



Office for
National Statistics

ONS Web Development Project: Tackling the Difficulties of Social Survey Data Collection

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Blaise support team (BDSS)

Overview

- Background: ONS and data collection
- Completed web pilot work
 - First LFS pilot (2010/11)
 - Second LFS pilot (2011/12)
- Current work
 - Blaise IS household survey prototype
 - Electronic Data Collection Project
- Future plans
- Questions and video clip

Background: ONS and BDSS

- Office for National Statistics
 - Employs around 4000 people
 - Collects and publishes a wide range of statistics
- Blaise support team – known as BDSS
 - Stands for ‘Blaise Development, Standards and Support’
 - Provides support to survey teams in the Social Survey Division in ONS
 - Team of 3 full time and 2 part time

Background: ONS and data collection

- Pressure to improve methods of data collection for social and business surveys:
 - Increasing costs of traditional interview modes (in particular face-to-face interviewing)
 - Challenging public sector efficiency targets
 - Decline in response rates
 - Technological advancements
 - Respondents would like different options
- Early stages of exploring web based data collection (as part of a mixed-mode strategy)
- LFS ideal for pilot (important survey but high costs)

LFS web pilots – 2010/11 & 2011/12

Aims of both pilots:

- To gain experience of designing and running a web survey – we used Conconfirm Professional
- To examine respondents' ability and willingness to answer LFS questions, and complete a whole interview
- To investigate whether people would complete questionnaires for other members of the household
- To explore internet survey design and usability, including presentation of questions and answer lists

Design:

- 1424 previous LFS respondents invited to take part
- Further qualitative pilot carried out with 29 people



LFS web pilots – Main findings

- Respondents had no problems completing the online questionnaire, and said they would prefer this method in future to a face to face or telephone interview
- While fine for CAPI/CATI, some existing LFS questions would need to be redesigned for web
- Some reluctance to complete in proxy for other household members
- Indication of more than 30 minutes being too long
- We face a big challenge in adapting the questionnaire to suit a mixed mode environment, but without losing the meaning of questions and compromising data quality

LFS web pilots: Confirmit screenshots

The image shows two overlapping screenshots from the Confirmit software. The top screenshot is the 'Script Node' editor, and the bottom screenshot is a survey question page.

Script Node Editor:

- Questionnaire Tree:**
 - IF (f('Stat')==2 || (f('Ombus')==1) && (f('EverWk...))
 - THEN
 - ConSEY (Numeric)
 - set CONYRLES (Script)
 - CONYRLES (Numeric)
 - IF f('CONYRLES').toNumber() <= 8
 - THEN
 - ConMon (Single)
 - set CONMLES (Script)
 - CONMLES (Numeric)
 - IF (f('Stat')==1 || f('Stat')==3 || f('Stat')==4...
 - THEN
 - ConPre (Single)
 - IF f('ConPre')==1 || f('ConPre')==2
 - THEN
 - CONPRY (Numeric)
 - CONPRM (Single)
 - IF f('ConPre')==3
 - THEN
 - CONPRR (Single)
 - IF (f('Stat')==1 || f('Stat')==3) && f('CONMLES').t...
 - THEN
 - HowGet (Single)
 - REDUNDANCY
 - HOME WORKERS (main job)
 - SICKNESS
 - HOURS WORKED
 - EMPLOYMENT PATTERN

Survey Question Page:

- Office for National Statistics** | Labour Force Survey | 2010-11
- EARNINGS**
- Progress bar: 0% to 100%
- The next set of questions are about your earnings from the job that you were doing in the seven days ending Sunday the 6th of February.**
- What was your gross pay, that is your pay before any deductions, the last time you were paid?**
- GROSS pay should only include:** Tax, national insurance, state benefits, pension contributions, union subscriptions, overtime, bonuses, tips, commission, tax refunds, loan repayments made by the person, London weighting and local pay additions.
- Do not include expenses.**
- Gross pay in pounds (please specify)** £2100
- No pay received yet
- I don't know
- I do not wish to say
- Back** **Next**

Blaise IS LFS prototype: current work

- Time to get to grips with Blaise IS!
- We developed a web version of LFS
- This time it was programmed as a household survey
- Used recommendations from earlier pilots as guidance for content and display
- Haven't been able to conduct a live pilot yet – so prototype is on office intranet for testing

Blaise IS LFS prototype

Labour Force Survey
Blaise Pilot 2011

Main Person 1 Person 2 Person 3 Person 4

Household overview

Click on a name to enter the data for that person.

