

Standards for Technology in Automotive Retail

Implementation Guidelines
Get Model Codes
Repository Version Rev4.5.4

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Get Model Codes Guidelines

Overview

This document is a guideline on how to use the Get Model Codes Business Object Document (BOD). Get Model Codes has been defined in the context of STAR for the Automotive Retail Industry. The scope of this BOD is to define the Get Model Codes process for individual consumers who service their automobiles through their OEM's authorized Dealers. The focus is on Dealer and OEM interactions, not third party organizations. NOTE: Although this is the traditional use of the Get Model Codes, this BOD could be used to send Get Model Codes information between any two business parties.

Implementation Guidelines provide detailed information regarding the structure and meaning of the Get Model Codes BOD and corresponds directly to the Get Model Codes schema. In addition to structure and meaning, the Implementation Guidelines identify various business rules for specific fields/components that due to their nature, i.e. field interdependence, are not possible to express using schema. Please note that although these business rules are not included in the schema, they <u>MUST</u> be followed to be STAR Compliant. Therefore, the Get Model Codes Implementation Guidelines must be used in concert with the Get Model Codes schema during development and should <u>NOT</u> be considered a supplement or substitution to the schema. For more information regarding STAR XML Data Compliance, please review the STAR Data Compliance Guidelines document located on the STAR Web site.

For a copy of the corresponding Get Model Codes schema, please download the appropriate STAR schema repository from the XML portion of the STAR website (www.starstandard.org). Prior to downloading the schema, users are encouraged to download the STAR XML Reference/Implementation document also located on the XML portion of the STAR website. This document provides an overview of the STAR BOD development methodology, how to download and read STAR schema, and various frequently asked questions related to the implementation of STAR BODs.

STAR has followed the Open Application Group's Business Object Document methodology to develop the Get Model Codes BOD. Where possible, STAR has mapped to existing OAGI fields and components. Note however that the STAR Get Model Codes BOD is unique to the Retail Automotive industry and is not an extension of any existing OAGIS BODs.

For more information on the Open Applications Group's BODs and related documentation please refer to the Open Applications Group's Web site at (www.openapplications.org).

Schema Field Usage

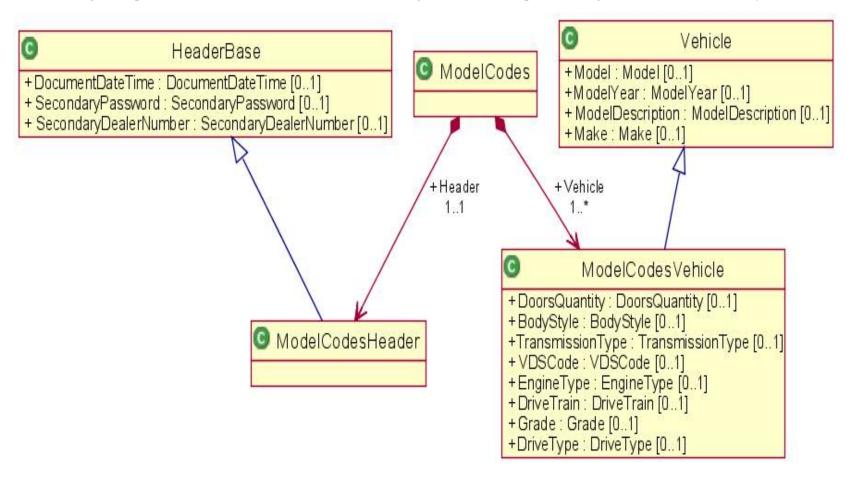
STAR uses the same Noun in the schema for all the Noun/Verb combinations of the Get Model Codes except the Get verb. Please refer to each Noun/Verb combination within this document to understand the requirements for each specific BOD. Although the Noun will always have every field defined for the Noun in the schema, each Noun/Verb combination may not use all of the fields. If a field is not used by a BOD, it will be noted in the business rules.

Business Scenario

The Model Codes Binary Collaboration starts with the request of Model Codes from the Dealer to the OEM. In response, Model Code information is sent from the OEM to the Dealer. This process occurs on demand as is needed. Note: This scenario is an example of how the Model Codes BOD can be used. Implementations may vary.

Relationship Diagram

The following is a representation of the Noun for this BOD. It is a high level overview provided to give an idea of the hierarchy of the Noun's components.



Schema Document Properties

Declared Namespaces

A schema can contain more than one namespace. According to Whatis.com, "In general, a namespace uniquely identifies a set of names so that there is no ambiguity when objects having different origins but the same names are mixed together." An example would be two namespaces that both defined an element called ID, without a namespace it would be impossible to determine which definition was being used.

Prefix	Namespace
Default namespace	http://www.starstandards.org/STAR
xml	http://www.w3.org/XML/1998/namespace
xsd	http://www.w3.org/2001/XMLSchema

Components and Data Types

Global definitions include components, code lists, and data types. Components are used to build the data structures that make up a Noun and it's requirements. Data types specify the type of data that a component's fields may contain. Not all definitions are included in this documentation. Please see either the STAR Code List guideline or Data Type Guidelines for further information.

ApplicationArea

These field(s) use this type: **ApplicationArea.**

Name	ApplicationArea
Abstract	no

Field / Component	Description	R/O	Business Rule
Sender	Identifies characteristics and control identifiers that relate to the application that created the Business Object Document. The sender area can indicate the logical location of the application and/or database serve the application, and the task that was processing to create the BOD.		
CreationDateTime	is the date time stamp that the given instance of the Business Object Document was created. This date must not be modified during the life of the Business Object Document.	R	DateTime fields must be formatted as XML Schema Datetimes in UTC/GMT format without offsets. Example: 2003-11-05T13:15:30Z

Field / Component	Description R/G	D Business Rule
Signature	If the BOD is to be signed the signature element is included, otherwise it O is not. Signature supports any digital signature that maybe used by an implementation of OAGIS. The qualifyingAgency identifies the agency that provided the format for the signature. This element supports any digital signature specification that is available today and in the future. This is accomplished by not actually defining the content but by allowing the implementation to specify the digital signature to be used via an external XML Schema namespace declaration. The Signature element is defined to have any content from any other namespace. This allows the user to carry a digital signature in the xml instance of a BOD. The choice of which digital signature to use is left up to the user and their integration needs.	Optional. "qualifyingAgency" attribute.
BODId	The BODId provides a place to carry a Globally Unique Identifier O (GUID) that will make each Business Object Document instance uniquely identifiable. This is a critical success factor to enable software developers to use the Globally Unique Identifier (GUID) to build the following services or capabilities: 1. Legally binding transactions, 2. Transaction logging, 3. Exception handling, 4. Re-sending, 5. Reporting, 6. Confirmations, 7. Security.	
Destination	Information related to the receiver of the BOD R	See Destination Component.

