Technical White Paper – ACR Assist

Proposed Format for Specifying Point-of-Care Computer-Assisted Reporting/Decision Support Modules for Radiologists

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# INTRODUCTION

## Purpose

Explains the following

Schema structure

Description about each elements and attributes with their datatypes

Usage with samples

# Representation

## Colour patterns

Here is the representation style for each component in the schema.

Attributes: sample

Elements: sample

Optional: sample (optional)

## Datatypes

xsd:token - <https://www.w3.org/TR/xmlschema-2/#token>

xsd:anyURI - <https://www.w3.org/TR/xmlschema-2/#anyURI>

xsd:nonNegativeInteger - <https://www.w3.org/TR/xmlschema-2/#nonNegativeInteger>

xsd:integer - <https://www.w3.org/TR/xmlschema-2/#integer>

xsd:ID - <https://www.w3.org/TR/xmlschema-2/#ID>

xsd:Boolean - <https://www.w3.org/TR/xmlschema-2/#boolean>

xsd:decimal - <https://www.w3.org/TR/xmlschema-2/#decimal>

xsd: IDREF - <https://www.w3.org/TR/xmlschema-2/#IDREF>

xsd:positiveInteger - <https://www.w3.org/TR/xmlschema-2/#positiveInteger>

xsd:duration - <https://www.w3.org/TR/xmlschema-2/#duration>

# Schema structure

## Metadata

The metadata section contains general information about a CAR/DS guideline which may or may not be used by any given implementation.

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Name** | **Data Type** | **Description** |
| 1 | Label | text | Name of the XML |
| 2 | ID | text | XML’s unique identifier |
| 3 | SchemaVersion | text | Schema version |
| 4 | RuleVersion | text | Module version. This can be updated each time when the xml has modified. |
| 5 | Info(optional)   |  |  |  |  | | --- | --- | --- | --- | | 5.1 | Description (optional) | text | Human readable description about the module. | | 5.2 | References (optional)  Contains one or more Citations.  Citation   |  |  |  |  | | --- | --- | --- | --- | | 5.2.1 | PubmedId (optional) | xsd:token | Pubmed reference Identifier  <https://www.ncbi.nlm.nih.gov/pubmed> | | 5.2.2 | URI (optional) | xsd:anyURI | Any Reference Url | | 5.2.3 | Text |  | citation text | | | | | 5.3 | Diagrams (optional)  Contains different diagrams related to the module.  Diagram   |  |  |  |  | | --- | --- | --- | --- | | 5.3.1 | KeyDiagram  (optional) | "true" |"false" | Is it the key diagram | | 5.3.2 | Displaysequence  (optional) | Integer | Image display sequence number. Images can be displayed in Displaysequence order | | 6.3.3 | ImageElements     |  |  |  |  | | --- | --- | --- | --- | | 5.3.3.1 | imageElements | URI | Image URI | | 5.3.3.2 | Label  (optional) | text | Image Label | | | | | | | | 5.4 | HelpText(optional) | text | Help text about the module | | 5.5 | Contact(optional)   |  |  |  |  | | --- | --- | --- | --- | | 5.5.1 | Name | text | Author/Contact Name | | 5.5.2 | Email | text | Contact Email | | 5.5.3 | Institution(optional) | text | Contact Institution | | | | | | |
| 6 | ReportCitationText | text | Citation for the report text |
| 7 | Ontology(optional)  Specify body part and modality ( like CT-Chest, MR-abdomen) for which this module can be used   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 7.1 | AnatomicRegions  can contain one or more anatomic regions     |  |  |  |  | | --- | --- | --- | --- | | 7.1.1 | codingSystemAttr  (optional) | text | the source of coding system used | | 7.1.2 | Region   |  |  |  |  | | --- | --- | --- | --- | | 7.1.2.1 | Code | xsd:token | Author/Contact Name | | 7.1.2.2 | Text |  | Region text | | | | | | 7 | PossibleDiagnoses     |  |  |  |  | | --- | --- | --- | --- | | 7.1.1 | codingSystemAttr  (optional) | text | the source of coding system used | | 7.1.2 | Diagnosis  can contain one or more diagnosis   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 7.1.2.1 | codeAttrs   |  |  |  |  | | --- | --- | --- | --- | | 7.1.2.1.1 | codingSystemAttr  (optional) | text | the source of coding system used | | 7.1.2.1.2 | Code | xsd:token | Code in coding system | | | | | | | | |
| 8 | ApplicableExams(optional)  contains one or more ApplicableExamCategory     |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 8.1 | ApplicableExamCategory   |  |  |  |  | | --- | --- | --- | --- | | 8.1.1 | Axis | "Modality" | "Anatomy" | Value can either Modality or Anatomy | | 8.1.2 | text |  | Applicable category text | | | | |
| 9 | ApplicableSexes   |  |  |  |  | | --- | --- | --- | --- | | 9.1 | Value | "Male"| "Female"|"Both" | Applicable sex | | | |
| 10 | ApplicableAgeGroups(optional)   |  |  |  |  | | --- | --- | --- | --- | | 10.1 | MinimumAge(optional) | xsd:nonNegativeInteger | applicable age min | | 10.2 | MaximumAge(optional) | xsd:nonNegativeInteger | applicable age max | | | |
| 11 | TextCues   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 11.1 | ContextPhrases(optional)  Can contain one or more phrases   |  |  |  |  | | --- | --- | --- | --- | | 11.1.1 | ContextPhrase | text | phrase to find out the xml | | | | | 11.2 | KeyWords  Keywords to find the module   |  |  |  |  | | --- | --- | --- | --- | | 11.2.1 | Keyword | text | Keywords to find out module | | | | | 11.3 | NegationPhrases(optional)  contains one or more navigationphrases   |  |  |  |  | | --- | --- | --- | --- | | 11.2.3 | NegationPhrase |  | Keywords to find out xml | | | | | 11.4 | Regex(optional) | text | Regex matches with test | | | |
| 12 | VoiceActivation(optional)  contains one or more VoiceCommandPhrase   |  |  |  |  | | --- | --- | --- | --- | | 12.1 | VoiceCommandPhrase | text | The voice activation phrase use to bring up the xml | | | |

