Schema documentation for interface_schema.xsd

august 31, 2016

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	$m \in G(0)$	

Properties	content: com	plex				
	abstract: tru	е				
Substitution	• interface					
Group	• port					
Model	include_header import_serializ	zable_type args return commen	t			
Children	args, comment, import_serializa	able_type, include_header, return				
Instance	<pre><interface_root_define name="" namespace="" priority=""> <include_header>{1,1}</include_header> <import_serializable_type>{1,1}</import_serializable_type> <args>{1,1}</args> <return comment="" data_type="" name="" pass_by="" size="" type="">{1,1}</return> <comment>{1,1}</comment> </interface_root_define></pre>			">{1,1}		
Attributes	2 Q e	y T p e U				
e m			required			
		Interface name.				
e m c	e a as n p		optional			
		Namespace in which the interface is in.				
r r t	o y i ip	xs:integer	optional			
Source	<pre><xs:element abstract="true" name="interface_root_define" type="interface_define"></xs:element></pre>					

Element include_header

Namespace	No namespace
Annotations	Defines the header file of the interface.
Diagram	include_header Type xs:anyURI Defines the header file of the interface. Built-in primitive type. The anyURI datatype represents a Uniform Resource Identifier Reference (URI).
Туре	xs:anyURI
Properties	content: simple
Used by	Complex Type interface_define
Source	<pre><xs:element name="include_header" type="xs:anyURI"></xs:element></pre>

Element import_serializable_type

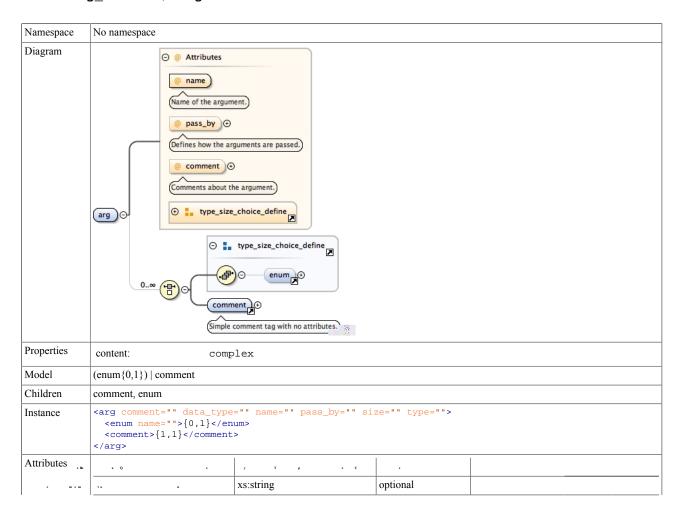


</xs:element>

Element args

Namespace	No namespace			
Annotations	One or more arguments.			
Diagram	args ○ 0 arg_define □ One or more arguments. Arguments with the pass by attribute.			
Properties	content: complex			
Used by	Complex Type interface_define			
Model	arg			
Children	arg			
Instance	<pre><args> <arg comment="" data_type="" name="" pass_by="" size="" type="">{1,1}</arg> </args></pre>			
Source	<pre><xs:element name="args"></xs:element></pre>			

