configuration.				
	toolchain	generatorType			required
	Toolchain configuration is only valid for the toolchain with the given name				
	value	xs:string			required
	The value to add to the toolchain configuration.				

Element `generator`

Namespace	No namespace
Annotations	Add a generator to a project.

Diagram	

Used by	Elements	module, project

Attributes	QName	Type	Fixed	Default	Use
	default-mcu	xs:string			optional
		Only allowed when value="doxygen-module".			
	value	generatorType			required
		This restricted value define a set of generator which is used to generate project files for a project.			

Element `related-module`

Namespace	No namespace
Annotations	The related-module element is used to describe relations between modules.
Diagram	

Used by	Elements	board, module, project

Attributes	QName	Type	Fixed	Default	Use
	module-id	asfId			required
		The ID of the related module			
	type	relatedModuleType			required
		How the module is related			

Element `device-map`

Namespace	No namespace
Annotations	The device-map is used for specifying the selection process of a select-by-device tag and device-support elements.
Diagram	

Used by	Element	asf

Model	group+
Children	group

Instance	```<device-map id="">```
	  ```<group doc-arch="" name="">{1,unbounded}</group>```
	```</device-map>```

Attributes	QName	Type	Fixed	Default	Use
	id	asfId			required
		Unique id of device-map.			

Element `group`

Namespace	No namespace
Annotations	Familly group name
Diagram	

Used by	Elements	device-map, group

Model	group | mcu
Children	group, mcu

Instance	```<group doc-arch="" name="">```
	  ```<group doc-arch="" name="">{1,1}</group>```
	  ```<mcu name="">{1,1}</mcu>```
	```</group>```

Attributes	QName	Type	Fixed	Default	Use
	doc-arch	xs:string			optional
		Specify that this is an "architecture" for grouping of documentation, and the name to use.			
	name	xs:string			required
		Name of the family group. For example uc3a.			

Element `mcu`

Namespace	No namespace
Annotations	MCU name
Diagram	

Used by	Element	group

Attributes	QName	Type	Fixed	Default	Use
	name	xs:string			required
		Name of the MCU. For example atxmega128a1			

Element `board`

Namespace	No namespace
Annotations	The board element is used for describing a board that a project is run on
Diagram	
Used by	Element asf
Model	build* | require* | require-external* | info* | config* | toolchain-config* | toolchain-config-list* | related-module*
Children	build, config, info, related-module, require, require-external, toolchain-config, toolchain-config-list

Instance	<pre><board caption="" id="" mcu="" vendor="">
	  <build name="" subtype="" toolchain="" type="" value="">{0,unbounded}</build>
	  <require idref="">{0,unbounded}</require>
	  <require-external eidref="" idref="">{0,unbounded}</require-external>
	  <info type="" value="">{0,unbounded}</info>
	  <config name="" value="">{0,unbounded}</config>
	  <toolchain-config name="" toolchain="" value="">{0,unbounded}</toolchain-config>
	  <toolchain-config-list name="" toolchain="" value="">{0,unbounded}</toolchain-config-list>
	  <related-module module-id="" type="">{0,unbounded}</related-module></pre>

```
</board>
```

Attributes	QName	Type	Fixed	Default	Use
	caption	xs:string			required
		Description of the board			
	id	asfId			required
		unique id			
	mcu	xs:string			required
		The target mcu that is on the board			
	vendor	xs:string			optional
		The vendor of the board, defaulting to "User" if unspecified			

Element `module`

Namespace	No namespace
Diagram	
Used by	Elements asf, select-by-config, select-by-device
Model	build*	require*	require-external*	info*	device-support*	generator*	related-module*
Children	build, device-support, generator, info, related-module, require, require-external
Instance	(see code below)

```
<module caption="" id="" type="">
  <build name="" subtype="" toolchain="" type="" value="">{0,unbounded}</build>
  <require idref="">{0,unbounded}</require>
  <require-external eidref="" idref="">{0,unbounded}</require-external>
  <info type="" value="">{0,unbounded}</info>
  <device-support value="">{0,unbounded}</device-support>
```

