Blaise 5 with RTI's Integrated Field Management System on Field Interviewer Laptops

International Blaise Users Conference, October 2018

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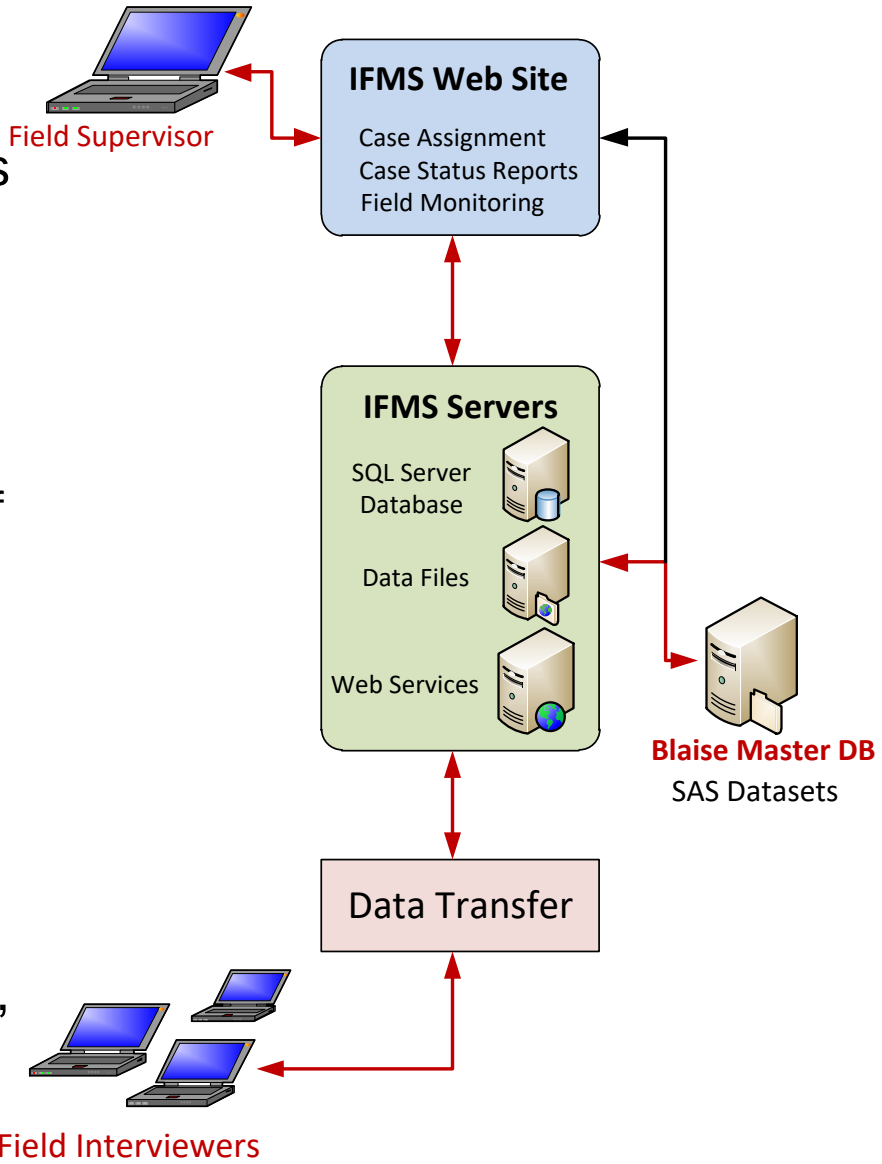
Outline

- Integrated Field Management System (IFMS)
- Case Management System (CMS)
- CMS with Blaise Instruments on Laptop
  - Set of Manipula Scripts
  - Converting Scripts to Blaise 5
  - Deployment of Blaise 5 Instrument
  - Installation of Manipula Scripts
  - Audit Data Extraction for a Case
- Conclusion