Element arg_define / arg

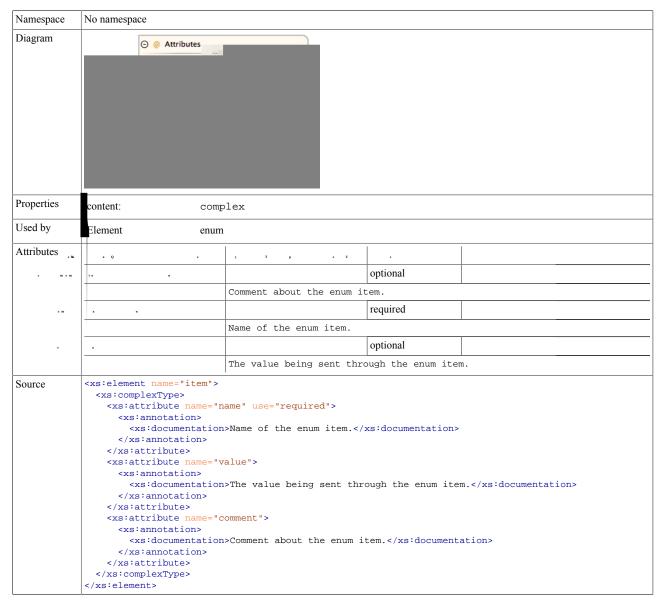


1 1		I.	I	I I
e Na	z Q .	y T p e U	s	
		Comments about the argume	ent.	
	y 4 p	union of(xs:string, restriction of xs:token, restriction of xs:token)	optional	
e m	a 8		required	
		Name of the argument.		
	a _ssy p b	pass_by_define	optional	
		Defines how the arguments	are passed.	
z e	s i	xs:nonNegativeInteger	optional	
		The size of the argument.		
	, ,	union of(xs:string, restriction of xs:token, restriction of xs:token)	optional	
Source				

Element enum

Namespace	No namespace			
Diagram	enum O item o			
Properties	content: complex			
Used by	Element Group type_size_choice_define			
Model	item+			
Children	item			
Instance	<pre><enum name=""></enum></pre>			
Attributes	. q , , , , , , , , , , , , , , , , , ,			
e m	required			
	Enum Name.			
Source	<pre><xs:element name="enum"> <xs:complextype></xs:complextype></xs:element></pre>			

Element item



Element comment

Namespace	No namespace			
Annotations	Simple comment tag	Simple comment tag with no attributes.		
Diagram	Simple comment tag with no attributes. Simple comment tag with no attributes. Suilt-in primitive type. The string datatype represents character strings in XML.			
Type	xs:string			
Properties	content:	simple		
Used by	Elements	arg_define/arg, external_arg_define/arg, return		
	Complex Type	interface_define		

```
Source
```

Element return

Namespace	No namespace		
Diagram	Attributes		
Diagram	© comment Comments about ⊕ type_s □ □ □ □ □ □ □ □ □ □ □ □	⊕ arguments are passed.	
Properties	content: comp	lex	
Used by	Complex Type interf	ace_define	
Model	(enum{0,1}) comment		
Children	comment, enum		
Instance	<pre><return <enum="" comment="" data_t="" name="">{0,1}{1,1}</return></pre>		size="" type="">
Attributes	2 Q e	y T p c U	
c mem	t o n	xs:string	optional
	y . 4 y	union of(xs:string, restriction of xs:token, restriction of xs:token)	optional
e m			optional
		Name of the argument.	
	a _x s y p b	pass_by_define	optional
		Defines how the arguments	s are passed.
z e	ı i	xs:nonNegativeInteger	optional
		The size of the argument	
te	у р	union of(xs:string, restriction of xs:token, restriction of xs:token)	optional
Source	<pre><xs:group 0"="" _size_choice_define"="" maxoccurs="unbounded" ref="type</td><td>"></xs:group> mment"/></pre>		

