Running Blaise 5 as Standalone

By Roberto Picha
& Mecene Desormice
Why are we doing this?
Overview

- Current process Blaise 4 standalone
  - Interviewer Laptop
  - Testing environment
    - Internal
    - Stakeholder

- Future process Blaise 5 standalone
  - Can we do it
  - The challenges
  - The steps
Current Process Blaise 4

- Laptops configuration
  - Executables location
    - `C:\WinCM\App\Blaise\Version`
      - Manipula
      - Databrowser
      - Hospital
  - Survey location
    - `C:\WinCM\Studies\data\SurveyID\e-inst`
      - Metafiles(bmi)
- Blaise bdb as part of the blob in the CM database
Current Process Cont.

- **Testing configuration**
  - Over the Network
  - Running local drive
  - Running in VDI

- **In house testing environment**
  - `\\UNC\TmoBuilds\Blaise\version`
  - `\\UNC\TmoBuilds\Survey\survey-version\e-inst`
  - Blaise bdb created at runtime

- **Stakeholder configuration**
  - `C:\<location>\Blaise\version`
  - `C:\<location>\Survey\version\e-inst`
  - Blaise bdb created at runtime
Future Process Blaise 5

- We want to keep it the same
- We do **not** want to make changes... at least not yet!!!!
So, what is next?
First question

- Software required
  - Identify only what is required
  - Server, is it required?
    - Need to run without any services or servers
      - Small simplified configuration
Second question

- Installing the package
  - Server Manager
    - Too many dependencies
    - The package name differ from project name
      - All our surveys have the same metafile name: Inst.bmi
      - Standardizing to our current naming convention
The Challenge

- Looking under the hood
  - The software
  - Configuration

- The need of a tool to
  - Deal with Databases and tables
    - The steps for setting the environment
    - The steps for installing the package
  - Reduce the number of dependencies
Under the Hood

- **DEP service**
  - Dep.exe inst.bpkg
    - DEP prepares the environment for running a survey
      - Based on the dep.exe.config
    - DEP creates the Qlite databases and tables
    - DEP retrieves information from the metafile and updates table with
      - CheckSum
      - InstrumentID
      - Project name
      - Project location
Automating the process to run as standalone

- Two things to accomplish
  - Placing the necessary components
    - Software and environment
  - Installing package
    - Driven by a instr.config
    - The package itself

- How to accomplish it
  - Small vb script
Automating: Environment and the Instrument package
Steps

- Preparing environment
  - Software
- Configuration
- Databases
- Installing Package
  - Containing the metafile and any required files to run the instrument
- Putting all together
  - Vb script doing it for us
The steps Cont.

1. **Preparation environment**
   - Getting the necessary files
     - DEP Configuration file
     - Executables
       - DEP.exe
       - Manipula.exe
     - Additional libraries
       - Dep.Resources.dll
       - System.Data.SQLite.dll
   - Extra tool
     - QLite_DbCreator.exe
The steps Cont.

2. Configuration

- The Dep.exe.config
  - Indicates where the instrument resides

```xml
<configuration>
  <appSettings>
    <add key="ExternalCommunicationAddress" value="http://localhost:8033"/>
    <add key="DeployFolder" value="C:\temp\Standalone"/>
    <add key="ConfigurationDatabase" value="RuntimeConfiguration.db"/>
    <add key="ManagementCommunicationPort" value="8031"/>
    <add key="InternalCommunicationPort" value="8032"/>
    <add key="ExternalCommunicationPort" value="8033"/>
    <add key="ServerManagerDatabase" value="ServerManagerDatabase.db"/>
    <!-- add key="CertificateStoreName" value="My" /> -->
    <add key="CertificateStoreLocation" value="LocalMachine" />
    <add key="CertificateThumbprint" value="7F94601C4FC2EE71C8AAC02947607F2E2CEEE4D2" -->
  </appSettings>
  <!--<startup><supportedRuntime version="v4.0" sku=".NETFramework,Version=v4.5.1"/></startup>-->
</configuration>
```
The steps Cont.

3. Creating database and tables

- The databases
  - ServerManager.db
  - Configuration.db

- Tables to load
  - Configuration
  - Server
  - Park
  - Logical
The steps cont…

4. Installing the instrument package

- Using the vbs script to
  - Run QLite_DbCreator
    - Update tables
    - Instr.config file containing the following information
      - Instrument ID
      - Checksum
      - Server name
      - Project name
      - Instrument location
The final step

5. Launching the instrument
   - Hybrid approach
     1. Run Manipula to
        - Read from CM & write to case
     2. To launch the DEP
        - Conduct interview
     3. Run Manipula to
        - Write and update
        - Spawn cases
The final step cont...

SQLite_DBCreator

Dep.exe.config

Folder Environment

Instrument Package

SQLite file

Qlite databases

Interviewer Laptop

Interviewer
Final Remarks

The road was bumpy but...
- We were successful in running as standalone
  - Hybrid approach
  - Places us where we want to be if we ever move to Blaise 5

Found few glitches
- Not all msux are part of the package
- We should be able to have individual bdbx and launch cases as we do for Blasie 4.

We would like to recommend
- The server manager with less dependencies
- Notify if there are changes to the Services databases
- Ability to access the metafile
  - Instrument ID
  - Checksum

“Absorb what is useful, Discard what is not, Add what is uniquely your own”
- Bruce Lee
Thank You!

QUESTIONS

Roberto Picha
Contact info: Roberto.v.picha@census.gov

Mecene Desormice
Contact Info: Mecene.desormice@census.gov