AMOS Business Suite

Version 10.0.xx

e-Business ShipServ



Revision 1, November 2016

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SpecTec

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CHAPTER 1

Introduction to e-Business

With an e-Business solution you transform all the paperwork, manual entry of price information, and sending out requests for quotations into an automated process.

ShipServ

ShipServ TradeNet is the world's largest maritime e-commerce platform. ShipServ helps you, the buyer, to find and connect with the best suppliers easily and then to trade efficiently.

Integrated with a ShipServ portal, AMOS e-Business transforms your purchasing process: all requests for quotes, quotations, purchase orders, confirmations and acknowledgements are sent over TradeNet using Marine Trading Mark-up Language (MTML), speeding up order cycle times and lowering the cost of purchasing.

Using a defined ShipServ portal users can exchange purchase documents like Requests for Quotes and Purchase Orders with vendors who are on ShipServ's TradeNet. The documents are sent back and forth as MTML files. It works like this:

1. A user sends a form to the portal. The form is tagged and queued for export.
2. The AMOS portal task server picks up the form and generates an MTML file in the pre-defined 'Out' folder. It's picked up by the ShipServ MTMLLink FX software and transferred through their Tradenet.
3. The vendor provides the information requested and transfers the information back through MTMLLink FX and into the 'In' folder.
4. The AMOS portal import reads this MTML file and updates the related purchase form information in the AMOS database.

CHAPTER 2

Configuration

Before you begin:

- ShipServ will confirm with SpecTec that you have an e-Commerce license from SpecTec and the latest portal driver. The driver is called shipserv.pfd and is located in your AMOS installation directory.
- Identify a suitable PC at your site to run the ShipServ MTMLlink-FX program and the AMOS TaskServer. This could be a stand alone PC or the AMOS server hard drive.

Follow these steps to configure e-Business for use with a ShipServ portal:

1. Check or set the relevant sharing, access rights and system parameters. See "Sharing, Access Rights and Parameters" on the next page.
2. Install and configure the ShipServ MTMLlink-FX software. See "ShipServ MTML Link-FX " on page 9.
3. Define the portal format. See "Defining Portal Formats" on page 10.
4. Register the ShipServ portal and apply settings. See "Registering a Portal" on page 11.
5. Assign site codes to identify installations by. See "Site Codes" on page 15.
6. Connect the vendors you will communicate with. See "Connecting ShipServ Vendors" on page 15.

(Optional) Provide contact details for your purchasing user(s), if you want to include these details in outgoing MTML messages. See "e-Business User Contact Details" on page 16.

(Optional) You can create export/import tasks to further automate the process. See "Export/Import Tasks for e-Business" on page 18.

(Optional) Switch on user defined fields for freight and cost. See "UDFs - Freight and Cost" on page 20.

Sharing, Access Rights and Parameters

Before changing any parameters and for advice on setting access rights, we recommend that you contact your local SpecTec representative.

Sharing

The following sharing parameters for AMOS e-Business are available at **Tools > Configuration > Parameters > Sharing > Tables >** :

- e-Business Portal
- Portal Log
- Quotation/Portal
- Order Form/Portal

SpecTec recommends that you set the sharing for the e-Business Portal on Global level; and that you set sharing on the remaining three parameters on the same level as the Order Form information is already shared.

Access Rights

Access rights to the following registers are required to set up AMOS e-Business:

- e-Business Formats
- e-Business Portals

e-Business users may require access to the following fields:

- Form: Portal Queue
- Quotations: Portal Queue

Note that access to the Portal Queue checkboxes allows users to simply check the box, thereby exporting to the e-portal and bypassing the portal validation and print operation. Due to this, SpecTec recommends that you do not allow any users access to these checkboxes.

Set the access rights at: **Tools > Configuration > Access Control > Groups > Options > Access Control** window > Registers tab and Fields tab.

System Parameters

The following system parameters control the behaviour of AMOS e-Business. They are located at **Tools > Configuration > Parameters > Options > General > Portal > [Parameter Name]**. It is up to you to set these parameters as desired, or leave them with the default settings.

For further information and advice, contact your local SpecTec representative.

Billing Address

Select an address code from the Address register, to define the address where purchase invoices should be sent.

Default setting: Empty

Log Successful Portal Operations

Set to TRUE, the system will store successful portal operations in the portal log.

Default setting: FALSE

Portal Line Item Reference Priority

If the value for this parameter is set to VendorRef, MakersRef the system writes the Vendor Reference value into the XML file if both values are available. If only one of the two is available, that value is written

into the XML file. If this parameter is set to MakersRef, VendorRef the Makers Reference is written to the XML file as the Identification value.

Default setting: MakersRef, VendorRef

Prevent Update of Quotation When One is Selected

When set to TRUE and a vendor is selected, the XML file will not be imported and will be renamed to *.OnOrder. If set to TRUE and no vendor is selected, the XML file will be imported. Set to FALSE the portal will import the XML file whether a vendor is selected or not.

Default setting: FALSE

Show Error Messages During Portal Export

This parameter, if set to FALSE, allows Portal Export to continue uninterrupted in the event of errors occurring during export. Any errors encountered are written to the portal log and can be viewed later. If the parameter is set to TRUE you will receive an error message each time an export error occurs and further data export will be stopped until the error message is cleared by the user.

Default setting: TRUE

Show Error Messages During Portal Import

This parameter, if set to FALSE, allows Portal Import to continue uninterrupted in the event of errors occurring during import. Any errors encountered are written to the portal log and can be viewed later. If the parameter is set to TRUE you will receive an error message each time an import error occurs and further data import will be stopped until the error message is cleared by the user.

Default setting: TRUE

Store Imported XML Document in Portal Log

This parameter, when set to TRUE, allows you to see the imported XML document associated with the selected error message in the Portal Log, accessed via the Options menu. If set to FALSE, there will be no Options menu available and no XML documents will be stored.

Default setting: FALSE

ShipServ MTML Link-FX

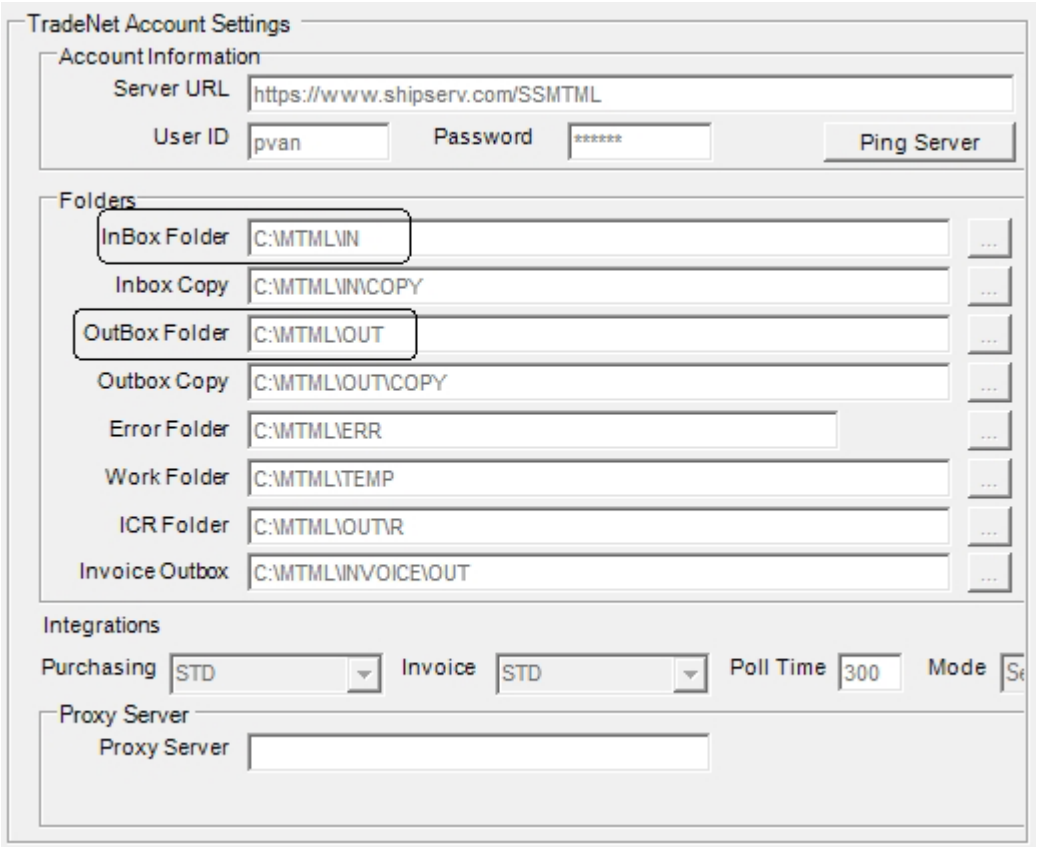
When you export purchase documents from AMOS, MTML Link-FX is the ShipServ program which sends them to TradeNet and later receives quotations and responses from TradeNet.

ShipServ will provide you with a link to download the latest version of the MTML Link-FX program. Once the download is complete, run the program on a PC or server where AMOS is installed.

> **Note:** Refer to the documentation from ShipServ or your own company documentation for instructions on installing and configuring the MTML Link software.

'In' and 'Out' Directories

Exported purchase documents exchanged via a ShipServ portal are sent from an ‘Out’ folder to the TradeNet server and received from the TradeNet Server into an ‘In’ folder, and then imported into AMOS. The folder structure is defined for you when you install the MTMLLink FX client software. The folders are usually created as C:\MTML\IN and C:\MTML\OUT. You can see these defaults in the **InBox Folder** and **OutBox Folder** fields shown in the MTML Link FX Client window here:



You can leave these defaults in place, or, use the lookup buttons to browse to and change the folder's locations. Keep in mind that these folders need to be accessible to everyone using the portal solution from AMOS, meaning that you'd probably want to create them on a generally accessible network location.

The other folders defined here are for ShipServ's archiving and error handling, and so on.

