

Seafish Technology and Training

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An integrated traceability, marketing and back-office system for Inshore ports and vessels

Summary

In response to market and legislative requirements to provide accurate product definition and provenance at the point of sale, Seafish and commercial partners have developed systems for the weighing and labelling of graded and boxed fish at sea. Accurate data on landings and product is required under fisheries management, fish marketing, food safety and labelling legislation and is necessary for commercial price/reward marketing mechanisms to function efficiently. This is an essential first stage in achieving the traceability of seafood throughout the supply chain.

For small inshore vessels, such systems involving motion-compensated weighing machines and ship-to-shore satellite communication, are not practicable although the required information can be input on landing with a port based system. Such vessels carry out only short trips to local grounds and there is little lost in the precision of the traceability data.

This report describes a demonstration project at the inshore port of Looe in Cornwall where the data required by law and for trading was captured and handled electronically on landing to improve marketing and administrative efficiencies.

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1. Introduction/background:

In response to market and legislative requirements to provide accurate product definition and provenance at the point of sale, Seafish and commercial partners have developed systems for the weighing and labelling of graded and boxed fish at sea. Accurate data on landings and product is required under fisheries management, fish marketing, food safety and labelling legislation and is necessary for commercial price/reward marketing mechanisms to function efficiently. This is an essential first stage in achieving the traceability of seafood throughout the supply chain.

For small inshore vessels, such systems involving motion-compensated weighing machines and ship-to-shore satellite communications, are not practicable although the required information can be input on landing with a port-based system. Such vessels carry out only short trips to local grounds and there is little lost in the precision of the traceability data.

The particular information required for traceability is specified in the CEN (European standards body) 'Tracefish' information standard for captured fish distribution chains, the development of which was led by Seafish.

During 2002 the sales agency, Looe Fish Selling Ltd, of East Looe in Cornwall, was considering an upgrade of its business administration ('back-office') system and its electronic linkage to existing digital weigh-scales on the market. Sales at that time were conducted by a shout auction on the market with transactions written down on paper which were then entered into the system manually. Likewise box weights were written on tickets and placed on the boxes. The manual handling of data was error-prone and slow and the back-office computer system outdated. After thorough investigation of systems in use in the UK and elsewhere in Europe, the decision was made, not only to upgrade the back-office system and its linkage with the weigh-scales on the market, but to provide for electronic data collection and labelling on landing, of product definition and provenance and to implement a system of electronic sale.

The port is owned and managed by Looe Harbour Commissioners and has a turnover of approximately £2.5 million per annum. It supports a fleet of 30 inshore vessels making mostly day trips that land in the evening for the following morning sale (06:30 hrs). There are twenty regular buyers on the market.

This development/demonstration project was funded by Looe Harbour commissioners with FIGG grant aid and with Seafish contributing financially and technically in the preparation of a system specification as well as in the commissioning (training of fishermen).

2. Objectives:

1. To accurately capture data on product definition and provenance required by legislation or for trading and make it readily available;

2. To improve the administration of the back-office functions for the benefit of buyers and sellers and those involved in office administration;
3. To automate and improve the marketing efficiency of the selling process;
4. To demonstrate the above in the context of a small inshore port and generally make the results of the experience available to others.

3. System description/specification:

The system shown in figure 1 consists of five digital weigh-scales on the market each connected to a touch screen data collector and ticket (label) printer (used for whitefish and shellfish) plus a larger digital platform scale also connected to a data collector and ticket printer (for pelagics and cuttlefish). All the weigh scales are linked to a central server and P.C. in the sales office. Another printer on the market produces a landing tally for the skipper on completion of the landing.

A mobile sales 'clock' on the market has another ticket printer that records details of purchases and has a radiographic link to the central server. The mobile clock, data collectors and associated software were supplied by Auxis Trading Solutions of Belgium and the software for the business administration by BuCoDI of France. Technical specification of the system components is given in Appendix I.

4. Operation:

4.1 Landings:

On landing at the market the skipper or a crew member will register on the system and enter the catch details and type of box being used (to tare the scale). Data is required of the vessel ID, date of capture/landing, fishing area, fish species, presentation (whole, gutted, tails etc.) size grade, quality grade and weight. To minimise the amount of data entry required of fishermen some data elements default to standard settings if no data is entered. For example no day-boat would fish beyond Area 27 so no data input would default to this fishing area. Likewise quality grade would default to EU grade E (for day-boats) unless it is specified otherwise. Date of landing and box weight is captured automatically. On completion of the data entry each box is then iced and a ticket, providing the above data, placed within it. An example ticket is shown in figure 2. The data is in text and bar-code form. On completion of the vessel landing a printed record of the landing is available to the skipper from a printer on the market. An example record is provided in Appendix II.

