

A Case Study

by



Data Technology

**Hardware • Software
Design • Consulting**

The Australian Census August 8th 2006





History of the Census

- First Australian Census was in 1911
- Held every 5 years
- This year is on 8th August
- Purpose of Census is to measure the number and key characteristics of people in Australia on Census night.

Please use BLOCK letters. 04

21 Are you 15 years of age or more?
 No, under 15 years ► **Go to 39**
 Yes, 15 years or more

22 What is the highest level of primary or secondary school you have completed?
 • Mark one box only.
 • For persons who returned after a break to complete their schooling, mark the highest level completed when they last left.

Still at school
 Did not go to school
 Year 8 or below
 Year 9 or equivalent
 Year 10 or equivalent
 Year 11 or equivalent
 Year 12 or equivalent

23 Have you *finished* a trade certificate/apprenticeship, TAFE course or university course since leaving school?
 No ► **Go to 28**
 No, still studying for first course ► **Go to 28**
 Yes, trade certificate/apprenticeship
 Yes, other course

24 What is the name of that course?
 • If more than one course, ask for the name of the highest level course.
 • For example, trade certificate, bachelor degree, associate diploma.

Full name of course

25 What did you study?
 • For example, plumbing, primary school teaching.

Field of study

26 What was the name of the place you studied at?
 • Include external and correspondence institutions.

Name of place

27 In which year did you *finish* that course?
 Year course finished

28 How much money do you get each *fortnight* before tax?
 • Mark one box only.
 • A fortnight is two weeks.
 • Include salary, government payments, CDEP money, other money, before tax or anything else is taken out.

\$1,200 or more per fortnight
 \$1,000 - \$1,199 per fortnight
 \$800 - \$999 per fortnight
 \$600 - \$799 per fortnight
 \$400 - \$599 per fortnight
 \$320 - \$399 per fortnight
 \$240 - \$319 per fortnight
 \$160 - \$239 per fortnight
 \$80 - \$159 per fortnight
 \$1 - \$79 per fortnight
 Nil income
 Negative income

29 Did you have a paid job *last week*?
 • Mark one box only.
 • A job means any type of work including casual or temporary work or part-time work, if it was for one hour or more.

Yes, worked – CDEP
 Yes, worked other than CDEP
 Yes, worked in own business
 Yes, but off work on holiday, sick leave, sorry business
 No, did not have a job ► **Go to 37**

30 What job did you do *last week*?
 • For example, cleaner, council labourer, truck driver, station hand.

Name of job

31 What things did you do in that job *last week*?
 • For example, cleaning school, mowing lawns, rubbish collection, mustering cattle.

Type of job

32 Who did you work for *last week*?
 • If it is the community, give the community's name.
 • If funded by CDEP, also write 'CDEP'.
 • If they worked for themselves, write name of business.

Name of business

- Forms delivered to every household in Australia
- Compulsory to complete the form
- Forms are completed by hand writing
- Information is highly confidential and must be kept very secure throughout the whole process