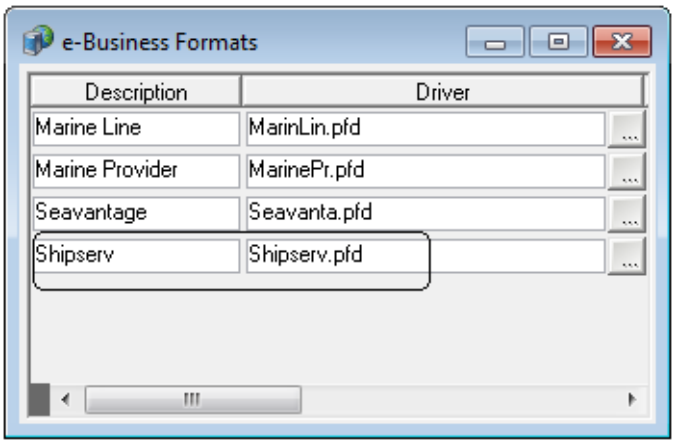
Defining Portal Formats

During a portal export AMOS generates an MTML file in a dedicated 'Portal Format Driver' file (*.pfd). AMOS uses the same pfd file during portal import to interpret incoming MTML files.

PFD files are copied into the root installation folder when you install AMOS. The 'Shipserv.pfd' file is the portal format driver you'll use for ShipServ.

To define use of a portal format driver in AMOS:

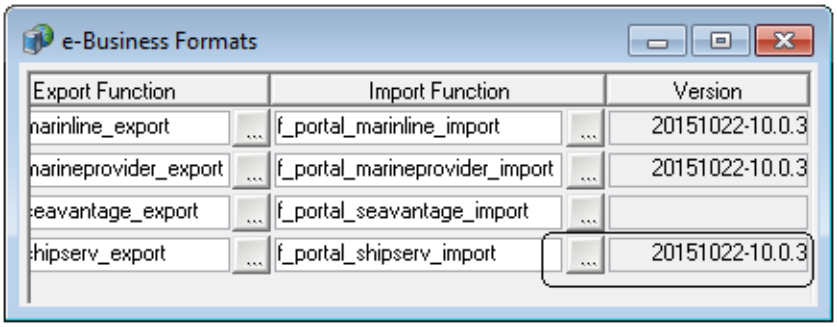
1. Go to **Tools > Configuration > e-Business > e-Business Formats**.
2. Click **New** on the toolbar.
3. Add a name for the format in the **Description** field.
4. Lookup 'shipserv.pfd' in the **Driver** field. You'll find it in your AMOS installation folder. AMOS will automatically add the entire path with the driver name. Delete this path so that only the file name shows.



5. Click the lookups next to the **Export** and **Import Function** fields. The application will automatically import the function files from the driver file.

   These commands activate the required function from the driver file.

6. The **Version** field contains the identification code for the driver you are using. Driver files may be periodically updated and you can check this code to ensure that you are using the most up to date drivers.

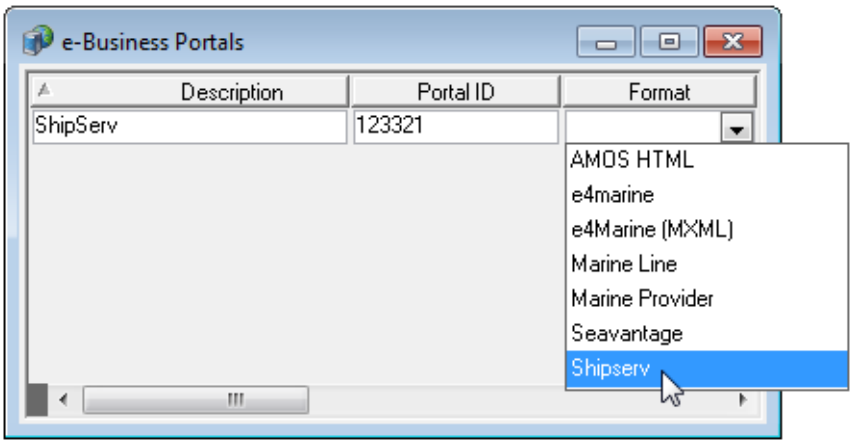


7. **Save** and close the window.

Registering a Portal

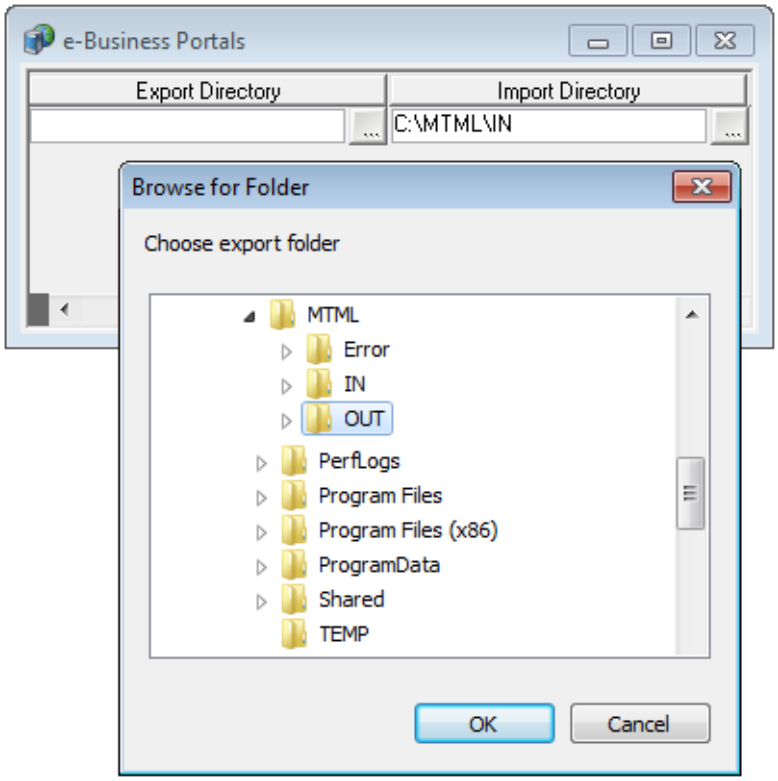
Any portal you are going to send information through needs to be registered in the e-Business Portals window with portal settings defined:

1. Go to **Tools > Configuration > e-Business > e-Business Portals**.
2. Click the **New** button on the toolbar.
3. Enter a name for the portal in the **Description** field. Enter your **TradeNetID** as provided by ShipServ in the **Portal ID** field and choose ShipServ from the **Format** drop-down:

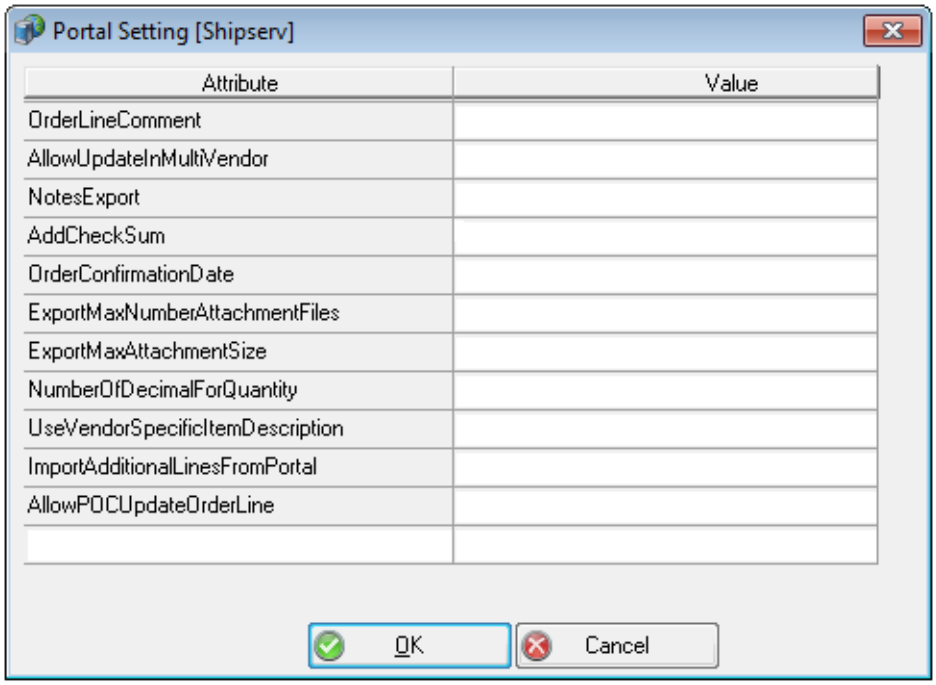


4. Lookup your 'In' and 'Out' folders where the files will be stored upon export and retrieved for import in the **Export Directory** and **Import Directory** fields.

   ShipServ - see "'In' and 'Out' Directories" on page 9.



5. Click the **Settings** lookup. The next dialog shows all available attributes for the portal, and a blank line at the bottom for adding your own attributes.



You can enter a setting for some attributes, like TRUE or FALSE - or on others type in names and numbers separated with semi-colons (;). The blank line at the bottom is for adding your own settings as needed.

Click **OK** to return to the main window and see the results in the **Settings** column.

See "Portal Settings" below for an explanation of each setting.

6. **Save** and close the window.

Portal Settings

Click the **Settings** lookup in the e-Business Portals window to open the Portal Setting dialog.

The settings in the table below are available for ShipServ portals.

