# Using DDI to Automate Blaise Instrument Generation

Simon Wall
Australian Bureau of Statistics

# some background

- ABS is modernising
  - new infrastructure and systems
  - process reengineering
- Business is already changing
  - translating paper to web forms

# about Blaise

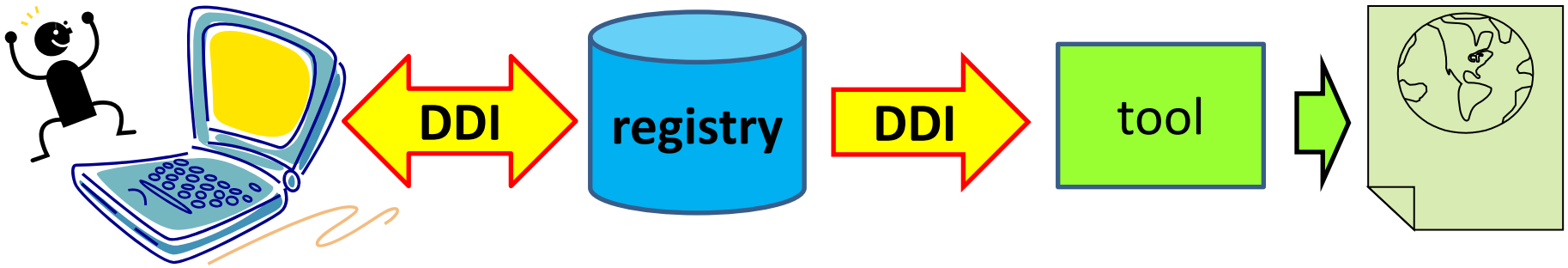
- ABS uses Blaise widely
  - CAPI, CATI, editing, web forms
- Modernisation relies on automation
  - Automate everything we can
- Manual coding of Blaise is a bottleneck
  - many cycles of change and testing

# manual coding is a problem

- Poor specifications = poor metadata
- IT staff are part of the business process
- Very slow
- Requires repeated and extensive testing
- Takes focus away from business purpose
- Many lost opportunities
  - visualisation
  - analysis
  - reuse

# what we are aiming for

- Give subject matter experts a tool
  - reusing existing metadata wherever possible
- Create collection instruments automatically
  - make Blaise a commodity not an asset
- Use DDI as the enabling standard



# what's different?

- Treat Blaise as a means, not an end
  - It shouldn't be a metadata graveyard
  - Making it easier to get Blaise code is not enough
  - The specification is the real asset
- Put power in hands of survey designers
  - Get technical people out of business processes
  - Empower the designers

# fast-tracking development

- Chose an existing business survey
  - LaMPS = Land Management Practices Survey
- Handcoded DDI to represent the survey
  - Resolving representation issues
- Put one team on the specification tool
  - Create output to match the sample
- Put another team on the Blaise tool
  - Use the sample to create the form

## Part 8 – Vegetation management – *(continued)*

**37 Did this business undertake any vegetation planting/sowing for revegetation purposes between 1 July 2011 and 30 June 2012?**

***Including***
- Planting/sowing of vegetation for a legislative requirement
- Planting/sowing of vegetation NOT for a legislative requirement

***Definition***
- Legislative requirement – required by law to undertake the planting/sowing of particular vegetation, e.g. planting trees in a protected area.

No ☐ Go to Question **40**

Yes ☐

**38 Please show the area of vegetation type planted/sown for revegetation on this holding between 1 July 2011 and 30 June 2012**

***Definitions***
- Mallee – a woody plant that is multi-stemmed from ground level. Common species names include: White, Yellow and Red Mallee. Yorrell, Ridge Fruited, Soap, Bell Fruited.
- Mixed plant form – refers to plants of two or more vegetation types.
- Other – spinifex, mosses, cryptogams, bryophytes, lichen and algae.

| | Non-legislative requirement Hectares | As a legislative requirement Hectares | Total area Hectares |
|---|---|---|---|
| (a) Mallee … … … … | . | . | . |
| (b) Shrub or saltbush … | . | . | . |
| (c) Pasture/grass … … | . | . | . |
| (d) Trees … … … … | . | . | . |
| (e) Mixed plant form … | . | . | . |
| (f) Other vegetation type (please specify in BLOCK letters) | | | |
| | . | . | . |

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        </d:LiteralText>
        <d:LiteralText xsi:type="extd:LiteralTextType">
            <d:Text>&lt;b&gt;&lt;Hectares&lt;/b&gt;&lt;</d:Text>
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```

Blaise 4.8 Control Centre - (Untitled)

File Edit Project Run Database Tools Add-Ins Window Help

C:\Public\workspace6.0\WebDataCollectionWebServices\WebContent\WEB-INF\lib\BlaiseOutputFiles\LaMPS_2011-12.BLA

```
{LaMPS-Sequence-Question-Block-10}
    LaMPSStatement19a.ASK
    LaMPSStatement19b.ASK
    LaMPSStatement20.ASK
    LaMPSQ40.ASK

    {LaMPS-IF-Block-Q40}
    {IF  THEN}

        {LaMPS-Sequence-Q41-Q42}
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            LaMPSQ41.ASK
            LaMPSQ41A.ASK
            LaMPSQ41AI.ASK
            LaMPSQ41AIi.ASK
            LaMPSQ41AIii.ASK
            LaMPSQ41AIv.ASK
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            LaMPSQ41AVOtherNumeric.ASK
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    {ENDIF}


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        LaMPSQ43A.ASK
        LaMPSQ43AI.ASK
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        LaMPSQ43AIii.ASK
        LaMPSQ43B.ASK
        LaMPSQ43BI.ASK
        LaMPSQ43BIi.ASK
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    {LaMPSInstructionQ44.ASK}
    LaMPSQ44.ASK
```

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# LAMPS_FORM_2012LAMPS_FORM_2012



gurjek - groupPane

| | Acres | He |
|---|---|---|
| Mixed inter-row cropping | | |
| Relay cropping | | |
| Row-alley cropping | | |
| Strip cropping | | |
| Cover cropping | | |
| Other intercropping practices (please specify in BLOCK letters) | | |
| Other intercropping practices (please specify in BLOCK letters) | | |
| No cropping undertaken | Agree | |

◄ Previous Next ►

# technical challenges

- DDI too expressive
  - Common profiles?
- Mapping specifications to Blaise
  - e.g. we can use Blaise tables for grid questions, but Blaise only allows 1 per page…
- Pushing boundaries of DDI
  - Layout? Deployment?
- Doing it all
  - “you can only do 80%”

# business challenges

- Imposition of standardisation
  - Compared to past flexibility
- Exploring new territory
  - E.g. best way to handle multi-modal specifications
- Carrying baggage
  - Past practice is not always useful
- Lack of expert guides
  - No one has the answers yet

# about the 80%...

1. Our tool will make Blaise code for LaMPS
2. The Blaise programmers will modify our output for use in the field
3. We'll analyse what they changed, to reduce the need for them to do it again.
   - New metadata?
   - Better specifications and outputs?
4. Repeat until there is no manual coding

# what's next for the project

- Make a better specification tool
  - More question types
  - Social surveys
- Make a better output tool
  - Layout
  - Deployment
- Share our work with others

# what should come later

Better metadata opens up opportunities for making it easier to create better surveys, e.g.

- Reuse of variables or concepts
- Automated path analysis
- Improved visualisation techniques
- Simulated load testing