



**INSTITUTE FOR SOCIAL RESEARCH
SURVEY RESEARCH CENTER**
UNIVERSITY OF MICHIGAN

What was Experienced by a Skilled Blaise Programmer to Transition from Blaise 4 to 5

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Introduction

- Brave new world
- Use prior experience as a guide
- Be open-minded

History of Blaise at Michigan

- Blaise users for 25 years.
- Began testing and evaluating Blaise 5 in 2009 (Blaise NG/Community Technology Review released in December 2009).
- Our largest survey began transitioning to Blaise 5 in late 2013. Their first full wave in production was in 2018.
- The majority of our mixed-mode and web surveys use Blaise 5.
- Blaise 4 is alive and well for many single-mode CAPI/CATI surveys.
- The Blaise 4 CATI Call Scheduler is used inside our telephone facility's SMS application.

Blaise 4 and 5 at a Glance

Blaise 4

- Single-user application
- Basic control center
- Proprietary database
 - (Blaise IS exception *.boi file)
- Targets Windows devices

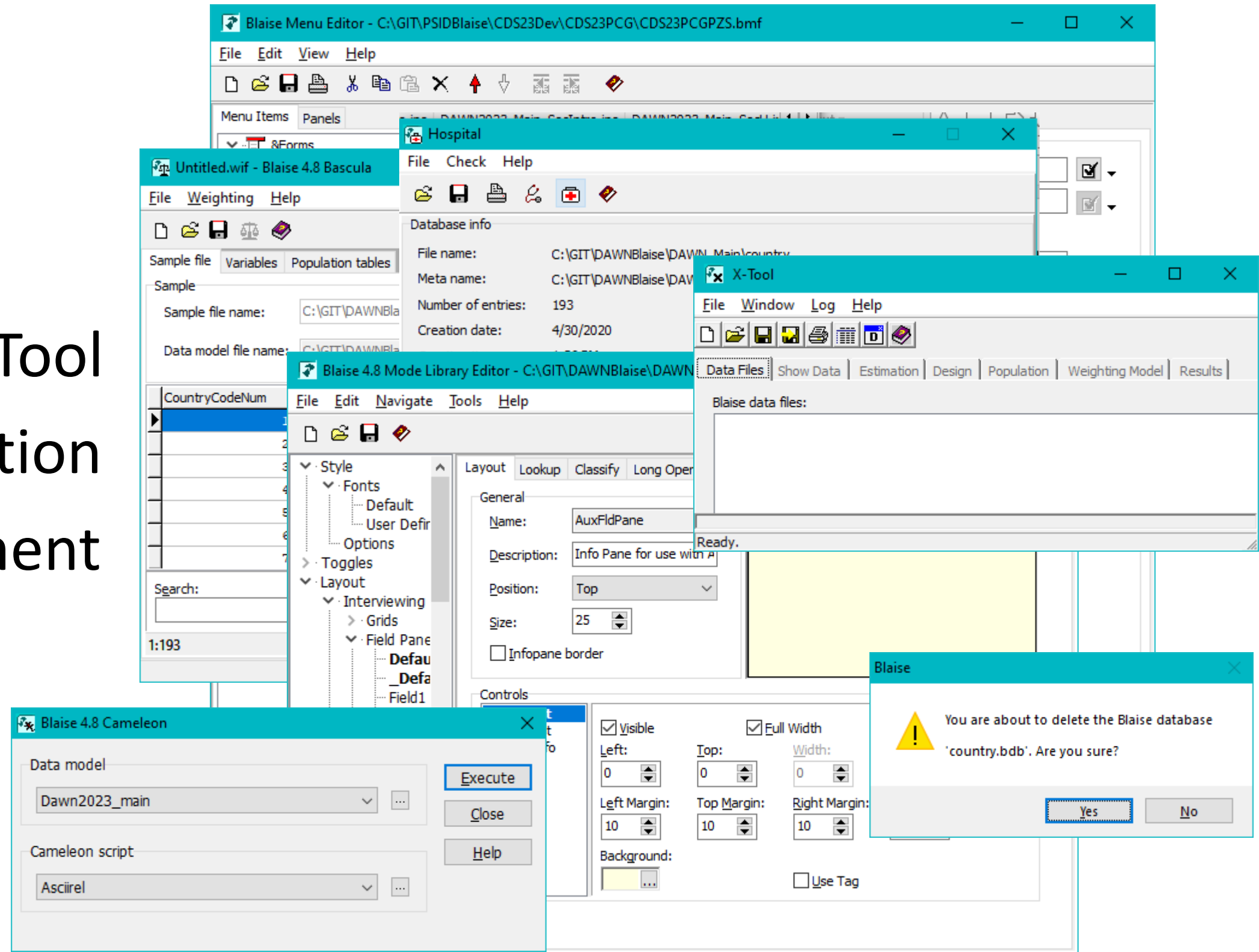
Blaise 5

- Client-Server application
- Integrated IDE w/IntelliSense
- Store data in any relational database
- Windows, iOS, and Android

Abandon Blaise 4 Tools and Features?!

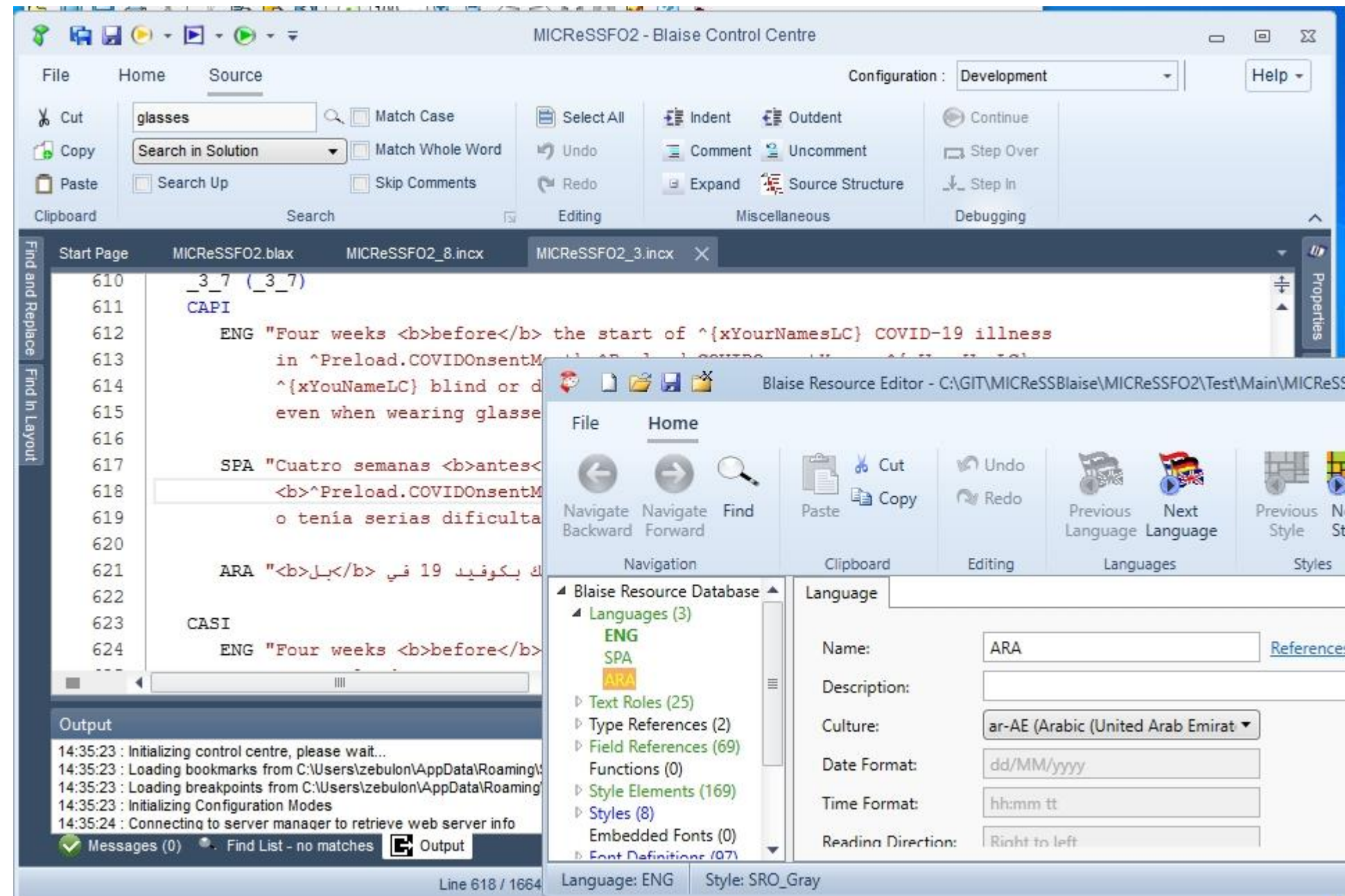
- Menu Editor
- Data Centre
- Alien procedures
- Bascula, Cameleon, Delta, X-Tool
- Mode Library, Dep Configuration
- Hospital, Database management