Setting	<Options>, Description
OrderLineComment	An SQL command file, to be executed per orderline. The SQL result will be inserted into the tag: //MTML/Interchange/RequestForQuote/ with //MTML/Interchange/RequestForQuote/ The SQL may contain these constants: :amos_orderlineid :amos_quotationid :amos_orderid

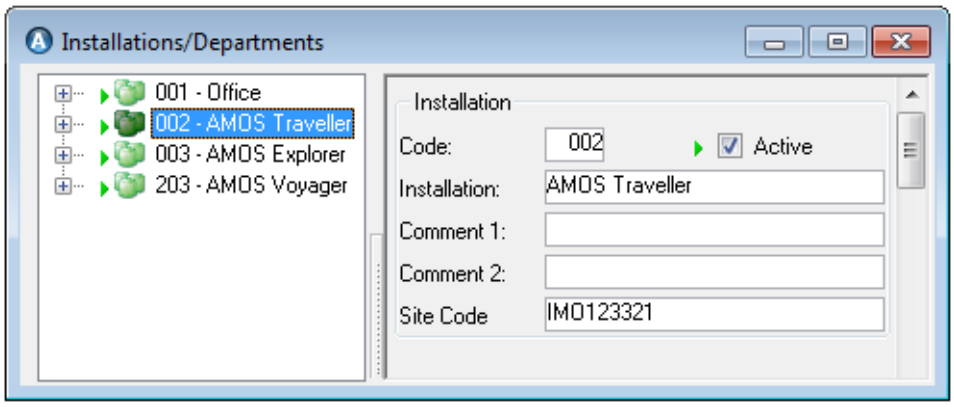
Setting	<Options>, Description
AllowUpdateInMultiVendor	<TRUE/FALSE> Set to TRUE to allow updating stock item multi vendor details from information exchanged via portals. Conditions to meet on address and portal level: Flag 'Allow Update of Multi Vendor' checkbox on Address record. This also allows updating quotation multi vendor records. To update price, the purchase unit set for the item must be the same as the unit quoted by the supplier. Flag 'Update Stock Items' checkbox on the Quotations window. If the vendor exists on the Stock Items > Vendor tab, the price will be updated. If not, the vendor will be added with the newly quoted price.
NotesExport	<Notes to Vendor> Exports the 'Notes to Vendor' from either the order form or quotation. <OrderNote> Exports the orderform.notes column. <OrderNote+NoteToVendor> Exports the orderform.notes and 'Note to Vendor'. <NoteToVendor+OrderNote> Exports the 'Note to Vendor' and orderform.notes.
AddCheckSum	<TRUE/FALSE> Set to TRUE to insert a comment into the file for tamper control. See "Tamper Control" on page 33 for more information.
OrderConfirmationDate	<SYSTEM/FILE> Update the confirmation date with value from database or from the xml file.
ExportMaxNumberAttachmentFiles	Maximum number of files to export, limitation is found at portal side.
ExportMaxAttachmentSize	Maximum size of all files to export in MB, limitation found at portal side.
NumberOfDecimalForQuantity	<0-5> Number of decimal digits used for line quantities.
UseVendorSpecificItemDescription	<TRUE/FALSE> Set to TRUE means use multivendor item description if present, if not, spare type part name.
ImportAdditionalLinesFromPortal	Allow portal to insert additional lines to purchase forms. <FALSE> Do not allow. <QuoteOnly> Only during quote reply imports. <BOTH> Quote reply and purchase order confirmations.
AllowPOCUpdateOrderLine	Allow purchase order confirmation messages (POC) to update order line details when a valid purchase contract with the same vendor exists. <TRUE> Allow. <FALSE> Never. **See** "Important: Order Line Updates" on page 31 for more about the importance of this portal setting.

Site Codes

Site codes are for identifying the installation a form transferred through a portal originated from.

Apply a valid 'site code' to each installation in your system:

1. Go to **Tools > Configuration > Installations > Installations/Departments**.
2. Select a site and enter a **Site Code**. For vessels, use the IMO number:

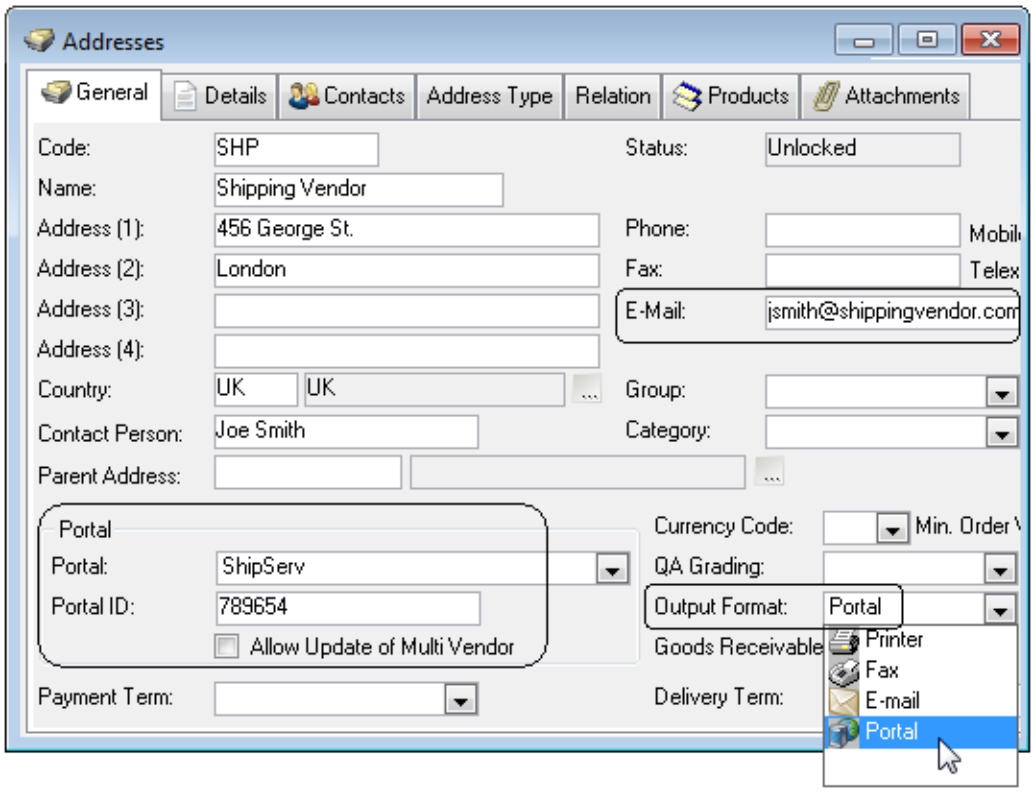


3. **Save** and close the window.

Connecting ShipServ Vendors

All the vendors you communicate with via ShipServ will have a TradeNetID provided by ShipServ. Create an address record for each one of these vendors, specifying their TradeNetID to connect them to your portal driver.

1. Go to **File > Open Register > Addresses**.
2. Select a vendor or create a new one.
3. Make sure you enter the vendor's **E-Mail**. Other general details are optional.
4. Select your ShipServ **Portal**.



5. Enter the vendor's 'TradeNet ID' in the **Portal ID** field.
6. Select 'Portal' from the **Output Format** drop-down.
7. **Save** and close the window.

e-Business User Contact Details

To include the AMOS purchasing user's contact details in outgoing communications with an e-Business vendor:

1. Create an address record for the employee.
2. Link this address to the employee's record in AMOS.
3. Link the employee record and the AMOS user record together.

Including user contact details is optional for those using a ShipServ portal. See the following sections for instructions on these three tasks.

Creating an Address Record

Create an address record for your employee:

1. Go to **File > Open Register > Addresses**.
2. Click **New** on the toolbar.
3. Enter the address details like name, phone and fax number - these will be included in e-Business exchanges.

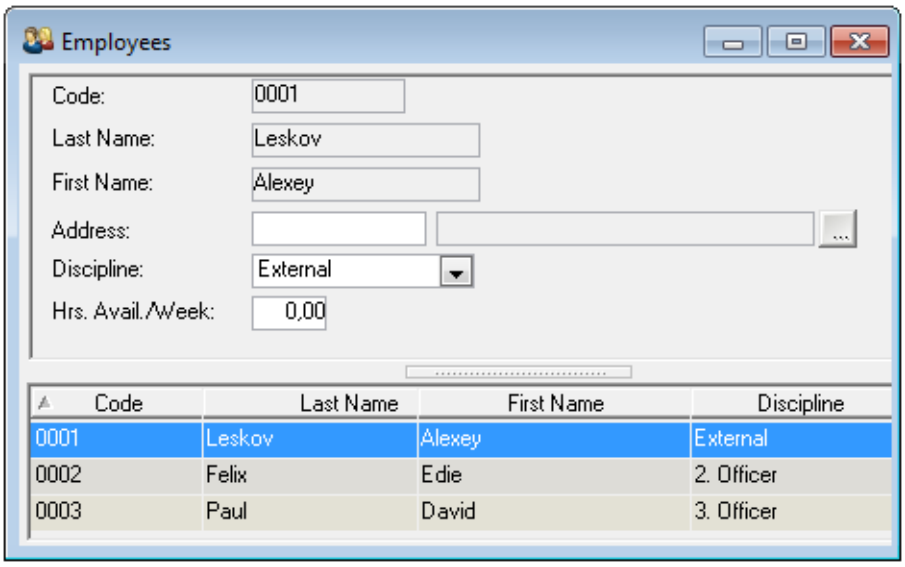
   The most important thing here is to enter an email address for the employee.
4. **Save** and close the window.

Linking the Address and the Employee Record

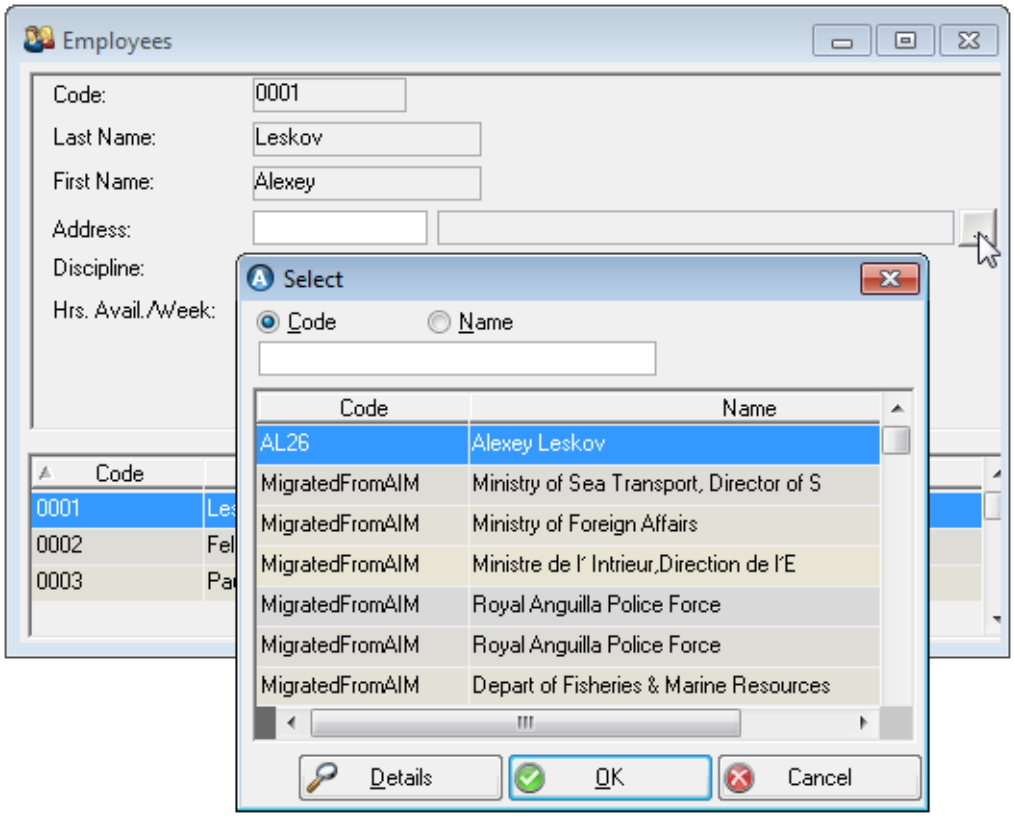
Note: If your system license contains AMOS Personnel, go to **Crewing > Employee**. Click **New** in the Employee Overview window and create and save a record for the employee.

