BookStock

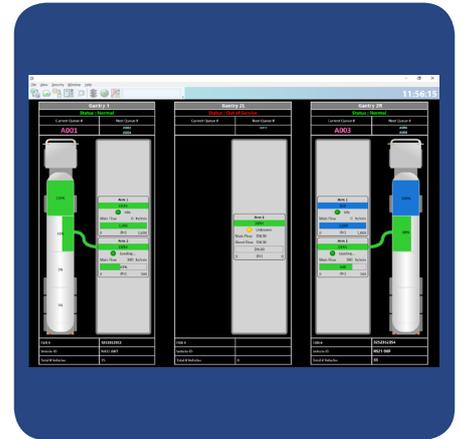**BookStock is a bulk liquid stock accounting application suitable for sites handling petroleum products and other bulk liquids**

BookStock Report

VTW

SmartTAS

Overview

The BookStock application is a scalable system suitable for single or multi-user environments. It features built-in multi-site capability, allowing the management of many sites by one central stock accounting team.

It can operate in a purely manual setting, where all data is entered manually, or it can be connected to a range of automation systems for collecting data automatically.

For example, it can be interfaced to most modern tank gauging systems such as VTW for the collection of real-time physical stock data, or to a terminal automation system such as SmartTAS for the collection of receipt or loading information etc.

Calculations in BookStock are performed to API/ASTM standards to provide observed (measured), standard and mass figures based on the data available.

Stock reconciliation can then be performed for each set of figures.

BookStock provides two methods for correcting data entry errors. If the error is detected before the monthly accounts are posted, then the transaction itself can be altered and the figures recalculated from that point in time.

Should the error be detected after accounts have been published then BookStock provides a facility for entering adjustments to both tank and customer accounts.

The general movement entry screen provides a comprehensive interface for entering stock movement details, but there are some special cases that are handled separately:

- *Hydrant Movements* - movements where the tank opening and closing conditions can't be determined or are not available.
- *Tank to tank transfers* - movements where stock is moved from one storage vessel to another without affecting any customer's stock holding.
- *Customer transfers* - movements where there is no physical movement of stock, just the ownership of the stock is affected.
- *Product transfers* - movements where stock is transformed from one product grade into another.
- *Site-to-site transfers* - stock is moved from one BookStock site to another.

There is also a facility for copying the details of an existing movement to provide the starting point for the creating of a new one saving time when entering recurring movements.

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Co-mingled storage

Where the products stored on site are owned by several companies, but there are no discrete storage facilities for each company's stock, a situation often referred to as 'co-mingled storage' occurs.

Loads and receipts are debited and credited to the customers' accounts, and later reconciled with the physical storage figures.

At the month end the losses and gains can be attributed automatically to the customers in proportion to their throughput.
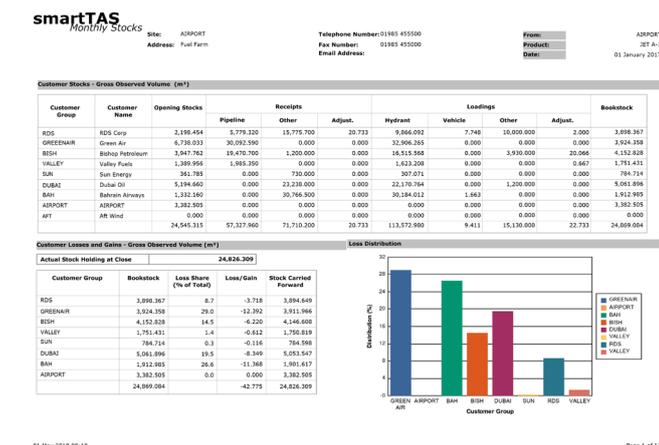
Aviation

BookStock has some specific applications that have been designed for aviation:

- Hydrant movements – tank movement figures inferred from customer movement and closing stock data.
- Average density and temperature figures used where no attributable data exists.
- Sarbanes-Oxley compliant reporting to customers.

