Blaise as a Form Engine

Implementation of Blaise 5 web questionnaires into an existing Business Survey Management System

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Intro: IBS

• ”IndBeretningsSystem” = Data Report System
• Developed in 2006
• Administration of Business Surveys
  – Survey management
  – Form management
  – Sample management
  – Respondent management (non-response etc.)
• Etc.
Intro: XIS

- Xml Input System
- Backend database for Business Survey Data
- Developed in 2005
- Controlled input and output of data from Data Reports
- Repository containing Data Report Definitions for every (version of a) Questionnaire
- Describing data in a simple, hierarchical structure
Intro: Data Reports

• Aka. ”questionnaires”, Web Forms
• Since 2006 developed in MS Infopath
• Microsoft announced the discontinuation of support of Infopath by 2022
• Choice:
  – Make our own
  – Find something on the market
• Blaise 5 selected
Intro: VIRK

• Government Enterprise Portal
• Easy access for companies to interact with government institutions and authorities
• Also for statistical Data Reporting
• Centralized setup for authentication and authorization
• ... including some general restrictions about layout
Intro: Overview

Survey management

IBS

Repository
Data Report Definitions

Backend database
XIS

VIRK
Authentication etc.

Dissemination, Data editing, etc.

Web Forms
The task: Integration of Blaise 5

- Role of Blaise: Form Engine
- Authentication and authorization (VIRK)
- Compliance with the backend database (XIS)
  - Data from XIS at form start
  - Data back to XIS at form end
XIS: Restrictions

- Data types:
  - String, max. 2000 chars.
  - Integer
  - Real
  - Group
    - Any of the 4 types
    - May be ”repeated”
# Mapping of field types

<table>
<thead>
<tr>
<th>Blaise type</th>
<th>Form Report Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enumeration</td>
<td>String or integer: always store the code</td>
</tr>
<tr>
<td>Set</td>
<td>String: comma-separated list of codes</td>
</tr>
<tr>
<td>Datetype</td>
<td>String: YYYY-MM-DD format</td>
</tr>
<tr>
<td>Timetype</td>
<td>String: HH:MM:SS format</td>
</tr>
<tr>
<td>Real, Real ranges</td>
<td>Float</td>
</tr>
<tr>
<td>Integer, Integer ranges</td>
<td>Integer</td>
</tr>
<tr>
<td>String, Open</td>
<td>String</td>
</tr>
<tr>
<td>Classification</td>
<td>String</td>
</tr>
<tr>
<td>Block</td>
<td>Group</td>
</tr>
<tr>
<td>Arraytype</td>
<td>Group, repeated</td>
</tr>
</tbody>
</table>
XIS: Model template

datamodel MySurvey

  block BStamdata ...

  block BMetadata ...

  block BIndberetning ...

endmodel
Ressource database

- Field references
- Type references
- Master template
- Other page templates
Utility: Verificator

- Verification
  - Does the Blaise datamodel conform to the Data Report Definition (XIS)?
Utility: Generator

• Generation from metadata
  – Existing generator used (see IBUC 2013-paper)
  – Based on structured Word-documents
  – A new set of templates
  – (small) structural changes
  – Designers filling word documents with data from existing descriptions in Excel-sheets
Planning the future

• Autogeneration from Excel descriptions
• Improving verification
• Considering and experimenting with Blaise Colectica Questionnaire Generator
• Planning for upgrades of Blaise 5
Planning the future, 2

• New requirements for Web forms
• Inherited from the VIRK framework
• Adaption of ”US Web Design Standards”

➢ New standard ressource database
➢ Need: A ressource DB dictatorship
Status, October 2018

• One questionnaire ready for production
• Training course for Designers and IT support
• Three more questionnaires under development
• Testing of the system has been carried out
• Four questionnaires should be in production by the end of 2018
• Some 65-70 questionnaires to come...