For the correct contact details to show up when this person issues a form to a vendor from AMOS, link the address to the employee:

1. Go to **File > Open Register > Employees**.
2. Select the employee's record:



3. Lookup and select the **Address** you created for this person:

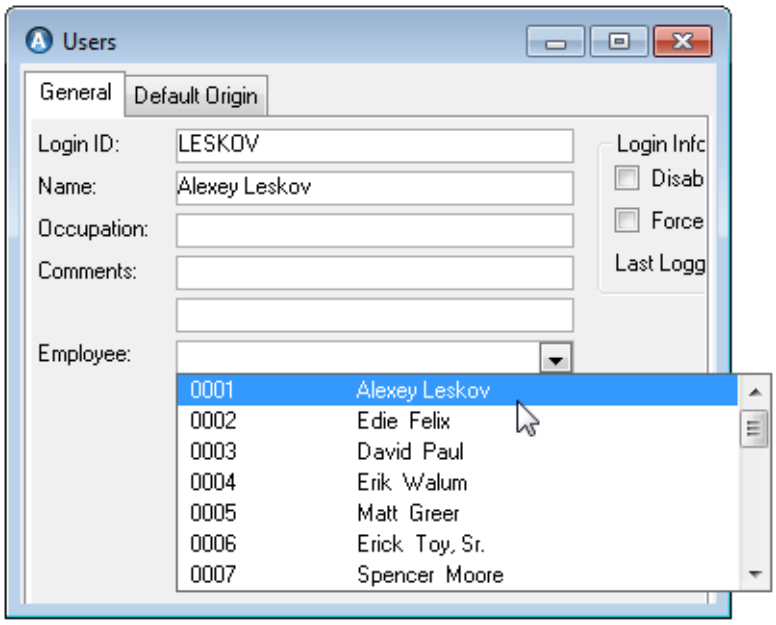


4. **Save** and close the window.

Linking the Employee and the AMOS User

Link the employee and AMOS user record together:

1. Go to **Tools > Configuration > Access Control > Users**. Click **New** on the toolbar.
2. Enter a **Login ID** and **Name**.
3. Select the **Employee** from the drop-down list:



4. **Save** and close the window.

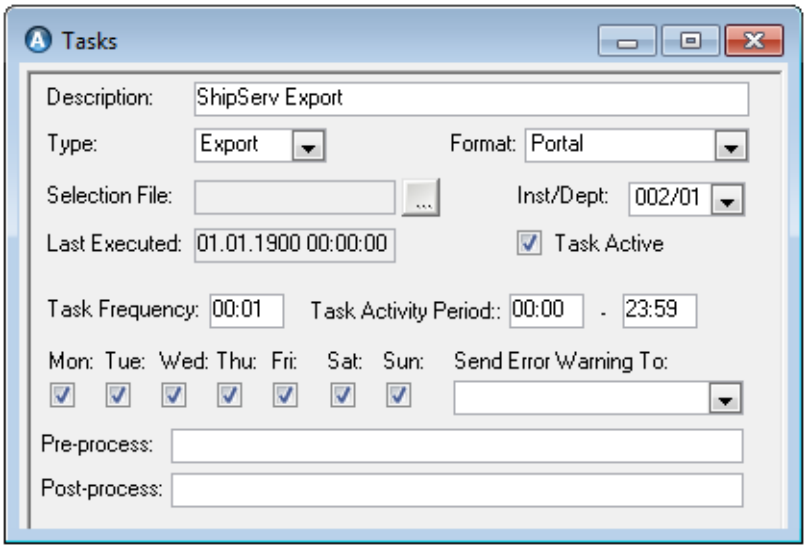
Note: Every user must be a member of at least one user group to get access rights in the system.

Export/Import Tasks for e-Business

To automate the sending and receiving of information transferred through a portal, you can set up export and import tasks to run with the TaskServer. Create both an import and an export task:

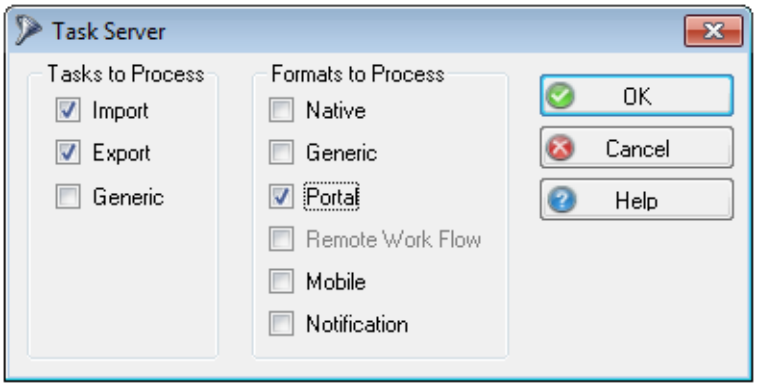
1. Go to **File > Export/Import > Tasks**.
2. Click **New** and add a **Description**.
    - **Type**. Select 'Export' or 'Import'.
    - **Format**. Select 'Portal'.

3. Enter the **Frequency** at which to run the task and the time period:



Start the Task Server to run the defined task(s) at the set intervals:

1. Go to **File > Export/Import > Task Server**.
2. Flag **Import**, **Export** and **Portal** to run the portal tasks only:



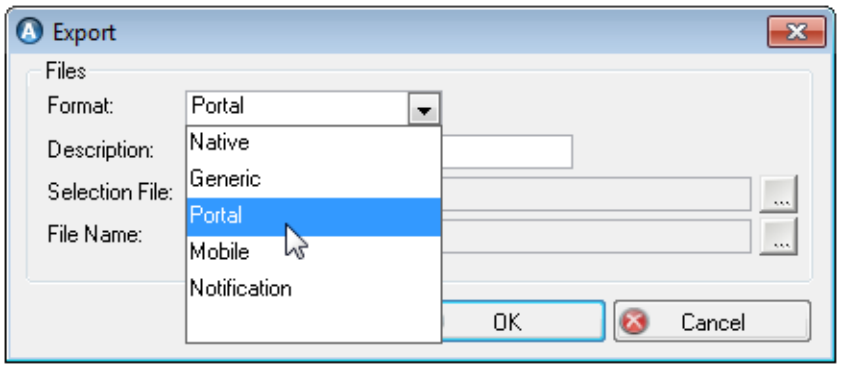
   Click **OK**.

3. You'll see a list of tasks to review. The Task Server needs to run at all times to allow the import and export of files via a portal.

Manual Export/Import

Instead of running the Task Server, you can manually export and import purchase documents to portal:

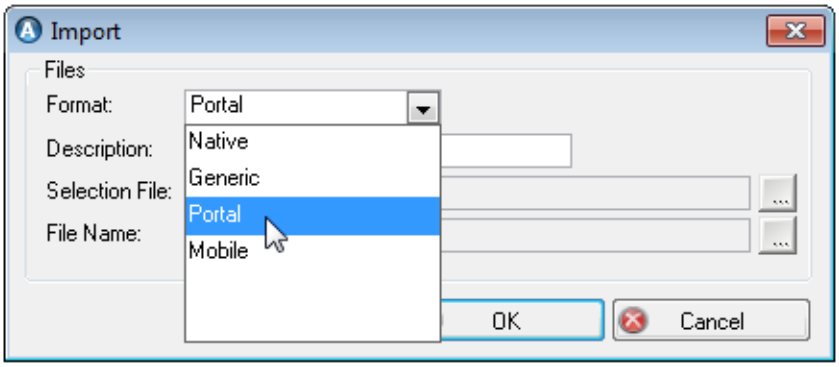
1. Go to **File > Export/Import > Export**.
2. Select 'portal' from the **Format** drop-down and click **OK**:



3. This exports your document(s) from AMOS to the defined 'Out' directory. The MTMLLink FX software will pick it up from there.

When you receive a document in return, the MTMLLink FX software drops it into your 'In' directory:

1. Go to **File > Export/Import > Import**.
2. Select 'portal' from the **Format** drop-down and click **OK**:

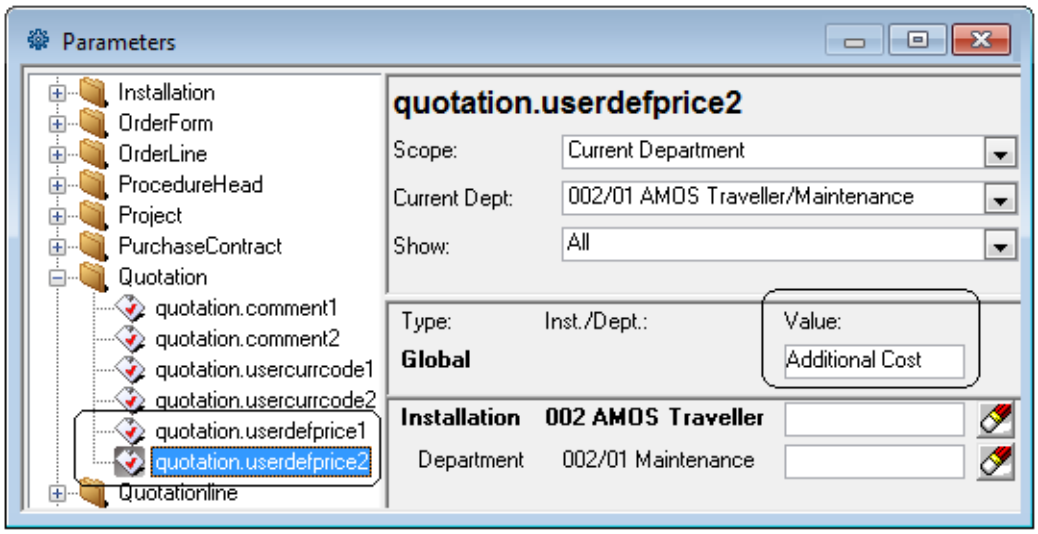


3. This imports the content from the vendor's document(s) in your 'In' folder, to AMOS.

UDFs - Freight and Cost

To add freight and additional costs to quotations transferred through ShipServ portals, switch on the relevant user defined fields:

1. Go to **Tools > Configuration > Parameters**.
2. Open the User Defined Fields folder and scroll down to the Quotation folder.
    - Select quotation.userdefprice1 and enter ‘Freight’ in the **Global** field.
    - Select quotation.userdefprice2 and enter ‘Additional Cost’ in the **Global** field.