Sample

<?xml version="1.0" encoding="UTF-8"?>  
<Metadata xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:noNamespaceSchemaLocation="ACRAssist\_xml\_schema\_v1\_0.xsd">  
 <Label>Label0</Label>  
 <ID>ID0</ID>  
 <SchemaVersion>SchemaVersion0</SchemaVersion>  
 <RuleVersion>RuleVersion0</RuleVersion>  
 <Info>  
 <Description>Description0</Description>  
 <References>  
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 </Citation>  
 <Citation PubmedId="PubmedId1" Url="http://www.oxygenxml.com/">  
 </Citation>  
 <Citation PubmedId="PubmedId2" Url="http://www.oxygenxml.com/">  
 </Citation>  
 <Citation PubmedId="PubmedId3" Url="http://www.oxygenxml.com/">  
 </Citation>  
 </References>  
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 <Diagram KeyDiagram="true" DisplaySequence="0">  
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 <Label>Label1</Label>  
 </Diagram>  
 <Diagram KeyDiagram="true" DisplaySequence="0">  
 <imageElements>http://www.oxygenxml.com/</imageElements>  
 <Label>Label2</Label>  
 </Diagram>  
 </Diagrams>  
 <HelpText>HelpText0</HelpText>  
 <Contact>  
 <Name>Name0</Name>  
 <Email>Email0</Email>  
 <Institution>Institution0</Institution>  
 </Contact>  
 </Info>  
 <ReportCitationText>ReportCitationText0</ReportCitationText>  
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 <Region Code="Code0">  
 </Region>  
 <Region Code="Code1">  
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 </AnatomicRegions>  
 <AnatomicRegions codingSystemAttr="codingSystemAttr1">  
 <Region Code="Code2">  
 </Region>  
 <Region Code="Code3">  
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 <PossibleDiagnoses CodingSystem="CodingSystem0">  
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 </Diagnosis>  
 <Diagnosis CodingSystem="CodingSystem2" Code="Code5">  
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 </Diagnosis>  
 <Diagnosis CodingSystem="CodingSystem5" Code="Code7">  
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 </ApplicableExamCategory>  
 </ApplicableExams>  
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 <ApplicableAgeGroups>  
 <MinimumAge>50</MinimumAge>  
 <MaximumAge>50</MaximumAge>  
 </ApplicableAgeGroups>  
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 <ContextPhrases>  
 <ContextPhrase>ContextPhrase0</ContextPhrase>  
 <ContextPhrase>ContextPhrase1</ContextPhrase>  
 </ContextPhrases>  
 <KeyWords>  
 <KeyWord>KeyWord0</KeyWord>  
 <KeyWord>KeyWord1</KeyWord>  
 </KeyWords>  
 <NegationPhrases>  
 <NegationPhrase>NegationPhrase0</NegationPhrase>  
 <NegationPhrase>NegationPhrase1</NegationPhrase>  
 </NegationPhrases>  
 <Regex>Regex0</Regex>  
 </TextCues>  
 <VoiceActivation>  
 <VoiceCommandPhrase>VoiceCommandPhrase0</VoiceCommandPhrase>  
 <VoiceCommandPhrase>VoiceCommandPhrase1</VoiceCommandPhrase>  
 </VoiceActivation>  
</Metadata>

## DataElements

The data element definitions specify the input values used to drive a decision tree, the constant values, and possibly intermediate or output values associated with an algorithm. Three main types of data elements can be described using the data format: external and fixed values, user-provided data, and results of computation. Schema supports the following DataElements.

#### ChoiceDataElement

ChoiceDataelement can be used when there is a pre-defined set of answers are available.

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Name** | **Data Type** | **Description / Usage** |
|  | Id | xsd:ID | DataElement identifier |
| 2 | CdeId (optional) | xsd:token | Common Data Element Id |
| 3 | IsRequired | "true" | "false" | Required Data Element or not. |
| 4 | DisplaySequence (optional)     |  |  |  |  | | --- | --- | --- | --- | | 4.1 | DisplaySequence | xsd:integer | Display sequence order | | | |
| 5 | Label | text | Choice data element label |
| 6 | Hint (optional) | text |  |
| 7 | diagrams(optional) Contains one or more diagrams   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 7.1 | diagram     |  |  |  |  | | --- | --- | --- | --- | | 7.1.1 | Location | text | Image location | | 7.1.2 | Label | text | Image Label | | 7.1.3 | DisplaySequence(optional) | xsd:integer | Image display sequence | | 7.1.4 | KeyDiagram(optional) | "true" | "false" | Is this the key diagram | | | | |
| 8 | VoiceCommand (optional) | text | Voice command to find the data element |
| 9 | ChoiceInfo Contains one or more choices   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 9.1 | Choice     |  |  |  |  | | --- | --- | --- | --- | | 9.1.1 | Value | xsd:token | Choice value | | 9.1.2 | Label | text | Choice Label | | 9.1.3 | Hint (optional) | text | Choice hint | | 9.1.4 | VoiceCommand (optional) | text | Voice command to identify the choice | | 9.1.5 | Default | "true" | "false" | Is this the default choice | | 9.1.6 | ReportText (optional) | text | Report text for the choice | | | | |
| 10 | ImageMap (optional)   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 10.1 | imageElements   |  |  |  |  | | --- | --- | --- | --- | | 10.1.1 | imageElements | xsd:anyURI | Image url | | 10.1.2 | Label(optional) | text | Image Label | | | 10.2 | DrawStyle (optional) draw style used in the image   |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | imageMapStyleAttributes   |  |  |  |  | | --- | --- | --- | --- | | 10.2.1 | Outline(optional) | text | Outline style | | 10.2.2 | HoverFill(optional) | text | HoverFill style | | 10.2.3 | SelectedFill(optional) | text | SelectedFill style | | | | 10.3 | Map   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 10.3.1 | Area   |  |  |  |  | | --- | --- | --- | --- | | 10.3.1.1 | Shape | "rect" | "poly" | "circle" | Shape of image map | | 10.3.1.2 | Coords | text | Image map coordinates | | 10.3.1.3 | ChoiceValue | xsd:token | Choice value for this image map | | 10.3.1.4 | imageMapStyleAttributes   |  |  |  |  | | --- | --- | --- | --- | | 10.3.1.4.1 | Outline(optional) | text | Outline style | | 10.3.1.4.2 | HoverFill(optional) | text | HoverFill style | | 10.3.1.4.3 | SelectedFill(optional) | text | SelectedFill style | | | | | | | | |