- With Blaise 5 everything changed...



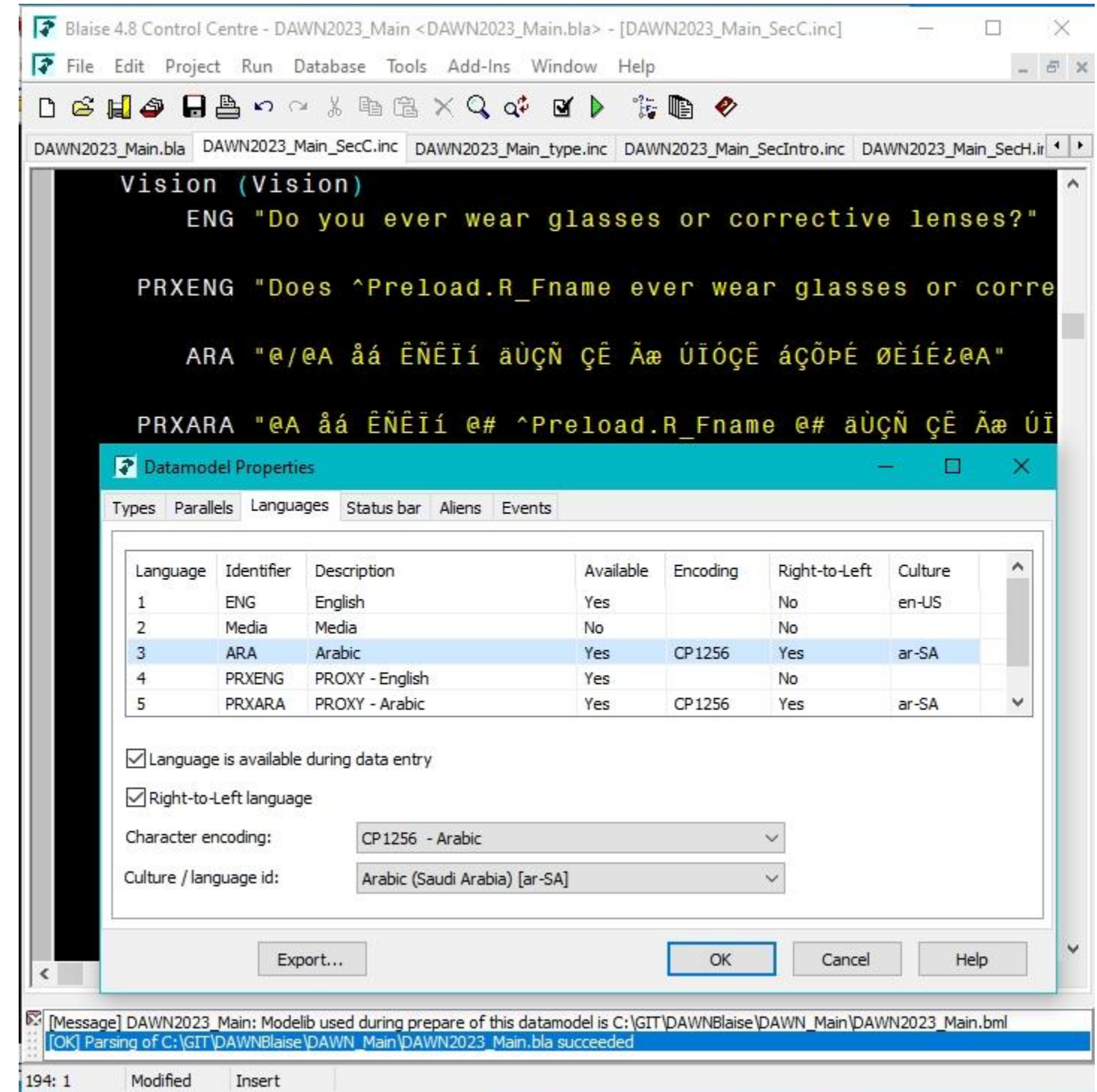
Blaise 5 – Control Center & Developer Environment