4.2 Provision of forward information:

During the afternoon prior to the morning sale the sales office contacts a nominated fisherman at sea by mobile phone, who in turn is in contact with

other fishermen to give an indication of how well fishing is going and approximate catch details. This information is made available to buyers and is particularly important during the mackerel season. After landing later in the day, precise detail of landings collected by the weighing and labelling terminals (WLT's) is transferred to the central server linked to the sales office P.C. When all the boats have landed a summary of details of the next morning's sale is sent to buyers by fax or text message as shown in Appendix III. A printed copy of the sale catalogue is also available for buyers prior to the sale in the morning.

4.3 Sales:

Sales held the following morning are made using a mobile sale-screen that displays details of the lot on offer (as detailed in Appendix I). Buyers bid on the fish for sale by pressing a button on a hand-held transmitter. Bidding starts initially using the Dutch principle of falling price until a bid is made. At this point other buyers may join the bidding process and the sale price then rises until only one bid remains and the lot is sold. Once the lot is sold another ticket, edged in red (figure 3) to differentiate it from the landing ticket, is produced to identify the buyer of the lot and placed in the box. This is also bar-coded and confirms the second link in the traceability chain.

At present the system is configured for local sale only, but it has the potential for networking with other markets or for remote buyers to be added. Because scallops are not sold by weight but by the dozen, they are not sold electronically as the current software design works on a price per kilo and weight of box.

Figure 1. Integrated Traceability, Marketing and Back-Office System [Looe]