The Logistics

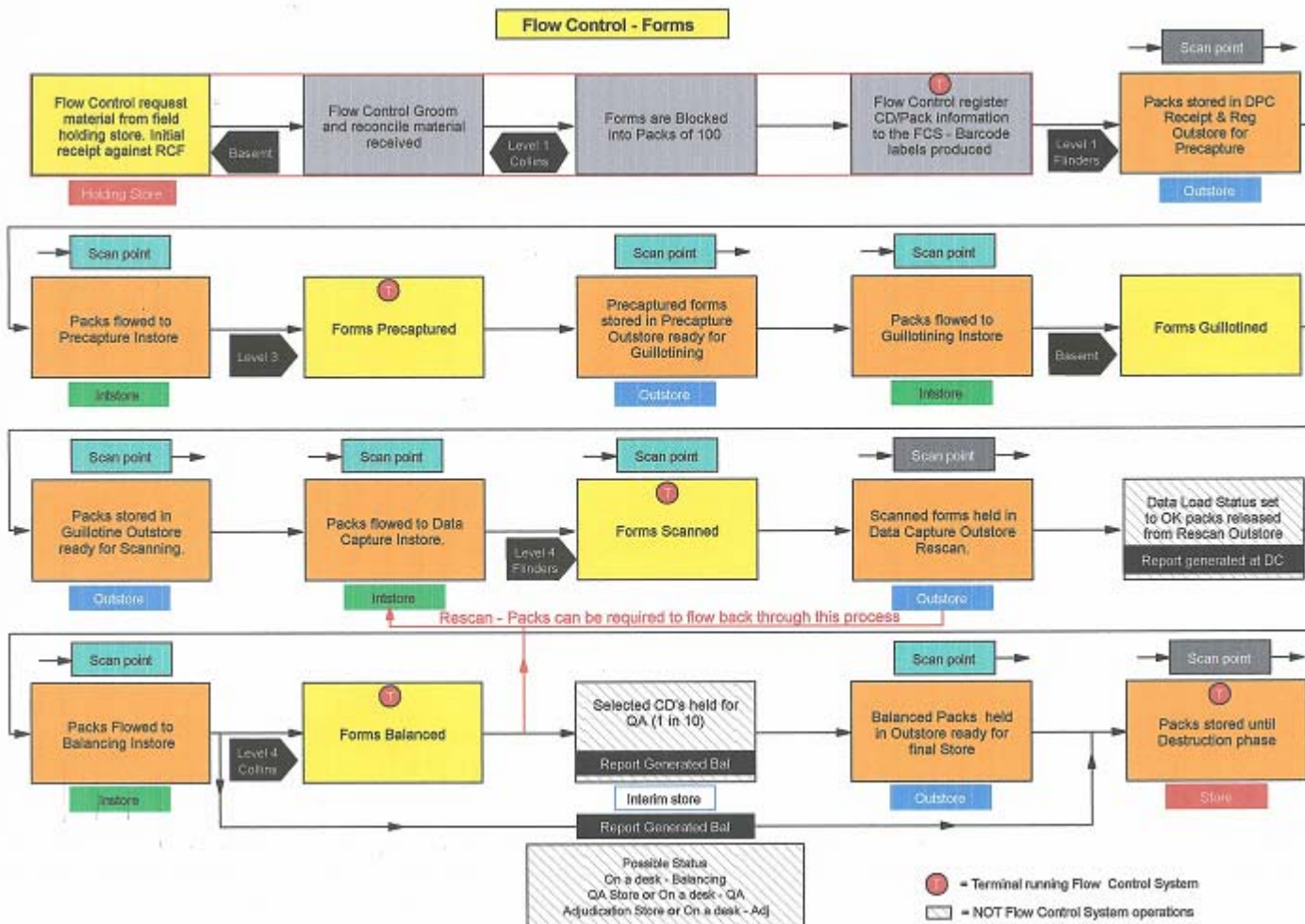
- 30,000 Census collectors
- 9 million forms to be distributed and collected
- 80-100 forms in each of the Collection District (CD) boxes
- 100,000 CD boxes to be scanned multiple times throughout the 12 month process, using the ASP Flow Control System (FCS) solution, in the Data Processing Centre

Data Processing Centre (DPC) – Flow Control System (FCS)

- 5 level building in the heart of Melbourne
- Real time 802.11 wireless infrastructure with multiple access points
- 800 staff to process data
- Multiple Denso BHT303bw portable barcode scanners
- Datamax I4208 Printers and custom labels



Flow Control System



The Solution

Customised scanner program

- Developed in ASP's Rfolution! middleware
- Two way communication for business process and logic control
- Process exceptions
- Supervisory messaging

Customised PC programs

- Configuration
- Data analysis and report

Customised printing program

- Printing
- Formatting
- Registering

RFolution!