(1) [BOB SMITH](#) Completed ✓

(2) [ANNE SMITH](#) Not completed

(3) [EMMA SMITH](#)

(4) [ROSIE SMITH](#)

Blaise IS LFS prototype

Labour Force Survey
Blaise Pilot 2011

CONTENTS

- Background information
- Work schemes
- Employment
- Place of work
- Hours worked
- Working patterns
- Benefits
- Earnings

Office for
National Statistics

Main **Person 1** Person 2 Person 3 Person 4

Questions for person 1: Bob Smith

Please click the person who is answering the questions for Bob Smith.

Children under 16 are not listed, so please choose another person to fill out the answers.

- Bob Smith
- Anne Smith
- Emma Smith
- Rosie Smith
- Somebody outside the household

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Blaise IS LFS prototype

Labour Force Survey Blaise Pilot 2011

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Background information

Work schemes

Employment

Place of work

Hours worked

Working patterns

Second jobs

Looking for work

Benefits

One year ago

Earnings

Main Person 1 **Person 2** Person 3 Person 4

Questions for person 2: Anne Smith

The next questions are about Anne Smith's situation twelve months ago, that is in April 2011.

Was she...

'Work' at this question means any work for pay or profit, including casual and holiday work.
If she worked in casual or holiday work 12 months ago, please answer the question in relation to that job.
Please select first that applies.

- Working in a paid job or business
- Laid off or on short time at firm
- Unemployed, actively seeking work
- On a special government scheme
- Doing unpaid work for herself or a relative
- A full-time student or pupil
- Looking after the family or home
- Temporarily sick or injured
- Long-term sick or disabled
- Retired from paid work
- None of these

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Blaise IS LFS prototype: challenges

Blaise 4.8 Data Entry - D:\JM12 Version 8\LF0112

Forms Answer Navigate Options Help Show Watch Window

LFS0112 Information_Sheet Household_Information Person[1] Person[2] Person[3] Person[4] Person[5] Person[6] Person[7] Person[8] Household_Reference_Person Benefit_unit Information

I would now like to ask how all the people in your household are related to each other.
 Code relationship of DAMIEN JONES to JAMES SMITH.
 Treat relatives of Civil Partners as though the Civil Partners were married.
 Also, treat cohabiting members of the household as though the cohabiting couple were married, including same sex couples.

1. Spouse
 2. Cohabiting partner
 3. Son/daughter (incl. adopted)
 4. Step-son/daughter
 5. Foster child
 6. Son-in-law/daughter-in-law
 7. Parent / Guardian
 8. Step-parent
 10. Foster parent
 11. Parent-in-law
 12. Brother/sister (incl. adopted)
 13. Step-brother/sister
 14. Foster brother/sister
 15. Brother/sister-in-law
 16. Grand-child
 17. Grand-parent
 18. Other relative
 19. Other non-relative
 20. Civil Partner

	Name	RelTtxt	R[1]	R[2]	R[3]	R[4]	R[5]	R[6]	R[7]	R[8]	R[9]	R[10]	R[11]
QRg[1]	JOHN SMITH	p1											
QRg[2]	ANNE SMITH	wife	1										
QRg[3]	JAMES SMITH	son	3	3									
QRg[4]	ROBERT SMITH	son	3	3	12								
QRg[5]	EMMA SMITH	daughter	3	3	12	12							
QRg[6]	ROSIE SMITH	daughter	3	3	12	12	12						
QRg[7]	DAMIEN JONES	nonr	19	19	19	19	19	19					
QRg[8]	VICTOR ROBERTS	nonr	19	19	19	19	19	19	19				

Above: Interviewer-led relationship grid

Below: Possible design of web relationship grid

Labour Force Survey
Blaise Pilot 2011

Main Person 1 Person 2 Person 3 Person 4

Please specify the relationships between every member of the household.

Please select the relationship:

Emma Smith is Bob Smith's...