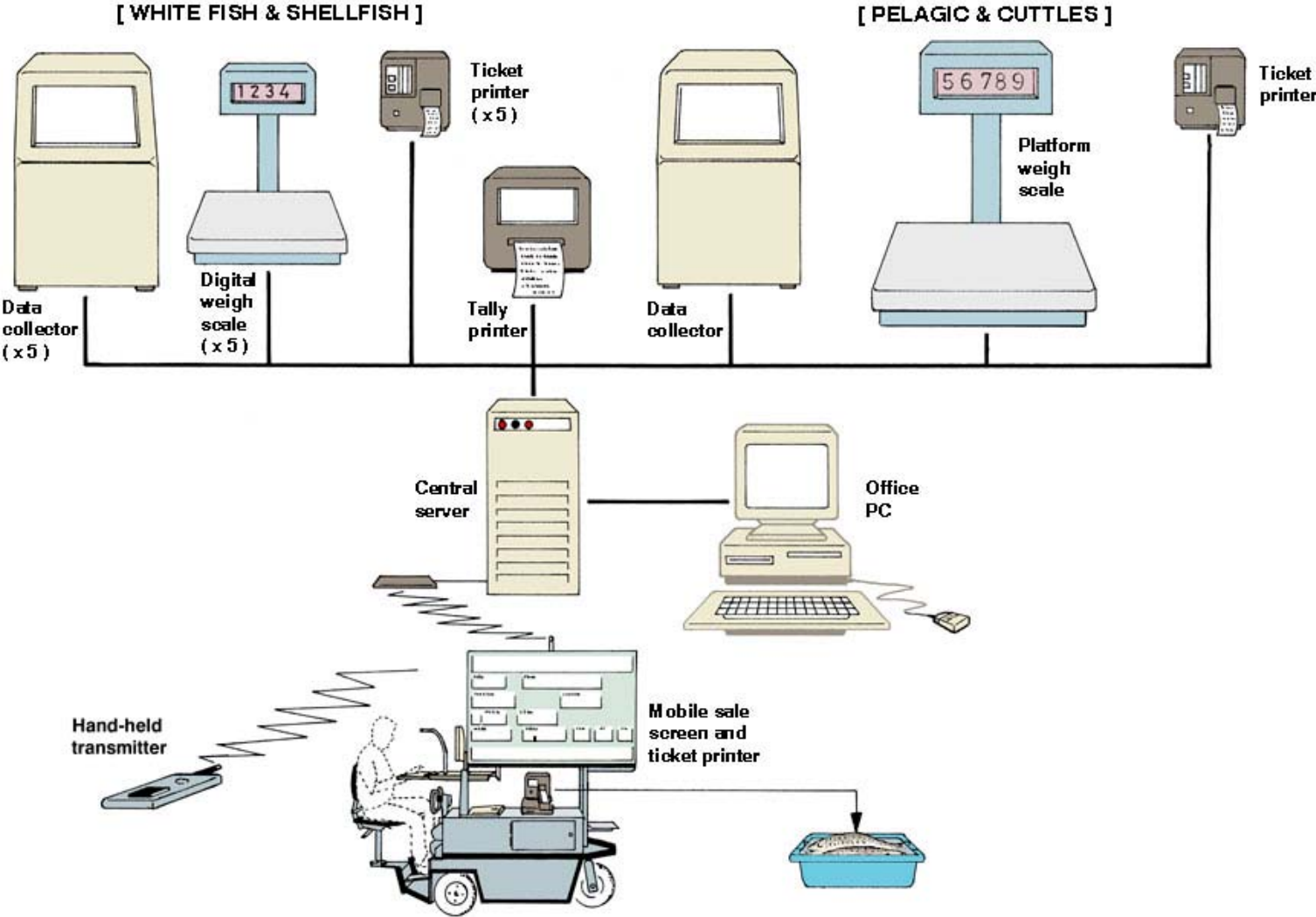


Figure 2 - Landing Ticket

Date and Time of Landing → 21/07/2003 12:23

Port of Landing → LOOE FISH MARKET

Lot Number → **LOT: 50071**

Boat ID → **NATALIE FY 602**

Quality Grade → **E1**

Fish Species → **RED MULLET**

Size Grade → **W**

Weight → **0.6 Kg**

Presentation → **W**

STACK: 50044


Bar coded Data → 

Figure 3 – Sales Ticket

Date & Time of Sale → 21/07/2003 08:10:50

Buyer → **BLUESAIL**

Lot Number → **LOT: 70007**

Boat ID → **IBIS FY 292**

Quality Grade → **E1**


Fish Species → **H & L MACK**

Size Grade → **W**

Weight → **6.0 Kg**

Weight → **0.66**

STACK: 70003



4.4 Generation of reports:

On completion of the morning sale the software system automatically generates a transaction sheet (Appendix IV) for each merchant, that provides details of their total purchases. Likewise, each skipper receives a daily boat settlement statement (Appendix V). Merchants are invoiced (Appendix VI) and boats settled weekly (Appendix VII). Boats are paid using a pass-word protected automated banking system (Masterlite/Barclays) but only two merchants currently pay using a bank automated credit system (BACS).

The back-office software is written to minimise, as much as possible, the input of data and manual generation of reports and is shown diagrammatically in figure 4. It is necessary however to input details of overlanded supplies from other ports and certain vessel expenses manually (ice, fuel etc.). All the reports shown to the right of figure 4 can be generated automatically but at present not all the agencies or recipients of reports can receive them electronically. Producer Organisations receive hard-copy of the daily boat settlements that also go to the local DEFRA office in Plymouth. Seafish also currently receives completed levy returns monthly by post and payment by cheque. Reports to DEFRA and Producer Organisations and levy returns to Seafish including payment could all be handled more efficiently if done electronically. (Seafish is in fact working on templates for electronic returns and payment by BACS).

5. Evaluation:

Since commissioning on the 18th June 2003 the data-collection, sale and back-office system has been in constant use with virtually no problems. It has been accepted and welcomed by both fishermen and buyers.

Fishermen particularly like the automatic production of the detailed landing tally that eliminates the need for them to keep a record of each box and to calculate the total weights of species landed, etc. The wooden cabinet housing the tally printer however would have been better in stainless steel and waterproof. Fishermen also welcome the fact that boxes can be weighed and labelled at any weight and that they no longer have to match a target box weight.

Buyers welcome the provision of detailed forward information of the morning sale, accurate product descriptors (including provenance) and the discreet nature of the bidding process. Although landing data is currently sent to buyers by fax or text message, it could be automatically generated and sent electronically to those equipped to receive e-mail. The speed of sale is reported to be 20% faster than the old 'shout' auction and is only constrained by the requirement to place a sale ticket in each box sold.

The major benefit to the sales agency is the automation of manual input and processing of data. It eliminates the need for double entry of data for generation of different reports and the inevitable mistakes caused by human error (which then need to be identified and put right). It also allows the useful analysis of data at the touch of a button to compare prices or volumes of business over periods of time, the performance of one boat over another or the buying patterns of customers etc.

Some introductory training in the use of the weighing and labelling terminals (WLT's) was required for fishermen as there is no obvious progression through the sequence of data entry. The question being asked for example is not always clear to understand, indicated only by a blue highlighted box with a title beside it. Understanding would be improved if the screen asked simple questions like 'what species are you landing?' Minor alterations to the software that gave better guidance, akin to the instructions given by bank cash machines, could eliminate the need for training. It was common at the end of the landing process for fishermen to ask 'what do I press now?' With growing experience it will not be a problem at Looe, but ports used by nomadic vessels would require the crew of each vessel to be introduced and trained in the operation of the system or would have to provide someone to assist in data entry.

