Business Rules Template Data Module

This presentation is made on behalf of Business Rules Working Group (BRWG)
Compiled by Victoria Ichizli-Bartels (BRWG Chair)

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Agenda

1. Generating and using Business Rules: Where to use the Business Rule template

2. BRDP relationships table for Issue 4.1: Business Rule template in Excel workbook format

3. An overview of the BR template data module: Its structure

4. An example of BR template data module use in a project BR document data module: Example of BRDP decision from Agenda item 3

5. Invitation to participate in compiling and maintaining information for BR template data module
1. Generating and using Business Rules: Where to use the Business Rule template
Information flow during business rule decision making process

Project/organization specific

BR document data modules brdoc.xsd

Project BREX (Note) brex.xsd

Project data modules and multimedia

Project PM pm.xsd

BR checker

BR-report provided by “BREX rules checker “

QA feedback

See Chapters 2.5 & 4.10
This diagram is a typical flow for project business rules generation.
2. BRDP relationships table for Issue 4.1: Business Rule template in Excel workbook format
It all started with *Business rules decision points (BRDP) index* (Chapter 2.5.3) which turned out **not** to be enough

<table>
<thead>
<tr>
<th>BRDP reference/location</th>
<th>BRDP unique identifier</th>
<th>BRDP title</th>
<th>BRDP definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chap 3.4.3</td>
<td></td>
<td>No BRDP</td>
<td></td>
</tr>
<tr>
<td>Chap 3.4.3.1</td>
<td></td>
<td>No BRDP</td>
<td></td>
</tr>
<tr>
<td>Chap 3.4.3.2</td>
<td></td>
<td>No BRDP</td>
<td></td>
</tr>
<tr>
<td>Chap 3.5</td>
<td></td>
<td>No BRDP</td>
<td></td>
</tr>
<tr>
<td>Chap 3.6</td>
<td>BRDP-S1-00012</td>
<td>Define security classification values and terms (attribute securityClassification)</td>
<td>Decide which values to use for the attribute securityClassification and allocate suitable definitions. Refer to Chap 3.9.6.1.</td>
</tr>
<tr>
<td>Para 2.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chap 3.6</td>
<td>BRDP-S1-00013</td>
<td>Use and markings of security classifications (attribute securityClassification)</td>
<td>Determine how the security classifications will be used.</td>
</tr>
<tr>
<td>Para 2.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chap 3.6</td>
<td>BRDP-S1-00014</td>
<td>Application of caveats</td>
<td>Determine if the policies that apply to security marking, instructions, etc, and how those markings are required to be applied within the given project.</td>
</tr>
</tbody>
</table>
BRDP relationships table (multi-sheet) = Business Rule template in Excel Workbook format
(for Issue 4.2 it will be available only in XML format)

<table>
<thead>
<tr>
<th>BRDP_ID</th>
<th>BRDP_Definition</th>
<th>Attribute_Indicating_Relationship_to_Config_Att</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRDP-S1-00010</td>
<td>Decide whether to use a zoning and access identification system.</td>
<td>None</td>
</tr>
<tr>
<td>BRDP-S1-00011</td>
<td>Decide which method to use for zoning and identifying access points.</td>
<td>None</td>
</tr>
<tr>
<td>BRDP-S1-00012</td>
<td>Decide which values to use for the attribute securityClassification and allocate suitable definitions.</td>
<td>securityClassificationAttRelation</td>
</tr>
<tr>
<td>BRDP-S1-00013</td>
<td>Determine how the security classifications will be used.</td>
<td>securityClassificationAttRelation</td>
</tr>
<tr>
<td>BRDP-S1-00014</td>
<td>Determine if the policies that apply to security marking, instructions, etc, and how those markings are required to be applied within the given project.</td>
<td>caveatAttRelation</td>
</tr>
<tr>
<td>BRDP-S1-00015</td>
<td>Decide on the retention of security classifications.</td>
<td>None</td>
</tr>
<tr>
<td>BRDP-S1-00016</td>
<td>Decide on how the security classifications will be marked and/or indicated.</td>
<td>None</td>
</tr>
<tr>
<td>BRDP-S1-00017</td>
<td>Decide on the rules for QA of data modules and deliverables.</td>
<td>None</td>
</tr>
<tr>
<td>BRDP-S1-00018</td>
<td>Decide on the rules for first and second verification. For example, such a rule might be that all data modules that have a safety related procedure must have first verification carried out &quot;On object&quot;.</td>
<td>None</td>
</tr>
</tbody>
</table>