Select

Please select the relationship:

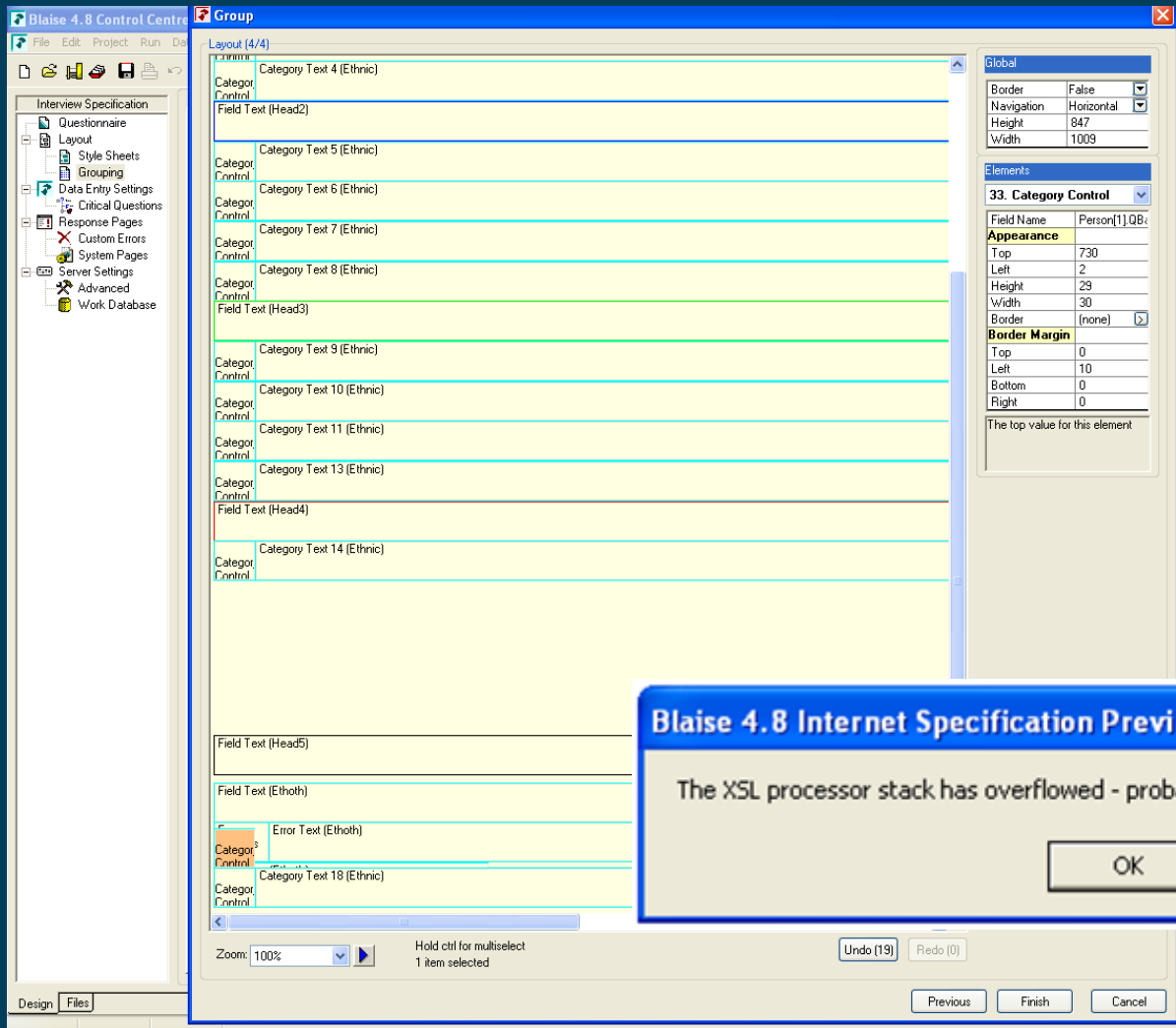
Emma Smith is Anne Smith's...

Select

- Select
- Spouse
- Cohabitee
- Son/daughter (incl. adopted)
- Step-son/daughter
- Foster child
- Son-in-law/daughter-in-law
- Parent/guardian
- Step-parent
- Foster parent
- Parent-in-law
- Brother/sister (incl. adopted)
- Step-brother/sister
- Foster brother/sister
- Brother/sister-in-law
- Grand-child
- Grand-parent
- Other relative
- Other non-relative
- Civil Partner

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Challenges using Blaise IS



Custom edits!

that starts the interview. It is sufficient to
This is the identification code of your survey,
during installation of a survey. If no other
argument is empty (which is the case in the
the survey will be started with the settings as
e. To override (some of) these settings, you
parameter: Options.
XML (eXtensible Markup Language) formatted
ions. This XML string should conform to the
ed in InterviewOptions.xsd file in the same
file. You can use the CreateOptions function
g using the available code in the default
string directly. Instead of the two lines in the
ething like this:

Help!
D, "<Interviewoptions

Blaise 4.8 Internet Specification Previ

The XSL processor stack has overflowed - probable cause is infinite template recursion.