- Integrated Development Environment (IDE) w/IntelliSense.
- Roles (interviewer help)
- Modes, true languages
- Security enhancements.
- Client-Server.
- Some quirksiness.



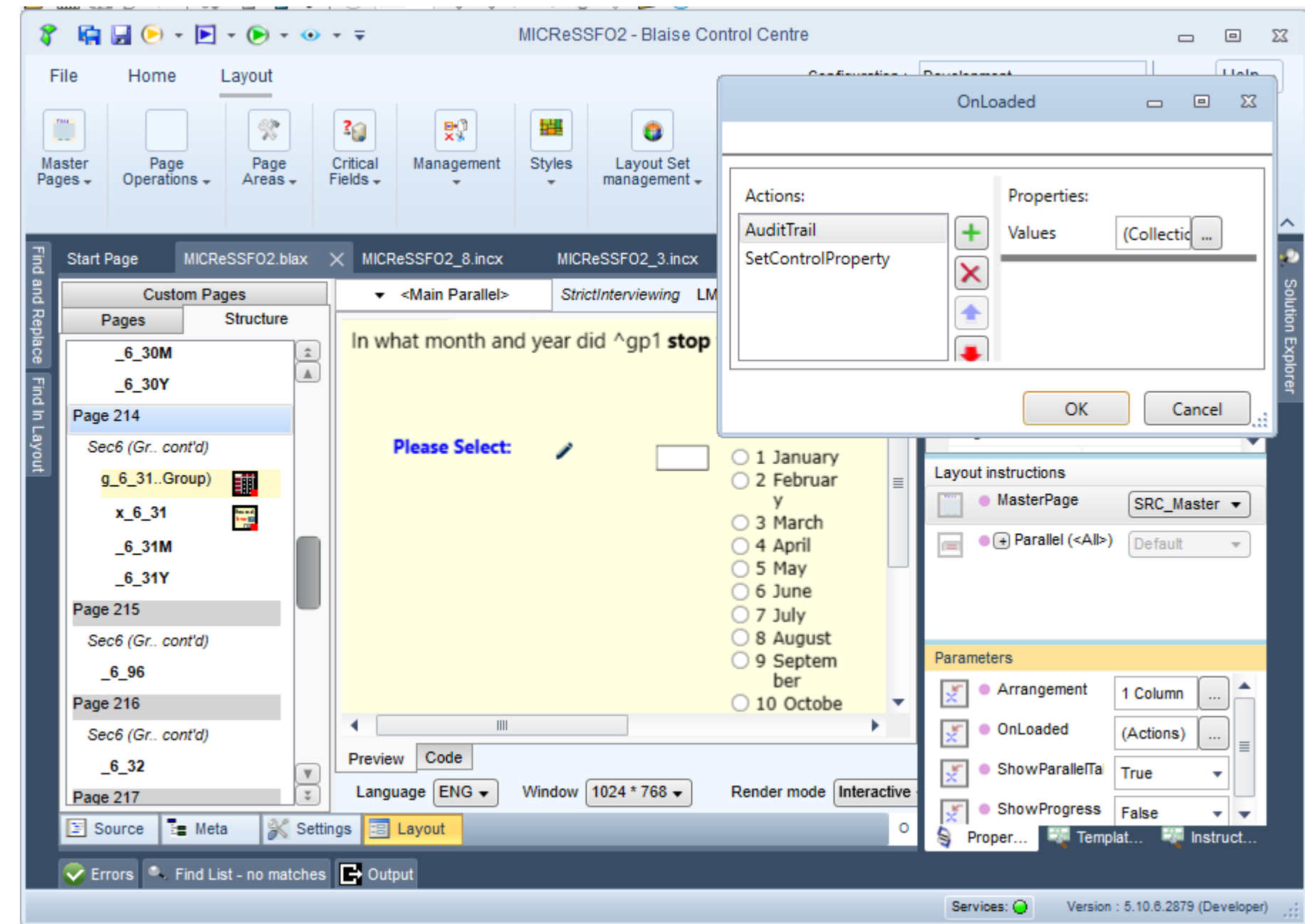
Blaise 5 – Syntax

- Many of the Blaise 4 syntax elements were brought forward:
 - Some exceptions: table, newline, etc.
 - Alien Routers were removed.
 - Rules engine differences.
- New extensions in Blaise 5:
 - Mode, Text Roles, Special Answers, Field Properties, Function, Constants.



Blaise 5 – End User Interface

- The presentation layer is separated from the logic layer.
 - Groups are an exception to this rule.
 - In more recent versions of Blaise 5 layout section returned.
- Layouts
 - We can parameterize almost anything.
- Resource Database
 - Careful of what you wish for...
 - Control over the entire look and feel of a survey...
 - All this comes with a steep learning curve.