The highlighted areas of the touch-screen are also sometimes rather small or narrow for use by fishermen wearing gloves and the font size used on the screen could be larger to aid visibility. There was also some confusion over the entry of fish species. In order not to have to scroll through a long list of fish species, the most commonly landed species are listed first, then the second most common listed and lastly all other species. It assumes a knowledge of which species appear in each list. A search facility based on the initial letter of the species might be more useful i.e. 'H' would display a list of haddock, hake, halibut etc. for selection. Early problems of loss of screen display when entering data were solved by instruction in how to retrieve it by double touch of the appropriate keyboard button.

Where several boxes of the same species and size grade are being landed, the speed of data entry would be greatly improved if the software incorporated a 'repeat last landing' button, if all that is different is the weight. (Note that this suggestion has now been successfully adopted).

Use by fishermen of the WLT's to weigh and label small quantities of mixed fish for cash sale will need to be stopped, or accommodated by the software in some way, as it automatically generates a lot for the electronic sale that does not exist. Likewise the practice of weighing and labelling of individual or small numbers of prime fish that are placed in the same box with other weighed and labelled prime fish should be discouraged as each label generates a sale lot. Each label also generates an invoice for the cost of ice as if it were a box. For some reason the new tickets issued by the WLT's and ticket printer of the Moby clock tend to curl and not stick to the fish boxes as well as the previously used assorted papers.

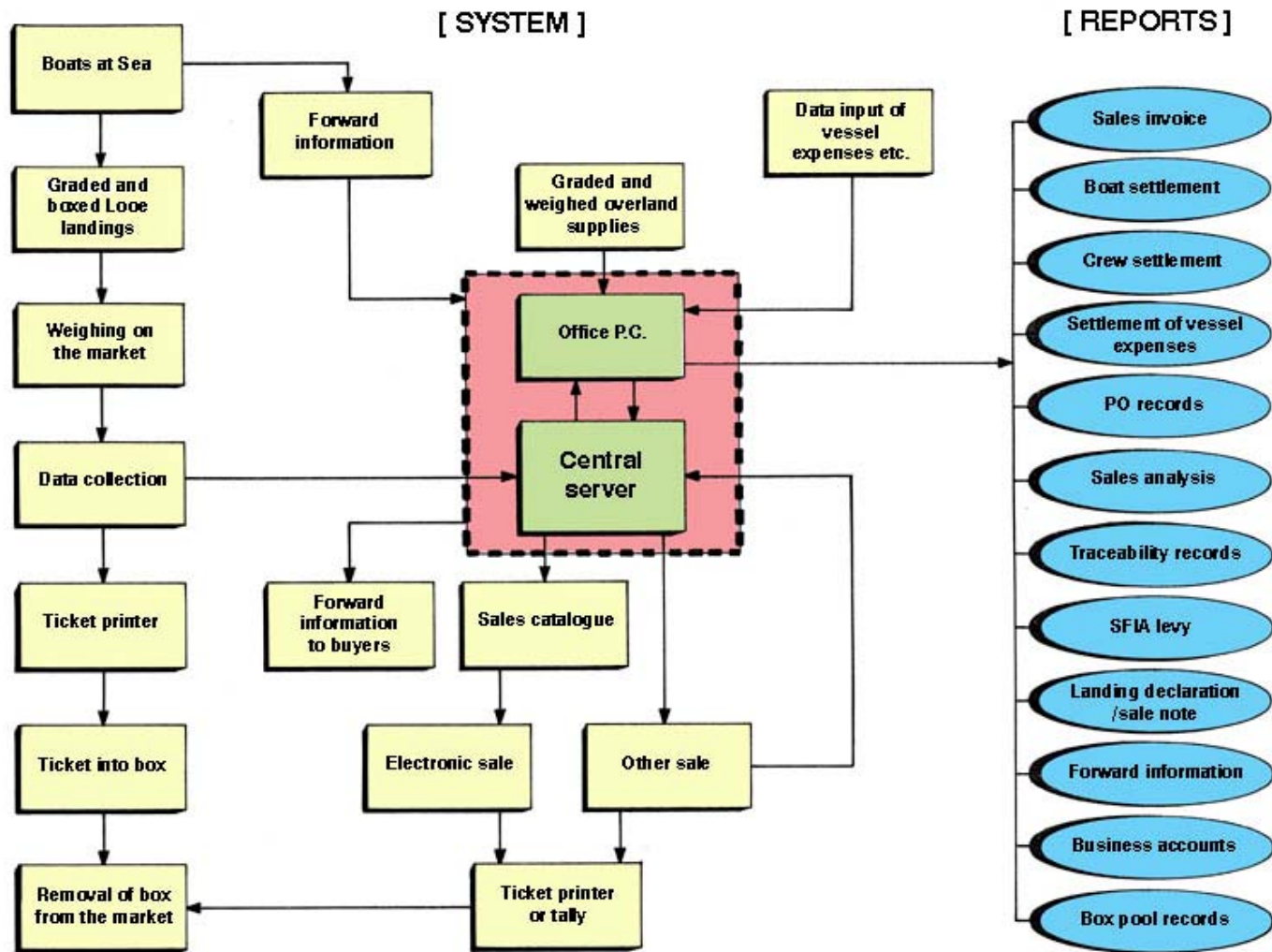
An integrated traceability, marketing and back-office system for inshore ports and vessels