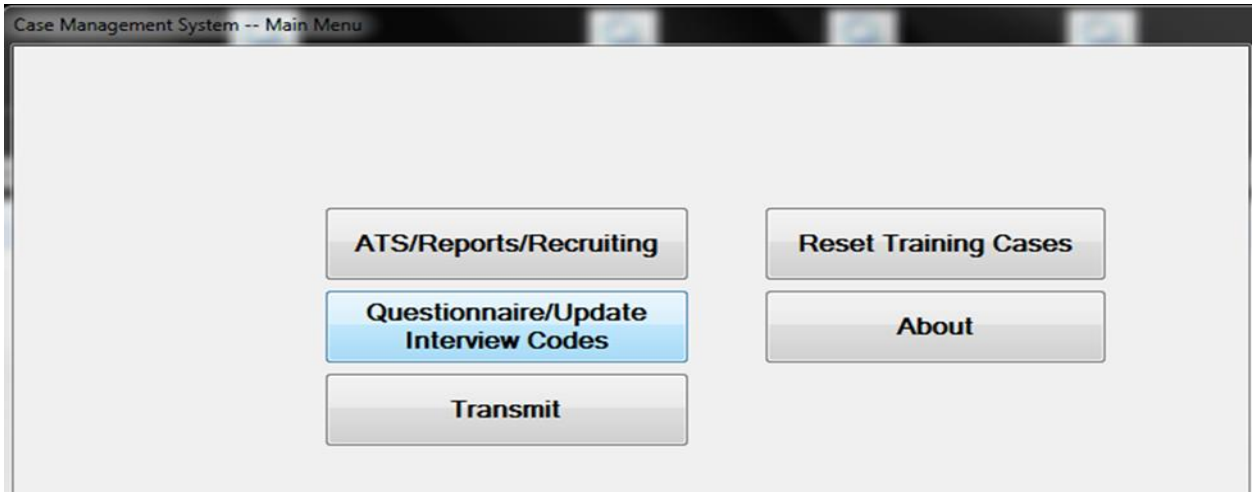
Integrated Field Management System (IFMS)

- IFMS is RTI's standard case management system that supports all field studies on laptops and handhelds
- IFMS is a web-based application responsible for:
  - Electronic assignment to field staff
  - Transfer of cases
  - Data transmission
  - Field monitoring
  - Standard reports
  - Laptop case management
- Assigned cases are loaded in the laptop's database (Blaise, MySQL, and SQLite)



Case Management System (CMS) - Overview

- CMS is a .NET application installed on laptops, works hand in glove with IFMS, allowing FIs to:
  - Download and upload cases
  - Update event and status for a case
  - Synchronize the status of cases with a centralized SQL Server database
  - Launch instruments
  - Enter comments for a case, and much more
- CMS works with various software packages including Blaise



Case Management System (CMS) - Changes

- CMS uses configuration table to invoke an appropriate CAI package

SampleID	StudyDir	DisplayName	Mock	ShipOutStatus	MinStat_Interview	CAIPkgType	InstDBDef
1	TESTB5	TESTB5 Instrument	0	2000	1036	B5	TESTB5
2	TESTB5Tr	TESTB5 Instrument - Training	1	2000	1036	B5	TESTB5