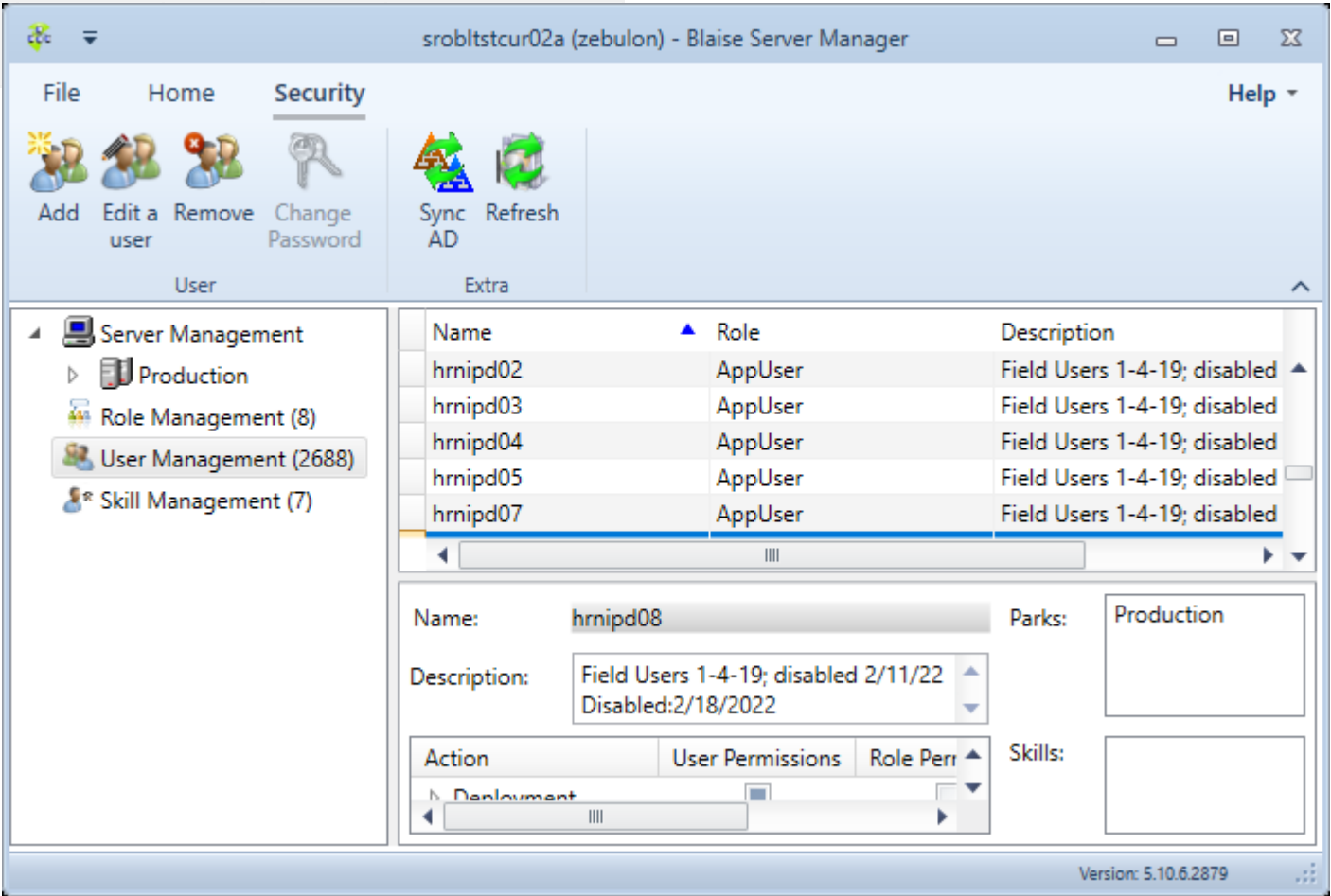


Blaise 5 – Servers

- Separate server roles:

| Server Park Servers | | | | | | | | | | | | |
|---------------------|-------------|----------------|-------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------|----------------|
| Internal Name | Public Name | Public Binding | Public Port | Audit Trail | Cati | Data | Data Entry | Resource | Session | Web | Status | Blaise Version |
| SROBLtstcur02 | | http | 8033 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Active | 5.11.8.3054 |
| SROBLtstcur01 | | http | 8033 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | |

- Server Events & Listeners.
- Opens new ways of interacting with Blaise.
- User management.



Blaise 5 – APIs and Versions

- API's are Blaise version specific and backward compatible.
 - Utilities have to match the compiled datamodel Blaise version.
- Oddities with licensing.
 - Sometimes utilities need the SerialNumber.txt file (sometimes this not true).
- What files need to be deployed with utilities.
- Recommend utilities to use the new API.

```
private IKey3 GetBlaise5Key(string primaryKeyValue)
{
    IKey3 key = null;
    try
    {
        key = (IKey3)DataRecordManager.GetKey(_dataLink.Datamodel, KeyNames.Primary);
        IField field = key.Fields.GetItem(key.Name);
        field.DataValue.Assign(primaryKeyValue);
    }
    catch (Exception ex)
    {
```

Blaise 5 – Session Data

- In Blaise 4 working and completed data was stored in same database.
- The session database was first introduced in Blaise IS.
- Working database while the interview is being conducted.
- Session data...
 - Session data does hang from time to time.
 - Beneficial for recovering main case data.
 - Hard to update main case data on purpose. E.g. Changing incentives.
 - This feature has been added in the latest versions of Blaise.
 - To get around this issue you can pass data via command line parameters.
 - Export session and main data and take the latest.

Blaise 5 – Metadata

- **Audit:**

- Moved to a database.
- Ability to insert custom audit trail events.
- Audit data is useful for section field timings, recovering cases, and understanding where a given survey is having issues.