Element interface

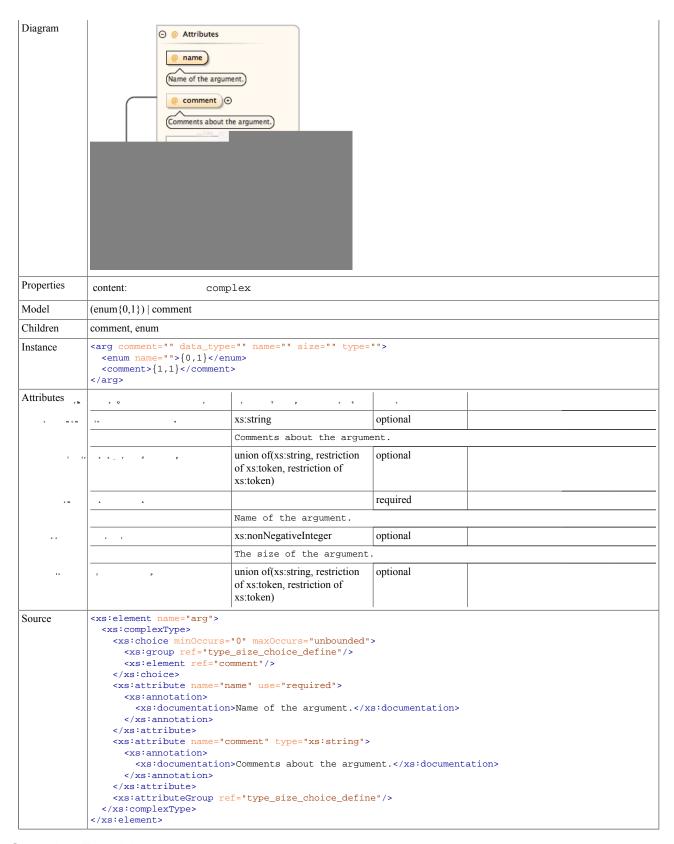
Namespace	No namespace		
Annotations	Allows for one interface.		
Diagram	interface_oot_define Type interface_define Abstract true Used for interface files.		
Substitution Group Affiliation	interface_root_define		
Source	<pre><xs:element name="interface" substitutiongroup="interface_root_define"> <xs:annotation> <xs:documentation>Allows for one interface.</xs:documentation> </xs:annotation> </xs:element></pre>		

Element port



Element external_arg_define / arg

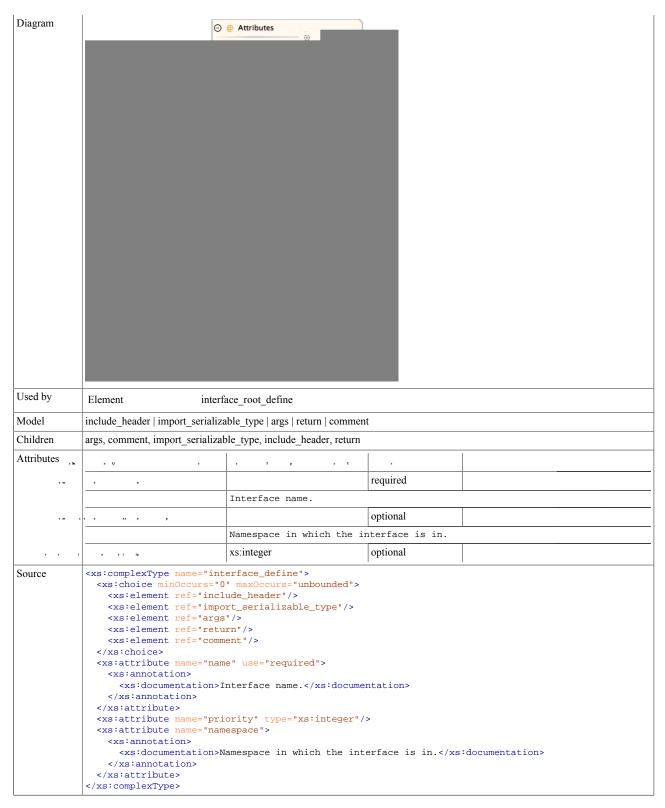
Namespace	No namespace	



Complex Type(s)

Complex Type interface_define

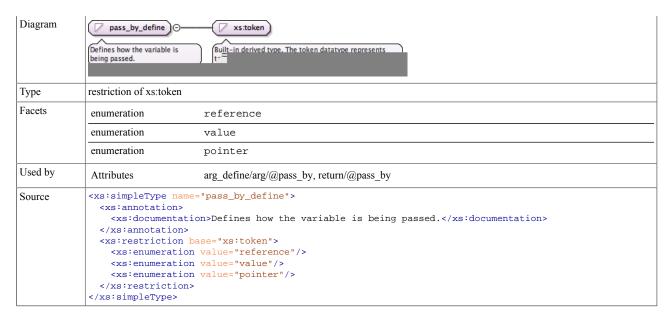
Namespace	No namespace



Simple Type(s)

Simple Type pass_by_define

Namespace	No namespace
Annotations	Defines how the variable is being passed.