XML Instance Representation

BusinessObjectDocument

Name	BusinessObjectDocument
------	------------------------

Abstract no

Attributes

Field / Component	Description	R/O	Business Rule
revision	This should contain the STAR repository version in the following recommended format. 4.2.1_M20080416. Where the first part indicates the version of the STAR repository and anything after the _ indicates the Milestone build that is being used. If referring to an official published version then only the STAR Repository version is required.		
release	Indicates the OAGIS release that this BOD belongs.	О	
environment	Indicates whether this BOD is being sent in a "Test" or a "Production" mode. If the BOD is being sent in a test mode, it's information should n affect the business operation. However, if the BOD is sent in "Production" mode it is assumed that all test has been complete and the contents of the BOD are to affect the operation of the receiving busines application(s).	ot	
lang	Indicates the language that the contents of the BOD is in unless otherwise stated.	О	
bodVersion	Deprecated as of STAR 4.2.2. It is recommended to use the revision attribute to identify the repository and the noun. May be removed in a new major version of the STAR repository. Indicates the version numb of the BOD.	O er	

Field / Component	Description	R/O	Business Rule
ApplicationArea	Provides the information that an application may need to know in order to communicate in an integration of two or more business applications. The ApplicationArea is used at the applications layer of communication. While the integration frameworks web services and middleware provide the communication layer that OAGIS operates on top of. Provides the information that an application may need to know in order to communicate in an integration of two or more business applications. The ApplicationArea is used at the applications layer of communication. While the integration frameworks web services and middleware provide the communication layer that OAGIS operates on top of.	;	

XML Instance Representation

ConfirmableVerb

Name	ConfirmableVerb
Abstract	no

Attributes

Field / Component	Description	R/O	Business Rule
confirm		R	

Field / Component	Description	R/O	Business Rule
Verb		R	

XML Instance Representation

<... confirm="ConfirmType [0..1]"/>

Count

Simple quantity type with no attributes

Name	Count
Abstract	no

XML Instance Representation

<...>
xsd:integer
</...>

Destination

These field(s) use this type: **Destination.**

Name	Destination
Abstract	no

Field / Component	Description	R/O	Business Rule
DestinationNameCode	Code for destination of file (i.e.Short Manufacturer or DSP code)	О	Must use a valid code from the ShortMfg/RSP list on http://www.starstandards.org

Field / Component	Description	R/O	Business Rule
DestinationURI	Physical address of the destination	О	
DestinationSoftwareCode	Additional information about the destination application	О	
DestinationSoftware	For which software destination file is intended (may not be known).	О	
DealerNumber	Target Dealer Code receiving information	О	
StoreNumber	Dealer code store number (DMS assigned)	О	
AreaNumber	Dealer code area number (DMS vendor assigned)	О	
DealerCountry	Target Dealer country location	О	
PartyId	The Party Id field uniquely identifies the Receiver of the message. This element can be used for parties within the Automotive Community as well as external parties. Party Id is not intended as a replacement for the Dealer Number. Suggested formats for OEMs or other large institutions include: DUNs Number, ShortMfgCode + DUNs, or ShortMfgCode. The suggested format for Dealers is: ShortMfgCode+Dealer Number.		
LocationId	The Location Id field uniquely identifies the location of the Receiver of message. This Id may be aligned with a physical address or data centers. This field provides an additional level of granularity beyond the usage of the Party Id for additional routing and deliver of data.		
ServiceId	The Service Id field identifies the particular service to which a message is being sent, e.g., an inventory service.	O	

XML Instance Representation

<DestinationNameCode> ShortMfg </DestinationNameCode> [0..1]
<DestinationURI> URI </DestinationURI> [0..1]
<DestinationSoftwareCode> Text </DestinationSoftwareCode> [0..1]
<DestinationSoftware> Text </DestinationSoftware> [0..1]
<DealerNumber> PartyId </DealerNumber> [0..1]
<StoreNumber> Text </StoreNumber> [0..1]
<AreaNumber> Text </AreaNumber> [0..1]
<DealerCountry> Country </DealerCountry> [0..1]

```
<PartyId> PartyId </PartyId> [0..1]
<LocationId> LocationId </LocationId> [0..1]
<ServiceId> ServiceId </ServiceId> [0..1]
</...>
```

DoorsQuantity

These field(s) use this type: **DoorsQuantity.**

Number of doors on vehicle

Name	DoorsQuantity
Abstract	no

XML Instance Representation



ExpressionCriteria

Name	ExpressionCriteria
Abstract	no

Attributes

Field / Component	Description	R/O	Business Rule
expressionLanguage		О	

Field / Component	Description	R/O	Business Rule
SelectExpression	Allows the 1-n number of selection expressions for the information to be returned.	e R	

XML Instance Representation

```
<...
expressionLanguage="ExpressionLanguage [0..1]">
    <SelectExpression> Expression </SelectExpression> [1..*]
    </...>
```

Get

These field(s) use this type: **Get.**

Name	Get
Abstract	no

Attributes

Field / Component	Description	R/O	Business Rule
show		R	

Field / Component	Description	R/O	Business Rule
Verb		R	

Field / Component	Description	R/O	Business Rule
ReturnCriteria	ReturnCriteria identifies the content that is to be returned, given query success. In essence, the expression here has the effect of filtering the part(s) of the found element(s) that are to be returned. ReturnCriteria plays no role in the query itself. That is handled as a match against the request BOD's noun exemplar. ReturnCriteria allows the sender of the BOD to indicate which information (down to the field level) is requested to be returned, given that the query has been successful in matching the exemplar to existing nouns. That is, in a GetListPurchaseOrder, if one or more PurchaseOrders with a TotalPrice = \$1M were found, ReturnCriteria tells the BOD recipient which parts of the PurchaseOrder should be populated with content when the response (ShowPurchaseOrder) is formulated. The expressionLanguage indicates the expression language being used. In order for the ReturnCriteria expression to be evaluable by the BOD recipient, the recipient must be capable of processing and interpreting the specified expression language XPath is the default, due to its ubiquity among XML processing technologies.		