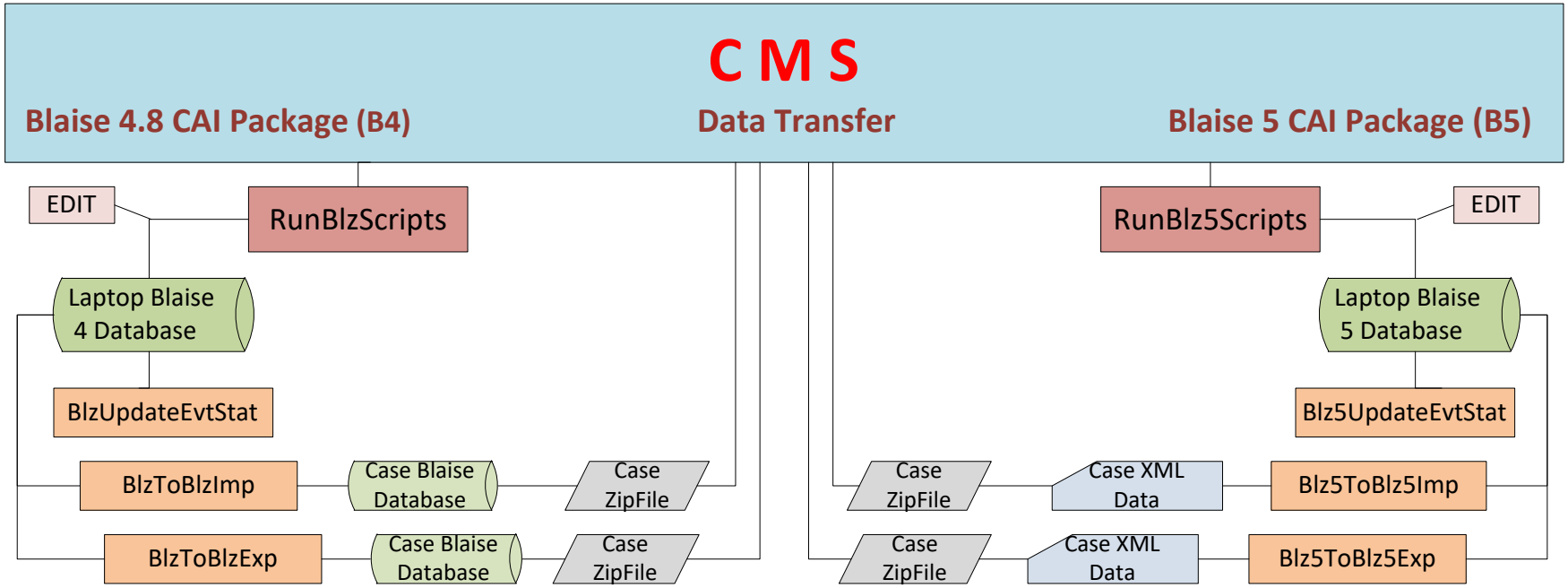
- CAI package methods applied for any case on the laptop:
  - **Import** (load a case into the laptop database)
  - **Update event and status** codes for a case
  - **Invoke** an instrument for a case
  - **Export** (extract a case from the laptop database)

Case ID	Evt	Event Text	Stat	Status Text
T000001P	1036	No action taken	1036	No action taken
T000002P	1203	No one home	1203	No one home
T000003P	1296	Breakoff	1296	Breakoff
T000004P	1036	No action taken	1036	No action taken
T000005P	2690	Completed	2690	Completed
T000006P	1036	No action taken	1036	No action taken

- A new CAI package object was added to work with Blaise 5

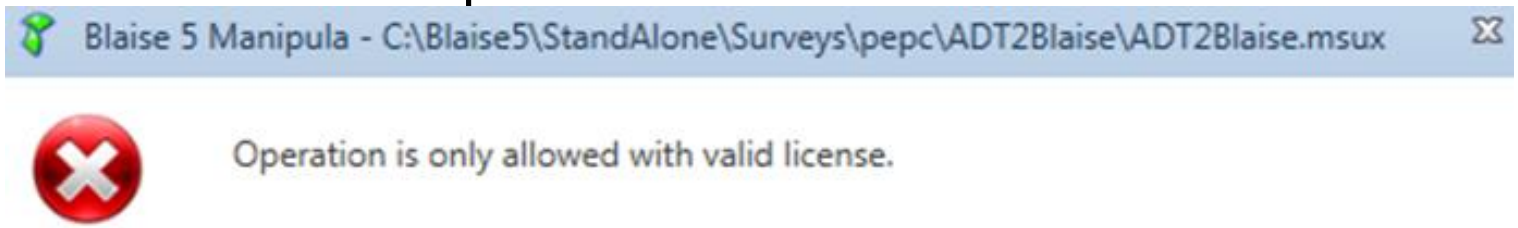
CMS with Blaise Instruments on Laptop – Manipula Scripts

- Main Manipula process script executes one of the methods: "Import" / "Update" / "Invoke" / "Export"
- Can also call other Manipula scripts or run external programs
- Instrument name and case ID are passed as parameters