Simple Type full_items_define

Namespace	No namespace		
Annotations	Valid values for the full tag.		
Diagram	Valid values for the full tag. (Suilt-in derived type. The token datatype represents tokenized strings. The base type of token is normalizedString.		
Туре	restriction of xs:token		
Facets	enumeration drop		
	enumeration assert		
	enumeration block		
Source	<pre><xs:simpletype name="full_items_define"> <xs:annotation> <xs:documentation>Valid values for the full tag.</xs:documentation> </xs:annotation> <xs:restriction base="xs:token"> <xs:enumeration value="drop"></xs:enumeration> <xs:enumeration value="assert"></xs:enumeration> <xs:enumeration value="block"></xs:enumeration> </xs:restriction> </xs:simpletype></pre>		

Simple Type component_role_define

Namespace	No namespace	
Annotations	Choice for component roles.	
Diagram		
Type	restriction of xs:token	
Facets	enumeration	LogEvent
	enumeration	LogTextEvent
	enumeration	TimeGet
	enumeration	ParamSet
	enumeration	ParamGet
	enumeration	Telemetry
	enumeration	CmdRegistration

```
enumeration
                                    Cmd
                                    {\tt CmdResponse}
             <xs:simpleType name="component_role_define">
Source
               <xs:annotation>
                  <xs:documentation>Choice for component roles.</xs:documentation>
               </xs:annotation>
               <xs:restriction base="xs:token">
  <xs:enumeration value="LogEvent"/>
                 <xs:enumeration value="LogTextEvent"/>
                 <xs:enumeration value="TimeGet"/>
                 <xs:enumeration value="ParamSet"/>
                 <xs:enumeration value="ParamGet"/>
                 <xs:enumeration value="Telemetry"/>
                 <xs:enumeration value="CmdRegistration"/>
                 <xs:enumeration value="Cmd"/>
                 <xs:enumeration value="CmdResponse"/>
             </xs:restriction>
</xs:simpleType>
```

Simple Type channel_update_define

Namespace	No namespace	
Annotations	Choice between always and on_change. This is used in the channel 'update' tag.	
Diagram	Choice between always and on_change. This is used in the channel 'update' tag. (Ruilt-in derived type. The token datatype represents)	
Type	restriction of xs:token	
Facets	enumeration always	
	enumeration on_change	
Source	<pre><xs:simpletype name="channel_update_define"></xs:simpletype></pre>	

Simple Type severity_define

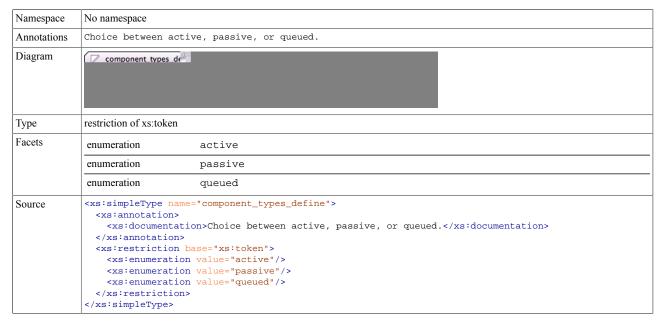
Namespace	No namespace		
Annotations	Set of valid severity values. This is used for an event 'severity' tag.		
Diagram	Set of valid severity values. This is used for an event 'severity' tag.	Built-in derived type. The token datatype represents tokenized strings. The base type of token is normalizedString.	
Туре	restriction of xs:token		
Facets	enumeration	COMMAND	
	enumeration	ACTIVITY_LO	
	enumeration	ACTIVITY_HI	
	enumeration	WARNING_LO	
	enumeration	WARNING_HI	
	enumeration	DIAGNOSTIC	
	enumeration	FATAL	
Source	<pre><xs:simpletype name="severity_define"> <xs:annotation></xs:annotation></xs:simpletype></pre>		

```
<xs:enumeration value="ACTIVITY_LO"/>
<xs:enumeration value="ACTIVITY_HI"/>
<xs:enumeration value="WARNING_LO"/>
<xs:enumeration value="WARNING_HI"/>
<xs:enumeration value="DIAGNOSTIC"/>
<xs:enumeration value="FATAL"/>
</xs:restriction>
</xs:simpleType>
```