XML Instance Representation

```
<...
confirm="ConfirmType [0..1]"
show="Always [1]">
  <ReturnCriteria> ... </ReturnCriteria> [1]
</...>
```

GetModelCodes

These field(s) use this type: **GetModelCodes.**

Name	GetModelCodes
Abstract	no

Field / Component	Description	R/O	Business Rule
ApplicationArea	Provides the information that an application may need to know in order to communicate in an integration of two or more business applications. The ApplicationArea is used at the applications layer of communication While the integration frameworks web services and middleware provide the communication layer that OAGIS operates on top of. Provides the information that an application may need to know in order to communicate in an integration of two or more business applications. The ApplicationArea is used at the applications layer of communication. While the integration frameworks web services and middleware provide the communication layer that OAGIS operates on top of.	e	
DataArea		R	

XML Instance Representation

```
<...
revision="Text [0..1]"
release="8.1-Lite [0..1]"
environment="Text [0..1]"
lang="Language [0..1]"
bodVersion="Text [0..1]">
    <ApplicationArea> ... </ApplicationArea> [1]
    <DataArea> GetModelCodesDataArea </DataArea> [1]
    </...>
```

GetModelCodesDataArea

These field(s) use this type: **DataArea.**

Name	GetModelCodesDataArea
Abstract	no

Field / Component	Description	R/O	Business Rule
Get	The Get verb is to communicate to a business software component a request for an existing piece of information to be returned. The Get may be paired with most of the nouns defined in the OAGIS specification. The response to this request is the Show verb. The behavior of a BOD with a Get verb is quite predictable across most of the nouns it may be paired with. The Get is designed to retrieve a single piece of information by using that information's primary retrieval field, or key field. The Get veri is not used to request several documents at once. The GetList verb is designed to achieve that purpose and will be covered in more detail later. Selection Criteria: There are two types of selection capabilities for most BOD's that use the Get verb.1) The first selection capability is called Field-Based Selection. Within a Get-based Business Object Document, the first Data Type that occurs in a specific BOD structure is commonly used to provide the Field-Based Selection criteria. This is always defined within the specific BOD and is commonly the required fields for that specific Data type. The Field-Based Selection enables the requester to provide a value or values (in the case of multiple required Field Identifiers), in the required fields. Then the responding component uses those values to find and return the requested information to the originating business software component.2) The second type of selection capability for Get-based BODs is called Data Type Selection. Data Type selection enables the requester to identify which Data Types within the noun are requested to be returned in the response. The use of this capability is described for each corresponding Data Type for all BODs that use the Get verb. The Data Types are identified for retrieval within the Get instance of a BOD by including the name of the Data Type in the meta data but without any Field Identifiers or Segments identified within the Data Type. This will signify to the responding application that all of the data that corresponds to that Data Type	b	
ModelCodes		R	

XML Instance Representation



```
<ModelCodes> ... </ModelCodes> [1..*] </...>
```

HeaderBase

Used on all STAR BODs

Name	HeaderBase
Abstract	no

Data Elements and Components

Field / Component	Description	R/O	Business Rule
DocumentDateTime	Is the date and time the document was last created. This is not the date and time that the BOD message instance was created.	0	DateTime fields must be formatted as XML Schema DateTimes in UTC/GMT format without offsets. Example: 2003-11-05T13:15:30Z
SecondaryPassword	Secondary password used to validate access to the dealer information	0	(INACTIVE)
SecondaryDealerNumber	Identifies secondary dealer number if different than primary "Dealer Number"	О	(INACTIVE)

XML Instance Representation

```
<...>
    <br/>
    <br/>
```

ld

These field(s) use this type: **AuthorizationId.**

Party Identification number

Name	ld .
Abstract	no

XML Instance Representation

<...>
xsd:string
</...>

LocationId

These field(s) use this type: **LocationId**, **LocationId**.

Code identifying a physical location

Name	LocationId
Abstract	no

XML Instance Representation



ModelCodes

These field(s) use this type: **ModelCodes.**

STAR Version 3.0 - Draft

STAR Version 2.1, STAR approved 04/20/2005; effective date 07/04/2005

STAR Version 2.0, STAR approved 05/07/2004; effective date 07/04/2004

STAR Version 1.0, STAR approved 10/4/2002; OAGI approved 10/17/2002; effective date 1/01/2003

Name	ModelCodes
Abstract	no

Data Elements and Components

Field / Component	Description	R/O	Business Rule
Header		R	
Vehicle		R	

XML Instance Representation

```
<...>
    <Header> ... </Header> [1]
    <Vehicle> ... </Vehicle> [1..*]
    </...>
```

ModelCodesHeader

These field(s) use this type: **Header.**

Na	me	ModelCodesHeader
Ab	stract	no

Data Elements and Components

Field / Component	Description	R/O	Business Rule
DocumentDateTime	Is the date and time the document was last created. This is not the date and time that the BOD message instance was created.	0	DateTime fields must be formatted as XML Schema DateTimes in UTC/GMT format without offsets. Example: 2003-11-05T13:15:30Z
SecondaryPassword	Secondary password used to validate access to the dealer information	О	(INACTIVE)
SecondaryDealerNumber	Identifies secondary dealer number if different than primary "Dealer Number"	0	(INACTIVE)

XML Instance Representation

```
<...>
    <DocumentDateTime> DocumentDateTime </DocumentDateTime> [0..1]
    <SecondaryPassword> SecondaryPassword </SecondaryPassword> [0..1]
    <SecondaryDealerNumber> SecondaryDealerNumber </SecondaryDealerNumber> [0..1]
</...>
```

ModelCodesVehicle

These field(s) use this type: **Vehicle.**

Nam	е	ModelCodesVehicle
Abst	ract	no

Field / Component	Description	R/O	Business Rule
Model	Manufacturer-assigned model code of vehicle - Usually available in the VIN number (use NCIC code)	0	
ModelYear	Vehicle designated model year	O	
ModelDescription	Descriptive vehicle model name	O	
Make	Vehicle make code - Usually available in the VIN number (use NCIC code).	0	
DoorsQuantity	Number of doors on vehicle	O	
BodyStyle	Manufacturer-assigned vehicle body style	O	
TransmissionType	Vehicle Transmission type	O	
VDSCode	Vehicle Description Section- part of the VIN that correlates to a specific vehicle model, bodystyle, and grade	: O	
EngineType	Manufacturer-assigned code to designate vehicle engine type (ie: 1EZ	O	
DriveTrain	Indicates whether the vehicle is 2 or 4 wheel drive (ie: 2WD, 4WD, $4x4$ 4x2)	, O	

Field / Component	Description	R/O	Business Rule
Grade	Indicates the specific class of vehicle attached to the model description (ie: GT, XLE, SE)	О	
DriveType	Designates vehicle drive type	0	

XML Instance Representation

Partyld

 $These \ field (s) \ use \ this \ type: \\ \underline{\textbf{DealerNumber,PartyId,DealerNumber,PartyId.}}$

Party Identification Number

Name	Partyld
Abstract	no

XML Instance Representation



RequestVerb

1	lame	RequestVerb
	Abstract	no

Data Elements and Components

Field / Component	Description	R/O	Business Rule
Verb		R	
ReturnCriteria	ReturnCriteria identifies the content that is to be returned, given query success. In essence, the expression here has the effect of filtering the part(s) of the found element(s) that are to be returned. ReturnCriteria plays no role in the query itself. That is handled as a match against the request BOD's noun exemplar. ReturnCriteria allows the sender of the BOD to indicate which information (down to the field level) is requested to be returned, given that the query has been successful in matching the exemplar to existing nouns. That is, in a GetListPurchaseOrder, if one or more PurchaseOrders with a TotalPrice = \$1M were found, ReturnCriteria tells the BOD recipient which parts of the PurchaseOrder should be populated with content when the response (ShowPurchaseOrder) is formulated. The expressionLanguage indicates the expression language being used. In order for the ReturnCriteria expression to be evaluable by the BOD recipient, the recipient must be capable of processing and interpreting the specified expression language XPath is the default, due to its ubiquity among XML processing technologies.		

