



# MAVES USERS CONFERENCE 2017



## eDocs – DocsStore (a.k.a. Document Retention)

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## Topics

- ☐ Overview
- ☐ User Interface Components
- ☐ Types of Documents
- ☐ System Services
- ☐ Documents
  - ☐ Repository
  - ☐ Names
  - ☐ Types





## Topics (Continued)

- ☐ Upload Screen
- ☐ Retrieval and Viewing
- ☐ HighViews and Action Grids
- ☐ E-Docs APIs
- ☐ Maves Core APIs
- ☐ Configurations
- ☐ Upgrades
- ☐ Questions and Answers



## Overview

- ☐ What is DocStore?
- ☐ How did we do it?
- ☐ Why was it created?



### What is DocStore?

It allows you store electronic documents, that were not generated with the MAVES system, together with documents that were created in MAVES using eDocs.

Currently Maves' e-Docs are automatically attached to transactions and may be viewed by you (and your Clients) with HighViews.

DocStore enables you to link other External documents to Transactions which may ALSO be viewed by you and your Clients with HighViews.

Note: Initially the Transactions that may be linked to include WMS:

- Receipts,
- Orders,
- Recurring Storage Invoices and
- Accessorial Invoices.

In the future this list will be expanded to other Transactions and Objects

(e.g. Clients, Products, Rates, etc.).



## Overview

- ☐ What is DocStore?
- ☐ How did we do it?
- ☐ Why was it created?



### **How did we do it?**

We did this by creating a common document storage facility which handles both MAVES generated eDocs and external documents.

#### Assumptions

Documents to be uploaded will be created by whatever means the client wishes to use

(e.g.. mobile device cameras, scanners, received by email from external sources, etc.).

The only requirement is that the user is able to get the document on to their PC. From there the upload features will allow the user to store the document within MAVES.

Alternatively, the user can simply place files into one of the “watch” folders. It is assumed they are able to meet the requirements of these watch folders.

### **Why was it created?**

DocStore was created so that 3PLs and Clients may now easily view important documents that were created OUTSIDE of ViewPoint Logistics. With BOTH types of documents together and accessible in Highviews any authorized User from a 3PL, or, a Client, may view the information from

A SINGLE source. This is another step in achieving a paper-less environment which eliminates the time/cost previously spent searching for documents.



## User Interface Components

- ☐ 1. Upload/Store Non-Maves Documents
- ☐ 2. Find/Retrieve Documents
- ☐ 3. Define Document Types for Categorization



### What are the Pieces?

#### 1. Upload/Store Non-Maves Documents:

Perform upload from:

- VL Menu job,
- HighView Action Grid and a
- Browser.

#### 2. Find/Retrieve Documents:

Documents may be found/retrieved using HighViews.

Once a document is retrieved then the User can:

- View,
- Print,
- Work with and
- E-mail these documents using normal functions (built into their PCs)

#### 3. Define Document Types for Categorization:

Administration users may define document types that will be used to categorize documents. Note: Maves internal document types will be “system defined” and cannot be changed or removed by users.





## Types of Documents

- ☐ PDF
- ☐ JPG/JPEG
- ☐ TIFF
- ☐ PNG
- ☐ GIF
- ☐ MS Word
- ☐ MS Excel



### What Types of Files can be Uploaded?

Other Types of Documents may be easily added later simply by changing a configuration.

e.g.: to add support for OpenDoc or other office software.

### **Security:**

We restricted the upload to certain file types for security reasons.

It was important to exclude things like executable programs that might allow a user to upload a program containing a virus.

The programming required to allow only certain file types references a configuration setting.

This makes it more flexible  
and easier to add other file types in future.



## System Services

Drop by Name Watch Folder  
Drop by Scan PDF Watch Folder



### What is “under the covers”?

In addition to the user interface components there will be new eDocs system services.

These will provide the core functions for the Document Store, as well as alternatives to the upload screen for document intake.

These services include a:

- Drop by Name Watch Folder and a
- Drop by Scan PDF Watch Folder.



## System Services

Drop by Name Watch Folder  
Drop by Scan PDF Watch Folder



### **Drop by Name Watch Folder:**

The system will include a folder that is “watched” by eDocs.