Reports

BookStock comes with a comprehensive set of reports which can be customised to specific customer requirements.

smartTAS — Monthly Stocks

Site: AIRPORT	Telephone Number: 01985 455500
Address: Fuel Farm	Fax Number: 01985 455000
	Email Address:
From: AIRPORT	Product: JET A-1	Date: 01 January 2017

Customer Stocks - Gross Observed Volume (m³)

Customer Group	Customer Name	Opening Stocks	Receipts			Loadings				Bookstock
			Pipeline	Other	Adjust.	Hydrant	Vehicle	Other	Adjust.	
RDS	RDS Corp	2,190.454	5,779.320	15,775.700	20.733	9,866.092	7.748	10,000.000	2.000	3,898.367
GREEENAIR	Green Air	6,738.033	30,092.590	0.000	0.000	32,906.265	0.000	0.000	0.000	3,924.358
BISH	Bishop Petroleum	3,947.762	19,470.700	1,200.000	0.000	16,515.568	0.000	3,930.000	20.066	4,152.828
VALLEY	Valley Fuels	1,389.956	1,985.350	0.000	0.000	1,623.208	0.000	0.000	0.667	1,751.431
SUN	Sun Energy	361.785	0.000	730.000	0.000	307.071	0.000	0.000	0.000	784.714
DUBAI	Dubai Oil	5,194.660	0.000	23,230.000	0.000	22,170.764	0.000	1,200.000	0.000	5,061.896
BAH	Bahrain Airways	1,332.160	0.000	30,766.500	0.000	30,184.012	1.663	0.000	0.000	1,912.905
AIRPORT	AIRPORT	3,382.505	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3,382.505
AFT	Aft Wind	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		24,545.315	57,327.960	71,710.200	20.733	113,572.980	9.411	15,130.000	22.733	24,869.004

Customer Losses and Gains - Gross Observed Volume (m³)

Actual Stock Holding at Close: 24,826.309

Customer Group	Bookstock	Loss Share (% of Total)	Loss/Gain	Stock Carried Forward
RDS	3,898.367	8.7	-3.718	3,894.649
GREENAIR	3,924.358	29.0	-12.392	3,911.966
BISH	4,152.828	14.5	-6.220	4,146.608
VALLEY	1,751.431	1.4	-0.612	1,750.819
SUN	784.714	0.3	-0.116	764.598
DUBAI	5,061.896	19.5	-8.349	5,053.547
BAH	1,912.905	26.6	-11.368	1,901.617
AIRPORT	3,382.505	0.0	0.000	3,382.505
	24,869.084		-42.775	24,826.309

Loss Distribution — chart showing Distribution (%) by Customer Group (GREENAIR, AIRPORT, BAH, BISH, DUBAI, SUN, RDS, VALLEY)

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All reports are designed with Crystal Reports although other reporting tools can be supported.

Security

A security system is in place which permits users to set up accounts for each user and to assign each user their own set of rights.

Tank farm operators can therefore be permitted only to enter closing stock figures, while oil accounts personnel can enter movements and transfers etc.

Remote access

Remote Access to the BookStock system can be provided via the internet.

This allows clients of the Oil Storage Operator to log in at any time to see their individual stock holding.

All remote access is carefully controlled though the integrated security system and each user can be granted or denied access to different features of the system.

Interfacing

BookStock's open database architecture and use of modern communication technologies enables data to be transferred to other systems very easily.

A range of technologies are utlised e.g. ASCII, OPC, XML, ODBC etc.

Along with MHT's full suite of software products including VTW, SmartTAS, and LMS, BookStock is fully compatible with Windows 10 and Windows Server 2016.

Architecture

BookStock supports a range of different architectures from simple standalone workstations to large client server and distributed systems.

- BookStock can be installed on the same machine as the tank gauging system, or on a separate system.
- Standard SQL Server back-end database.
- Microsoft.NET client software installed on each station.
- System is compatible with Windows Terminal Server for a centralised deployment.

Hazardous waste

BookStock has some specific applications that have been designed for sites handling hazardous waste such as:

- Electronic delivery of regulatory data.
- Compliant with UK Environment Agency guidelines.
- Waste producer list and waste catalogue synchronised with accounts package.