

Table 17 – Mapping table messages UoF (M1) (continued)

Application element	AIM element	Source	Rules	Reference path
SIGNAL_- RELATIONSHIP description	characterized_object_- relationship	41		signal_designation_assignment
relation_type	characterized_object_- relationship. description	41		
signal_- relationship to signal (as related)	characterized_object_- relationship.name	41		{(characterized_object_relationship.name) (characterized_object_relationship.name = 'alternate') (characterized_object_relationship.name = 'decomposition') (characterized_object_relationship.name = 'derivation') (characterized_object_relationship.name = 'redundancy') (characterized_object_relationship.name = 'substitution') (characterized_object_relationship.name = 'version hierarchy')}
signal_- relationship to signal (as relating)	PATH			characterized_object_relationship characterized_object.related_object -> signal
SIGNAL_SYSTEM_- ASSIGNMENT #1: If device is not used in the context of UoF CFI. #2: If device is used in the context of UoF CFI. #3: If function_unit is not used in the context of UoF CFI. #4: If function_unit is used in the context of UoF CFI.	PATH			characterized_object_relationship characterized_object.related_object => signal
description	property_definition_- relationship	45		
	property_definition_- relationship.	41		

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Application element	AIM element description	Source	Rules	Reference path
role	property_definition_- relationship.name	41		{(property_definition_relationship.name = 'amplifier') (property_definition_relationship.name = 'monitor') (property_definition_relationship.name = 'source') (property_definition_relationship.name = 'target') (property_definition_relationship.name = 'transmitter')}} property_definition_relationship property_definition_relationship.related_property_definition -> property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_object characterized_object => signal
signal_system_- assignment to signal (as associated_- signal)	PATH			property_definition_relationship property_definition_relationship.related_property_definition -> property_definition property_definition.definition -> characterized_definition characterized_definition = shape_definition shape_definition shape_definition = shape_aspect shape_aspect => connectivity_definition
signal_system_- assignment to connectivity_- definition (as associated_- system)	PATH			property_definition_relationship property_definition_relationship.related_property_definition -> property_definition property_definition.definition -> characterized_definition characterized_definition = shape_definition shape_definition shape_definition = shape_aspect shape_aspect => connectivity_definition
signal_system_- assignment to design_- discipline_item_- definition (as associated_- system)	PATH			property_definition_relationship property_definition_relationship.related_property_definition -> property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_product_definition characterized_product_definition characterized_product_definition = product_definition product_definition

Table 17 – Mapping table messages UoF (M1) (continued)

Application element	AIM element	Source	Rules	Reference path
signal_system_- assignment to device (as associated_- system)	PATH			property_definition_relationship property_definition_related_property_definition -> property_definition characterized_definition characterized_definition = characterized_product_definition characterized_product_definition = product_definition_relationship product_definition_relationship => product_definition_usage => assembly_component_usage #2: (characterized_product_definition = product_definition product_definition)
signal_system_- assignment to function_- definition (as associated_- system)	PATH	ISO 10303-212:2001 standards.iteh.ai/catalog/standards/sist/22961207-aa21-476e-a261-606-52368d6b/iso-10303-212-2001		property_definition_relationship property_definition_related_property_definition -> property_definition property_definition_definition characterized_definition characterized_definition = characterized_product_definition characterized_product_definition = product_definition product_definition
signal_system_- assignment to function_unit (as associated_- system)	PATH	ISO 10303-212:2001 standards.iteh.ai/catalog/standards/sist/22961207-aa21-476e-a261-606-52368d6b/iso-10303-212-2001		property_definition_relationship property_definition_related_property_definition -> property_definition property_definition_definition characterized_definition characterized_definition = characterized_product_definition characterized_product_definition = product_definition_relationship product_definition_relationship => product_definition_usage => assembly_component_usage #3: (characterized_product_definition = product_definition product_definition) #4: (characterized_product_definition = product_definition product_definition)

Table 17 – Mapping table messages UoF (M1) (continued)