Sample

<ChoiceDataElement xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:noNamespaceSchemaLocation="ACRAssist\_xml\_schema\_v1\_0.xsd" Id="ID000" CdeId="CdeId0" IsRequired="true" DisplaySequence="50">  
 <Label>Label0</Label>  
 <Hint>Hint0</Hint>  
 <Diagrams>  
 <Diagram DisplaySequence="0" KeyDiagram="true">  
 <Location>Location0</Location>  
 <Label>Label1</Label>  
 </Diagram>  
 <Diagram DisplaySequence="0" KeyDiagram="true">  
 <Location>Location1</Location>  
 <Label>Label2</Label>  
 </Diagram>  
 </Diagrams>  
 <VoiceCommand>VoiceCommand0</VoiceCommand>  
 <ChoiceInfo>  
 <Choice Default="true">  
 <Value>Value0</Value>  
 <Label>Label3</Label>  
 <Hint>Hint1</Hint>  
 <VoiceCommand>VoiceCommand1</VoiceCommand>  
 <ReportText>ReportText0</ReportText>  
 </Choice>  
 <Choice Default="true">  
 <Value>Value1</Value>  
 <Label>Label4</Label>  
 <Hint>Hint2</Hint>  
 <VoiceCommand>VoiceCommand2</VoiceCommand>  
 <ReportText>ReportText1</ReportText>  
 </Choice>  
 <Choice Default="true">  
 <Value>Value2</Value>  
 <Label>Label5</Label>  
 <Hint>Hint3</Hint>  
 <VoiceCommand>VoiceCommand3</VoiceCommand>  
 <ReportText>ReportText2</ReportText>  
 </Choice>  
 </ChoiceInfo>  
 <ImageMap>  
 <imageElements>http://www.oxygenxml.com/</imageElements>  
 <Label>Label6</Label>  
 <DrawStyle Outline="Outline0" HoverFill="HoverFill0" SelectedFill="SelectedFill0"/>  
 <Map>  
 <Area Shape="rect" Coords="Coords0" ChoiceValue="ChoiceValue0" Outline="Outline1" HoverFill="HoverFill1" SelectedFill="SelectedFill1"/>  
 <Area Shape="rect" Coords="Coords1" ChoiceValue="ChoiceValue1" Outline="Outline2" HoverFill="HoverFill2" SelectedFill="SelectedFill2"/>  
 </Map>  
 </ImageMap>  
</ChoiceDataElement>

#### NumericDataElement

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Name** | **Data Type** | **Description / Usage** |
|  | Id | xsd:ID | DataElement identifier |
| 2 | CdeId (optional) | xsd:token | Common Data Element Id |
| 3 | IsRequired | "true" | "false" | Required Data Element or not. |
| 4 | DisplaySequence (optional)     |  |  |  |  | | --- | --- | --- | --- | | 4.1 | DisplaySequence | xsd:integer | Display sequence order | | | |
| 5 | Label | text | Choice data element label |
| 6 | Hint (optional) | text |  |
| 7 | diagrams(optional) Contains one or more diagrams   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 7.1 | diagram     |  |  |  |  | | --- | --- | --- | --- | | 7.1.1 | Location | text | Image location | | 7.1.2 | Label | text | Image Label | | 7.1.3 | DisplaySequence(optional) | xsd:integer | Image display sequence | | 7.1.4 | KeyDiagram(optional) | "true" | "false" | Is this the key diagram | | | | |
| 8 | VoiceCommand (optional) | text | Voice command to find the data element |
| 9 | Minimum(optional) | xsd:decimal | Minimum allowed value |
| 10 | Maximum(optional) | xsd:decimal | Maximum allowed value |

Sample

<NumericDataElement xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:noNamespaceSchemaLocation="ACRAssist\_xml\_schema\_v1\_0.xsd" Id="ID000" CdeId="CdeId0" IsRequired="true" DisplaySequence="50">  
 <Label>Label0</Label>  
 <Hint>Hint0</Hint>  
 <Diagrams>  
 <Diagram DisplaySequence="0" KeyDiagram="true">  
 <Location>Location0</Location>  
 <Label>Label1</Label>  
 </Diagram>  
 <Diagram DisplaySequence="0" KeyDiagram="true">  
 <Location>Location1</Location>  
 <Label>Label2</Label>  
 </Diagram>  
 </Diagrams>  
 <VoiceCommand>VoiceCommand0</VoiceCommand>  
 <Minimum>0</Minimum>  
 <Maximum>0</Maximum>  
</NumericDataElement>