```
    <generator default-mcu="" value="">{0,unbounded}</generator>
    <related-module module-id="" type="">{0,unbounded}</related-module>
</module>
```

	Attributes	QName	Type	Fixed	Default	Use
		caption	xs:string			required
			Description of the module			
		id	asfId			required
			Unique id for module			
		type	restriction of xs:string			required
			The type of the module. It can be : - driver - component - service - library - application - meta - build-specific			

Element `device-support`

Namespace	No namespace
Diagram	
Used by	Element　　　　　　　　　　module

Attributes	QName	Type	Fixed	Default	Use
	value	xs:string			optional
		Idenfifier of device that is supported. For example atxmega128a1.			

Element `select-by-device`

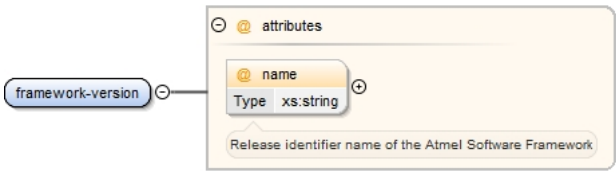| Namespace	No namespace
Annotations	The select-by-device element is used for resolving device dependent modules. It will try to find a module within the tag that contains the same id, with a hash and the device appended. It starts searching at the MCU in the device-map and then to each parent node, until a match is found. This ensures that a driver for one specific device has higher priority than a family generic driver.
Diagram	

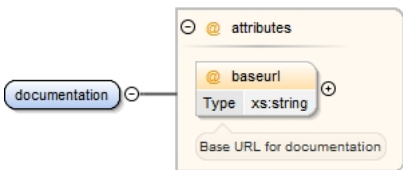| Used by	Elements asf, select-by-config				
Model	info* | module*				
Children	info, module				

Instance	`<select-by-device caption="" id="">`
	  `<info type="" value="">{0,unbounded}</info>`
	  `<module caption="" id="" type="">{0,unbounded}</module>`
	`</select-by-device>`				

Attributes	**QName**	**Type**	**Fixed**	**Default**	**Use**
	caption	xs:string			optional
		Description of the selector			
	id	asfId			required
		Unique ID			

Element `select-by-config`

Namespace	No namespace			
Annotations	The select-by-config element is used for resolving configuration dependent modules. It will try to find a module within the tag that contains the same id, with a hash and the configuration appended.			
Diagram				
Used by	Elements asf, select-by-config			
Model	info* | select-by-config* | select-by-device* | module+			
Children	info, module, select-by-config, select-by-device			

Instance	`<select-by-config caption="" default="" id="" name="">`
	  `<info type="" value="">{0,unbounded}</info>`
	  `<select-by-config caption="" default="" id="" name="">{0,unbounded}</select-by-config>`
	  `<select-by-device caption="" id="">{0,unbounded}</select-by-device>`
	  `<module caption="" id="" type="">{1,unbounded}</module>`
	`</select-by-config>`			

Attributes	QName	Type	Fixed	Default	Use
	caption	xs:string			optional
		Description of the selector			
	default	xs:string			optional
		The default value of the configuration if no value is configured.			
	id	asfId			required
		Unique ID			
	name	xs:string			required
		Name of the configuration to use for this selector.			

Element `framework-version`
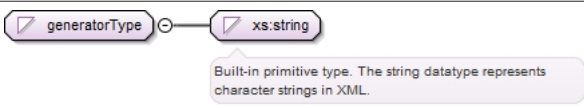
Namespace	No namespace
Diagram	
Used by	Element asf

Attributes	QName	Type	Fixed	Default	Use
	name	xs:string			optional
		Release identifier name of the Atmel Software Framework			

Element `documentation`

Namespace	No namespace
Diagram	
Used by	Element asf

Attributes	QName	Type	Fixed	Default	Use
	baseurl	xs:string			optional
		Base URL for documentation			
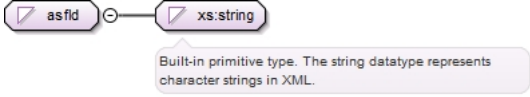
Simple Type(s)

Simple Type `generatorType`
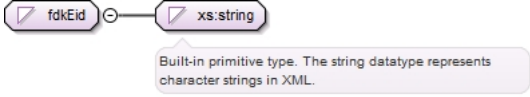
Namespace	No namespace
Diagram	
Facets	enumeration verbose
	enumeration avrgcc
	enumeration avr32gcc
	enumeration armgcc
	enumeration iarew
	enumeration iarew32
	enumeration iarewarm

enumeration	`doxygen`	
enumeration	`doxygen-module`	
enumeration	`as5_8`	
enumeration	`as5_32`	
enumeration	`as5_arm`	
enumeration	`as5_8_template`	
enumeration	`as5_32_template`	
enumeration	`as5_arm_template`	