Application element	AIM element	Source	Rules	Reference path
signal_system.- assignment to functional.- connectivity.- definition (as associated.- system)	PATH	ISO 10303-212:2001 standards.iteh.ai/catalog/standards/sist/2961207-aa21-476e-a261-606a/2368d6b/iso-10303-212-2001		property_definition.relationship property_definition.relationship.related_property_definition -> property_definition property_definition.definition -> characterized_definition shape_definition shape_definition = shape_aspect shape_aspect => connectivity_definition
signal_system.- assignment to physical.- instance (as associated.- system)	PATH	ISO 10303-212:2001 standards.iteh.ai/catalog/standards/sist/2961207-aa21-476e-a261-606a/2368d6b/iso-10303-212-2001		property_definition.relationship property_definition.relationship.related_property_definition -> property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_product_definition characterized_product_definition = product_definition product_definition
signal_system.- assignment to port (as associated.- system)		ISO 10303-212:2001 standards.iteh.ai/catalog/standards/sist/2961207-aa21-476e-a261-606a/2368d6b/iso-10303-212-2001		property_definition.relationship property_definition.relationship.related_property_definition -> property_definition property_definition.definition -> characterized_definition characterized_definition = shape_definition shape_definition shape_definition = shape_aspect shape_aspect => terminal
signal_system.- assignment to technical_system (as associated.- system)	PATH	ISO 10303-212:2001 standards.iteh.ai/catalog/standards/sist/2961207-aa21-476e-a261-606a/2368d6b/iso-10303-212-2001		property_definition.relationship property_definition.relationship.related_property_definition -> property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_product_definition characterized_product_definition

Table 17 – Mapping table messages UoF (M1) (continued)

Application element	AIM element	Source	Rules	Reference path
signal_system_assignment_to_terminal (as associated_system)				characterized_product_definition = product_definition product_definition.formation -> product_definition_formation property_definition.relationship property_definition.related_property_definition -> property_definition property_definition.definition -> characterized_definition shape_definition = shape_definition shape_definition shape_definition = shape_aspect shape_aspect => terminal
SIGNAL_VALUE #1: If data_element_value is an aggregated_value. #2: If data_element_value is a single_value with value of binary_value, logical_value, or string_value. #3: If the value_with_unit is a numerical_value or a value_limit, and the unit is not assigned globally. #4: If the value_with_unit is a numerical_value or a value_limit, and the unit is assigned globally.	representation	43	72	{ representation representation.name = 'signal value' }
characteristic	description_attribute.attribute_value	41		representation <- property_definition.representation.used_representation property_definition.representation { name_attribute_select = property_definition_representation

Table 17 – Mapping table messages UoF (M1) (continued)

Application element	AIM element	Source	Rules	Reference path
				<pre> name_attribute_select <- name_attribute_named_item name_attribute [property_definition_representation.definition -> represented_definition property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_object characterized_object => process_variable]] description_attribute_select = property_definition_representation description_attribute_select <- description_attribute_described_item description_attribute description_attribute.attribute_value {(description_attribute.attribute_value) (description_attribute.attribute_value = 'linear')}} </pre>
description	description_attribute. attribute_value	41		<pre> representation description_attribute_select = representation description_attribute_select <- description_attribute_described_item description_attribute description_attribute.attribute_value representation </pre>
id	id_attribute.attribute_ value	41		<pre> id_attribute_select = representation id_attribute_select <- id_attribute_identified_item id_attribute id_attribute.attribute_value </pre>

Table 17 – Mapping table messages UoF (M1) (continued)