#### IntegerDataElement

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Name** | **Data Type** | **Description / Usage** |
|  | Id | xsd:ID | DataElement identifier |
| 2 | CdeId (optional) | xsd:token | Common Data Element Id |
| 3 | IsRequired | "true" | "false" | Required Data Element or not. |
| 4 | DisplaySequence (optional)     |  |  |  |  | | --- | --- | --- | --- | | 4.1 | DisplaySequence | xsd:integer | Display sequence order | | | |
| 5 | Label | text | Choice data element label |
| 6 | Hint (optional) | text |  |
| 7 | diagrams(optional) Contains one or more diagrams   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 7.1 | diagram     |  |  |  |  | | --- | --- | --- | --- | | 7.1.1 | Location | text | Image location | | 7.1.2 | Label | text | Image Label | | 7.1.3 | DisplaySequence(optional) | xsd:integer | Image display sequence | | 7.1.4 | KeyDiagram(optional) | "true" | "false" | Is this the key diagram | | | | |
| 8 | VoiceCommand (optional) | text | Voice command to find the data element |
| 9 | Minimum(optional) | xsd:decimal | Minimum allowed value |
| 10 | Maximum(optional) | xsd:decimal | Maximum allowed value |

Sample

<IntegerDataElement xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:noNamespaceSchemaLocation="ACRAssist\_xml\_schema\_v1\_0.xsd" Id="ID000" CdeId="CdeId0" IsRequired="true" DisplaySequence="50">  
 <Label>Label0</Label>  
 <Hint>Hint0</Hint>  
 <Diagrams>  
 <Diagram DisplaySequence="0" KeyDiagram="true">  
 <Location>Location0</Location>  
 <Label>Label1</Label>  
 </Diagram>  
 <Diagram DisplaySequence="0" KeyDiagram="true">  
 <Location>Location1</Location>  
 <Label>Label2</Label>  
 </Diagram>  
 </Diagrams>  
 <VoiceCommand>VoiceCommand0</VoiceCommand>  
 <Minimum>0</Minimum>  
 <Maximum>0</Maximum>  
</IntegerDataElement>

### GlobalValue

The current schema allows the definition of global values, similar to constants in the C programming language that can be referred to elsewhere in the guideline. These are intended to be used to define threshold values or parameters in a linear regression. In keeping with the “don’t repeat yourself” principle, these can be specified once in a guideline definition; when thresholds change, the value needs to be updated in a simple location in the definition. This will also make sure same value is being used across the whole xml.

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Name** | **Data Type** | **Description / Usage** |
| 1 | Id | xsd:ID | identifier |
| 2 | text |  | Value |

Sample

<GlobalValue xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:noNamespaceSchemaLocation="ACRAssist\_xml\_schema\_v1\_0.xsd" Id="ID000">  
</GlobalValue>

### MultichoiceElement

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Name** | **Data Type** | **Description / Usage** |
|  | Id | xsd:ID | DataElement identifier |
| 2 | CdeId (optional) | xsd:token | Common Data Element Id |
| 3 | IsRequired | "true" | "false" | Required Data Element or not. |
| 4 | DisplaySequence (optional)     |  |  |  |  | | --- | --- | --- | --- | | 4.1 | DisplaySequence | xsd:integer | Display sequence order | | | |
| 5 | Label | text | Choice data element label |
| 6 | Hint (optional) | text |  |
| 7 | diagrams(optional) Contains one or more diagrams   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 7.1 | diagram     |  |  |  |  | | --- | --- | --- | --- | | 7.1.1 | Location | text | Image location | | 7.1.2 | Label | text | Image Label | | 7.1.3 | DisplaySequence(optional) | xsd:integer | Image display sequence | | 7.1.4 | KeyDiagram(optional) | "true" | "false" | Is this the key diagram | | | | |
| 8 | VoiceCommand (optional) | text | Voice command to find the data element |
| 9 | ChoiceInfo Contains one or more choices   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 9.1 | Choice     |  |  |  |  | | --- | --- | --- | --- | | 9.1.1 | Value | xsd:token | Choice value | | 9.1.2 | Label | text | Choice Label | | 9.1.3 | Hint (optional) | text | Choice hint | | 9.1.4 | VoiceCommand (optional) | text | Voice command to identify the choice | | 9.1.5 | Default | "true" | "false" | Is this the default choice | | 9.1.6 | ReportText (optional) | text | Report text for the choice | | | | |
| 10 | ImageMap (optional)   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 10.1 | imageElements   |  |  |  |  | | --- | --- | --- | --- | | 10.1.1 | imageElements | xsd:anyURI | Image url | | 10.1.2 | Label(optional) | text | Image Label | | | 10.2 | DrawStyle (optional) draw style used in the image   |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | imageMapStyleAttributes   |  |  |  |  | | --- | --- | --- | --- | | 10.2.1 | Outline(optional) | text | Outline style | | 10.2.2 | HoverFill(optional) | text | HoverFill style | | 10.2.3 | SelectedFill(optional) | text | SelectedFill style | | | | 10.3 | Map   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 10.3.1 | Area   |  |  |  |  | | --- | --- | --- | --- | | 10.3.1.1 | Shape | "rect" | "poly" | "circle" | Shape of image map | | 10.3.1.2 | Coords | text | Image map coordinates | | 10.3.1.3 | ChoiceValue | xsd:token | Choice value for this image map | | 10.3.1.4 | imageMapStyleAttributes   |  |  |  |  | | --- | --- | --- | --- | | 10.3.1.4.1 | Outline(optional) | text | Outline style | | 10.3.1.4.2 | HoverFill(optional) | text | HoverFill style | | 10.3.1.4.3 | SelectedFill(optional) | text | SelectedFill style | | | | | | | | |