With regard to prices achieved by the new electronic sale it is too early to tell whether any increase has been achieved. It is not considered likely however that any significant benefit will be gained until the customer base is increased by either adding remote buyers or by networking with other markets, which would also encourage greater market stability.

The new back-office system will deliver traceability in accordance with the requirements of legislation to be implemented in January 2005. It also captures all the data categorised as 'shall' in the CEN Tracefish Standard although currently the ID of traded units is not based upon the EAN.UCC system of numbering and bar coding.

To conform with Labelling Regulations the fishing area should be added to the Landing and Sales tickets.

Figure 4. Generation of Reports by the System



6. Acknowledgements

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Bart Hoffans..... Auxis Trading Solutions nv
Ronnie Steelandt BuCoDI
Steve Farrar Bluesail Fish Company
Dave Haines
Skippers and Crews
DEFRA

Appendices

Appendix I

Technical specification

Moby clock and transmitters:

The Moby clock contains,

- Standard PC
- Ticket printer
- Two display panels
- Radiographic network
- Radiographic sales system
- Batteries and 230 v supply

The PC is a Pentium 4, 1.8GHz, 256 MB with 2 serial communication ports on board, also equipped with 10/100 MBit network card. The operating system is Windows 98 second edition, UK version. A further communication port is provided to command the necessary hardware. The first communication port is used for the radiographic interface of the sales system. The second commands the two display panels and the third is for the ticket printer. The PC includes a PCI-adaptor that is needed for installing the radiographic network card. The 'normal' installed network card is used for backup in case the radiographic network fails. A 15" LCD monitor, keyboard and mouse are located in front of the auctioneers seat.

The ticket printer is an Intermec E4. The protocol is 19,200 bps, 8 databit and no paritybit and 1 stopbit. The communication cable between the printer and the PC is a 1:1 cable with two 9-pin connectors, 1 male and 1 female.

The sale display panels can be viewed from either side of the moby clock and they both display:

- species
- size
- presentation
- quality
- weight
- lot number
- boat ID
- price in £ and €
- buyer
- details of the last two lots sold
- details of the next two lots for sale

The radiographic network consists of two fixed access points in the fish market and one radiographic network card in the PC of the Moby clock. It works on the 802.11b protocol with a maximum baudrate of 11Mbit.

The Moby clock is equipped with two sets of batteries. One set is only for the vehicle and the other set feeds two converters producing 230v A.C.. One converter is for the ticket printer only and the other for the PC, the monitor, the radiographic interface and the display panels.

Weigh scale terminals:

The weigh Scale Terminals comprise:

- digital platform scale
- industrial PC and touch-screen
- ticket printer
- heater and thermostat
- main power switch

There are 5 stainless steel 'Delta' digital weigh-scales, 232 port with LCD display for the weighing of whitefish and shellfish and one similar but larger weigh-scale for use with pelagic and cuttlefish.

The PC is a GX1-300 CPU, 128 MB SD-Ram, 2 serial ports, 10/100Mbit network card, touch-screen 12.1" SVGA TFT colour, floppy disc and CD-ROM station. The operating system is Windows 2000 professional UK.

The ticket printer is an Intermec E4 and controlled by the third communication port of the PC. The protocol is 19.200 bps, 8 databits, no paritybit and 1 stopbit. The communication cable between printer and PC is 1:1 cable with two 9 pin connectors, 1 male and 1 female.

A stainless steel housing contains the PC and ticket printer and a small (55W) heater and thermostat set at 15°C.

Central server:

The server is a Fujitsu/Seimens Primergy F200 type comprising:

- Pentium III 1.4GHz processor
- 1Gb memory
- CD-ROM station
- Tape drive - DAT DDS4 20Gb 3Mb/s internal
- 3 hard disks 18Gb (not playable) connected onto an Adapted RAID controller (32Mb) configured in RAID 5
- 2 hot pluggable power supply modules 400W
- Keyboard, mouse and 17" monitor
- ISDN modem that allows remote support by ATS or Bucodi
- Brother HL2400 laser printer
- Operating system - Microsoft Windows 2000 Server
- Database- Microsoft SQL Server 2000
- Software - Bucodi Logic

Workstation PC:

The workstation is an Acer Travelmate 422DLC comprising:

- Intel Celeron 4 processor 2GHz
- 256 Mb memory (ram)
- USB floppy drive
- 15" TFT screen
- 20Gb hard disk
- DVD/CDRW combo module
- Integrated 10/100 LAN
- Integrated 56K modem
- Memory stick slot
- S-video out, Firewire, 1 x PC card slot, 3 x USB, infra-red and parallel communication ports
- Sound card, speakers and microphone
- Operating system - Windows XP home edition UK

Printer (Landing Record)

The printer used to provide skippers with a record of landing is a Brother HL5070N with a print server module. It is fitted with a small heater (55W) and a thermostat, set at 15⁰C.