Application element	AIM element	Source	Rules	Reference path
signal_value to signal (as associated_-signal)	PATH			<pre> property_definition_representation.used_representation property_definition_representation property_definition_representation.definition -> represented_definition property_definition property_definition.definition -> characterized_definition characterized_object => signal </pre>
signal_value to data_element_value (as value_of_-signal)	PATH	ISO 10303-212:2001 standards.iteh.ai/catalog/standards/sist/2961207-aa21-476e-a261-606a/2368d6b/iso-10303-212-2001	74	<pre> representation representation.items[1] -> representation_item => #1: (compound_representation_item) #2: (descriptive_representation_item) #3: (measure_representation_item) #4: (value_representation_item) </pre>
signal_value to process_variable (as valued_-parameter)	PATH	ISO 10303-212:2001 standards.iteh.ai/catalog/standards/sist/2961207-aa21-476e-a261-606a/2368d6b/iso-10303-212-2001		<pre> property_definition_representation.used_representation property_definition_representation {name_attribute_select = property_definition_representation name_attribute_select <- name_attribute_named_item name_attribute name_attribute_value = 'parameter association'} property_definition_representation.definition -> represented_definition represented_definition = property_definition property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_object characterized_object => process_variable </pre>

NOTE - The following note numbers correspond to the footnotemarks listed in the table above:

- 1 The use of this mapping alternative is not applicable.

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[ISO 10303-212:2001](https://standards.iteh.ai/catalog/standards/sist/22961207-aa21-476e-a261-606a52368d6b/iso-10303-212-2001)

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Table 18 – Mapping table network_allocation UoF (NA1)

Application element	AIM element	Source	Rules	Reference path
<p>CONNECTIVITY_- ALLOCATION</p> <p>#1: If the connectivity_- allocation references a connectivity_-definition. #2: If the connectivity_- allocation references a device, function_unit, or a physical_instance. #3: If device is not used in the context of UoF_CFL. #4: If device is used in the context of UoF_CFL. #5: If function_unit is not used in the context of UoF_CFL. #6: If function_unit is used in the context of UoF CFL.</p>	<p>#2: (property_- definition_- relationship) #1: (shape_aspect_- relationship)</p>	<p>45 41</p>	<p>69,104</p>	<pre> property_definition.relationship {#2: (property_definition.name = 'connectivity_allocation') #1: (shape_aspect_relationship shape_aspect_relationship.name = 'connectivity_allocation')}} </pre>
<p>description</p>	<p>#2: (property_- definition_- relationship. description) #1: (shape_aspect_- relationship. description) PATH</p>	<p>45 41</p>		
<p>connectivity_- allocation to functional_- connectivity_- definition (as allocated_- connectivity_- definition)</p>				<pre> #2: (property_definition.relationship property_definition property_definition.definition -> characterized_definition = shape_definition shape_definition shape_definition = shape_aspect) #1: (shape_aspect_relationship </pre>

Table 18 – Mapping table network_allocation UoF (NA1) (continued)

Application element	AIM element	Source	Rules	Reference path
connectivity- allocation to connectivity- definition (as connectivity- implementation)	PATH			shape_aspect_relationship.related_shape_aspect -> shape_aspect ==> connectivity_definition
connectivity- allocation to device (as connectivity- implementation)	PATH			shape_aspect_relationship.related_shape_aspect -> shape_aspect ==> connectivity_definition
connectivity- allocation to function_unit (as connectivity- implementation)	PATH			property_definition_relationship property_definition.related_property_definition -> property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_product_definition characterized_product_definition product_definition_relationship product_definition_relationship ==> product_definition_usage ==> assembly_component_usage #4: (characterized_product_definition = product_definition product_definition)
				property_definition_relationship property_definition.related_property_definition -> property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_product_definition characterized_product_definition product_definition_relationship product_definition_relationship ==> product_definition_usage ==> assembly_component_usage #5: (characterized_product_definition = product_definition product_definition)
				property_definition_relationship property_definition.related_property_definition -> property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_product_definition characterized_product_definition product_definition_relationship product_definition_relationship ==> product_definition_usage ==> assembly_component_usage #6: (characterized_product_definition = product_definition product_definition)

Table 18 – Mapping table network_allocation UoF (NA1) (continued)