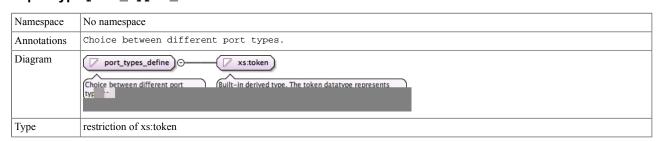
Simple Type command_kind_define

Namespace	No namespace		
Annotations	Choice between different command kinds.		
Diagram	Choice between different command kinds. Built-in derived type. The token datatype represents tokenized strings. The base type of token is normalizedString.		
Туре	restriction of xs:token		
Facets	enumeration async		
	enumeration sync		
	enumeration guarded		
Source	<pre><xs:simpletype name="command_kind_define"></xs:simpletype></pre>		

Simple Type component_types_define



Simple Type port_types_define



```
Diagram
               system_var_define) 🗇
                                               xs:string
                                             Built-in primitive type. The string datatype represents character strings in XML.
               Data type for items that are system variables.
Type
               restriction of xs:string
Facets
                                         $[\w|_|\-]+
               pattern
Source
               <xs:simpleType name="system_var_define">
                    <xs:documentation>Data type for items that are system variables.</xs:documentation>
                 <xs:restriction base="xs:string">
                    <xs:pattern value="$[\w|_|\-]+"/>
                 </xs:restriction>
               </xs:simpleType>
```

Simple Type id_define

Namespace	No namespace
Annotations	Defines a ID data type. Acceptable values formats include "10" , "0xA" , "xA".
Diagram	Defines a ID data type. Acceptable values formats include "10", "0xA", "xA". Built-in primitive type. The string datatype represents character strings in XML.
Туре	restriction of xs:string
Facets	pattern ((0?x\d+) \d+)
Source	<pre><xs:simpletype name="id_define"> <xs:annotation> <xs:documentation>Defines a ID data type. Acceptable values formats include "10" , "0xA" , "xA".</xs:documentation> </xs:annotation> <xs:restriction base="xs:string"> <xs:restriction base="xs:string"> <xs:pattern value="((0?x\d+) \d+)"></xs:pattern> </xs:restriction> </xs:restriction></xs:simpletype></pre>

Attribute(s)

Attribute item / @name

Namespace	No namespace
Annotations	Name of the enum item.
Properties	use: required
Used by	Element item
Source	<pre><xs:attribute name="name" use="required"> <xs:annotation> <xs:documentation>Name of the enum item.</xs:documentation> </xs:annotation> </xs:attribute></pre>

Attribute item / @value

Namespace	No namespace
Annotations	The value being sent through the enum item.
Used by	Element item
Source	<pre><xs:attribute name="value"> <xs:annotation></xs:annotation></xs:attribute></pre>

Attribute item / @comment

Namespace	No namespace
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Annotations	Comment about the enum item.
Used by	Element item
Source	<pre><xs:attribute name="comment"></xs:attribute></pre>

Attribute enum / @name

Namespace	No namespace	
Annotations	Enum Name.	
Properties	use:	required
Used by	Element	enum
Source	<pre><xs:attribute name="name" use="required"> <xs:annotation> <xs:documentation>Enum Name.</xs:documentation> </xs:annotation> </xs:attribute></pre>	

Attribute arg_define / arg / @name

Namespace	No namespace			
Annotations	Name of the argume	Name of the argument.		
Properties	use:	required		
Used by	Element	arg_define/arg		
Source	<pre><xs:attribute name="name" use="required"> <xs:annotation></xs:annotation></xs:attribute></pre>			