Appendix II

Individual vessel landing tally

LOOE FISH MARKET - LANDING LIST						
BOAT: NORTHWOOD				LANDING DATE: 21/08/2003		
				PORT OF LANDING: LOOE		
Species	Grade	Quality	Presentation	Box Type	No. Box	Total kg
PLAICE	2	E	G	SMALL	1	3.8
PLAICE	3	E	G	SMALL	1	2.2
					2	6.0
COD	2	E	G	SMALL	1	3.4
DOVER SOLE	1	E	G	SMALL	1	18.7
DOVER SOLE	2	E	G	SMALL	1	2.2
						20.9
MONK	3	E	H	SMALL	1	1.7
RAY	1	E	G	SMALL	1	1.7
RAY	3	E	G	SMALL	1	1.0
					2	3.8
TOTALS:					8	35.8

Appendix III Forward supplies list

18/07/2003			
LOOE FISH MARKET LANDING LIST - SUMMARY			
Species	Grade	No. Box	Total kg
BASS	0	2	10.0
BRILL	1	1	2.3
BRILL	2	2	3.1
BRILL	3	1	1.5
CONGER EEL	2	1	6.1
DABS	0	1	16.0
DOVER SOLE	0	2	6.0
DOVER SOLE	1	1	1.0
DOVER SOLE	2	1	0.6
DOVER SOLE	3	1	1.1
H & L MACKEREL	0	1	6.0
HADDOCK	0	2	26.1
HAKE	0	1	4.5
HAKE	2	1	1.5
HAKE	3	1	1.3
HEN CRAB	0	1	3.6
JOHN DORY	1	4	31.8
JOHN DORY	2	2	14.3
JOHN DORY	3	5	30.6
JOHN DORY	4	1	4.9
LEMON SOLE	1	1	9.8
LEMON SOLE	2	11	175.2
LEMON SOLE	2+	10	142.2
LEMON SOLE	3	6	63.7
LEMON SOLE	3+	7	82.7
LING	2	1	8.7
LING	3	1	7.8
LOBSTER	2	1	1.7
MIXED FISH	0	4	33.9
MIXED PRIME	0	3	8.9
MONK	0	1	12.1
MONK	1	4	43.2
MONK	2	2	14.0
MONK	3	4	25.8
MONK	4	1	2.0
MONK LIVERS	0	1	2.4
PILCHARDS	0	6	66.0
PLAICE	0	1	5.0
PLAICE	2	4	39.5
PLAICE	3	5	48.1
PLAICE	4	3	28.3
POLLACK	0	3	38.3
RAY	0	1	3.5
RED MULLET	0	1	2.4
RED MULLET	2	1	0.7
SQUID	0	6	82.3
WHITING	0	1	2.7
WHITING	1	3	67.6
WHITING	2	7	83.7
WHITING	3	9	146.0
WHITING	4	3	56.8
TOTALS :		144	1477.3