Used by	Attributes	build/@toolchain, generator/@value, toolchain-config-list/@toolchain, toolchain-config/@toolchain
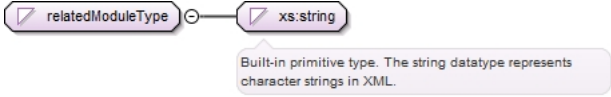
Simple Type `asfId`

Namespace	No namespace
Diagram	Built-in primitive type. The string datatype represents character strings in XML.
Facets	pattern `[a-z0-9\.\-_#]+`
Used by	Attributes board/@id, device-map/@id, module/@id, project/@id, related-module/@module-id, require-external/@idref, require/@idref, select-by-config/@id, select-by-device/@id

Simple Type `fdkEid`

Namespace	No namespace
Diagram	Built-in primitive type. The string datatype represents character strings in XML.
Facets	pattern `[a-z0-9\.\-_]+`
Used by	Attribute require-external/@eidref

Simple Type `relatedModuleType`

Namespace	No namespace
Diagram	Built-in primitive type. The string datatype represents character strings in XML.
Facets	enumeration `example`
	enumeration `unit-test`
Used by	Attribute related-module/@type

Attribute(s)

Attribute `board-addon / @vendor`

Namespace	No namespace
Annotations	`The vendor of the add-on.`
Used by	Element board-addon

Attribute `board-addon / @caption`

Namespace	No namespace
Annotations	`The string to use for presenting the add-on.`
Used by	Element board-addon

Attribute `board-addon / @position`

Namespace	No namespace	
Annotations	The on-board position of the add-on	
Used by	Element	board-addon

Attribute `build / @type`

Namespace	No namespace	
Annotations	The type of build entity	
Facets	enumeration	c-source
	enumeration	include-path
	enumeration	header-file
	enumeration	module-config
	enumeration	asm-source
	enumeration	define
	enumeration	distribute
	enumeration	library
	enumeration	linker-config
	enumeration	macro-config
	enumeration	build-config
	enumeration	doxygen-image-path
	enumeration	doxygen-entry-point
	enumeration	doxygen-quick-start
Used by	Element	build

Attribute `build / @subtype`

Namespace	No namespace	
Annotations	The subtype of build entity	
Facets	enumeration	api
	enumeration	path
	enumeration	required-header-file
	enumeration	directory
	enumeration	file
	enumeration	user-file
	enumeration	license
	enumeration	compiler
	enumeration	user
	enumeration	flags
	enumeration	script
	enumeration	aux-script
	enumeration	assembler-flags
	enumeration	c-compiler-flags
	enumeration	c++-compiler-flags
	enumeration	preprocessor-flags
Used by	Element	build

Attribute `build / @name`

Namespace	No namespace
Annotations	The name of the build type. This is used for define builds.

Used by	Element	build

Attribute `build / @value`

Namespace	No namespace	
Annotations	The build element	
Used by	Element	build

Attribute `build / @toolchain`

Namespace	No namespace	
Annotations	Build element is only valid for the toolchain with the given name	
Facets	enumeration	verbose
	enumeration	avrgcc
	enumeration	avr32gcc
	enumeration	armgcc
	enumeration	iarew
	enumeration	iarew32
	enumeration	iarewarm
	enumeration	doxygen
	enumeration	doxygen-module
	enumeration	as5_8
	enumeration	as5_32
	enumeration	as5_arm
	enumeration	as5_8_template
	enumeration	as5_32_template
	enumeration	as5_arm_template
Used by	Element	build

Attribute `require / @idref`

Namespace	No namespace	
Annotations	The id of the required element	
Facets	pattern	[a-z0-9\.\-_#]+
Used by	Element	require

Attribute `require-external / @eidref`

Namespace	No namespace	
Annotations	The id of the external dependency to get module from. This is defined in the extension description.	
Facets	pattern	[a-z0-9\.\-_]+
Used by	Element	require-external

Attribute `require-external / @idref`

Namespace	No namespace	
Annotations	The id of the required element	
Facets	pattern	[a-z0-9\.\-_#]+
Used by	Element	require-external

Attribute `keyword / @value`

Namespace	No namespace

Annotations	A keyword.	
Used by	Element	keyword

Attribute `info / @type`