(1) Location in the document where it is defined
   (for BRDP-S1-NNNNN, it is S1000D Chapter and Paragraph)
(2) BR categories
(3) S1000D Schemas
(4) All configurable attributes (project attributes and @quantityUnitOfMeasure)
<table>
<thead>
<tr>
<th>BRDP_ID</th>
<th>BRDP_Definition</th>
<th>BRDP_VALUE</th>
<th>BRDP_VALUE_SELECTION</th>
<th>BRDP_VALUE_DESC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRDP-S1-00001</td>
<td>Decide whether and when to use the alpha characters &quot;I&quot; and &quot;O&quot;.</td>
<td>Yes</td>
<td>single</td>
<td></td>
</tr>
<tr>
<td>BRDP-S1-00001</td>
<td>Decide whether and when to use the alpha characters &quot;I&quot; and &quot;O&quot;.</td>
<td>No</td>
<td>single</td>
<td></td>
</tr>
<tr>
<td>BRDP-S1-00002</td>
<td>Create a list of permitted CAGE codes and/or names of the originator companies.</td>
<td>_blank</td>
<td>multiple</td>
<td>A set of five character codes assigned by NSPA</td>
</tr>
<tr>
<td>BRDP-S1-00003</td>
<td>Decide which issue or issues of S1000D to be used.</td>
<td>S1000D_1-7</td>
<td>multiple</td>
<td>S1000D Issue 1.7</td>
</tr>
<tr>
<td>BRDP-S1-00003</td>
<td>Decide which issue or issues of S1000D to be used.</td>
<td>S1000D_1-8</td>
<td>multiple</td>
<td>S1000D Issue 1.8</td>
</tr>
<tr>
<td>BRDP-S1-00003</td>
<td>Decide which issue or issues of S1000D to be used.</td>
<td>S1000D_1-8-1</td>
<td>multiple</td>
<td>S1000D Issue 1.8.1</td>
</tr>
<tr>
<td>BRDP-S1-00003</td>
<td>Decide which issue or issues of S1000D to be used.</td>
<td>S1000D_1-9</td>
<td>multiple</td>
<td>S1000D Issue 1.9</td>
</tr>
<tr>
<td>BRDP-S1-00003</td>
<td>Decide which issue or issues of S1000D to be used.</td>
<td>S1000D_2-0</td>
<td>multiple</td>
<td>S1000D Issue 2.0</td>
</tr>
<tr>
<td>BRDP-S1-00003</td>
<td>Decide which issue or issues of S1000D to be used.</td>
<td>S1000D_2-1</td>
<td>multiple</td>
<td>S1000D Issue 2.1</td>
</tr>
<tr>
<td>BRDP-S1-00003</td>
<td>Decide which issue or issues of S1000D to be used.</td>
<td>S1000D_2-2</td>
<td>multiple</td>
<td>S1000D Issue 2.2</td>
</tr>
<tr>
<td>BRDP-S1-00003</td>
<td>Decide which issue or issues of S1000D to be used.</td>
<td>S1000D_2-3</td>
<td>multiple</td>
<td>S1000D Issue 2.3 Patch</td>
</tr>
</tbody>
</table>

- **BRDP value**
- **How many values are allowed:** one or more
- **Description of the given value where necessary**
3. An overview of the BR template data module: Its structure
Where the content of the BR template or any BR document data module starts

```
<content>
  ...
  <brDoc>
    <brLevelledPara>
      <brPara brDecisionPointUniqueIdent="BRDP-S1-00001">
        ...
      </brPara>
      ...
    </brLevelledPara>
  </brDoc>
</content>
```

A `<brPara>` embraces a Business Rules Decision Point and the decision (BR decision) taken upon it
BRDP relationships and BRDP values inside brDoc Schema

Attribute brDecisionPointUniqueIdent
“Related to” structure in the brDoc Schema

BRDP relationships are defined in the `<brRelatedTo>` structure:

1. Where each BRDP is defined (S1000D Chapter and Paragraph)
2. BR categories
3. S1000D Schemas
4. All configurable attributes (project attributes and @quantityUnitOfMeasure)
5. Remarks for project/organization use