OK

Strange messages!

Blaise IS LFS prototype: Next steps

- We are continuing to develop this work
- All LFS questions have been added although wording will need to be adapted and help text amended
- Need to think about display of external file lookups – LFS has many of these
- Methodological issues to think about – feeding in previous answers, security, impact on response and data quality, integration with current systems, including case management

Electronic Data Collection project (EDC)

- ‘Electronic Data Collection project’ is a collaboration between Business and Social surveys to develop a common platform
- Liferay Enterprise Edition 6.1 selected as a web portal package
- Blaise IS chosen for questionnaire delivery
- First stage ‘Proof of concept’ just completed
- Main aims: to show how data collection might operate within ONS, and prove Blaise can integrate with a portal



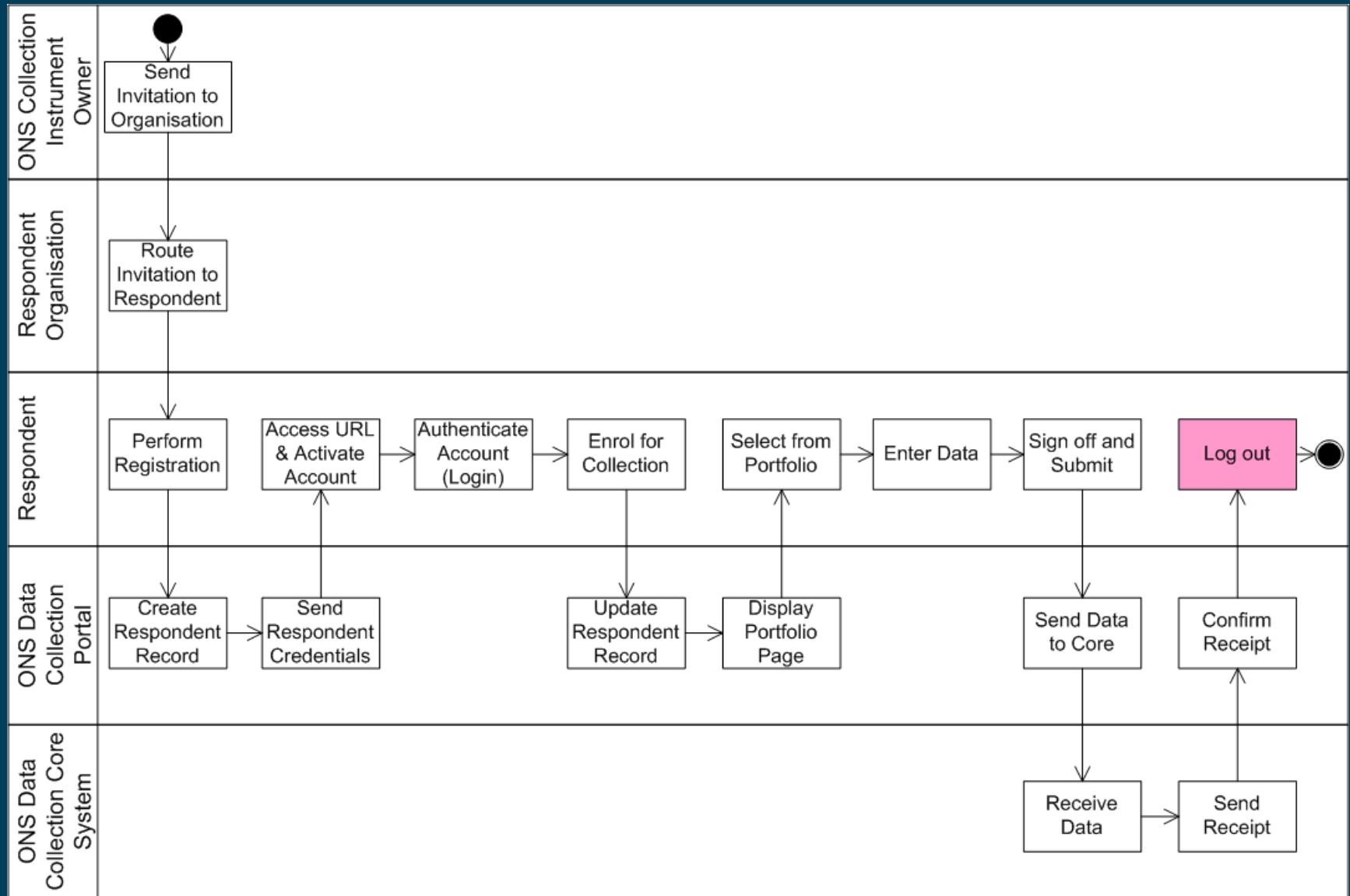
EDC project: Why use a web portal?