Any new files “dropped” into the folder will be processed into the eDocs DocStore.

By following a specific naming convention, the filename of the file will provide the necessary inputs to successfully add the file to the DocStore.

The system will watch a specific folder (identified by configuration) to monitor for new incoming files.

The system will process each file placed into this folder. Files must follow a specific naming convention.

### **Drop by Scan Watch Folder:**

The system will include a folder that is “watched” by eDocs. Any new PDF files “dropped” into the folder will be processed into the eDocs DocStore. These files must be PDF files and include a barcode image within the PDF.

The system will scan the barcode and use this to determine the necessary inputs

to successfully add the file to the DocStore.



## Documents - Repository

- ☐ Directory by Company (Why?)
- ☐ Directory Structure - Within the Host (Why?)
- ☐ Document Store - Root Directory (Why?)



### Where will the Documents be physically stored?

#### Directories by Company

The document repository must have separate document storage by company to guard against cross-company “contamination”.

#### Directory Structure

The document store will be implemented as a directory structure within the host server filing system to contain all the individual files.

The MAVES database will contain companion data that serves as a “document index”

for the document store physical files.

This will allow MAVES to track the documents stored and include document “meta data”

that will facilitate management and retrieval of the documents.



## Documents - Names

### □ Components:

- Company Code
- Client Code
- Document Type
- Document Number
- Sequence Number
- Extension



### How will Documents be Named?

Documents in the document store will follow a document naming convention. All documents will have the following document name pattern:

<CO>-<CLIENT>-<DOCTYPE>-<DOCNO>-<SEQNO>.<<EXT>>

Where:

- CO is the company code (Z0.MC.03)
  - CLIENT is the client code (CR.06)
  - DOCTYPE is the document type (e.g. BOL=Bill of Lading)
  - DOCNO is the Maves document number or entity id (e.g. A Receipt, Order, etc.)
  - SEQNO is the sequence number of the document
- This allows for multiple documents of the same type for the same transaction
- EXT is the file extension based on file type (e.g.. PDF)

Example: L1-ABCCOM-DRL-408975-001.PNG

## Documents - Types

- ☐ Internal vs. External
- ☐ Internal:
  - System Defined Types
- ☐ External:
  - One Default System Defined Type



### How may Documents be Categorized?

Document types for Maves documents will be flagged as internal so that users cannot use these document types and the system will know which documents are internal vs external.

The system will include system defined document types for internal documents. Users cannot remove system document types that eDocs depends on.

The system will also include one system defined document type for external documents so there will be at least one document type available for external documents.



## Upload Screen

### ☐ Three Sections:

- Transaction - To attach the Documents
- List of selected Documents – To be attached
- Select Document(s)





## Upload Screen

Company: L1 Star Distributor Attach to: Order Transaction NO: 444873 Get  
Reference NO: SN-778260 Client: UNILEG Alt Reference: PO-504783  
3

Doc Type	Title	Date Added	User
BOL	Hazardous Analysis and Critical Control Point (HACCP)	2017-03-12 11:43:39	MAVES

Drop File(s) Here

Select Document: Browse ... No File Attach

Document Title:

Document Type: Bill of Lading

VIEW: Hazardous Analysis and Critical Control Point (HACCP)  
Document Type: Bill of Lading  
User: MAVES  
File Name: L1-UNILEG-BOL-444873-000000.png

DATE	TIME
April 14, 2016	10:15

CARRIER	LICENSE PLATE	DRIVER & LICENSE #
CH Howell	841-2265	Rick Smith 216251

LOADING ZONE	CHECKED BY:
Door 23	Heather Grant

Are the compartment door seals intact? Check One  
Yes ☒ Broken ☐ Missing ☐

If the seals are missing, was the container an LTL shipment? Yes No

Seal Number(s) 004172865-009

Is the trailer free of pests, including pests? Check One  
Yes ☒ No ☐

Does the trailer show any evidence of unusual material or off odors? If so, describe.  
No.