The Excel file mirrors this structure.
And the BRDP values

How many values are allowed: one or more

BRDP value

Description of the given value where necessary
Excerpt from the future BR template data module

<!-- Each BRDP is included in a separate <brPara> -->
<!-- Note - The unique identifier for BRDP is placed on the element <brPara>. -->
<brPara brDecisionPointUniqueIdent="BRDP-S1-00001">
<!-- Relationship information -->
<brRelatedTo>
<!-- Source reference -->
<sourceDocRef>
<dmRef referredFragment="Para_6.2.4">
<dmRefIdent>
<dmCode modelIdentCode="S1000D" systemDiffCode="A“ systemCode="01"
subSystemCode="0" subSubSystemCode="3" assyCode="00" disassyCode="00"
disassyCodeVariant="00A“ infoCode="040" infoCodeVariant="A“ itemLocationCode="A“/>
</dmRefIdent>
<dmRefAddressItems>
<dmTitle>
<techName>How to use the specification</techName>
</dmTitle>
</dmRefAddressItems>
</dmRef>
</sourceDocRef>
Excerpt from the future BR template data module

<!-- Applicable category -->
<brCategoryGroup>
<brCategory brCategoryNumber="Cat002">
  <title>Product definition business rules</title>
  <brCategoryDescription>
    <para>Product definition business rules cover the data module coding strategy related to how the Product is broken down (eg, physical or functional). Included is the definition of the model identification codes to be used in the Product and its subsystems. Supplier subsystems and identifications also need to be considered.</para>
  </brCategoryDescription>
</brCategory>
</brCategoryGroup>
Excerpt from the future BR template data module

<!-- Schemas applicable to the given Issue of S1000D. -->
<s1000dSchemas appliccrossreftable="1" brDoc="1" brex="1" checklist="1" comment="1" comrep="1" condcrossreftable="1" container="1" crew="1" ddn="1" descript="1" dml="1" fault="1" frontmatter="1" icnMetadata="1" ipd="1" learning="1" pm="1" prdcrossreftable="1" proced="1" process="1" sb="1" schedul="1" scocontent="1" scormcontentpackage="1" update="1" wrngdata="1" wrngflds="1"/>
<!-- End of relationship information definition -->
</brRelatedTo>
Excerpt from the future BR template data module

<!-- BRDP content including the title, the text and BRDP value definition. -->
<brDecisionPointContent>
  <title>Use of "I" and "O"</title>
  <brDecisionPointText>Decide whether and when to use the alpha characters "I" and "O".</brDecisionPointText>
  <brDecisionPointValueGroup brDecisionValueSelection="single">
    <brDecisionPointValue brDecisionValueAllowed="Yes"/>
    <brDecisionPointValue brDecisionValueAllowed="No"/>
  </brDecisionPointValueGroup>
</brDecisionPointContent>

<brDecision>
  <brDecisionPending/>
</brDecision>

<!-- Placeholder for business rule decisions for a project and/or organization. -->
<brDecisionPending/>
</brDecision>
</brPara>
4. An example of a BR template data module use in a project BR document data module: Example of BRDP decision from Agenda item 3
The same as above for the given BRDP with the exception that the BR decision is now filled out with the corresponding decision:

```xml
<brDoc>
  <brLevelledPara>
    <brPara brDecisionPointUniqueIdent="BRDP-S1-00001">
      ...
    </brPara>
    <brDecision>
      <brDecisionValueGroup>
        <brDecisionValue brDecisionValueRegistered="No">
          <brDecisionValueComment>The alpha characters "I" and "O" must not be used in any SDC, SNS, or DC/DCV.</brDecisionValueComment>
        </brDecisionValue>
      </brDecisionValueGroup>
    </brDecision>
    </brPara>
  </brLevelledPara>
</brDoc>
```
5.
The work on the Business Rule template is complete for BRDP relationships but is not finalized for BRDP values.

We invite you to join us at BRWG meetings to continue and complete this work.

It is in all our interests to have the information as complete and as qualitative as possible.
THANK YOU

If you have access to the S1000D Membership environment KAVI, then join BRWG and you will have access to our calendar and information.

If not, contact your national S1000D representative for a permission to join.