3. **Save** and close the window. The UDFs will appear on the Quotations window.

CHAPTER 3

Using the ShipServ Portal

The AMOS e-Business Direct solution allows exchanges of the following forms, over email through the ShipServ portal.

From your organisation to a vendor, and from the vendor back to you:

>> Requests for Quotes (RFQ)

<< Quotations (QT)

>> Purchase Orders (PO)

<< Purchase Order Confirmations (POC)

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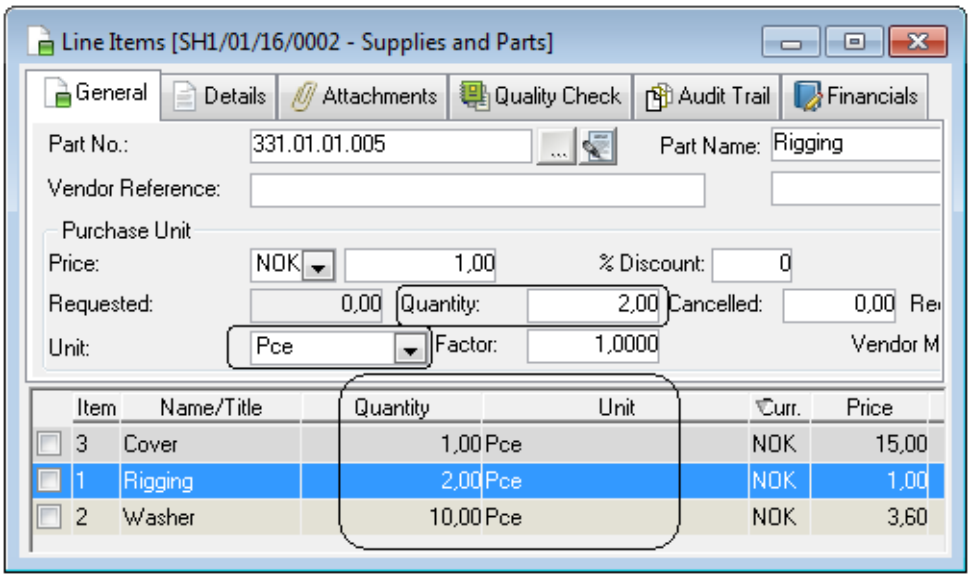
Sending a Request for Quote

Before sending a Request for Quote (RFQ) to a ShipServ vendor, make sure that you have complete query form ready with all information filled in:

- Assuming the purchase registers are set up, form fields like **Priority**, **Delivery Terms**, and **Payment Terms** will all be included in the export.
- To export the **Delivery Location**, enter it as a standard port code:

  http://www.unece.org/etrades/download/downindex.htm

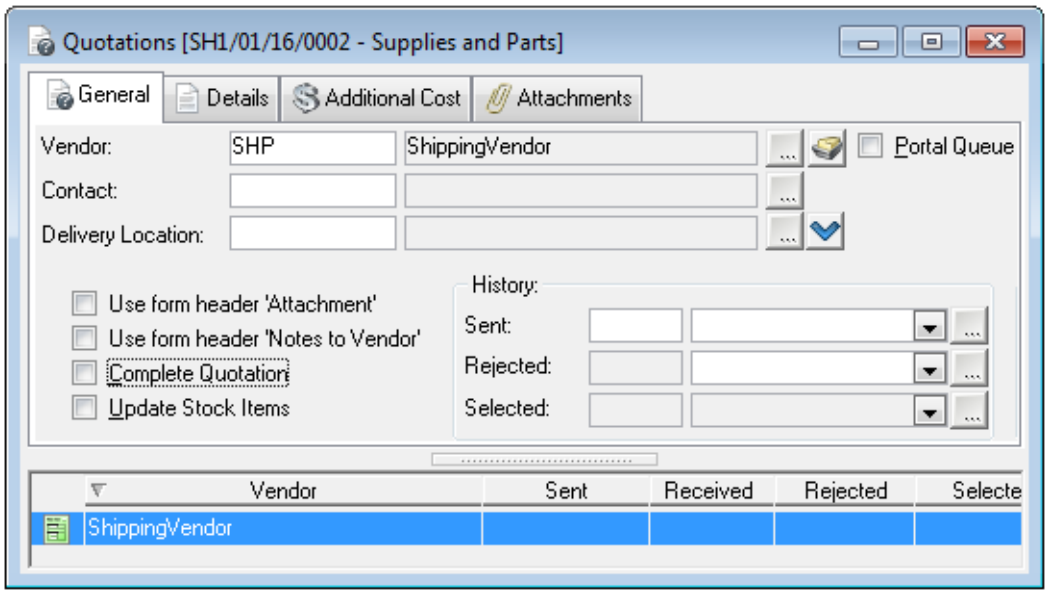
- Go to **Options > Line Items**. Check that each item has a **Unit** and **Quantity** registered:



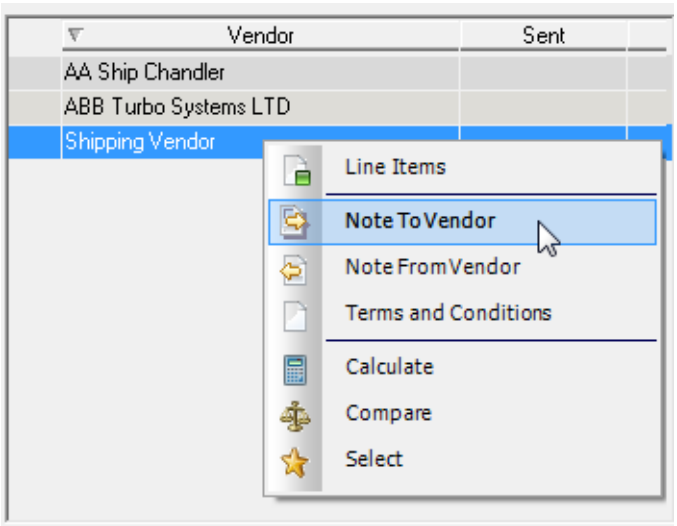
  See Appendix A "Units of Measurement" on page 35 for a list of units and short form codes available for use with ShipServ purchasing processes.

To send the RFQ:

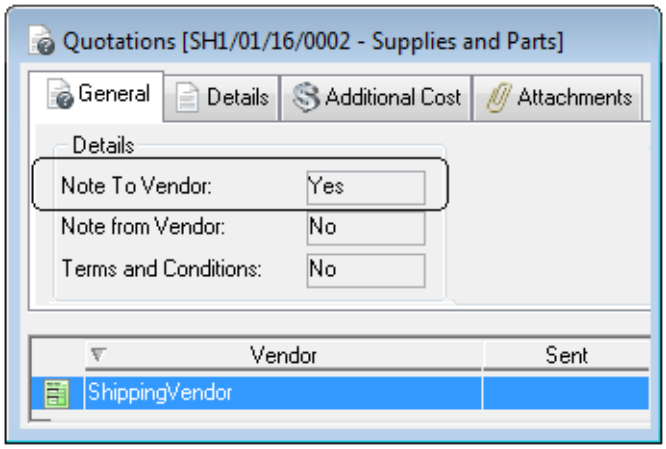
1. Go to **Purchase > Forms**. Select a query form.
2. Go to **Options > Quotations**.
3. Create a separate quotation for each vendor you want to query: click **New** and select a vendor who is defined with a TradeNetID :



4. To send comments select a vendor. Go to **Options > Note to Vendor** or right-click and choose **Note to Vendor**:

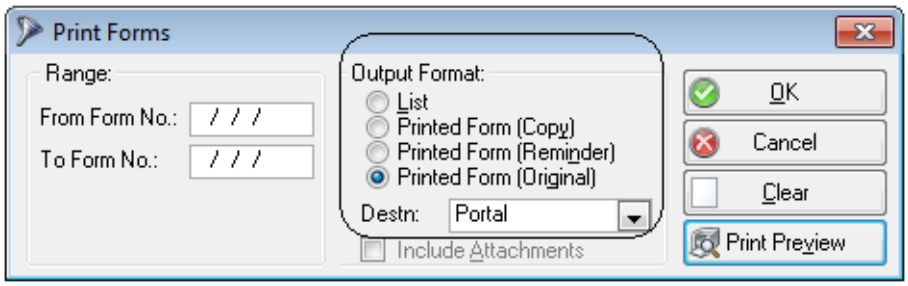


Enter comments when the Details window opens, and click **OK**. When you **Save** and refresh you'll see the notes are listed on the query for this vendor:



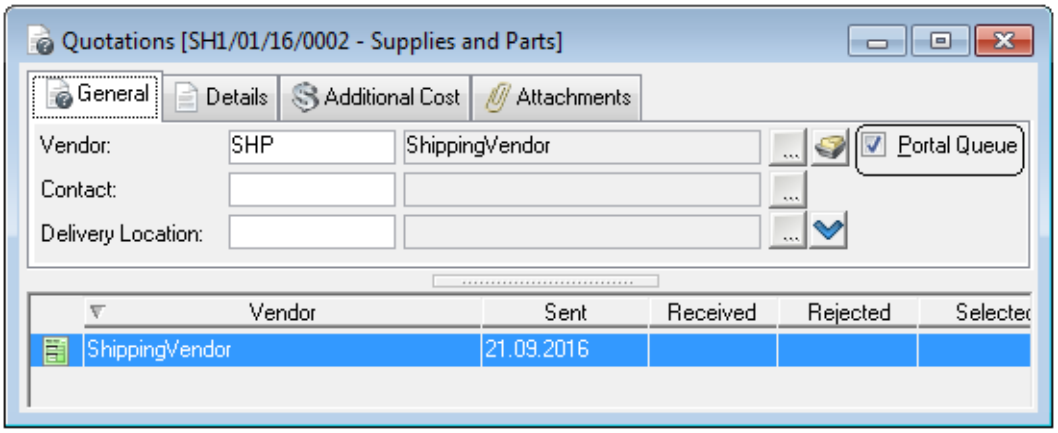
The notes only go to the selected vendor. To send text to each vendor, select them individually and add your notes.