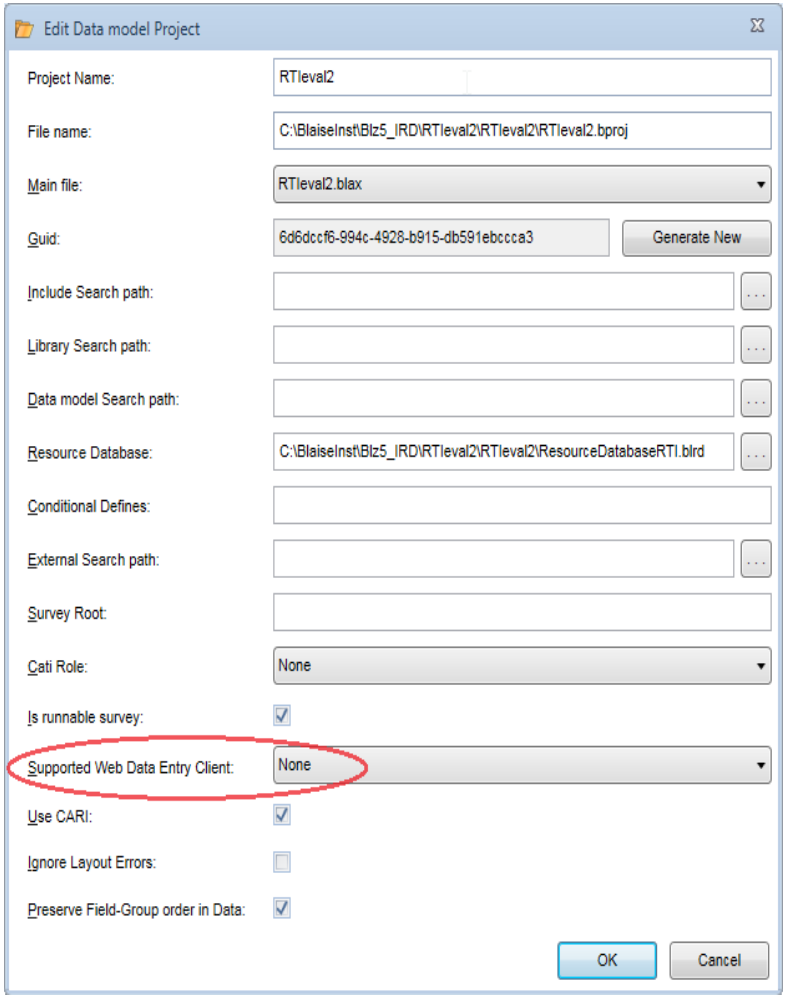
Challenges in Converting Manipula Scripts to Blaise 5

- Output and input files changed from “Blaise” to “XML” type
- Used “EDIT” function with a Blaise package file name and run mode as “ThickClient”
- Added “ModeID” to any Blaise 5 instrument to distinguish “Production” and “Training” cases in one Blaise database
- Modified Manipula scripts to reinitialize training cases – remove only the training cases and then load them again
- Used “CREATEBDIX = NO” to be able to create ASCII or XML output files, still need “Blaise Data Interface file” to create Blaise output file



Blaise 5 Instrument Deployment as “Stand Alone” – Step 1

- Build a package to deploy on laptop:
  - Change data model project properties “Supported Web Data Entry Client” to “None”
  - Use “Survey specific Timeout” in the session tab to have partial interview data saved every time it is closed (“Quit” vs “Close”)
  - Add to “Blaise Package Specification File”(.bcps) additional files if needed