- **Field Properties:**

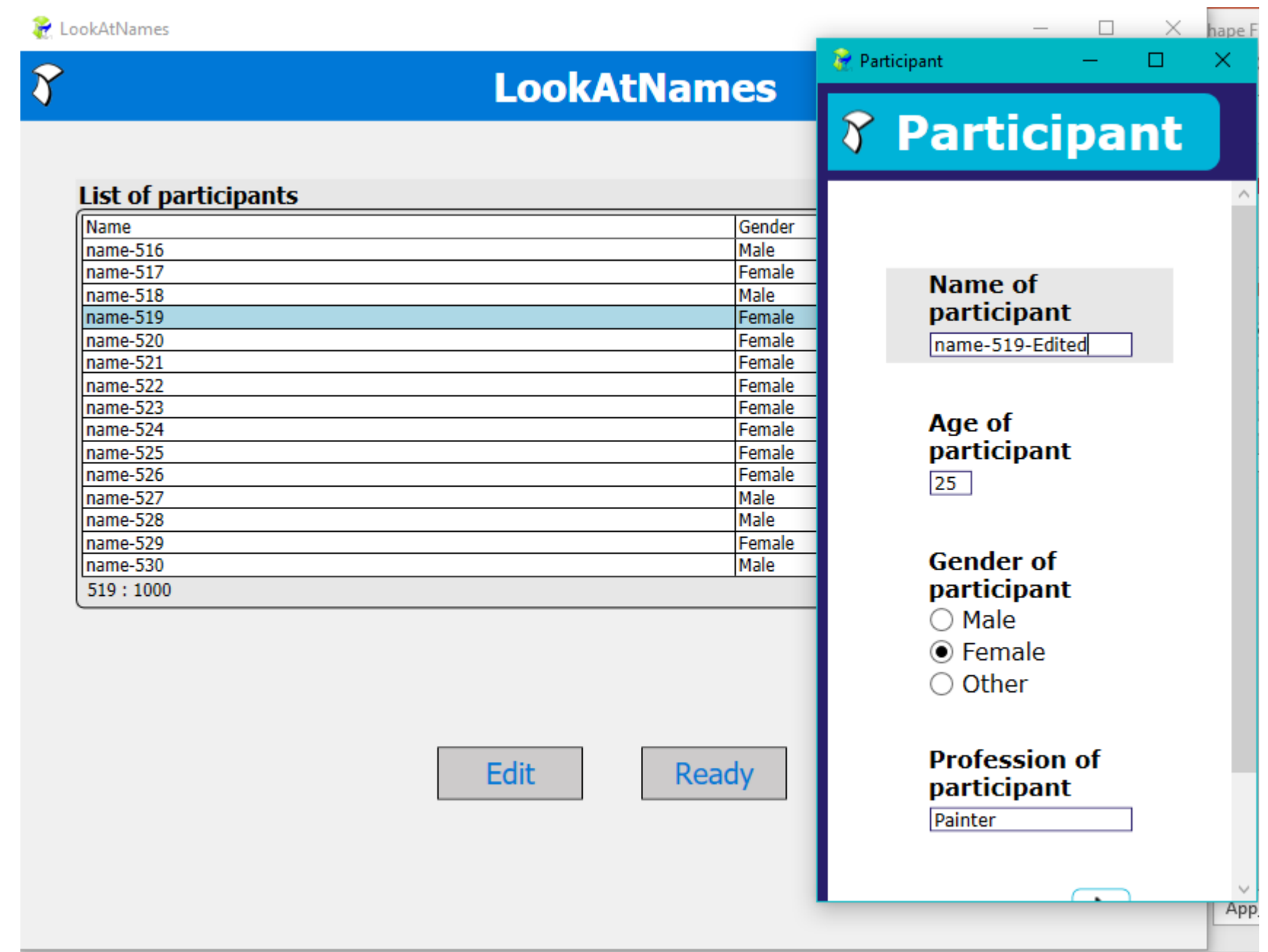
- IsVisited data.
- Customization with endless possibilities.