- Strict government standards around security
- Standards to meet around accessibility
- Provides a content management system and publishing system for web surveys
- Out of the box services useful to web surveys e.g. authentication
- Allows a business to manage its relationship with ONS

EDC project

- Blaise team replicated one of the business surveys using Blaise IS
- The contractors integrated this into Liferay, along with the LFS prototype
- Stakeholder demonstrations showed both surveys running in the portal, with these steps:
 1. Registration
 2. Activation
 3. Authentication
 4. Portfolio
 5. Data Entry
 6. Submission

EDC process for respondents



Electronic Data Collection project

National Statistics

Online Collection Instruments Offline Collection Instruments

My Online Survey

Company Details
Return Period
Acquisitions
Construction
Vehicles
Computer Software
Computer Hardware
Other Equipment
Total Acquisitions
Disposals
Vehicles
Computer Software
Computer Hardware
Other Equipment
Total Disposals
Comments
Response Summary
Contact Information
For queries

Survey reference number

4990012345€

Online Collection Instruments

- o Labour Force Survey
- o Capex Survey 2010
- o Capex Survey 2011
- o Survey Home

Help with Online Collection

Welsh Next Page

EDC project

Modifying the Blaise code to work with Liferay:

- BDSS amended asp pages such as BiInterviewStarter.asp page to pass through hard coded values to the questionnaire for testing:

```
Call AddField(xmlDoc, FieldsNode, "QBParameters.Lang", "ENG", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.Currency", "GBP", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QID.RefNum", "49900123456", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.Respondent", "1", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.QvalidQues [1].Q1AquValid", "Yes", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.QvalidQues [1].Q2AquValid", "Yes", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.QvalidQues [1].Q3aAquValid", "Yes", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.QvalidQues [1].Q3bAquValid", "Yes", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.QvalidQues [1].Q4AquValid", "Yes", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.QvalidQues [1].TotAquValid", "Yes", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.QvalidQues [1].Q2DisValid", "No", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.QvalidQues [1].Q3aDisValid", "No", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.QvalidQues [1].Q3bDisValid", "No", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.QvalidQues [1].Q4DisValid", "No", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.QvalidQues [1].TotDisValid", "No", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.QvalidQues [2].Q1AquValid", "No", biResponse, "")
Call AddField(xmlDoc, FieldsNode, "QBParameters.QvalidQues [2].Q2AquValid", "No", biResponse, "")
```

- Contractors then investigated using API directly instead of ASP to pass values and control routing

Future plans

2012/13:

- Build the platform
- Develop offline data collection system
- Complete performance testing and investigate cloud computing
- Methodological work around survey design

2013/14:

- Build web survey functionality and pilot a survey

Other things to think about such as Blaise and Liferay training and web standards

Any questions?

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The screenshot displays the National Statistics questionnaire interface. At the top, the 'National Statistics' logo is visible, along with navigation tabs for 'my Questionnaires', 'About me', 'About my company', and 'Survey Knowledge Base'. The main content area is divided into a left sidebar and a central question area. The sidebar contains sections for 'my Personal Questionnaires' and 'my Company Questionnaires', with a list of surveys including 'Capex Survey 2010', 'Capex Survey 2011', and 'Survey Home'. Below this is a 'Useful Help' link and contact details for the Office for National Statistics. The central question area features a dark blue sidebar with navigation links: 'Company Details', 'Introduction', 'Return Period', 'Total Acquisitions', and 'Total Disposals'. The main content of the question area asks: 'During the period, what was the value of acquisitions of new construction work, excluding dwellings?'. It includes instructions to round figures to the nearest £1,000 and a text input field with a currency symbol (£) and a value of 100,000. Below this, another question asks: 'During the period, what was the value of acquisitions of new and second hand vehicles?'. It also includes instructions to round figures to the nearest £1,000 and a dropdown menu with options for 'Select', '£', 'C', and '\$', with a value of 0,000. At the bottom of the question area, there are 'Previous', 'Next', and 'Web' buttons. The footer of the page includes the 'Office for National Statistics' logo.



Video demo