Sample  
<MultiChoiceDataElement xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:noNamespaceSchemaLocation="ACRAssist\_xml\_schema\_v1\_0.xsd" Id="ID000" CdeId="CdeId0" IsRequired="true" DisplaySequence="50">  
 <Label>Label0</Label>  
 <Hint>Hint0</Hint>  
 <Diagrams>  
 <Diagram DisplaySequence="0" KeyDiagram="true">  
 <Location>Location0</Location>  
 <Label>Label1</Label>  
 </Diagram>  
 <Diagram DisplaySequence="0" KeyDiagram="true">  
 <Location>Location1</Location>  
 <Label>Label2</Label>  
 </Diagram>  
 </Diagrams>  
 <VoiceCommand>VoiceCommand0</VoiceCommand>  
 <ChoiceInfo>  
 <Choice Default="true">  
 <Value>Value0</Value>  
 <Label>Label3</Label>  
 <Hint>Hint1</Hint>  
 <VoiceCommand>VoiceCommand1</VoiceCommand>  
 <ReportText>ReportText0</ReportText>  
 </Choice>  
 <Choice Default="true">  
 <Value>Value1</Value>  
 <Label>Label4</Label>  
 <Hint>Hint2</Hint>  
 <VoiceCommand>VoiceCommand2</VoiceCommand>  
 <ReportText>ReportText1</ReportText>  
 </Choice>  
 <Choice Default="true">  
 <Value>Value2</Value>  
 <Label>Label5</Label>  
 <Hint>Hint3</Hint>  
 <VoiceCommand>VoiceCommand3</VoiceCommand>  
 <ReportText>ReportText2</ReportText>  
 </Choice>  
 </ChoiceInfo>  
 <ImageMap>  
 <imageElements>http://www.oxygenxml.com/</imageElements>  
 <Label>Label6</Label>  
 <DrawStyle Outline="Outline0" HoverFill="HoverFill0" SelectedFill="SelectedFill0"/>  
 <Map>  
 <Area Shape="rect" Coords="Coords0" ChoiceValue="ChoiceValue0" Outline="Outline1" HoverFill="HoverFill1" SelectedFill="SelectedFill1"/>  
 <Area Shape="rect" Coords="Coords1" ChoiceValue="ChoiceValue1" Outline="Outline2" HoverFill="HoverFill2" SelectedFill="SelectedFill2"/>  
 </Map>  
 </ImageMap>  
</MultiChoiceDataElement>

### ComputedElement

ComputedElements are effective when it comes to reusing the logic

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Name** | **Data Type** | **Description / Usage** |
| 1 | Id | xsd:ID | Identifier |
| 2 | DisplaySequence(optional) Display sequence   |  |  |  |  | | --- | --- | --- | --- | | 4.1 | DisplaySequence | xsd:integer | Display sequence number | | | |
| 3 | ShowValue(optional) | xsd:boolean | Help Text |
| 4 | Label(optional) | Text |  |
| 5 | Hint(optional) | text |  |
| 6 | Diagrams(optional)     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 6.1 | diagram     |  |  |  |  | | --- | --- | --- | --- | | 6.1.1 | Location | text | Image location | | 6.1.2 | Label | text | Image Label | | 6.1.3 | DisplaySequence(optional) | xsd:integer | Image display sequence | | 6.1.4 | KeyDiagram(optional) | "true" | "false" | Is this the key diagram | | | | |
| 7 | ComputedValue computed value contains either Arithmetic Expression or Text  expression those can be reused.   |  |  |  |  | | --- | --- | --- | --- | | 7.1 | ArithmeticExpression | text | Arithmetic expression for the computed value | | 7.2 | TextExpression Text expression can be written as simple  text expression. Or it can InsertValue  InsertValue   |  |  |  |  | | --- | --- | --- | --- | | 7.1.1 | DataElementId | xsd:IDREF | Image location | | 7.1.2 | SignificantDigits  (optional) | xsd:integer | Image Label | | | | | | |

Sample:

<ComputedElement xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:noNamespaceSchemaLocation="ACRAssist\_xml\_schema\_v1\_0.xsd" Id="ID000" DisplaySequence="50" ShowValue="false">  
 <Label>Label0</Label>  
 <Hint>Hint0</Hint>  
 <Diagrams>  
 <Diagram DisplaySequence="0" KeyDiagram="true">  
 <Location>Location0</Location>  
 <Label>Label1</Label>  
 </Diagram>  
 <Diagram DisplaySequence="0" KeyDiagram="true">  
 <Location>Location1</Location>  
 <Label>Label2</Label>  
 </Diagram>  
 </Diagrams>  
 <DecisionPoint>  
 <Branch>  
 <AndCondition>  
 <LessThanCondition DataElementId="ID000" ComparisonValue="ComparisonValue0"/>  
 <NotCondition>  
 </NotCondition>  
 <GreaterThanCondition DataElementId="ID000" ComparisonValue="ComparisonValue1"/>  
 </AndCondition>  
 <DecisionPoint/>  
 </Branch>  
 <Branch>  
 <LessThanCondition DataElementId="ID000" ComparisonValue="ComparisonValue2"/>  
 <DecisionPoint/>  
 </Branch>  
 <DefaultBranch>  
 <ArithmeticExpression>ArithmeticExpression0</ArithmeticExpression>  
 </DefaultBranch>  
 </DecisionPoint>  
</ComputedElement>

## Rules

Rules contain decisionpoint where each decisionpoint contain branches; each branch will end either in an endpoint or in a different decision point.