XML Instance Representation

```
<...
confirm="ConfirmType [0..1]">
  <ReturnCriteria> ... </ReturnCriteria> [1]
  </...>
```

${\bf Secondary Dealer Number}$

These field(s) use this type: **SecondaryDealerNumber.**

Identifies secondary dealer number if different than primary "Dealer Number"

Name	SecondaryDealerNumber
Abstract	no

XML Instance Representation



Sender

These field(s) use this type: **Sender.**

Name	Sender
Abstract	no

Field / Component	Description	R/O	Business Rule
LogicalId	Provides the logical location of the server and applications from which the Business Object Document originated. It can be used to establish a logical to physical mapping, however its use is optional. Each system or combination of systems should maintain an external central reference table containing the logical names or logical addresses of the application systems in the integration configuration. This enables the logical names to be mapped to the physical network addresses of the resources needed on the network. Note: The technical implementation of this Domain Naming Service is not dictated by this specification. This logical to physical mapping may be done at execution time by the application itsel or by a middleware transport mechanism, depending on the integration architecture used. This provides for a simple but effective directory access capability while maintaining application independence from the physical location of those resources on the network	1	

Field / Component	Description	R/O	Business Rule
Component	Provides a finer level of control than Logical Identifier and represent business application that issued the Business Object Document. Its us optional. For STAR's use this is the DCS Software code name		
Task	Describes the business event that initiated the need for the Business Object Document to be created. For STAR, the task is defined in the Implementation Guidelines for each BOD. It is usually a short description of the BOD. Ex: SalesLead, CreditDecision, etc.	R	
ReferenceId	Enables the sending application to indicate the instance identifier of t event or task that caused the BOD to be created. This is used to corre a response BOD to an originating BOD		
AuthorizationId	Identifyies the authorization level of the user or application that is sending the Business Object Document Message. This authorization being recognized be the receiving system indicates what can be done the receiving system. For STAR, this is the User ID.		
CreatorNameCode	DCS Software Creator Code	R	
SenderNameCode	Additional information about the sending platform (i.e., Short MFG of DSP code).	or R	Must use a valid code from the ShortMfg/RSP list on http://www.starstandards.org
SenderURI	Physical address of the sender	О	
DealerNumber	Dealer Code of source of information	О	Dealer Number is Required if originating from DMS.
StoreNumber	Dealer code store number (DMS assigned)	О	
AreaNumber	Dealer code area number (DMS vendor assigned)	О	
DealerCountry	Source Dealer country location	О	Reference Country enumerator.
Language	This code is used to define the language of the data used in this transaction	О	Reference Language enumerator.

Field / Component	Description	R/O	Business Rule
DeliverPendingMailInd	Indicates if the user requests to receive pending mail that has been st and has yet not been delivered yet. By selecting 0, the user will only receive the response for the current transaction the user is performing		1 - Receive Pending Mail. 0 - Do not receive pending mail.
Password	Token for application specific authentication. Used to authenticate dealership/users through application specific security	О	
SystemVersion	The sender's software version number.	0	
PartyId	The Party Id field uniquely identifies the Sender of the message. This element can be used for parties within the Automotive Community a well as external parties. Party Id is not intended as a replacement for Dealer Number. Suggested formats for OEMs or other large institution include: DUNs Number, ShortMfgCode + DUNs, or ShortMfgCode. Suggested format for Dealers is: ShortMfgCode+Dealer Number.	s the ons	
LocationId	The Location Id field uniquely identifies the location of the Sender or message. This Id may be aligned with a physical address or data cent This field provides an additional level of granularity beyond the usage the Party Id for additional routing and deliver of data.	ters.	
ServiceId	The Service Id field identifies the particular service from which a message is being sent, e.g., an inventory service.	0	

XML Instance Representation

```
<Language> Language </Language> [0..1]
  <DeliverPendingMailInd> Indicator </DeliverPendingMailInd> [0..1]
  <Password> Text </Password> [0..1]
  <SystemVersion> SystemVersion </SystemVersion> [0..1]
  <PartyId> PartyId </PartyId> [0..1]
  <LocationId> LocationId </LocationId> [0..1]
  <ServiceId> ServiceId </ServiceId> [0..1]
  </...>
```

SenderBase

Name	SenderBase SenderBase
Abstract	no no

Field / Component	Description	R/O	Business Rule
LogicalId	Provides the logical location of the server and applications from which the Business Object Document originated. It can be used to establish a logical to physical mapping, however its use is optional. Each system or combination of systems should maintain an external central reference table containing the logical names or logical addresses of the application systems in the integration configuration. This enables the logical names to be mapped to the physical network addresses of the resources needed on the network. Note: The technical implementation of this Domain Naming Service is not dictated by this specification. This logical to physical mapping may be done at execution time by the application itsel or by a middleware transport mechanism, depending on the integration architecture used. This provides for a simple but effective directory access capability while maintaining application independence from the physical location of those resources on the network	1	
Component	Provides a finer level of control than Logical Identifier and represents the business application that issued the Business Object Document. Its use it optional. For STAR's use this is the DCS Software code name		

Field / Component	Description	R/O	Business Rule
Task	Describes the business event that initiated the need for the Business Object Document to be created. For STAR, the task is defined in the Implementation Guidelines for each BOD. It is usually a short description of the BOD. Ex: SalesLead, CreditDecision, etc.	R	
ReferenceId	Enables the sending application to indicate the instance identifier of the event or task that caused the BOD to be created. This is used to correlate a response BOD to an originating BOD		
AuthorizationId	Identifyies the authorization level of the user or application that is sending the Business Object Document Message. This authorization leve being recognized be the receiving system indicates what can be done on the receiving system. For STAR, this is the User ID.		

XML Instance Representation

```
<...>
<LogicalId> Text </LogicalId> [0..1]
<Component> Text </Component> [1]
<Task> Text </Task> [1]
<ReferenceId> Reference </ReferenceId> [0..1]
<AuthorizationId> Id </AuthorizationId> [0..1]
</...>
```

Serviceld

These field(s) use this type: **ServiceId**, **ServiceId**.