Attribute arg_define / arg / @pass_by

Namespace	No namespace		
Annotations	Defines how the arguments are passed.		
Type	pass_by_define		
Properties	content:	simple	
Facets	enumeration	reference	
	enumeration	value	
	enumeration	pointer	
Used by	Element	arg_define/arg	
Source	<pre><xs:attribute name="pass_by" type="pass_by_define"></xs:attribute></pre>		

Attribute arg_define / arg / @comment

Namespace	No namespace			
Annotations	Comments about the	Comments about the argument.		
Туре	xs:string			
Properties	content:	simple		
Used by	Element	arg_define/arg		
Source	<pre><xs:annotation></xs:annotation></pre>	<pre>"comment" type="xs:string"> on>Comments about the argument.</pre>		

</xs:attribute>

Attribute type_size_choice_define / @data_type

Namespace	No namespace	
Туре	union of(xs:string, rest	riction of xs:token, restriction of xs:token)
Properties	content:	simple
Used by	Attribute Group	type_size_choice_define
Source	<pre><xs:simplet <xs:restr<="" td=""><td><pre>berTypes="xs:string"> ype> iction base="xs:token"> meration value="string"/> riction> Type> ype> iction base="xs:token"> meration value="ENUM"/> riction> Type> ype> iction base="xs:token"> meration value="ENUM"/> riction> Type></pre></td></xs:simplet></pre>	<pre>berTypes="xs:string"> ype> iction base="xs:token"> meration value="string"/> riction> Type> ype> iction base="xs:token"> meration value="ENUM"/> riction> Type> ype> iction base="xs:token"> meration value="ENUM"/> riction> Type></pre>

Attribute type_size_choice_define / @type

Namespace	No namespace	
Туре	union of(xs:string, res	triction of xs:token, restriction of xs:token)
Properties	content:	simple
Used by	Attribute Group	type_size_choice_define
Source	<pre><xs:simple? <="" <xs:ent="" <xs:restr="" <xs:restr<="" <xs:simple?="" pre="" xs:ent="" xs:simple=""></xs:simple?></pre>	<pre>chberTypes="xs:string"> chberTypes="xs:string"> chberTypes ciction base="xs:token"> ciction base="xs:token"> ciction> cirction> cirction> cirction base="xs:token"> circt</pre>

Attribute type_size_choice_define / @size

Namespace	No namespace			
Annotations	The size of the argumen	The size of the argument.		
Туре	xs:nonNegativeInteger	xs:nonNegativeInteger		
Properties	content: s:	imple		
Used by	Attribute Group ty	pe_size_choice_define		
Source	<pre><xs:annotation></xs:annotation></pre>	ze" type="xs:nonNegativeInteger"> The size of the argument.		

Attribute return / @name

Namespace	No namespace		
Annotations	Name of the argumer	nt.	
Used by	Element	return	

```
Source
```

Attribute return / @pass_by

Namespace	No namespace			
Annotations	Defines how the a	Defines how the arguments are passed.		
Туре	pass_by_define			
Properties	content:	simple		
Facets	enumeration	reference		
	enumeration	value		
	enumeration	pointer		
Used by	Element	return		
Source	<pre><xs:attribute name="pass_by" type="pass_by_define"></xs:attribute></pre>			

Attribute return / @comment

Namespace	No namespace					
Annotations	Comments abou	Comments about the argument.				
Туре	xs:string					
Properties	content:	simple				
Used by	Element	return				
Source	<xs:annotat< td=""><td>entation>Comments ab</td><th>2</th><th>/xs:documentati</th><th>on></th><td></td></xs:annotat<>	entation>Comments ab	2	/xs:documentati	on>	

Attribute interface_define / @name

Namespace	No namespace	
Annotations	Interface name.	
Properties	use:	required
Used by	Complex Type	interface_define
Source	<pre><xs:attribute name="name" use="required"> <xs:annotation></xs:annotation></xs:attribute></pre>	

Attribute interface_define / @priority

Namespace	No namespace	
Type	xs:integer	
Properties	content:	simple
Used by	Complex Type	interface_define
Source	<pre></pre>	

Attribute interface_define / @namespace

Namespac	No namespace
Annotation	Namespace in which the interface is in.