- Rapid application development tool for wireless terminals
- VB Script language
- 4000 lines of code for the ABS terminal program

Denso BHT 303bw Terminal

- Scanning of packs and store location
- 2 way communication for business process and logic control
- Process exceptions
- Supervisory messaging
- Light weight and ergonomic scanner



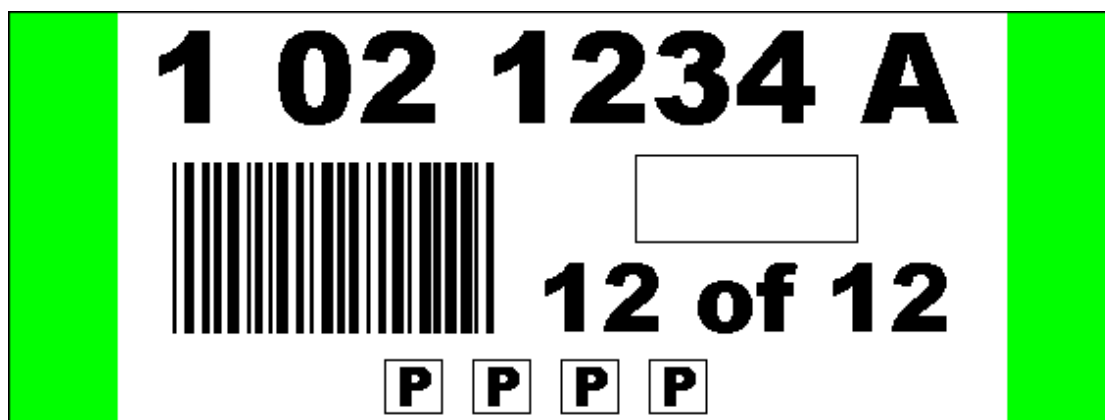
Reports

The screenshot displays three overlapping windows from the Flow Control System software:

- Configuration Program (Left):** A window for defining movement rules for CD packs. It features a table with columns: From/To, Rcpt & Reg, Precapture, Gullotining, Data Cap, Balancing, Final Store, Dead Store, and Destruction. The 'Rcpt & Reg' and 'Precapture' columns are checked for all rows.
- Configuration Program (Middle):** A window for defining stores for each process. It includes a list of process names (Rcpt & Reg, Precapture, Gullotining, Data Cap, Balancing, Final Store, Dead Store, Destruction) and input fields for 'In process expiry timer(hours):' (set to 8) and 'To process expiry transit timer (hours):' (set to 3). A 'Query And Reporting Program' window is also partially visible behind it.
- Query And Reporting Program (Right):** A window for generating reports. It shows a 'Process Report - View By Store Type' with a table of data. The table includes columns for 'Title', 'Total Received', 'Total In Process', and various 'Pre Capture' and 'Gullotining' metrics. The 'Status' row shows overall percentages: 100.0% Total Received, 0.00% Total In Process, 100.0% Pre Capture, and 90.88% Total Processed.

Title	Total Received	Total In Process	Rcpt & Reg	Prcap	Gullotining	Data Capture	Balancing	Total Processed
ASW	17	17	0	0	0	0	0	0
CD	184	184	0	0	0	0	0	0
Packs	297	297	0	0	0	0	0	0
Status	100.0%	0.00%	0.00%	0.00%	100.0%	0.00%	0.00%	90.88%

Label Design



PLEASE CHECK CAREFULLY!

Proof for: ASP Microcomputers
 Attention: *Robert Kayal*
 Sent: 20/6/05
 ITEM: 27614

Please tick after checking the following

Label width: 75mm	<input checked="" type="checkbox"/> OK
Label Length: 195mm	<input checked="" type="checkbox"/> OK
Facestock: DAG23	<input checked="" type="checkbox"/> OK
Core Size: 77mm	<input checked="" type="checkbox"/> OK
Spelling	<input checked="" type="checkbox"/> OK
Layout	<input checked="" type="checkbox"/> OK
Phone #'s / Addresses	<input checked="" type="checkbox"/> NA <input type="checkbox"/> OK
Barcode Number's	<input checked="" type="checkbox"/> NA <input type="checkbox"/> OK
Ingredients	<input checked="" type="checkbox"/> NA <input type="checkbox"/> OK