The Service Id field identifies the particular service to or from which a message is being sent, e.g., an inventory service.

Name	ServiceId
Abstract	no

XML Instance Representation



Signature

These field(s) use this type: **Signature.**

Name	Signature
Abstract	no

Attributes

Field / Component	Description	R/O	Business Rule
qualifyingAgency		O	

Data Elements and Components

Field / Component Description R/O Business Rule	Field / Component	Description	R/O	Business Rule
---	-------------------	-------------	-----	---------------

XML Instance Representation

<...
qualifyingAgency="Text [0..1]">
Allow any elements from any namespace (strict validation). [0..1]
</...>

Vehicle

Name	Vehicle
Abstract	no

Field / Component	Description	R/O	Business Rule
Model	Manufacturer-assigned model code of vehicle - Usually available in the VIN number (use NCIC code)	О	

Field / Component	Description	R/O	Business Rule
ModelYear	Vehicle designated model year	О	
ModelDescription	Descriptive vehicle model name	0	
Make	Vehicle make code - Usually available in the VIN number (use NCIC code).	О	

XML Instance Representation

```
<...>
    <Model> Model </Model> [0..1]
    <ModelYear> ModelYear </ModelYear> [0..1]
    <ModelDescription> ModelDescription </ModelDescription> [0..1]
    <Make> Make </Make> [0..1]
    </...>
```

Verb

These field(s) use this type: **Verb.**

Name	Verb
Abstract	no

Data Elements and Components

Field / Component	Description	R/O	Business Rule

XML Instance Representation



BodyStyle

These field(s) use this type: **BodyStyle.**

Manufacturer-assigned vehicle body style

Name BodyStyle

Base XSD Type: string

Code

These field(s) use this type: **BODId.**

Unique code name

Name Code

Base XSD Type: string

ConfirmType

Name	ConfirmType			
Base XSD Type: NMTOKEN				
Code Value	Description			
Always				
OnChange				
Never				

Country

These field(s) use this type: **DealerCountry, DealerCountry.**

Country in which the Address is in. Conforms to ISO 3166-2. AF -AFGHANISTAN AL -ALBANIA DZ -ALGERIA AS -AMERICAN SAMOA AD -ANDORRA AO -ANGOLA AI -ANGUILLA AQ -ANTARCTICA AG -ANTIGUA AND BARBUDA AR -ARGENTINA AM -ARMENIA AW -ARUBA AU -AUSTRALIA AT -AUSTRIA AZ -AZERBAIJAN BS -BAHAMAS BH -BAHRAIN BD -BANGLADESH BB -BARBADOS BY -BELARUS BE -BELGIUM BZ -BELIZE BJ -BENIN BM -BERMUDA BT -BHUTAN BO -BOLIVIA BA -BOSNIA AND HERZEGOVINA BW -BOTSWANA BV -BOUVET ISLAND BR -BRAZIL IO-BRITISH INDIAN OCEAN TERRITORY BN -BRUNEI DARUSSALAM BG -BULGARIA

BF-BURKINA FASO BI-BURUNDI KH-CAMBODIA CM-CAMEROON CA-CANADA CV-CAPE VERDE KY-CAYMAN ISLANDS CF -CENTRAL AFRICAN REPUBLIC TD -CHAD CL -CHILE CN -CHINA CX -CHRISTMAS ISLAND CC -COCOS (KEELING) ISLANDS CO -COLOMBIA KM -COMOROS CG -CONGO CD -CONGO, THE DEMOCRATIC REPUBLIC OF THE CK -COOK ISLANDS CR -COSTA RICA CI -CÄ#Ä#TE D'IVOIRE HR -CROATIA CU -CUBA CY -CYPRUS CZ -CZECH REPUBLIC DK -DENMARK DJ -DJIBOUTI DM -DOMINICA DO -DOMINICAN REPUBLIC EC -ECUADOR EG -EGYPT SV -EL SALVADOR GQ -EQUATORIAL GUINEA ER -ERITREA EE -ESTONIA ET -ETHIOPIA FK -FALKLAND ISLANDS (MALVINAS) FO -FAROE ISLANDS FJ -FIJI FI -FINLAND FR -FRANCE GF -FRENCH GUIANA PF -FRENCH POLYNESIA TF -FRENCH SOUTHERN TERRITORIES GA -GABON GM -GAMBIA GE -GEORGIA DE -GERMANY GH -GHANA GI -GIBRALTAR GR -GREECE GL -GREENLAND GD -GRENADA GP -GUADELOUPE GU -GUAM GT -GUATEMALA GN -GUINEA GW -GUINEA-BISSAU GY -GUYANA HT -HAITI HM -HEARD ISLAND AND MCDONALD ISLANDS VA -HOLY SEE (VATICAN CITY STATE) HN -HONDURAS HK -HONG KONG HU -HUNGARY IS -ICELAND IN -INDIA ID -INDONESIA IR -IRAN, ISLAMIC REPUBLIC OF IO -IRAO IE -IRELAND IL -ISRAEL IT -ITALY JM -JAMAICA JP -JAPAN JO -JORDAN KZ -KAZAKHSTAN KE -KENYA KI -KIRIBATI KP -KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF KR -KOREA, REPUBLIC OF KW -KUWAIT KG -KYRGYZSTAN LA -LAO PEOPLE'S DEMOCRATIC REPUBLIC LV -LATVIA LB -LEBANON LS -LESOTHO LR -LIBERIA LY -LIBYAN ARAB JAMAHIRIYA LI -LIECHTENSTEIN LT -LITHUANIA LU -LUXEMBOURG MO -MACAO MK -MACEDONIA. THE FORMER YUGOSLAV REPUBLIC OF MG -MADAGASCAR MW -MALAWI MY -MALAYSIA MV -MALDIVES ML -MALI MT -MALTA MH -MARSHALL ISLANDS MQ -MARTINIQUE MR -MAURITANIA MU -MAURITIUS YT -MAYOTTE MX -MEXICO FM -MICRONESIA. FEDERATED STATES OF MD -MOLDOVA. REPUBLIC OF MC -MONACO MN -MONGOLIA MS -MONTSERRAT MA -MOROCCO MZ -MOZAMBIQUE MM -MYANMAR NA -NAMIBIA NR -NAURU NP -NEPAL NL -NETHERLANDS AN -NETHERLANDS ANTILLES NC -NEW CALEDONIA NZ -NEW ZEALAND NI -NICARAGUA NE -NIGER NG -NIGERIA NU -NIUE NF -NORFOLK ISLAND MP -NORTHERN MARIANA ISLANDS NO -NORWAY OM -OMAN PK -PAKISTAN PW -PALAU PS -PALESTINIAN TERRITORY, OCCUPIED PA -PANAMA PG -PAPUA NEW GUINEA PY -PARAGUAY PE -PERU PH -PHILIPPINES PN -PITCAIRN PL -POLAND PT -PORTUGAL PR -PUERTO RICO OA -OATAR RE -RÃ#Â#UNION RO -ROMANIA RU -RUSSIAN FEDERATION RW -RWANDA SH -SAINT HELENA KN -SAINT KITTS AND NEVIS LC -SAINT LUCIA PM -SAINT PIERRE AND MIQUELON VC -SAINT VINCENT AND THE GRENADINES WS -SAMOA SM -SAN MARINO ST -SAO TOME AND PRINCIPE SA -SAUDI ARABIA SN -SENEGAL CS -SERBIA AND MONTENEGRO SC -SEYCHELLES SL -SIERRA LEONE SG -SINGAPORE SK -SLOVAKIA SI -SLOVENIA SB -SOLOMON ISLANDS SO -SOMALIA ZA -SOUTH AFRICA GS -SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS ES -SPAIN LK -SRI LANKA SD -SUDAN SR -SURINAME SJ -SVALBARD AND JAN MAYEN SZ -SWAZILAND SE -SWEDEN CH -SWITZERLAND SY -SYRIAN ARAB REPUBLIC TW -TAIWAN, PROVINCE OF CHINA TJ -TAJIKISTAN TZ -TANZANIA, UNITED REPUBLIC OF TH -THAILAND TL -TIMOR-LESTE TG - TOGO TK -TOKELAU TO -TONGA TT -TRINIDAD AND TOBAGO TN -TUNISIA TR -TURKEY TM -TURKMENISTAN TC -TURKS AND CAICOS ISLANDS TV -TUVALU UG -UGANDA UA -UKRAINE AE -UNITED ARAB EMIRATES GB -UNITED KINGDOM US -UNITED STATES UM -UNITED STATES MINOR OUTLYING ISLANDS UY -URUGUAY UZ -UZBEKISTAN VU -VANUATU VE -VENEZUELA VN -VIET NAM VG -VIRGIN ISLANDS. BRITISH VI -VIRGIN ISLANDS. U.S. WF -WALLIS AND FUTUNA EH -WESTERN SAHARA YE -YEMEN ZM -ZAMBIA ZW -ZIMBABWE