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Name** | **Data Type** | **Description / Usage** |
| 1 | Label | text | Decision point label. |
| 2 | Description(optional) | text | Decision point description |
| 3 | Branch  A branch either ends on an endpoint or on a decision point. The decision point can contain one more branches based on different conditions.   |  |  |  |  | | --- | --- | --- | --- | | 3.1 | Label(optional) | text |  | | 3.2 | BranchModifiers   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 3.2.1 | NotRelevantDataElements(optional)  this property can be used to specify the list the data elements which are not relevant for this branch     |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 3.2.1.1 | DataElementRef   |  |  |  |  | | --- | --- | --- | --- | | 3.2.1.1 | DataElementId | xsd:IDREF | DataelementId which is not relevant | | | | | | | 3.3 | ConditionType  below are the possible conditions in a branch   |  |  |  |  | | --- | --- | --- | --- | | 3.3.1 | AndCondition |  | Used to check the logical AND condition. The condition itself can have one more conditiontypes | | 3.3.2 | OrCondition |  | Used to check the logical OR condition. The condition itself can have one more conditiontypes | | 3.3.3 | NotCondition |  | Used to check the logical NOT condition. The condition itself can have one more conditiontypes | | 3.3.4 | EqualCondition  Compare given value with a data element  comparisonConditionContents   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 3.3.4.1 | dataElementIdAttribute  Data element used for comparison   |  |  |  |  | | --- | --- | --- | --- | | 3.34.1.1 | DataElementId | xsd:IDREF | DataelementId | | | | | 3.3.4.2 | ComparisonValue | xsd:token | Comparison value | | | | | 3.3.5 | GreaterThanCondition  Checks whether dataelement value is greater than given value   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 3.3.5.1 | dataElementIdAttribute  Data element used for comparison   |  |  |  |  | | --- | --- | --- | --- | | 3.3.5.1.1 | DataElementId | xsd:IDREF | DataelementId | | | | | 3.3.5.2 | ComparisonValue | xsd:token | Comparison value | | | | | 3.3.6 | LessThanCondition  Checks whether dataelement value is lesser than given value   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 3.3.6.1 | dataElementIdAttribute  Data element used for comparison   |  |  |  |  | | --- | --- | --- | --- | | 3.3.6.1.1 | DataElementId | xsd:IDREF | DataelementId | | | | | 3.3.6.2 | ComparisonValue | xsd:token | Comparison value | | | | | 3.3.7 | GreaterThanOrEqualsCondition  Checks whether dataelement value is greater than or equal to given value   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 3.3.7.1 | dataElementIdAttribute  Data element used for comparison   |  |  |  |  | | --- | --- | --- | --- | | 3.3.1.1.1 | DataElementId | xsd:IDREF | DataelementId | | | | | 3.3.7.2 | ComparisonValue | xsd:token | Comparison value | | | | | 3.3.8 | LessThanOrEqualsCondition  Checks whether dataelement value is lesser than or equal to given value   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 3.3.8.1 | dataElementIdAttribute  Data element used for comparison   |  |  |  |  | | --- | --- | --- | --- | | 3.3.8.1.1 | DataElementId | xsd:IDREF | DataelementId | | | | | 3.3.8.2 | ComparisonValue | xsd:token | Comparison value | | | | | 3.3.9 | ContainsCondition  Checks whether any part of the dataelement matches with the given value   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 3.3.9.1 | dataElementIdAttribute  Data element used to check contains condition   |  |  |  |  | | --- | --- | --- | --- | | 3.3.9.1 | DataElementId | xsd:IDREF | DataelementId | | | | | 3.3.9.2 | ComparisonValue | xsd:token | Comparison value | | | | | 3.3.10 | HasAnyNChoicesCondition   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 3.3.10.1 | dataElementIdAttribute  Data element used to check contains condition   |  |  |  |  | | --- | --- | --- | --- | | 3.3.10.1.1 | DataElementId | xsd:IDREF | DataelementId | | | | | 3.3.10.2 | MinimumChoices | xsd:positiveInteger | Comparison value | | | | | | | | 3.4 | EndpointRef  Contains either EndpointRef or DecisionPoint   |  |  |  |  | | --- | --- | --- | --- | | 3.4.1 | EndPointId | xsd:IDREF | The endpoint id reference. | | 3.4.2 | Label(optional) | text | Endpoint reference label | | 3.5.3 | Description(optional) | text | Endpoint reference description | | | | | 3.6 | DecisionPoint  Recursive, starts another decisionpoint | | | | | |
| 4 | DefaultBranch(optional)  Default branch if no other conditions met   |  |  |  |  | | --- | --- | --- | --- | | 4.1 | Label(optional) | text | Default branch label | | 4.2 | BranchModifiers   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 3.2.1 | NotRelevantDataElements(optional)  this property can be used to specify the list the data elements which are not relevant for this branch     |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 3.2.1.1 | DataElementRef   |  |  |  |  | | --- | --- | --- | --- | | 3.2.1.1 | DataElementId | xsd:IDREF | DataelementId which is not relevant | | | | | | | 4.3 | EndpointRef  Contains either EndpointRef or DecisionPoint   |  |  |  |  | | --- | --- | --- | --- | | 3.4.1 | EndPointId | xsd:IDREF | The endpoint id reference. | | 3.4.2 | Label(optional) | text | Endpoint reference label | | 3.5.3 | Description(optional) | text | Endpoint reference description | | | | | 4.5 | DecisionPoint  Recursive, starts another decisionpoint | | | | | |

