



Datatrac Technologies and Solutions

Automatic Data Capture



Why collect data?

- **Legal/insurance requirements**
- **Monitor operational performance**
- **Improve efficiency**
- **Improve safety**
- **Reduce equipment failure**
- **Collect baseline data**

Types of Data

- Paper data is
Marooned



- Live data



Digital Data

THIS IS NECESSARY TO EXPORT FROM THE SHIP FOR EXAMPLE:

- **Proof of Compliance**
- **Management Information**
- **Continuous Improvement Information**
- **Condition Monitoring**
- **Reliability Centred Maintenance Data**

Compliance Creep

- **The trend is toward more legislation increasing the burden of compliance**
- **Greater requirements from charterers to prove best practice – the current example is the TMSA**
- **Best practice and continuous improvement need data**

Current Practice

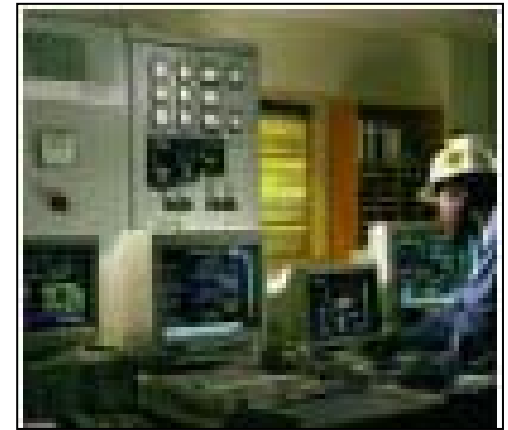
- **Re-typing written data is not good use of Officers' time.**
- **Increasing volumes of data for monitoring and compliance require we look to new technologies**

The Future

- **Data collected one time only at source**
- **Made available on board for other purposes**
- **Analysed and reported from the ship**
- **No typing**

How to collect 'live' data

- Gathered automatically from equipment as standard



- By hand



Datatrak Technologies

Contact Memory Tags



Digital Pens & Paper



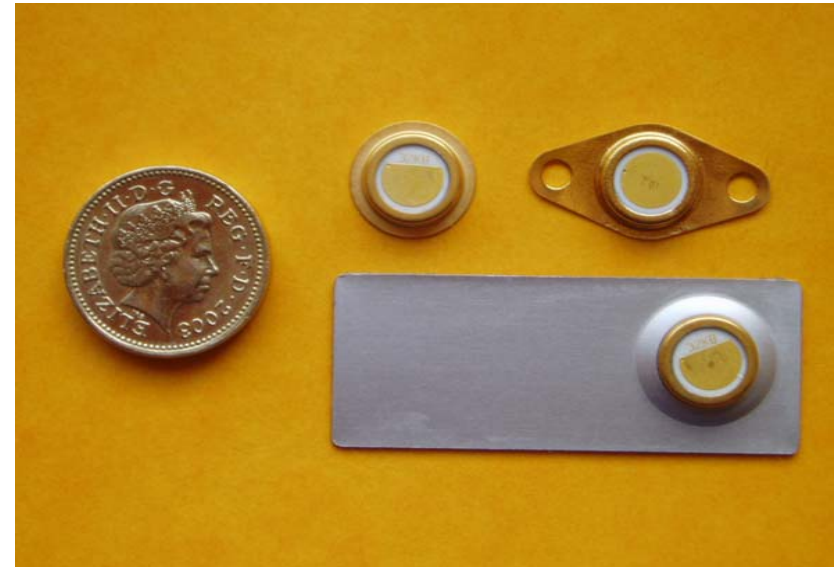
E-Pen Technology



Data input



Handheld Reader and E-Tags

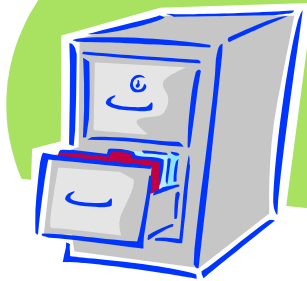


Engine Room Log



Data collected

Held in database



Result
Electronic
Log sheet



Required fields
selected.

Date (last 24Hrs)
Data



Result – Electronic Log Sheet

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1		turbocharger 1						turbocharger 2							
2		scavenging air				gas temp			scavenging air				gas temp		
3		RPM (x1000)	pressure	temperature		before turbo	after turbo	RPM (x1000)	pressure	temperature		before turbo	after turbo		
4	Watch		drop cooler	before cooler	after cooler				drop cooler	before cooler	after cooler			drop cooler	before cooler
5	00/04														
6	04/08														
7	08/12														
8	12/16														
9	16/20														
10	20/24														
11		turbocharger 3						turbocharger 4							
12		scavenging air				gas temp			scavenging air				gas temp		
13		RPM (x1000)	pressure	temperature		before turbo	after turbo	RPM (x1000)	pressure	temperature		before turbo	after turbo		
14	Watch		drop cooler	before cooler	after cooler				drop cooler	before cooler	after cooler			drop cooler	before cooler
15	00/04														
16	04/08														
17	08/12														
18	12/16														
19	16/20														
20	20/24														
21															
22															