Used by	Complex Type	interface_define	
Source	<pre><xs:attribute name="namespace"> <xs:annotation> <xs:documentation>Namespace in which the interface is in.</xs:documentation> </xs:annotation> </xs:attribute></pre>		

Attribute external_arg_define / arg / @name

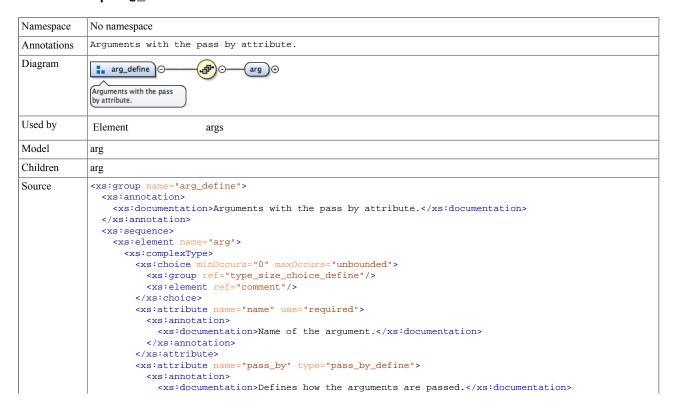
Namespace	No namespace		
Annotations	Name of the argument.		
Properties	use:	required	
Used by	Element	external_arg_define/arg	
Source	<pre><xs:attribute name="name" use="required"></xs:attribute></pre>		

Attribute external_arg_define / arg / @comment

Namespace	No namespace		
Annotations	Comments about the argument.		
Туре	xs:string		
Properties	content: simple		
Used by	Element external_arg_define/arg		
Source	<pre><xs:attribute name="comment" type="xs:string"> <xs:annotation></xs:annotation></xs:attribute></pre>		

Element Group(s)

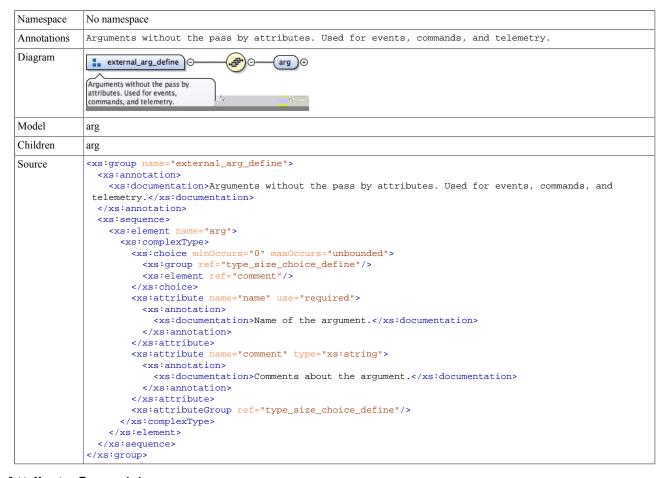
Element Group arg_define



Element Group type_size_choice_define

Namespace	No namespace		
Diagram	type_size_choice_define		
Used by	Elements arg_define/arg, external_arg_define/arg, return		
Model	enum{0,1}		
Children	enum		
Source	<pre><xs:group name="type_size_choice_define"></xs:group></pre>		

Element Group external_arg_define



Attribute Group(s)

Attribute Group type_size_choice_define

Namespace	No namespace
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Diagram	type_size_choice_define	@ data_type ⊙ @ type ⊙ @ size ⊙ The size of the argument.		
Used by	Elements arg define/arg, external arg define/arg, return			
Attributes				
e Na.	, 4	union of(xs:string, restriction of xs:token, restriction of xs:token)	optional	
z e	s i	xs:nonNegativeInteger	optional	
		The size of the argument		
te	, ,	union of(xs:string, restriction of xs:token, restriction of xs:token)	optional	
Source				