Application element	AIM element	Source	Rules	Reference path
connectivity_- allocation to physical_- instance (as connectivity_- implementation)	PATH			property_definition.relationship property_definition.related_property_definition -> property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_product_definition characterized_product_definition characterized_product_definition = product_definition product_definition
PORT_ALLOCATION #1: If the function_unit_- allocation is used in the context of CFI. #2: If the function_unit_- allocation is not used in the context of CFI.	shape_aspect_- relationship	41	104	{shape_aspect_relationship shape_aspect_relationship.name = 'terminal allocation' }
description	shape_aspect_- relationship. description	41		
port_allocation to port (as allocated_- port)	PATH			shape_aspect_relationship shape_aspect_relationship.related_shape_aspect -> shape_aspect => terminal
port_allocation to functional_- unit_allocation (as item_- allocation)	PATH		69	#1: (shape_aspect_relationship shape_definition = shape_aspect_relationship shape_definition characterized_definition = shape_definition characterized_definition <- property_definition.definition property_definition <- property_definition.relationship.related_property_definition property_definition.relationship.name = 'item allocation') property_definition.relationship.related_property_definition -> property_definition

Table 18 – Mapping table network_allocation UoF (NA1) (continued)

Application element	AIM element	Source	Rules	Reference path
port_allocation to terminal (as port_implementation)	PATH			<pre> property_definition.definition -> characterized_definition characterized_definition = characterized_product_definition characterized_product_definition = product_definition product_definition.relationship #2: (shape_aspect_relationship) represented_definition = shape_aspect_relationship represented_definition <- property_definition_representation.definition property_definition_representation property_definition_representation.used_representation -> representation <- property_definition_representation.used_representation property_definition_representation property_definition_representation.definition -> represented_definition represented_definition = property_definition_relationship property_definition_relationship shape_aspect_relationship shape_aspect_relationship.related_shape_aspect -> shape_aspect ==> terminal </pre>
PREFERRED_ITEM_TERMINAL_ALLOCATION description	shape_aspect_ relationship PATH	41	104	<pre> shape_aspect_relationship.name = 'preferred item terminal allocation' </pre>
preferred_item_allocation_to_port (as functional_definition)	shape_aspect_ relationship.description PATH	41		<pre> shape_aspect_relationship.relationship shape_aspect ==> terminal </pre>

Table 18 – Mapping table network_allocation UoF (NA1) (concluded)

Application element	AIM element	Source	Rules	Reference path
preferred_item_- terminal_- allocation to preferred_item_- allocation (as item_- allocation)	PATH	ISO 10303-212:2001	69	<pre> shape_aspect_relationship shape_definition = shape_aspect_relationship shape_definition characterized_definition = shape_definition characterized_definition <- property_definition.definition property_definition <- property_definition.relationship.related_property_definition property_definition.relationship {property_definition.relationship.name = 'item allocation'} property_definition.relationship.related_property_definition -> property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_product_definition characterized_product_definition characterized_product_definition = product_definition.relationship product_definition.relationship shape_aspect_relationship shape_aspect_relationship.related_shape_aspect -> shape_aspect => terminal </pre>
preferred_item_- terminal_- allocation to interface_port (as preferred_- node)	PATH	ISO 10303-212:2001		<pre> shape_aspect_relationship shape_aspect_relationship.related_shape_aspect -> shape_aspect => terminal </pre>
preferredItem_- terminal_- allocation to interface_- terminal (as preferred_- node)	PATH	ISO 10303-212:2001		<pre> shape_aspect_relationship shape_aspect_relationship.related_shape_aspect -> shape_aspect => terminal </pre>

Table 19 – Mapping table organizational_data UoF (OD1)

Application element	AIM element	Source	Rules	Reference path
ADDRESS	address	41	12	
country	address.country	41		
email_address	address.electronic-mail_address	41		
fax_number	address.facsimile_number	41		
internal_location	address.internal_location	41		
postal_box	address.postal_box	41		
postal_code	address.postal_code	41		
region	address.region	41		
street	address.street	41		
street_number	address.street_number	41		
telephone_number	address.telephone_number	41		
telex_number	address.telex_number	41		
town	address.town	41		