Please Circle Print Direction You Require

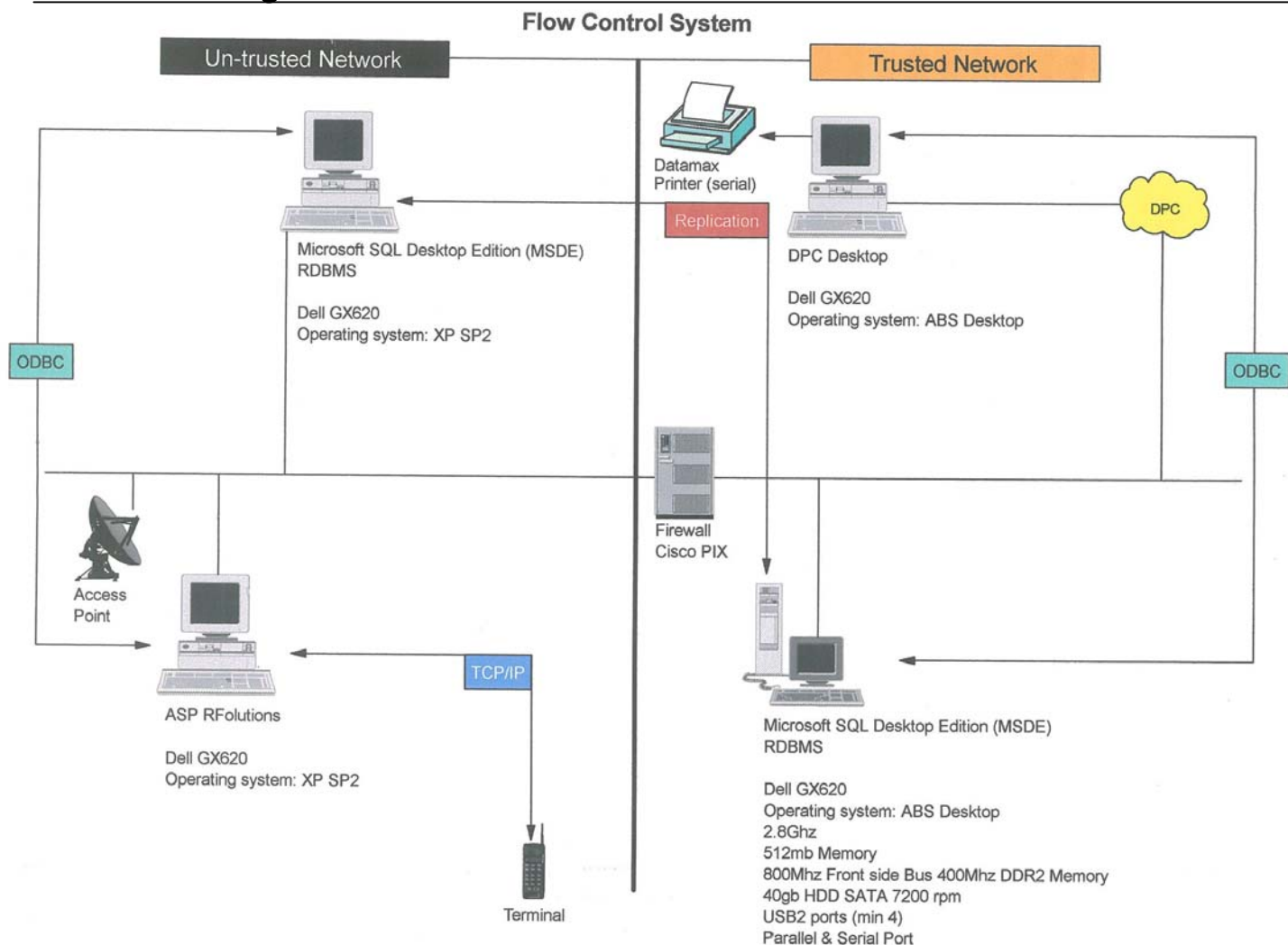
Print Direction Selection OK

Print colour: PMS 292 Blue OK

PROOF OK! IF WE PLEASE INDICATE OTHERWISE TO RECD

I have checked the proof and authorize labels to be manufactured to these specifications. I understand that while all care is taken, Integre accepts no responsibility for errors overlooked in the

System Architecture



If you require more information
on this case study please
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