Name

Country

Base XSD Type: string

Code Value	Description
US	
AF	
AL	
DZ	
AS	
AD	
AO	
AI	
AQ	
AG	
AR	
AM	
AW	
AU	
AT	
AZ	
BS	
вн	
BD	
BB	
BY	
BE	

Code Value	Description
BZ	
ВЈ	
BM	
BT	
ВО	
BA	
BW	
BV	
BR	
IO	
BN	
BG	
BF	
BI	
КН	
CM	
CA	
CV	
KY	
CF	
TD	
CL	

Code Value	Description
CN	
CX	
CC	
СО	
KM	
CG	
CD	
CK	
CR	
CI	
HR	
CU	
CY	
CZ	
DK	
DJ	
DM	
DO	
EC	
EG	
SV	
GQ	

Code Value	Description
ER	
EE	
ET	
FK	
FO	
FJ	
FI	
FR	
GF	
PF	
TF	
GA	
GM	
GE	
DE	
GH	
GI	
GR	
GL	
GD	
GP	
GU	

Code Value	Description
GT	
GN	
GW	
GY	
HT	
НМ	
VA	
HN	
НК	
HU	
IS	
IN	
ID	
IR	
IQ	
IE	
IL	
IT	
JM	
JP	
lO	
KZ	

Code Value	Description
KE	
KI	
KP	
KR	
KW	
KG	
LA	
LV	
LB	
LS	
LR	
LY	
LI	
LT	
LU	
MO	
MK	
MG	
MW	
MY	
MV	
ML	

Code Value	Description
MT	
МН	
MQ	
MR	
MU	
YT	
MX	
FM	
MD	
MC	
MN	
MS	
MA	
MZ	
MM	
NA	
NR	
NP	
NL	
AN	
NC	
NZ	

Code Value	Description
NI	
NE	
NG	
NU	
NF	
MP	
NO	
OM	
PK	
PW	
PS	
PA	
PG	
PY	
PE	
РН	
PN	
PL	
PT	
PR	
QA	
RE	

Code Value	Description
RO	
RU	
RW	
SH	
KN	
LC	
PM	
VC	
WS	
SM	
ST	
SA	
SN	
CS	
SC	
SL	
SG	
SK	
SI	
SB	
SO	
ZA	

Code Value	Description
GS	
ES	
LK	
SD	
SR	
SJ	
SZ	
SE	
СН	
SY	
TW	
TJ	
TZ	
TH	
TL	
TG	
TK	
ТО	
TT	
TN	
TR	
TM	

Code Value	Description	
TC		
TV		
UG		
UA		
AE		
GB		
UM		
UY		
UZ		
VU		
VE		
VN		
VG		
VI		
WF		
ЕН		
YE		
ZM		
ZW		

DateTime

These field(s) use this type: **CreationDateTime.**

Date and time conforms to ISO 8601 format rules without offset EX:2003-11-05T13:15:30Z

Name DateTime

Base XSD Type: dateTime

DocumentDateTime

These field(s) use this type: **<u>DocumentDateTime.</u>**

Is the date and time the document was last created. This is not the date and time that the BOD message instance was created.

Name DocumentDateTime

Base XSD Type: dateTime

DriveTrain

These field(s) use this type: **DriveTrain.**

Indicates whether the vehicle is 2 or 4 wheel drive (ie: 2WD, 4WD, 4x4, 4x2)

DriveType

Name DriveTrain

Base XSD Type: string

DriveType

Name

These field(s) use this type: **DriveType.**

Designates vehicle drive type

Hamo	2		
Base XSD Type: string			
Base ABB Type. String			
Code Value		Description	

Front wheel drive

Code Value	Description
Rear	Rear wheel drive

EngineType

These field(s) use this type: **EngineType.**

Manufacturer-assigned code to designate vehicle engine type (ie: 1EZ

Name EngineType

Base XSD Type: string

Expression

These field(s) use this type: **SelectExpression.**

Name Expression

Base XSD Type: string

ExpressionLanguage

Name ExpressionLanguage

Base XSD Type: string

Grade

These field(s) use this type: **Grade.**

Indicates the specific class of vehicle attached to the model description (ie: GT, XLE, SE)

Name Grade

Base XSD Type: string

Indicator

These field(s) use this type: **<u>DeliverPendingMailInd.</u>**

0 = No, 1 = Yes

Name	Indicator		
Base XSD Type: string			
Code Value		Description	
0			
1			

Language

These field(s) use this type: Language.