Blaise 5 Instrument Deployment as “Stand Alone” – Step 2

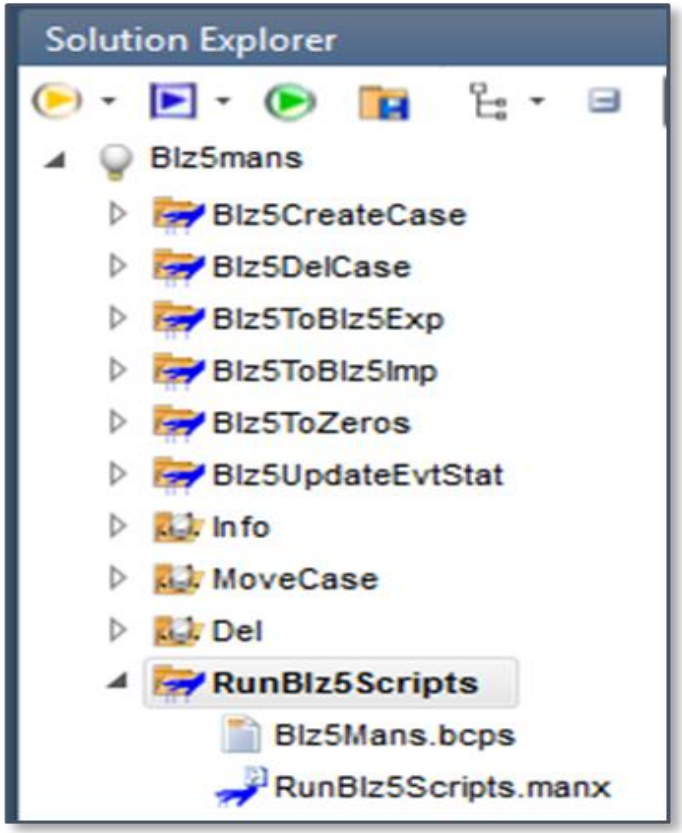
- Prepare Manipula process script to install the package

```
PROCESS InstallSurvey "Install Survey on Laptop"
AUXFIELDS
  Survey: STRING[100]
MANIPULATE
  Survey:= SELECTFILE('Select survey','', 'Blaise Package (*.bpkg)|*.bpkg')
  INSTALLPACKAGE(Survey)
END
```

- Copy files on the laptop into a folder with other programs:
  - Manipula.exe
  - Manipula.exe.config
  - System.Data.SQLite.dll – SQLite library
  - Msvcr100.dll – Microsoft Visual C++ Runtime library
  - Survey package file (.bpkg)
  - InstallSurvey (.msux & __locals$$$.bmix)
  - Batch file to run InstallSurvey Manipula script

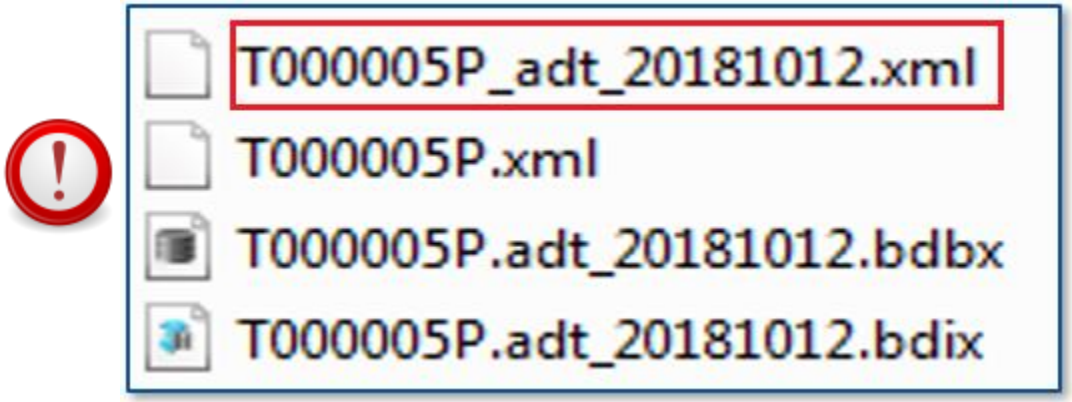
Installation of Manipula Scripts on Laptop

- Scripts preparation:
  - b4cpars.exe
  - InstrumentBuilder.exe
- Blaise 5:
  - Uses a Solution with a group of projects
  - Needs data model name and search path when GET method is used
  - After solution is built, all files must be installed on the laptop in a folder as specified in Manipula config file



Audit Data Extraction for a Case

- Use of audit data
- Manipula process script ADT2Blaise changes:
  - Extract data only for a case
  - Output file name has a case ID and a date



- Main Manipula process script calls ADT2Blaise.msux
- Use PowerShell version 4, downloaded for free

Conclusion

- Most of work is done!
- Learned a lot from samples – THANKS!

- Future plans:
  - Define procedures for applying changes to a data model during production
  - Evaluate tools to prepare SAS datasets

More Information

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