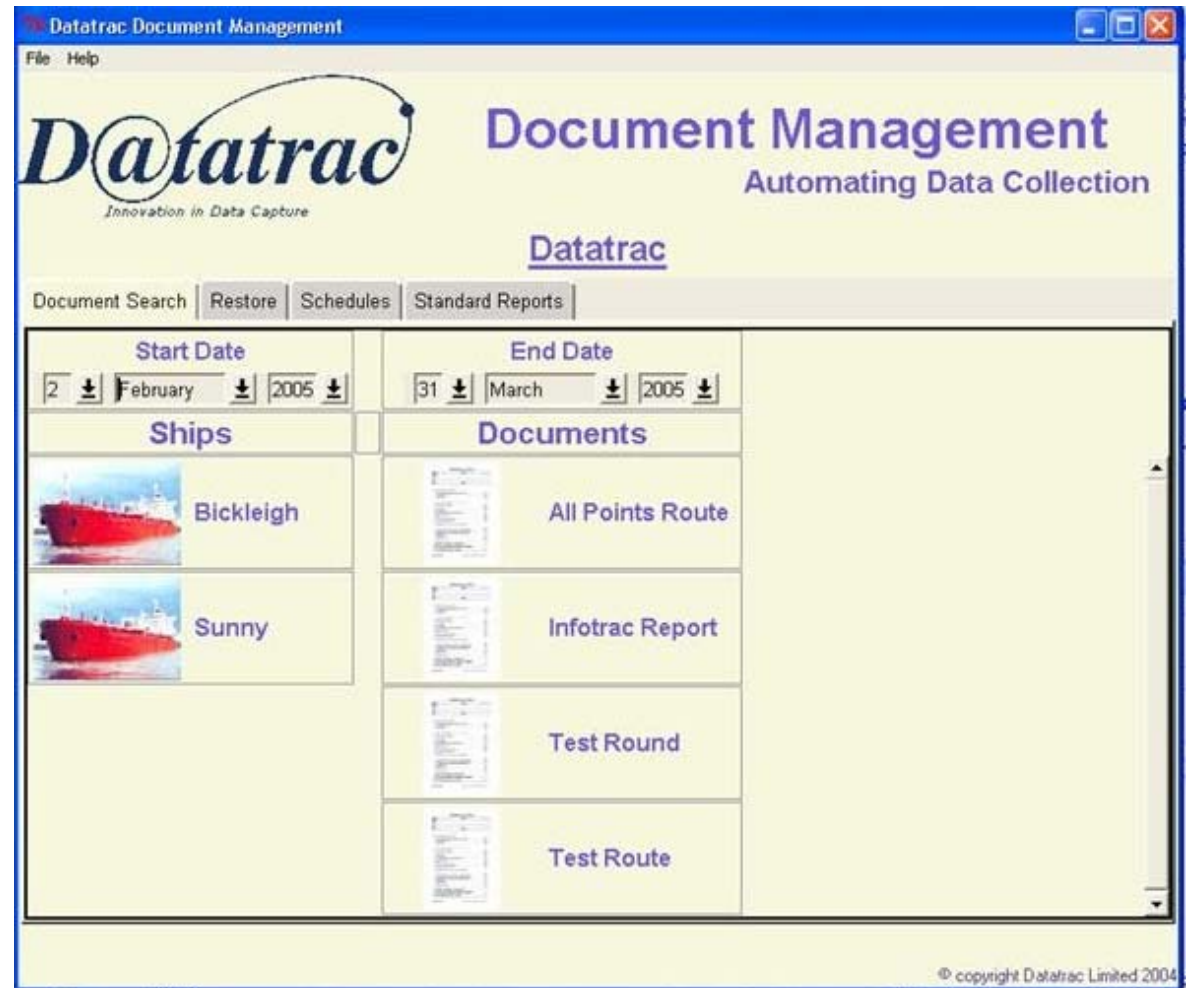


Seatrade
AWARDS
2005

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Innovators in Data Capture

Data Management

- Data held in database
- Safe
- Searchable
- Can be manipulated as required



Data Management

	A	B	C	D	E	F	G	H	I
4		Inlet	L.O.	Inlet	Inlet	S.W.	Pump	#1 SW	
5		Pressure	Outlet	Pressure	Temp	Temp	Discharge	Outlet	
7	0000-0400	12.2	12.2	14	10	10	45.6	0	
8	0400-0800	12.2	12.2	14	11	11	45.6	1	
9	0800-1200	12.2	12.2	14	12	12	48.7	1	
10	1200-1600	12.1	12.1	14	11	11	45.2	0	
11	1600-2000	12.2	12.2	14	10	10	42.9	0	
12	2000-2400	12.1	12.1	14	10	10	39.8	1	

Conclusion

- **Save money**
- **Improve accuracy**
- **Reduce workload**
- **Improve efficiency**
- **Improve safety**
- **Reduce operational costs**