Does the trailer show any evidence that it was used to transport any harmful nonfood  
Yes ☐ No ☒



## Retrieval and Viewing

- ☐ New HighView for Documents
- ☐ Hyperlinks from/to Transaction HighViews
- ☐ Use of Stored Procedure



### **Where and how may Documents be Retrieved and Viewed?**

Well ... from an New HighView for Documents

An Action Grid Query has been created  
which allows documents to be listed and clicked on to view.

They can also be filtered to allow particular documents  
for particular transactions to be found.

Hyperlinks from/to Transaction HighViews

Action Grids such as the WMS Orders WIP and Query now have an “Attachments”  
link  
that hyperlinks to the new Action Grid and which displays documents for the  
specific Order.  
Other transaction screens also have similar hyperlinks.

### **Use of Stored Procedure**

Almost all of Maves Action Grids now use SQL Stored Procedures  
to retrieve and display data from files in a DB2 database.  
Our internal testing and feedback from Clients has shown

that Action using Stored Procedures retrieve and display data significantly faster.

# HighViews and Action Grids

e-Z Learn OFF L1 Outbound

Outbounds WIP Outbounds QRY Outbound Stock Outbound Units Outbound C

Preferences Panels Actions Commands Specials Spreadsheet XML

Query Columns Rows MyViews Attachments Attachments BASE Attachments

Whs Ref	Client	Client Ref	Cust Ref	BOL Form	Attachments
444927	US0900	SN-610530	PO-620620	L1-US0900-BOL-444927	Docs [1]
444873	UNILEG	SN-778260	PO-504783	L1-UNILEG-BOL-444873	Docs [1]
444861	INFDBR	SN-262726	PO-665260	L1-INFDBR-BOL-444861	Docs [1]
444846	KROGER	K-66722	PO-0779	L1-KROGER-BOL-444846	Docs [1]
444829	TOMPIZ	SN-903922	PO-778373	L1-TOMPIZ-BOL-444829	Docs [1]
444783	APOTEX	SN-667622	PO1-782555	L1-APOTEX-BOL-444783	Docs [2]

InterAtlas Chemical

Paraformaldehyde

MSDS authored by KMK Regulatory Services Inc. In case of emergency: CHEMTREC, U.S.: 1-800-424-9300 International: +1-703-527-3887

## 1. Product and company identification

Product name: Paraformaldehyde  
Material uses: Not available  
Supplier/Manufacturer: InterAtlas Chemical Inc.  
63 Church Street, Suite 403  
St. Catharines, ON CANADA L2R 3C4  
Tel: 905.684.9991  
Fax: 905.684.4504  
www.interatlaschemical.com

## 2. Hazards identification

Emergency overview  
Physical state: Solid [Powder]  
Color: White  
Odor: Pungent irritating odour.  
Hazard statements: None known  
Precautionary measures: None known  
OSHA/NIOSH status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1205).  
Routes of entry: Dermal contact, Eye contact, Inhalation, Ingestion.  
Potential acute health effects: Inhalation: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.  
Ingestion: Harmful if swallowed.  
Skin: Severely irritating to the skin. May cause sensitization by skin contact.  
Eyes: Severely irritating to eyes. Risk of serious damage to eyes.  
Potential chronic health effects: Chronic effects: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.  
Carcinogenicity: Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.  
Mutagenicity: No known significant effects or critical hazards.  
Teratogenicity: No known significant effects or critical hazards.  
Developmental effects: No known significant effects or critical hazards.  
Fertility effects: No known significant effects or critical hazards.  
Over-exposure signs/symptoms: None known



## eDocs APIs

- ☐ Store Document
- ☐ Attach Document
- ☐ Detach Document
- ☐ Remove Document
- ☐ Automatic Load



What is an API?

It is an Application Program Interface.

Specifically, it is a set of subroutine definitions, protocols, and tools for building modern and robust software and applications.

A good API makes it easier to develop a program by providing all the building blocks, which are then put together by the programmer.

The eDocs APIs manage the documents in the document store.

They also:

Store,  
Attach,  
Detach,  
Remove,  
and Automatically Load Documents



## Maves Core APIs

- ☐ Get Company Information
- ☐ Get Client Information
- ☐ Get Order Header
- ☐ Get Receipt Header
- ☐ Get VICS Orders
- ☐ Get Master Orders



Maves also has a number of CORE APIs to:

Validate and retrieve:

Company Codes and Names (Z0.MC.03),

Clients (CR.06),

Orders (OE.01/20),

Receipts (RE.11/21/31),

VICs Orders (OE.80's),

and Master Orders (OE.80).