| SessionId | InstrumentId | Time Stamp | KeyValue |
|-------------------------------|-----------------------------|-----------------------------|---|
| {c96d77b1-b2d7-4a00-9fe6-...} | {e1da8433-b250-4eb6-b6-...} | 2022-01-06 09:54:06.27 | T96002 |
| {c96d77b1-b2d7-4a00-9fe6-...} | {e1da8433-b250-4eb6-b6-...} | 2022-01-06 09:54:07.98 | T96003 |
| {c96d77b1-b2d7-4a00-9fe6-...} | {e1da8433-b250-4eb6-b6-...} | 2022-01-06 09:54:08.2800000 | T96004 |
| {c96d77b1-b2d7-4a00-9fe6-...} | {e1da8433-b250-4eb6-b6-...} | 2022-01-06 09:54:08.2800000 | T96006 |
| {c96d77b1-b2d7-4a00-9fe6-...} | {e1da8433-b250-4eb6-b6-...} | 2022-01-06 09:54:08.3566667 | T96009 |
| {b538bba9-960b-4200-8eec-...} | {e1da8433-b250-4eb6-b6-...} | 2022-01-06 09:55:06.1500000 | T96010 |
| {b538bba9-960b-4200-8eec-...} | {e1da8433-b250-4eb6-b6-...} | 2022-01-06 09:55:06.1500000 | T96011 |
| {b538bba9-960b-4200-8eec-...} | {e1da8433-b250-4eb6-b6-...} | 2022-01-06 09:55:06.9466667 | <LeaveFieldEvent FieldName="IWComplete" Value="1" AnswerStatus="Response" /> |
| {b538bba9-960b-4200-8eec-...} | {e1da8433-b250-4eb6-b6-...} | 2022-01-06 09:55:06.9466667 | <ActionEvent Action="NextPage()" ControlID="u" EventName="OnClick" /> |
| {b538bba9-960b-4200-8eec-...} | {e1da8433-b250-4eb6-b6-...} | 2022-01-06 09:55:10.2700000 | <EndQuestionnaireEvent /> |
| {b538bba9-960b-4200-8eec-...} | {e1da8433-b250-4eb6-b6-...} | 2022-01-06 09:55:11.2100000 | <StartSessionEvent Width="1920" Height="969" Device="Browser" Browser="Chrome" La... /> |
| | | | <UpdatePageEvent LayoutSetName="CAPI-SRC_SDGT" PageIndex="1" /> |
| | | | <EnterFieldEvent FieldName="Sec9_9_1" AnswerStatus="Empty" /> |
| | | | <CustomAuditTrailEvent><Properties><CustomEventProperty Name="SessionMode" Value=... |
| | | | <CategoryEvent IsSelected="true" Code="1" /> |
| | | | <CategoryEvent IsSelected="true" Code="2" /> |

| | | |
|----------------|--------|--|
| ear='2022' | T00040 | F_3_1i=Yes |
| tMain='23' | T00041 | F_3_1j=Yes |
| tCog='3' | T00042 | FullName Sec3_3_1i k=Yes |
| BottomBar=Yes | T00043 | Kind DataField l=Yes |
| OB_M=September | T00044 | RouteStatus Ask m=Yes |
| OB_D=26 | T00045 | IsVisited True g_3_1n |
| OB_Y=1985 | T00046 | F:gp0 'have' 3_1n=Yes |
| ameLC='you' | T00047 | F:gp1 'you' 3_1nOther='sdfcdf' |
| NamesLC='your' | T00048 | F:gp2 'you' newName Sec3_3_14 |
| LC='are' | T00049 | DataEntrySettingsName StrictInterviewing |
| JC='Are' | T00053 | LanguageName ENG |
| HasUC='Have' | | ParallelName |
| HasUUC='HAVE' | | Status Active |

Blaise 5 – Manipula

- ManiPlus → Manipula Dialogs
- Has all features of Blaise 4, AND...
 - You have interceptors.
 - You have Action Setup.
 - Session data.
 - API and meta data.



Programming Standards

- Use existing organizational specifications and standards as a guide.
- Adapt standards to the new programming environment.
- Recognize limitations from the old environment and change to the new.

```
CAPI
ENG "How ^{xAreIsLC} ^{xYouNameLC} currently managing any long lasting symptoms
that ^{xYouTheyLC} have?

<br><br><iwer>◆ PROBE: </iwer>Anything else?"

SPA "¿Cómo maneja actualmente los síntomas de larga duración que tiene?

<br><br><iwer>◆ PROBE: </iwer>Anything else?"

ARA "كيف تدير حاليًا أي أعراض طويلة الأمد لديك؟"

<br><br><iwer>◆ PROBE: </iwer>أي شيء آخر؟"

CASI
ENG "How ^{xAreIsLC} ^{xYouNameLC} currently managing any long lasting symptoms
that ^{xYouTheyLC} have?"

: OPEN
```

Conclusion

- Blaise 5 due to its unique environment is not all peaches and cream.
- Grown to appreciate Blaise 5 without the Blaise 4 overtones.
- We still have much more to learn.



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Questions

Thank you!