Namespace	No namespace	
Annotations	The type of information entity. The following types are supported: - keyword TBD - appnote Appnote number for related appnote. Ex: AVR123 - description Textual description of the module. Can be of type: * summary - Quick "one line" description. * detailed - Longer, more detailed description. The exact guidelines are TBD.	
Facets	enumeration	keyword
	enumeration	appnote
	enumeration	description
	enumeration	gui-flag
Used by	Element	info

Attribute `info / @value`

Namespace	No namespace	
Annotations	The actual information, or category for blocks of keywords: - kit - device - technology - application	
Used by	Element	info

Attribute `config / @name`

Namespace	No namespace	
Annotations	The name of the configuration setting.	
Used by	Element	config

Attribute `config / @value`

Namespace	No namespace	
Annotations	The value to set for the configuration.	
Used by	Element	config

Attribute `toolchain-config / @name`

Namespace	No namespace	
Annotations	The name of the toolchain configuration.	
Used by	Element	toolchain-config

Attribute `toolchain-config / @value`

Namespace	No namespace	
Annotations	The value to set for the toolchain configuration.	
Used by	Element	toolchain-config

Attribute `toolchain-config / @toolchain`

Namespace	No namespace	
Annotations	Toolchain configuration is only valid for the toolchain with the given name	
Facets	enumeration	verbose
	enumeration	avrgcc
	enumeration	avr32gcc
	enumeration	armgcc
	enumeration	iarew
	enumeration	iarew32
	enumeration	iarewarm
	enumeration	doxygen
	enumeration	doxygen-module
	enumeration	as5_8
	enumeration	as5_32
	enumeration	as5_arm
	enumeration	as5_8_template
	enumeration	as5_32_template
	enumeration	as5_arm_template
Used by	Element	toolchain-config

Attribute `toolchain-config-list / @name`

Namespace	No namespace	
Annotations	The name of the toolchain configuration.	
Used by	Element	toolchain-config-list

Attribute `toolchain-config-list / @value`

Namespace	No namespace	
Annotations	The value to add to the toolchain configuration.	
Used by	Element	toolchain-config-list

Attribute `toolchain-config-list / @toolchain`

Namespace	No namespace	
Annotations	Toolchain configuration is only valid for the toolchain with the given name	
Facets	enumeration	verbose
	enumeration	avrgcc
	enumeration	avr32gcc
	enumeration	armgcc
	enumeration	iarew
	enumeration	iarew32
	enumeration	iarewarm
	enumeration	doxygen
	enumeration	doxygen-module
	enumeration	as5_8
	enumeration	as5_32
	enumeration	as5_arm
	enumeration	as5_8_template
	enumeration	as5_32_template

	enumeration	as5_arm_template
Used by	Element	toolchain-config-list

Attribute `generator / @value`

Namespace	No namespace	
Annotations	This restricted value define a set of generator which is used to generate project files for a project.	
Facets	enumeration	verbose
	enumeration	avrgcc
	enumeration	avr32gcc
	enumeration	armgcc
	enumeration	iarew
	enumeration	iarew32
	enumeration	iarewarm
	enumeration	doxygen
	enumeration	doxygen-module
	enumeration	as5_8
	enumeration	as5_32
	enumeration	as5_arm
	enumeration	as5_8_template
	enumeration	as5_32_template
	enumeration	as5_arm_template
Used by	Element	generator

Attribute `generator / @default-mcu`

Namespace	No namespace	
Annotations	Only allowed when value="doxygen-module".	
Used by	Element	generator

Attribute `related-module / @type`

Namespace	No namespace	
Annotations	How the module is related	
Facets	enumeration	example
	enumeration	unit-test
Used by	Element	related-module

Attribute `related-module / @module-id`

Namespace	No namespace	
Annotations	The ID of the related module	
Facets	pattern	[a-z0-9\.\-_#]+
Used by	Element	related-module

Attribute `project / @id`

Namespace	No namespace	
Annotations	Unique id	
Facets	pattern	[a-z0-9\.\-_#]+
Used by	Element	project