Language conforms to ISO 639-2 rules. Note the format for this field is language-Country (see Country data type for the list of countries with definitions). AA "Afar", AB "Abkhazian", AF "Afrikaans", AM "Amharic", AR "Arabic", AS "Assamese", AY "Aymara", AZ "Azerbaijani", BA "Bashkir", BE "Byelorussian", BG "Bulgarian", BH "Bihari", BI "Bislama", BN "Bengali" "Bangla", BO "Tibetan", BR "Breton", CA "Catalan", CO "Corsican", CS "Czech", CY "Welsh", DA "Danish", DE "German", DZ "Bhutani", EL "Greek", EN "English" "American", ES "Spanish", ET "Estonian", EU "Basque", FA "Persian", FI "Finnish", FJ "Fiji", FO "Faeroese", FR "French", FY "Frisian", GA "Irish", GD "Gaelic" "Scots Gaelic", GL "Galician", GN "Guarani", GU "Gujarati", HA "Hausa", HI "Hindi", HR "Croatian", HU "Hungarian", HY "Armenian", IK "Inupiak", IN "Indonesian", IS "Icelandic", IT "Italian", IW "Hebrew", JA "Japanese", JI "Yiddish", JW "Javanese", KA "Georgian", KK "Kazakh", KL "Greenlandic", KM "Cambodian", KN "Kannada", KO "Korean", KS "Kashmiri", KU "Kurdish", KY "Kirghiz", LA "Latin", LN "Lingala", LO "Laothian", LT "Lithuanian", LV "Latvian" "Lettish", MG "Malagasy". MI "Maori", MK "Macedonian", ML "Malayalam", MN "Mongolian", MO "Moldavian", MR "Marathi", MS "Malay", MT "Maltese", MY "Burmese", NA "Nauru", NE "Nepali", NL "Dutch", NO "Norwegian", OC "Occitan", OM "Oromo" "Afan", OR "Oriya", PA "Punjabi", PL "Polish", PS "Pashto" "Pushto", PT "Portuguese", QU "Quechua", RM "Rhaeto-Romance", RN "Kirundi", RO "Romanian", RW "Kinyarwanda", SA "Sanskrit", SD "Sindhi", SG "Sangro", SH "Serbo-Croatian", SI "Singhalese", SK "Slovak", SL "Slovenian", SM "Samoan", SN "Shona", SO "Somali", SQ "Albanian", SR "Serbian", SS "Siswati", ST "Sesotho", SU "Sudanese", SV "Swedish", SW "Swahili", TA "Tamil", TE "Tegulu", TG "Tajik", TH "Thai", TI "Tigrinya", TK "Turkmen", TL "Tagalog", TN "Setswana", TO "Tonga", TR "Turkish", TS "Tsonga", TT "Tatar", TW "Twi", UK "Ukrainian", UR "Urdu", UZ "Uzbek", VI "Vietnamese". WO "Wolof", XH "Xhosa", YO "Yoruba", ZH "Chines

Name	Language			
Base XSD Type:	Base XSD Type: string			
Code Value		Description		
en-US				
en-CA				
aa-ET				
ab-GE				
af-ZA				
am- ET				
ar-SA				
as-IN				
ay-BO				
az-AZ				
ba-RU				
be-BY				
bg-BG				
bh-IN				
bi-VU				
bn-BD				
bo-BT				
br-FR	3			
ca-ES				
co-FR	3			

Code Value	Description
cs-CZ	
cy-GB	
da-DE	
de-DE	
dz-BT	
el-GR	
es-ES	
et-EE	
eu-ES	
fa-AF	
fi-FI	
fj-FJ	
fo-FO	
fr-CA	
fr-FR	
fy-NL	
ga-IE	
gd-GB	
gl-ES	
gn-PY	
gu-IN	
ha-NG	
_	

Code Value	Description
hi-IN	
hr-HR	
hu-HU	
hy-AM	
ik-GL	
in-ID	
is-IS	
it-IT	
iw-IL	
ja-JP	
ji-IL	
jw-ID	
ka-GE	
kk-KZ	
kl-GL	
km-KH	
kn-IN	
ko-KP	
ko-KR	
ks-IN	
ku-IQ	
ky-CN	

Code Value	Description
la-VA	
ln-CD	
lo-LA	
lt-LT	
lv-LV	
mg-MG	
mi-NZ	
mk-MK	
ml-IN	
mn-MN	
mo-MO	
mr-IN	
ms-MY	
mt-MH	
my-MM	
na-NR	
ne-NP	
nl-NL	
no-NO	
oc-FR	
om- ET	
or-IN	

Code Value	Description
pa-IN	
pl-PL	
ps-PK	
pt-PT	
qu-PE	
rm-CH	
rn-BI	
ro-RO	
ru-RU	
rw-RW	
sa-IN	
sd-PK	
sg-CF	
sh-HR	
si-LK	
sk-SK	
sl-SI	
sm-WS	
sn-ZW	
so-SO	
sq-AL	
sr-CS	

Code Value	Description
ss-ZA	
st-ZA	
su-SD	
sv-SE	
sw-TL	
ta-IN	
te-IN	
tg-TJ	
th-TH	
ti-ET	
tk-TM	
tl-PH	
tn-ZA	
to-TO	
tr-TR	
ts-ZA	
tt-RU	
tw-GH	
uk-UA	
ur-PK	
uz-UZ	
vi-VN	

Code Value	Description	
wo-SN		
xh-ZA		
yo-NG		
zh-CN		
zu-ZA		

Make

These field(s) use this type: Make.

Vehicle make code - Usually available in the VIN number (use NCIC code).

Name Make

Base XSD Type: string

Model

These field(s) use this type: **Model.**

Manufacturer-assigned model code of vehicle - Usually available in the VIN number (use NCIC code)

Name Model

Base XSD Type: string

ModelDescription

These field(s) use this type: **ModelDescription.**

Descriptive vehicle model name

Name ModelDescription

Base XSD Type: string

ModelYear

These field(s) use this type: **ModelYear.**

Vehicle designated model year

Name ModelYear

Base XSD Type: gYear

Note

A free form note.

Name Note

Base XSD Type: string

Reference

These field(s) use this type: **ReferenceId.**

Reference notation

Name Reference

Base XSD Type: string

ReferenceNumber

Reference number

Name ReferenceNumber

Base XSD Type: string

SecondaryPassword

These field(s) use this type: **SecondaryPassword.**

Secondary password used to validate access to the dealer information

Name

SecondaryPassword

Base XSD Type: string

ShortMfg

These field(s) use this type: **SenderNameCode, DestinationNameCode.**

Short Manfacturer or RSP Codes

Name

ShortMfg

Base XSD Type: string

SystemVersion

These field(s) use this type: **SystemVersion.**

The sender's software version number.