5. **Save** and close the Quotation window to return to the Forms window.
6. Select the query form and go to **File > Print** or click the **Print** button. This opens the Print Forms dialog.
7. Select 'Printed Form (Original)'. Select 'Portal' from the **Destn** drop-down:



> **T i p**
>
> Instead of changing the destination, leave the **Destn** field set to 'Default'. The vendor(s) you're sending to in this case should have a TradeNetID, portal name and the **Output Format** set to 'Portal' on their address record, meaning that forms you exchange with them go to portal by default. At the same time, if you are sending multiple forms to several different destinations, they'll all go at once according to the vendors' default output settings.

8. Click **OK** . The **Portal Queue** checkbox on the Quotations window General tab is flagged and the quotation(s) is queued for export.

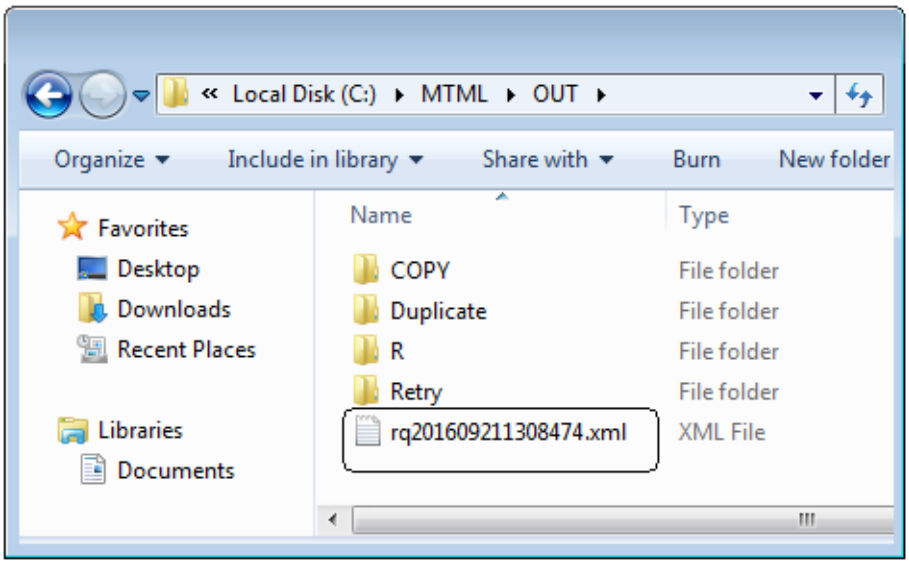


If you created an export task to handle this, the Task Server handles the export automatically. If not, go to **File > Export** and choose the portal to export it manually.

Once exported, the **Portal Queue** checkbox will be cleared.

What Happens Next?

1. When you (or the task server) export the portal, AMOS creates an MTML file and drops it in your defined 'Out' folder.

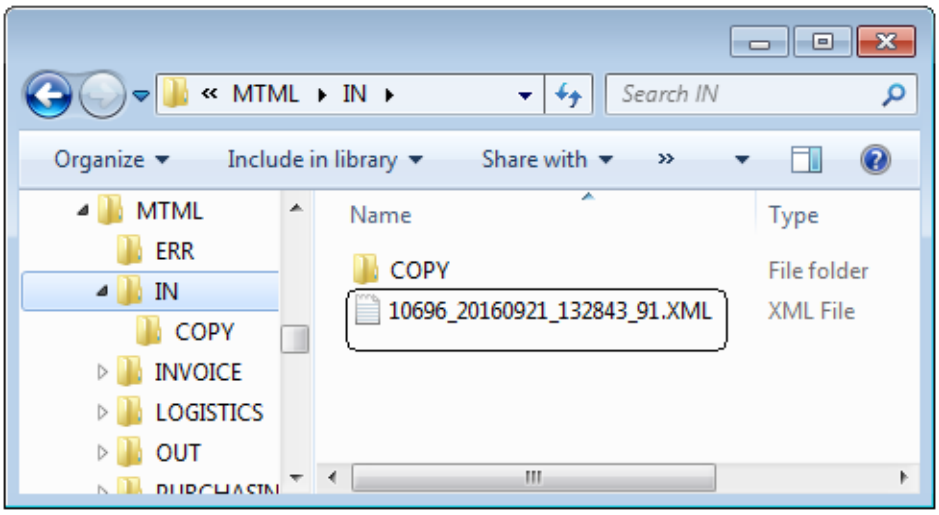


See "Your Outgoing Request for Quote" on page 42 for an example of the file you're sending out.

2. The MTMLLink FX software picks the file up and the vendor can process the information (via their own system or a ShipServ solution).

   Although the file is removed from your 'Out' folder, you can still find it in the 'Copy' sub-folder there.

3. The vendor returns the MTML file. The MTMLLink FX software transfers it to your 'In' folder.



See "The Vendor's Incoming Quotation" on page 43 for an example of the file coming in.

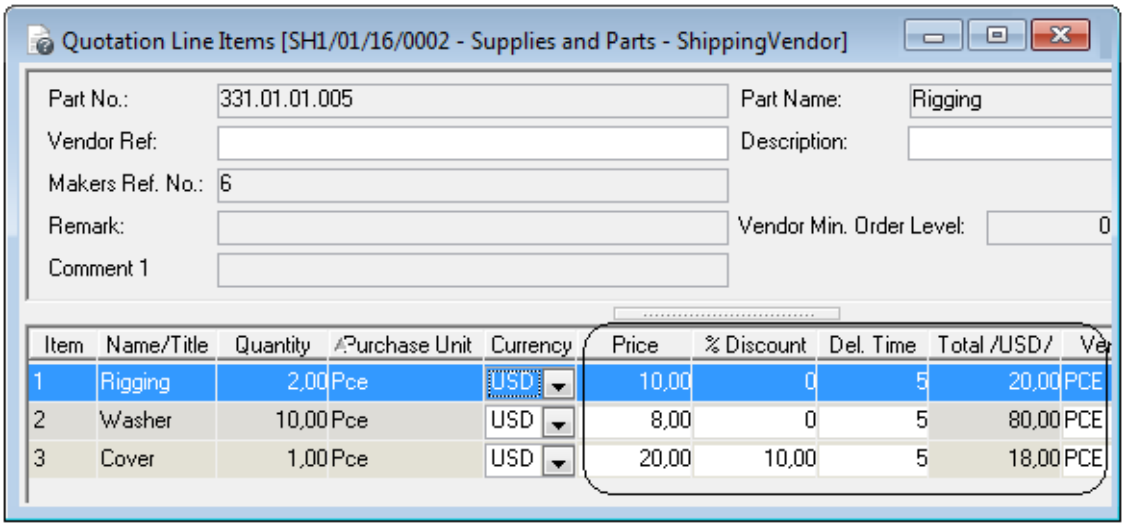
4. If you created an import task to handle this, the Task Server will import the file automatically. If not, go to **File > Import** and choose the portal to import it manually.
5. AMOS updates the quotation(s) and quotation line items with the vendor's information. The form will be available as usual in the Forms window.

   If a vendor declined the query, or their quotation contains information which wasn't in the RFQ, you'll receive an email instead, and no updates will be made to the form in AMOS.

Sending a Purchase Order

After importing a newly received quotation, open the relevant form in AMOS. Go to **Options > Quotations** to see updates and information from the vendors on each quotation. Double-click on any quotation or go to **Options > Line Items** to open the line items. Below, you can see the quotation line items window for

the same form sent as an RFQ in the previous section ("Sending a Request for Quote" on page 24). AMOS has updated the line items with information returned in the vendor's quotation:

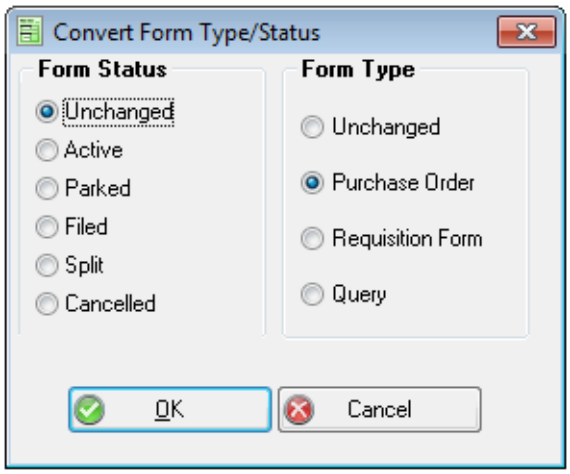


If the supplier makes changes to things like **Quantity** or **Unit**, you'll need to manually update your purchase order to match. Any changes the vendor has made to the quotation that differ from your RFQ will be listed in an email.

To create a purchase order based on a quotation:

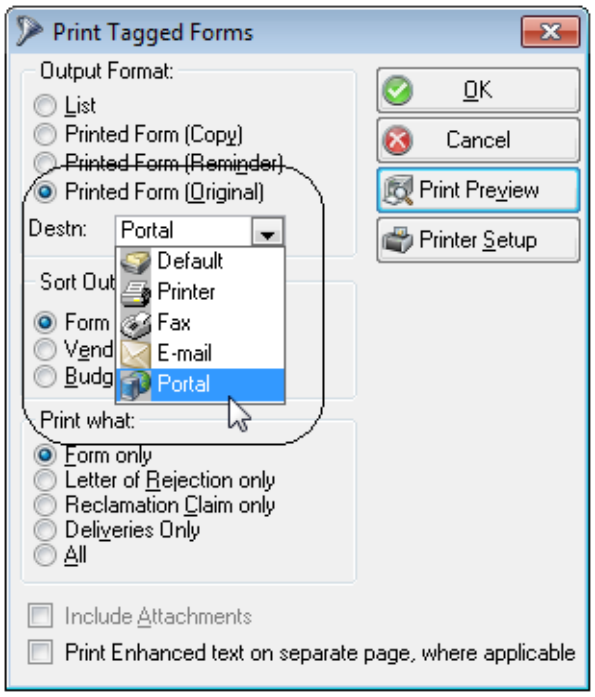
1. Open the Forms window. Select the form your updated quotation belongs to. Go to **Options > Quotations** or click **View** in the Quotations tab to open the Quotations window.
2. Click on the quotation from the vendor you want to order from and go to **Options > Select**, flag the options and select the quotation.