Attribute `project / @caption`

Namespace	No namespace	
Annotations	Description of the project	
Used by	Element	project

Attribute `project / @type`

Namespace	No namespace	
Annotations	Type of project	
Facets	enumeration	normal
	enumeration	template
	enumeration	unit-test
Used by	Element	project

Attribute `project / @workspace-name`

Namespace	No namespace	
Annotations	Optional name to use for the project in generated workspaces.	
Facets	pattern	[a-z0-9\-_]+
Used by	Element	project

Attribute `mcu / @name`

Namespace	No namespace	
Annotations	Name of the MCU. For example atxmega128a1	
Used by	Element	mcu

Attribute `group / @name`

Namespace	No namespace	
Annotations	Name of the family group. For example uc3a.	
Used by	Element	group

Attribute `group / @doc-arch`

Namespace	No namespace	
Annotations	Specify that this is an "architecture" for grouping of documentation, and the name to use.	
Used by	Element	group

Attribute `device-map / @id`

Namespace	No namespace	
Annotations	Unique id of device-map.	
Facets	pattern	[a-z0-9\.\-_#]+
Used by	Element	device-map

Attribute `board / @id`

Namespace	No namespace	
Annotations	unique id	
Facets	pattern	[a-z0-9\.\-_#]+
Used by	Element	board

Attribute `board` / `@caption`

Namespace	No namespace	
Annotations	Description of the board	
Used by	Element	board

Attribute `board` / `@mcu`

Namespace	No namespace	
Annotations	The target mcu that is on the board	
Used by	Element	board

Attribute `board` / `@vendor`

Namespace	No namespace	
Annotations	The vendor of the board, defaulting to "User" if unspecified	
Used by	Element	board

Attribute `device-support` / `@value`

Namespace	No namespace	
Annotations	Idenfifier of device that is supported. For example atxmega128a1.	
Used by	Element	device-support

Attribute `module` / `@id`

Namespace	No namespace	
Annotations	Unique id for module	
Facets	pattern	[a-z0-9\.\-_#]+
Used by	Element	module

Attribute `module` / `@caption`

Namespace	No namespace	
Annotations	Description of the module	
Used by	Element	module

Attribute `module` / `@type`

Namespace	No namespace	
Annotations	The type of the module. It can be : - driver - component - service - library - application - meta - build-specific	
Facets	enumeration	driver
	enumeration	component
	enumeration	service
	enumeration	library

	enumeration	application
	enumeration	meta
	enumeration	build-specific
Used by	Element	module

Attribute `select-by-device / @id`

Namespace	No namespace	
Annotations	Unique ID	
Facets	pattern	[a-z0-9\.\-_#]+
Used by	Element	select-by-device

Attribute `select-by-device / @caption`

Namespace	No namespace	
Annotations	Description of the selector	
Used by	Element	select-by-device

Attribute `select-by-config / @id`

Namespace	No namespace	
Annotations	Unique ID	
Facets	pattern	[a-z0-9\.\-_#]+
Used by	Element	select-by-config

Attribute `select-by-config / @name`

Namespace	No namespace	
Annotations	Name of the configuration to use for this selector.	
Used by	Element	select-by-config

Attribute `select-by-config / @default`

Namespace	No namespace	
Annotations	The default value of the configuration if no value is configured.	
Used by	Element	select-by-config

Attribute `select-by-config / @caption`

Namespace	No namespace	
Annotations	Description of the selector	
Used by	Element	select-by-config

Attribute `framework-version / @name`

Namespace	No namespace	
Annotations	Release identifier name of the Atmel Software Framework	
Used by	Element	framework-version

Attribute `documentation / @baseurl`

Namespace	No namespace	
Annotations	Base URL for documentation	
Used by	Element	documentation

Attribute `asf` / `@xmlversion`

Namespace	No namespace
Annotations	`ASF XML version. Current version is 1.0`
Facets	enumeration `1.0`
Used by	Element asf

Attribute `asf` / `@xmlversion`