Sample:

<?xml version="1.0" encoding="UTF-8"?>  
<Rules xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:noNamespaceSchemaLocation="file:/C:/Sujith/Work/ACR%20Assist/acr\_assist\_documents/XML%20Schema/ACRAssist\_xml\_schema\_v1\_0.xsd">  
 <DecisionPoint>  
 <Label>Label0</Label>  
 <Description>Description0</Description>  
 <Branch>  
 <Label>Label1</Label>  
 <NotRelevantDataElements>  
 <DataElementRef DataElementId="ID000"/>  
 <DataElementRef DataElementId="ID001"/>  
 </NotRelevantDataElements>  
 <EqualCondition DataElementId="ID002" ComparisonValue="ComparisonValue0"/>  
 <DecisionPoint/>  
 </Branch>  
 <Branch>  
 <Label>Label2</Label>  
 <NotRelevantDataElements>  
 <DataElementRef DataElementId="ID003"/>  
 <DataElementRef DataElementId="ID004"/>  
 </NotRelevantDataElements>  
 <OrCondition>  
 <AndCondition>  
 </AndCondition>  
 <GreaterThanOrEqualsCondition DataElementId="ID005" ComparisonValue="ComparisonValue1"/>  
 <ContainsCondition DataElementId="ID006" ComparisonValue="ComparisonValue2"/>  
 </OrCondition>  
 <DecisionPoint/>  
 </Branch>  
 <DefaultBranch>  
 <Label>Label3</Label>  
 <NotRelevantDataElements>  
 <DataElementRef DataElementId="ID007"/>  
 <DataElementRef DataElementId="ID008"/>  
 </NotRelevantDataElements>  
 <DecisionPoint/>  
 </DefaultBranch>  
 </DecisionPoint>  
</Rules>

## Endpoints

Each endpoint of the defined logic tree specifies actions to be taken when user inputs lead to that output.