Additional Maves APIs may be added over time.

Multiple places in the eDocs functionality will require/use a specific Maves API.

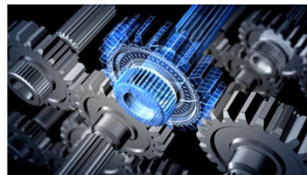
Since there is only ONE copy of each type of API

then any enhancements only need to be made in ONE place

and potential issues are minimized.

## Configurations

- ☐ Document Types
- ☐ Documents
- ☐ Document Links







## Configurations (Continued)

### Document Types:

- ID
- Type Code
- Type Name
- Title Template
- External Type
- System Type



Type Code	Type Name	External Type
BOL	Bill Of Lading	0
VICS	VICS Bill Of Lading	0
MBOL	Master Bill of Lading	0
REC	Receipt Invoice	0
REN	Renewal Invoice	0
ACC	Accessorial Invoice	0
OTH	Other	1

All Documents (Internal and External) will be assigned a Document type.  
Internal documents types are based on existing e-Docs Graphical forms and include the:

BOL = Bill of Lading  
VICS = VICS Bill of Lading  
REC = Receipt Invoice  
REN = Renewal Invoice  
ACC = Accessorial Invoice

Only Maves will be able to created NEW Internal Document Types.

The external documents have one pre-defined type called:

OTH = Other

Additional External Document Types may be created by  
Designated 3PL Users.



## Configurations (Continued)

### ☐ Documents:

- ID
- Company Code (Business Unit)
- Document Title
- Document Type ID
- File Name
- Created By (User)
- Created On (Date/Time)

The Documents file will contain the following information.

It will displayed in a variety of places:

Upload Screen,  
and HighView Action Grids.

This information may also be sorted and filtered to assist Users with finding appropriate documents.



## Configurations (Continued)

### ☐ Document Links

- ID
- Company Code
- Transaction Type
- Transaction ID
- Created By (User)
- Created On (Date/Time)



Transaction Type	Transaction Name
R	Receipt
O	Order

This file is used to link documents to Maves' transactions

Example:

To a Receipt,  
Order, etc.

## Upgrades

### ☐ Load the following Configurations:

- Document Types (Static File)
- Documents (for Maves' e-Docs)
- Document Links



### Upgrades:

As part of any upgrades that contain the new e-Docs DocStore feature, Maves will:

Load the appropriate document types (a Static File),  
Check for existing internal e-Docs (e.g. Graphical BOL, Receipt, etc.)  
and then Update the Documents Links file with existing Maves' e-Docs.

## Upgrades (Continued)

### ☐ Documents (for Maves' e-Docs)

- Document ID – Generated by Database
- Company Code – From the file name
- Document Title:
  - ✓ These will be predetermined and will vary by doc type
  - ✓ e.g. 'Bill of Lading for Client xxxxxx order xxxxxx'
  - ✓ A map function will be specified in more detail to follow
- Document Type ID:
  - ✓ Use doctype from filename & translate with map
- File Name – Use filename scanned and add 0s for suffix
- Created By – "LOAD"
- Created On – "Generated by Database"

A program will be required for existing clients being upgraded to this (or having this retro-fitted) to scan the current documents and load them into the table.

In addition to loading the document into the table the scan will need to create one or more links for each document (perhaps this is a separate step that can be run AFTER the docs are loaded by scanning the docs table and using the filename to find and build links to transactions).



## Upgrades (Continued)

### ☐ Document Links:

- ID – Generated by Database
- Company Code – From the file name
- Transaction Type
  - ✓ Use doctype from filename & translate with map
- Transaction ID – From the file name
- Created By – 'LOAD'
- Created On - Generated by Database

For each Document also add a transaction link:

Document ID – Generated by database

Company Code – From the file name

Transaction Type – Use the doctype from the filename and translate using a map

Transaction ID– From the filename

Created By – 'LOAD'

Created On – Generated by database

## Questions and Answers



Any questions?