   You return to the Forms window with the selected **Vendor** showing on the General tab.
3. Go to **Options > Convert**. Change the form from a query to a purchase order:

   Click **OK** and then **Save** the converted form in the Forms window.
4. To add comments go to **Options > Note to Vendor** or right-click and select **Note to Vendor**. Add text to the Details window and click **OK**.
5. Flag the purchase order in the list[1].
6. Go to **File > Print** or click the **Print** button. This opens the Print Tagged Forms dialog.
7. Select 'Printed Form (Original)'. Select 'Portal' from the **Destn** drop-down:

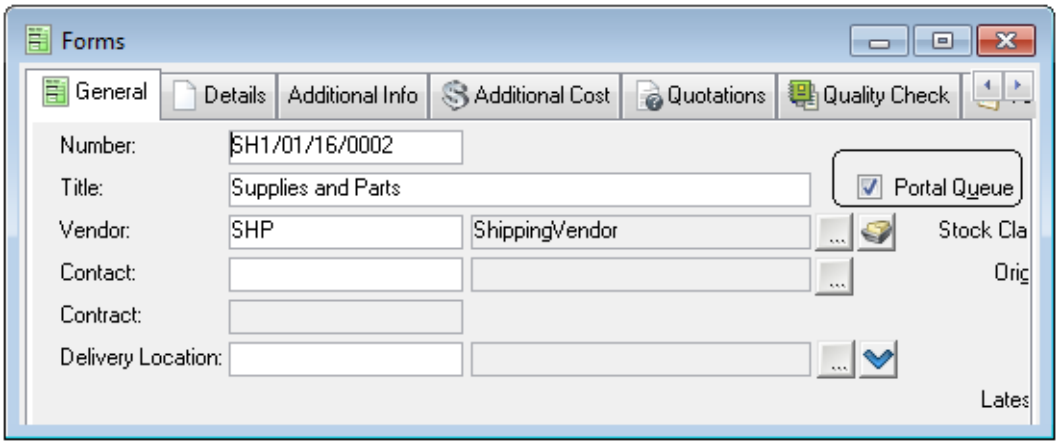
[1] Depending on your Work Flow, you may to need approve purchase orders before you can send them.



T i p

Instead of changing the destination, leave the **Destn** field set to 'Default'. The vendor(s) you're sending to in this case should have a TradeNetID, portal name and the **Output Format** set to 'Portal' on their address record, meaning that forms you exchange with them go to portal by default. At the same time, if you are sending multiple forms to several different destinations, they'll all go at once according to the vendors' default output settings.

8. Click **OK** . The **Portal Queue** checkbox on the Forms window General tab is flagged and the purchase order is queued for export.

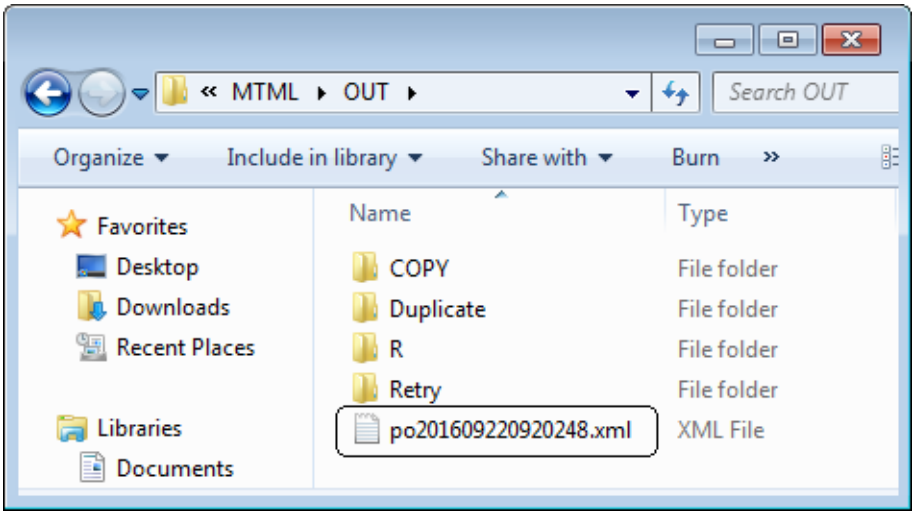


If you created an export task to handle this, the Task Server handles the export automatically. If not, go to **File > Export** and choose the portal to export it manually.

Once exported, the **Portal Queue** checkbox will be cleared.

What Happens Next?

1. When you (or the task server) export the portal, AMOS creates an MTML file and drops it in your defined 'Out' folder.

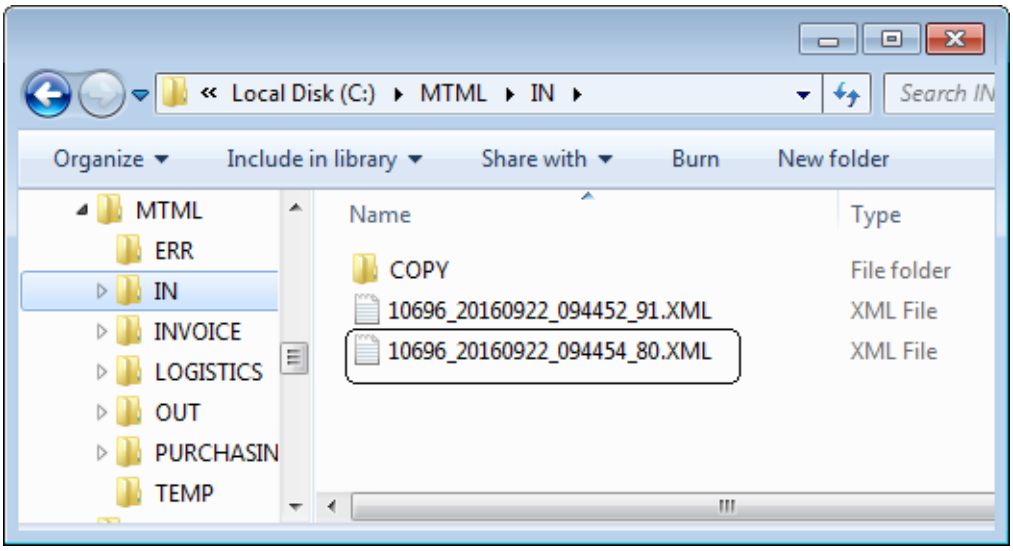


See "Your Outgoing Purchase Order" on page 44 for an example of the file you're sending out.

2. The MTMLLink FX software picks the file up and the vendor can process the information (via their own system or a ShipServ solution).

   Although the file is removed from your 'Out' folder, you can still find it in the 'Copy' sub-folder there.

3. The vendor returns the MTML file. The MTMLLink FX software transfers it to your 'In' folder.



See "The Vendor's Incoming Purchase Order Confirmation" on page 45 for an example of the file coming in.

4. If you created an import task to handle this, the Task Server will import the file automatically. If not, go to **File > Import** and choose the portal to import it manually.

5. AMOS updates the form(s) and line items with the vendor's information. The form will be available as usual in the Forms window.

IMPORTANT: ORDER LINE UPDATES

If your AMOS database contains a valid purchase contract for the same supplier you import a purchase order confirmation message from, AMOS can update purchase line item information - and change the agreed prices on your form - even though the incoming file is a confirmation of the details already set and agreed upon in the quotation.

There is a ShipServ portal setting called 'AllowPOCUpdateOrderLine'. By default it is set to <TRUE> and so it allows changes to prices in a vendor's incoming purchase order confirmation message to update order line item details when a valid purchase contract for that same vendor exists in the database.

To prevent these line item updates at the purchase order confirmation stage, you *must* include this parameter in your portal definition settings string and define it as <FALSE>.

See "Portal Settings" on page 13 about defining portal settings.

Including Attachments in Portal Transactions

Note: This functionality is available in AMOS Business Suite version 9.3.00 and onwards.

When you send purchasing forms to vendors through the ShipServ portal, you may want to include attachments which are linked to them.

Portal Settings

Two portal settings enable you to send attachments: 'Export Max Number Attachment Files', and 'Export Max Attachment Size'. Add these to the ShipServ portal settings string:

1. Go to **Tools > Configuration > e-Business > e-Business Portals**.
2. Find your ShipServ portal and click the **Settings** lookup:

Attribute	Value
OrderLineComment	
AllowUpdateInMultiVendor	
NotesExport	
AddCheckSum	
OrderConfirmationDate	
ExportMaxNumberAttachmentFiles	10
ExportMaxAttachmentSize	3MB
NumberOfDecimalForQuantity	
UseVendorSpecificItemDescription	
ImportAdditionalLinesFromPortal	
AllowPOCUpdateOrderLine	

3. Enter these recommended settings:

   Set 'ExportMaxNumberAttachmentFiles' to 10. The maximum number of attachments which can be sent with one form.

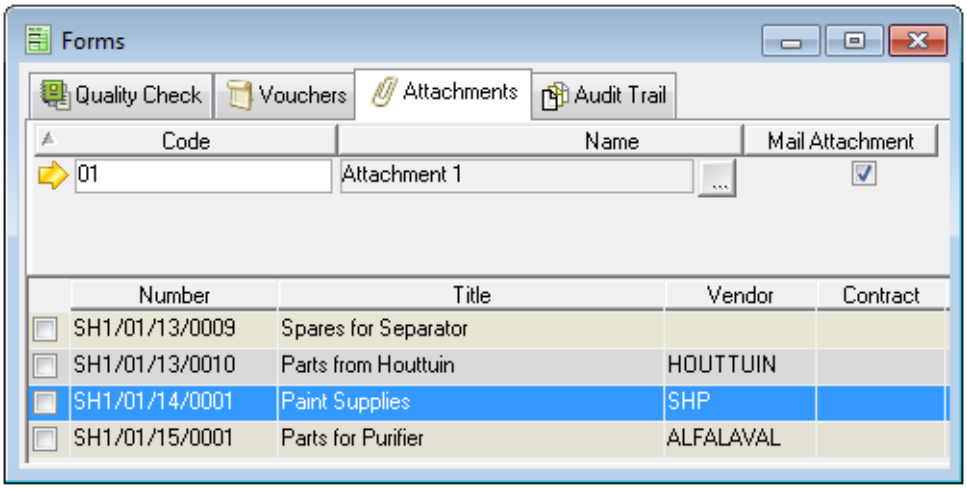
   Set 'ExportMaxAttachmentSize' to 3 MB. The maximum total size of all attachments per form.