Appendix IV

Buyers daily transaction sheet

LOOE FISH SELLING - DAILY PURCHASE LIST										
BUYER : BLUESAIL FISH CO						AUCTION DATE : 22/08/03				
Vessel	Grade	Qu.	Pres	Box	No.Box	Species	Weight	Pr/Kg £	Total Price	
									£	€
ARRANT	2+	E	G	M	1	LEMON SOLE	11.6	6.54	75.86	109.71
ARRANT	2	E	G	M	1	LEMON SOLE	25.2	5.43	136.84	197.89
ARRANT	3	E	G	M	1	LEMON SOLE	7.7	1.00	7.70	11.14
ARRANT	2	E	G	M	1	PLAICE	9.8	1.70	16.66	24.09
ARRANT	3	E	G	M	1	JOHN DORY	6.5	3.77	24.51	35.44
ARRANT	2	E	G	M	1	DOVER SOLE	1.1	7.74	8.51	12.31
ARRANT	2	E	G	M	1	HAKE	1.2	1.05	1.26	1.82
ARRANT	3	E	G	M	1	HAKE	1.5	0.65	0.98	1.41
ARRANT	1	E	H	M	1	MONK	25.6	5.95	152.32	220.29
ARRANT	3	E	H	M	1	MONK	7.9	4.81	38.00	54.95
ARRANT	4	E	H	M	1	MONK	6.5	2.98	19.37	28.01
AQUILLA	1	E	G	M	1	CONGER EEL	18.0	0.30	5.40	7.81
AQUILLA	1	E	G	M	1	CONGER EEL	24.0	0.50	12.00	17.35
AQUILLA	1	E	G	M	1	CONGER EEL	24.0	0.50	12.00	17.35
ELLA FY 24	3	E	G	M	1	LEMON SOLE	10.8	1.10	11.88	17.18
ELLA FY 24	1	E	H	M	1	MONK	22.9	6.05	138.54	200.36
ELLA FY 24	2	E	H	M	1	MONK	30.9	6.38	197.14	285.11
ELLA FY 24	4	E	H	M	1	MONK	22.7	3.33	75.59	109.32
ELLA FY 24	5	E	H	M	1	MONK	4.8	2.20	10.56	15.27
FAITH SU 513	2	E	G	S	1	LEMON SOLE	12.2	5.05	61.61	89.10
FAITH SU 513	2	E	H	S	1	MONK	11.8	6.05	71.39	103.24
FAITH SU 513	3	E	H	S	1	MONK	18.5	5.38	99.53	143.94
FAITH SU 513	4	E	H	S	1	MONK	5.2	4.24	22.05	31.89
GALATEA FY 9	2	E	G	M	1	LEMON SOLE	12.3	5.36	65.93	95.35
GALATEA FY 9	2	E	G	M	1	LEMON SOLE	15.4	5.36	82.54	119.38
GALATEA FY 9	3+	E	G	M	1	LEMON SOLE	14.8	3.80	56.24	81.33
GALATEA FY 9	3	E	G	M	1	LEMON SOLE	5.4	1.00	5.40	7.81
GALATEA FY 9	2	E	G	M	1	PLAICE	8.1	1.43	11.58	16.75
GERRY ANN TH	2+	E	G	S	1	LEMON SOLE	15.0	6.26	93.90	135.80
GERRY ANN TH	2	E	G	S	1	LEMON SOLE	14.4	5.44	78.34	113.29
GERRY ANN TH	2	E	G	S	1	LEMON SOLE	12.8	5.44	69.63	100.70
GERRY ANN TH	3	E	G	S	1	LEMON SOLE	7.0	1.02	7.14	10.33
GERRY ANN TH	2	E	G	S	1	PLAICE	12.6	1.49	18.77	27.15
GERRY ANN TH	2	E	G	S	1	WHITING	6.2	0.50	3.10	4.48
GERRY ANN TH	2	E	G	S	1	JOHN DORY	7.3	4.97	36.28	52.47
GERRY ANN TH	2	E	H	S	1	MONK	20.1	6.29	126.43	182.84
GERRY ANN TH	0	E	W	S	1	SQUID	8.2	3.55	29.11	42.10
GUIDING LIGH	2+	E	G	S	1	LEMON SOLE	13.1	6.40	83.84	121.25
GUIDING LIGH	2	E	G	S	1	LEMON SOLE	17.1	5.71	97.64	141.21
GUIDING LIGH	3	E	G	S	1	LEMON SOLE	7.5	1.00	7.50	10.85
GUIDING LIGH	2	E	G	S	1	PLAICE	10.0	2.04	20.40	29.50
GUIDING LIGH	2	E	G	S	1	JOHN DORY	5.2	5.04	26.21	37.90
GUIDING LIGH	3	E	G	S	1	HAKE	3.1	0.63	1.95	2.82
GUIDING LIGH	1	E	H	S	1	MONK	14.9	6.36	94.76	137.05
GUIDING LIGH	2	E	H	S	1	MONK	11.3	6.44	72.77	105.24
MARET	2	E	G	S	1	LEMON SOLE	17.3	5.43	93.94	135.85
MARET	3	E	G	S	1	LEMON SOLE	23.6	1.10	25.96	37.54
MARET	2	E	G	S	1	PLAICE	14.0	1.69	23.66	34.22
MARET	1	E	G	S	1	WHITING	15.2	1.42	21.58	31.21
MARET	2	E	G	S	1	WHITING	13.7	0.75	10.28	14.86
MARET	2	E	G	S	1	WHITING	14.1	0.75	10.57	15.29