Name

SystemVersion

Base XSD Type: string

Text

These field(s) use this type:

 $\underline{CreatorNameCode, StoreNumber, AreaNumber, Password, DestinationSoftwareCode, DestinationSoftware, StoreNumber, AreaNumber, LogicalId, Component, Toucher, Component, Compone$

Indicates generic text type

Name

Text

Base XSD Type: string

TransmissionType

These field(s) use this type: **TransmissionType.**

Vehicle Transmission type - 3 = 3 speed, 4 = 4 speed, 5 = 5 speed, 6 = 6 speed, A - Automatic

Name	TransmissionType	
Base XSD Type: stri	ng	
Code Value		Description
3		3 Speed
4		4 Speed
5		5 Speed
6		6 Speed
A		"A" = Automatic
Automatic 3		Automatic 3 speed transmission type
Automatic 4		Automatic 4 speed transmission type
Automatic 5		Automatic 5 speed transmission type
Automatic 6		Automatic 6 speed transmission type
Automatic 7		Automatic 7 speed transmission type
7		7 Speed
CVT Automatic 3		Continuously Variable T ransmission Automatic 3 speed transmission type (natural gas and hybrid).
CVT Automatic 4		Continuously Variable T ransmission Automatic 4 speed transmission type (natural gas and hybrid).
CVT Automatic 5		Continuously Variable T ransmission Automatic 5 speed transmission type (natural gas and hybrid).

Code Value	Description
CVT Automatic 6	Continuously Variable T ransmission Automatic 6 speed transmission type (natural gas and hybrid).
CVT Automatic 7	Continuously Variable T ransmission Automatic 7 speed transmission type (natural gas and hybrid).
M	M = Manual

Type

Type

Name Type

Base XSD Type: string

URI

These field(s) use this type: **SenderURI,DestinationURI.**

URI

Name URI

Base XSD Type: anyURI

VDSCode

These field(s) use this type: **VDSCode.**

Vehicle Description Section- part of the VIN that correlates to a specific vehicle model, bodystyle, and grade

Name VDSCode

Base XSD Type: string

Year

Year

Name Year

Base XSD Type: gYear

Fields and Global Attributes

Global declarations are items such as elements, attribute groups, and group definitions. These items are not defined within any particular component. A component may reference these definitions. Within a STAR XML Schemas these are typically known as global fields.

ApplicationArea

These field(s) use this type: **ApplicationArea**.

Provides the information that an application may need to know in order to communicate in an integration of two or more business applications. The ApplicationArea is used at the applications layer of communication. While the integration frameworks web services and middleware provide the communication layer that OAGIS operates on top of.

Provides the information that an application may need to know in order to communicate in an integration of two or more business applications. The ApplicationArea is used at the applications layer of communication. While the integration frameworks web services and middleware provide the communication layer that OAGIS operates on top of.

Name	ApplicationArea
Туре	ApplicationArea
Nillable	no
Abstract	no

XML Instance Representation

Get

These field(s) use this type: $\underline{Get.}$

The Get verb is to communicate to a business software component a request for an existing piece of information to be returned. The Get may be paired with most of the nouns defined in the OAGIS specification. The response to this request is the Show verb. The behavior of a BOD with a Get verb is quite predictable across most of the nouns it may be paired with. The Get is designed to retrieve a single piece of information by using that information's primary retrieval field, or key field. The Get verb is not used to request several documents at once. The GetList verb is designed to achieve that purpose and will be covered in more detail later. Selection Criteria: There are two types of selection capabilities for most BOD's that use the Get verb. 1) The first selection capability is called Field-Based Selection. Within a Get-based Business Object Document, the first Data Type that occurs in a specific BOD structure is commonly used to provide the Field-Based Selection criteria. This is always defined within the specific BOD and is commonly the required fields for that specific Data type. The Field-Based Selection enables the requester to provide a value or values (in the case of multiple required Field Identifiers), in the required fields. Then the responding component uses those values to find and return the requested information to the originating business software component. 2) The second type of selection capability for Get-based BODs is called Data Type Selection. Data Type selection enables the requester to identify which Data Types within the noun are requested to be returned in the response. The use of this capability is described for each corresponding Data Type for all BODs that use the Get verb. The Data Types are identified for retrieval within the Data Type. This will signify to the responding application that all of the data that corresponds to that Data Type is to be included in the response. If the Data Type is not requested, the Data Type identifier is not included in the Get request and this will

Name	Get
Туре	Get
Nillable	no
Abstract	no

XML Instance Representation

```
<Get
confirm="ConfirmType [0..1]"
show="Always [1]">
<ReturnCriteria> ... </ReturnCriteria> [1]
</Get>
```

GetModelCodes

These field(s) use this type: **GetModelCodes.**

Name	GetModelCodes
Туре	GetModelCodes

Nillable	no
Abstract	no

XML Instance Representation

```
<GetModelCodes
revision="Text [0..1]"
release="8.1-Lite [0..1]"
environment="Text [0..1]"
lang="Language [0..1]"
bodVersion="Text [0..1]">
    <ApplicationArea> ... </ApplicationArea> [1]
    <DataArea> GetModelCodesDataArea </DataArea> [1]
</GetModelCodes>
```

Header

Name	Header
Туре	ModelCodesHeader
Nillable	no
Abstract	no

XML Instance Representation

ModelCodes

These field(s) use this type: **ModelCodes.**

Name ModelCodes	
-----------------	--

Туре	ModelCodes
Nillable	no
Abstract	no

XML Instance Representation

```
<ModelCodes>
    <Header> ... </Header> [1]
    <Vehicle> ... </Vehicle> [1..*]
    </ModelCodes>
```

Vehicle

Name	Vehicle
Туре	ModelCodesVehicle
Nillable	no
Abstract	no

XML Instance Representation

```
<Vehicle>
  <Model> Model </Model> [0..1]
  <ModelYear> ModelYear </ModelYear> [0..1]
  <ModelDescription> ModelDescription </ModelDescription> [0..1]
  <Make> Make </Make> [0..1]
  <DoorsQuantity> DoorsQuantity </DoorsQuantity> [0..1]
  <BodyStyle> BodyStyle </BodyStyle> [0..1]
  <TransmissionType> TransmissionType </TransmissionType> [0..1]
  <VDSCode> VDSCode </VDSCode> [0..1]
  <EngineType> EngineType </EngineType> [0..1]
  <DriveTrain> DriveTrain </DriveTrain> [0..1]
  <Grade> Grade </Grade> [0..1]
  <DriveType> DriveType </DriveType> [0..1]
</Vehicle>
```

Verb

These field(s) use this type: $\underline{\text{Verb.}}$

Name Verb

Type Verb

Nillable no

Abstract yes

XML Instance Representation

<Verb/>