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Name** | **Data Type** | **Description / Usage** |
| 1 | TemplatePartial   |  |  |  |  | | --- | --- | --- | --- | | 1.1 | id | xsd:id | Template partial identifier | | 1.2 | TextTemplateContent   |  |  |  |  | | --- | --- | --- | --- | | 1.2.1 | text |  |  | | 1.2.2 | templateTags  templateTags can be any of the following   * InsertValue * InsertPartial * SectionIf * SectionIfNot * SectionIfValue * SectionIfValueNot  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 1.2.2.1 | InsertValue   |  |  |  |  | | --- | --- | --- | --- | | 1.2.2.1.1 | DataElementId | xsd:IDREF | Endpoint reference label | | 1.2.2.1.2 | SignificantDigits(optional) | xsd:integer | Endpoint reference description | | | 1.2.2.2 | InsertPartial   |  |  |  |  | | --- | --- | --- | --- | | 1.2.2.2.1 | PartialId | xsd:IDREF | Endpoint reference label | | | 1.2.2.3 | SectionIf   |  |  |  |  | | --- | --- | --- | --- | | 1.2.2.3.1 | DataElementId | xsd:IDREF | Endpoint reference label | | 1.2.2.3.2 | TextTemplateContent  Recursive, can contain TextTemplateContent itself | | | | | 1.2.2.4 | SectionIfValue   |  |  |  |  | | --- | --- | --- | --- | | 1.2.2.4.1 | DataElementId | xsd:IDREF | Endpoint reference label | | 1.2.2.4.2 | ComparisonValue | xsd:token | Comparison value | | 1.2.2.4.3 | TextTemplateContent  Recursive, can contain TextTemplateContent itself | | | | | 1.2.2.5 | SectionIfNot   |  |  |  |  | | --- | --- | --- | --- | | 1.2.2.5.1 | DataElementId | xsd:IDREF | Endpoint reference label | | 1.2.2.5.2 | TextTemplateContent  Recursive, can contain TextTemplateContent itself | | | | | 1.2.2.6 | SectionIfValueNot   |  |  |  |  | | --- | --- | --- | --- | | 1.2.2.6.1 | DataElementId | xsd:IDREF | Endpoint reference label | | 1.2.2.6.2 | ComparisonValue | xsd:token | Comparison value | | 1.2.2.6.3 | TextTemplateContent  Recursive, can contain TextTemplateContent itself | | | | | | | | | | | | |
| 2 | Endpoint     |  |  |  |  | | --- | --- | --- | --- | | 2.1 | Id | xsd:ID | Endpoint identifier | | 2.2 | Label  (optional) | text | Endpoint Label | | 2.3 | Diagnosis can contain one or more diagnosis   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 2.3.1 | codeAttrs   |  |  |  |  | | --- | --- | --- | --- | | 2.3.1.1 | codingSystemAttr  (optional) | text | Author/Contact Name | | 2.3.1.2 | Code | xsd:token |  | | | | | | 2.4 | ReportTexts  Contains one or more report texts  ReportText   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 2.4.1 | sectionIdAttr   |  |  |  |  | | --- | --- | --- | --- | | 2.3.1.1 | SectionId | "findings" | "impression" | "recommendation" | "impressionRecommendation" | "citation" |  | | | 2.4.2 | TextTemplateContent   |  |  |  |  | | --- | --- | --- | --- | | 1.2.1 | text |  |  | | 1.2.2 | templateTags  templateTags can be InsertValue OR| InsertPartial OR SectionIf | SectionIfNot | SectionIfValue | SectionIfValueNot   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 1.2.2.1 | InsertValue   |  |  |  |  | | --- | --- | --- | --- | | 1.2.2.1.1 | DataElementId | xsd:IDREF | Endpoint reference label | | 1.2.2.1.2 | SignificantDigits | xsd:integer | Endpoint reference description | | | 1.2.2.2 | InsertPartial   |  |  |  |  | | --- | --- | --- | --- | | 1.2.2.2.1 | PartialId | xsd:IDREF | Endpoint reference label | | | 1.2.2.3 | SectionIf   |  |  |  |  | | --- | --- | --- | --- | | 1.2.2.3.1 | DataElementId | xsd:IDREF | Endpoint reference label | | 1.2.2.3.2 | TextTemplateContent  Recursive, can contain TextTemplateContent itself | | | | | 1.2.2.4 | SectionIfValue   |  |  |  |  | | --- | --- | --- | --- | | 1.2.2.4.1 | DataElementId | xsd:IDREF | Endpoint reference label | | 1.2.2.4.2 | ComparisonValue | xsd:token | Comparison value | | 1.2.2.4.3 | TextTemplateContent  Recursive, can contain TextTemplateContent itself | | | | | 1.2.2.5 | SectionIfNot   |  |  |  |  | | --- | --- | --- | --- | | 1.2.2.5.1 | DataElementId | xsd:IDREF | Endpoint reference label | | 1.2.2.5.2 | TextTemplateContent  Recursive, can contain TextTemplateContent itself | | | | | 1.2.2.6 | SectionIfValueNot   |  |  |  |  | | --- | --- | --- | --- | | 1.2.2.6.1 | DataElementId | xsd:IDREF | Endpoint reference label | | 1.2.2.6.2 | ComparisonValue | xsd:token | Comparison value | | 1.2.2.6.3 | TextTemplateContent  Recursive, can contain TextTemplateContent itself | | | | | | | | | | | | 2.5 | ActionableFinding   |  |  |  |  | | --- | --- | --- | --- | | 1.2.2.6.1 | Category | text |  | | | | | 2.6 | ImagingFollowup(optional) Imagingfollowup for each exam   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 2.6.1 | recommendationBase   |  |  |  |  | | --- | --- | --- | --- | | 2.6.1 | ClinicalCondition | text | Endpoint reference label | | 2.6.2 | References  Citation must be non-empty   |  |  |  |  | | --- | --- | --- | --- | | 5.2.1 | PubmedId (optional) | xsd:token | Reference Identifier | | 5.2.2 | URI (optional) | xsd:anyURI | ReferenceUrl | | 5.2.3 | Text |  | citation text | | | | | 2.6.3 | EvidenceLevel   |  |  |  |  | | --- | --- | --- | --- | | 2.6.3.1 | codingSystemAttr  (optional) | text | Author/Contact Name | | 2.6.3.2 | Code | xsd:token |  | | 2.6.3.3 | xsd:token |  |  | | | | | | 2.6.2 | PreferredImagingExam   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 7.1.2.1 | codeAttrs   |  |  |  |  | | --- | --- | --- | --- | | 7.1.2.1.1 | codingSystemAttr  (optional) | text | Author/Contact Name | |  | Code | xsd:token |  | | | | 2.6.3 | AcceptableImagingExams   |  |  |  |  | | --- | --- | --- | --- | | 2.6.1 | Category | text | Endpoint reference label | | 2.6.2 | CodeSystem | text |  | | 2.6.3 | Modality | text |  | | 2.6.4 | BodyRegion | text |  | | 2.6.5 | text |  |  | | | 2.6.4 | IndicationForFollowup   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 7.1.2.1 | codeAttrs   |  |  |  |  | | --- | --- | --- | --- | | 7.1.2.1.1 | codingSystemAttr  (optional) | text | Author/Contact Name | |  | Code | xsd:token |  | | | | 2.6.5 | timeFrame   |  |  |  |  | | --- | --- | --- | --- | | 2.6.1 | Earliest | text | Endpoint reference label | | 2.6.2 | Latest | text |  | | 2.6.5 | empty |  |  | | | | | | | |

Sample

<EndPoint xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="ACRAssist\_xml\_schema\_v1\_0.xsd" Id="ID000">  
 <Label>Label0</Label>  
 <Diagnosis CodingSystem="CodingSystem0" Code="Code0">  
 </Diagnosis>  
 <ReportTexts>  
 <ReportText SectionId="findings">  
 <SectionIf DataElementId="ID000">  
 </SectionIf>  
 <SectionIfValueNot DataElementId="ID000" ComparisonValue="ComparisonValue0">  
 </SectionIfValueNot>  
 </ReportText>  
 <ReportText SectionId="findings">  
 <SectionIfValue DataElementId="ID000" ComparisonValue="ComparisonValue1">  
 </SectionIfValue>  
 <InsertValue DataElementId="ID000" SignificantDigits="0"/>  
 </ReportText>  
 <ReportText SectionId="findings">  
 <InsertValue DataElementId="ID000" SignificantDigits="0"/>  
 <InsertValue DataElementId="ID000" SignificantDigits="0"/>  
 </ReportText>  
 <ReportText SectionId="findings">  
 <SectionIfNot DataElementId="ID000">  
 </SectionIfNot>  
 <InsertValue DataElementId="ID000" SignificantDigits="0"/>  
 </ReportText>  
 </ReportTexts>  
 <ActionableFinding Category="Category0"/>  
 <ImagingFollowup>  
 <Exam Code="Code1" CodeSystem="CodeSystem0" Modality="Modality0" BodyRegion="BodyRegion0">  
 </Exam>  
 <Exam Code="Code2" CodeSystem="CodeSystem1" Modality="Modality1" BodyRegion="BodyRegion1">  
 </Exam>  
 </ImagingFollowup>  
</EndPoint>