Appendix V

Daily boat settlement sheet



LOOE FISH SELLING LTD
UNIT2, BULLER QUAY
EAST LOOE
PL13 1 DT Cornwall
Tel (01503) 263 999 Fax (01503) 262 393

Fish Auctioneers

VALERIE MAY FH 270
Daily Boat Settlement
Auction Date 17/07/2003

MR C PARKER
PARK FARM
ST CLEMENTS
TRURO
CORNWALL

Fishing Position : ICES Area VIIIE
Port of Landing : LOOE

Lot	Species	Qual.	Gra	Pres.	Buyer	Weight	Price/kg	Total
1970350007	MONK	E	3	H	S & L FISH	5.40	6.20	33.48
1970350008	CONGER EEL	E	2	G	RIDDLERS	12.60	0.90	11.34
1970350009	MIXED PRIME	E	0	G	BLUESAIL FISH CO	3.50	4.05	14.18
1970350010	JOHN DORY	E	3	G	OCEAN HARVEST	5.30	4.80	25.44
1970350011	MIXED FISH	E	0	G	MARK KITTO	5.40	0.35	1.89
1970350012	LEMON SOLE	E	0	G	RIDDLERS	18.70	4.90	91.63
1970350013	PLAICE	E	0	G	MARK KITTO	6.20	1.56	9.67
1970350014	WHITING	E	0	G	SAMWAYS LTD	14.00	0.20	2.80
1970350015	SQUID	E	0	W	S & L FISH	14.20	4.82	68.44
1970350016	SQUID	F	0	W	S & L FISH	15.60	4.82	75.19
1970350017	LING	E	0	G	OCEAN HARVEST	5.00	0.40	2.00
Total								336.06
* Commission								15.12
* Looe Landing Dues								9.24
CFPO								2.52
Ice								1.65
* VAT								4.27
Settlement Total £								303.26

Kilos WHITEFISH 105.90

VAT Number : GB 501 268 90

Unique I.D.
First 3 digits represent the day in the year (1 – 355/6)
Next 2 digits represent the year (03)
Next digit is the number of the scale on the market (1 to 6 and 7 for overland)
Last 4 digits represent the sequence of weighing

Appendix VI

Weekly merchant's invoice (generated by Sage software)

STATEMENT FOR THE ATTENTION OF ACCOUNTS

**LOOE FISH SELLING
UNIT 2
BULLER QUAY
EAST LOOE
CORNWALL
PL13 IDT**

**BLUESAIL FISH COMPANY
UNIT 2 BULLER QUAY
EAST LOOE
CORNWALL
PL13 IDT**

22/08/2003

DATE	DETAILS	
18/08/03	Goods/Services	711.36
18/08/03	Goods/Services	0.12
18/08/03	Goods/Services	1.15
18/08/03	Goods/Services	0.12
19/08/03	Goods/Services	2,602.89
19/08/03	Goods/Services	21.03
19/08/03	Goods/Services	5.70
19/08/03	Goods/Services	9.27
20/08/03	Goods/Services	1,714.53
20/08/03	Goods/Services	2.59
20/08/03	Goods/Services	2.34
20/08/03	Goods/Services	3.86
21/08/03	Goods/Services	4,430.14
21/08/03	Goods/Services	1.00
21/08/03	Goods/Services	8.52
21/08/03	Goods/Services	0.86
22/08/03	Goods/Services	4,649.61
22/08/03	Goods/Services	3.88
22/08/03	Goods/Services	9.17
22/08/03	Goods/Services	5.04
 TOTAL DUE TO BE PAID BY TUESDAY FOLLOWING STATEMENT DATE		 14,183.18

Appendix VII

Vessel weekly landing settlement sheet



LOOE FISH SELLING LTD
 UNIT2, BUILER QUAY
 EAST LOO
 PL131 DT Cornwall
 Tel (01503) 253 999 Fax (01503) 262 393

Fish Auctioneers

MR C JAYCOCK
 50 PORTBYHAN ROAD
 WEST LOOE
 PL13 2QN
 CORNWALL

GERRY ANN TH 169

LOOE AUCTION WEEKLY SETTLEMENT SUMMARY

WEEK ENDING: 21/07/2003

Auction date	Kilos SHELLFISH	Kilos WHITEFISH	Total Gross
15/07/2003			448.76
11/07/2003		169.00	670.21
17/07/2003		195.00	714.53
18/07/2003	2.00	107.00	376.63
TOTALS	2.00	564.00	2,210.13

	AMOUNT	VAT	TOTAL
*Commission	99.45	17.41	116.86
*Looe landing Dues	60.78	10.54	71.42
*SWFPO Levy	16.59	2.91	19.50
1 skip ice W/E 14/0703	9.00	0.00	9.00
Ice	8.30	0.00	8.30
LOOE FUELS 13RI03	420.85	0.00	420.85
REFUND REF WIE 2916103	-545.94	0.00	-545.94
TOTAL CHARGES	69.03	30.96	99.99

NET PAYABLE 2,110.14

VAT N° : GB 501 2680 90