4. **Save** the settings.

Sending Attachments

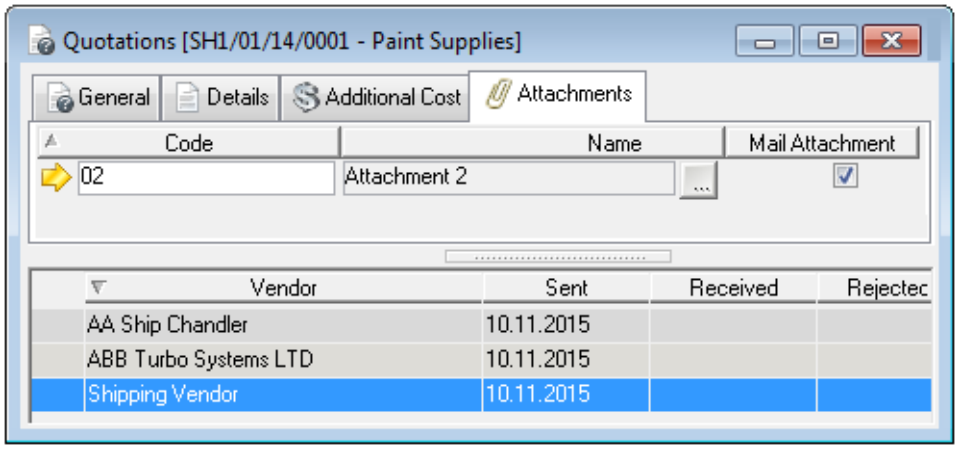
You can add attachments to form headers and to individual quotations on the same form. Those on the header can apply to all quotations sent out for the form. Quotation level attachments go only to the vendor on the quotation.

First, add your attachments. Flag the **Mail Attachment** checkbox in the Attachments tab:



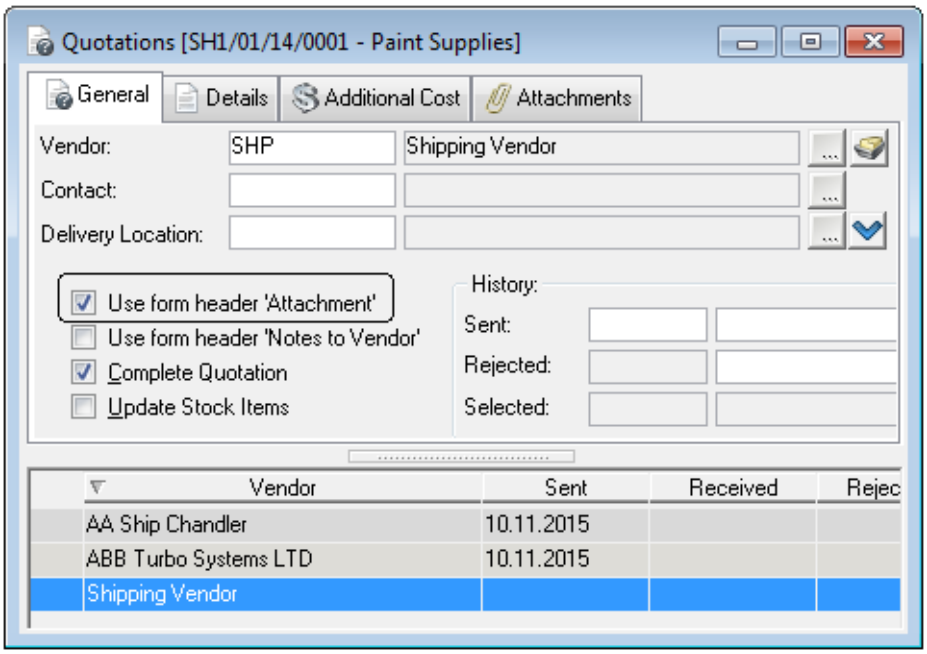
If you do not flag **Mail Attachment**, the attachment will not be transferred with the form to the portal.

When you add an attachment in the Quotations window, remember that it belongs only to the currently selected quotation:



When it is time to send your RFQ, open the Quotations window and decide which attachment(s) you want to send with each quotation. Click on each quotation in turn and either:

- Flag **Use Form Header Attachment** on the Quotations General tab to send the attachment(s) added to the form header with this quotation.
- Unflag **Use Form Header Attachment** to send the attachment(s) in the Quotations window Attachment tab for this quotation.



Remember, only attachments with **Mail Attachment** flagged will be included in the portal transaction.

Later, when you send a purchase order, any attachments in the Forms window Attachments tab with **Mail Attachment** flagged will be sent automatically with the purchase form to the vendor it is for.

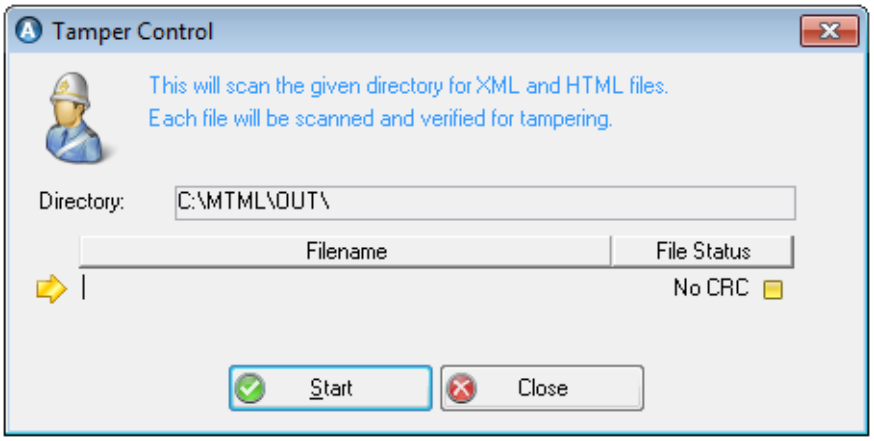
Tamper Control

Some external programs can alter the content of the MTML files AMOS produces. Sometimes these alterations are incorrect and produce faults at the receiving application. Adding a checksum into the outgoing files allows AMOS to check if they have been altered or not.

The checksum is an option in the portal settings string: setting it to TRUE (default) will insert a comment into the file to be used for tamper control. If you set it to FALSE, no comment will be inserted. See"Portal Settings" on page 13 about adding this checksum.

To scan files for tampering:

1. Go to **Tools > Configuration > e-Business > e-Business Portals**. Select the ShipServ portal.
2. Go to **Options > Tamper Control**. The Tamper Control dialog opens showing the Export Directory for the portal and the files in it:



3. Click **Start** to scan all files in the directory. The results may be:

- **OK**. The file(s) contain a checksum and is validated.
- **No CRC**. The file(s) did not contain the checksum. If the portal setting AddCheckSum is set to TRUE, this means the file has been tampered with.
- **Tampered**. The file does contain the checksum and its content has been altered outside AMOS.

AMOS cannot reconstruct a file that has been tampered with. You can choose to delete the file and check the portal flag for the record the file represents.

APPENDIX A

Units of Measurement

UNIT. The measurement unit used to quantify the item you are requesting or ordering. The following table lists all units and their short form codes available for use in AMOS in conjunction with ShipServ purchasing processes.

Unit Code	Unit Name	Unit Code	Unit Name
BAR	Barrel (158.987 dm3)	LN	Length
BG	Bag	LTR	Liter
BO	Bottle	MLT	Millilitre
BX	Box	MMT	Millimeter
CA	Can	MTQ	Cubic Meter
CL	Coil	MTR	Meter
CQ	Cartridge	NRL	Roll
CS	Case	PA	Packet
CT	Carton	PCE	Piece
CP	Cup	PL	Pail
CY	Cylinder	PR	Pair
DR	Drum	SA	Sack
DZN	Dozen	SET	Set
FOT	Foot (0.3048 m)	ST	Sheet

Unit Code	Unit Name	Unit Code	Unit Name
FTK	Square Foot	STN	U.S. Ton
GLL	Liquid Gallon (3.78541 dm3)	MTK	Square Meter
GRM	Gram	TN	Tin
JR	Jar	TNE	Metric Ton
KGM	Kilogram	TU	Tubes
LBR	Pound (0.45359237 kg)		

APPENDIX B

Field Mapping

This appendix contains an overview of which fields AMOS are included in an exchange of purchasing documents over a ShipServ portal, and the information ShipServ will update each one with.

AMOS Field	TableName.ColumnName	XML/MTML Tag Name
Request for Quote (RFQ)		
Form/Quotation Header		
Number	OrderForm.FormNo	ReferenceNumber
Priority	OrderForm.OrderPriorityID	Priority
Latest Delivery Date	OrderForm. LatestDeliveryDate	DateTimePeriod
Vendor	Quotation.VendorID	Name
Delivery Location	Quotation.DeliveryPlaceID	Pier, Port
Note to Vendor	Quotation	Comments
Reply by Date	Quotation.SupplierReplyByDate	DateTimePeriod
Form Line Items		
Part Name	OrderLine.Name	Description
Makers Ref.	OrderLine.MakerRef	Identification
Quantity	OrderLine.Quantity	Quantity
Unit	OrderLine.UnitID	MeasureUnitQualifier

AMOS Field	TableName.ColumnName	XML/MTML Tag Name
Request for Quote (RFQ)		
Addresses - Billing, Delivery, Vendor		
Address (1), Address (2), Address (3), Address (4)	Address.Address1; Address.Address2; Address.Address3.; Address.Address4	StreetAddress
Name	Address.Name	Name
Contact Person	Address.Contact	Name
Phone, Fax, Email	Address.Phone; Address.Fax; Address.EMail	Number
Other		
Installation	Installation.InstName	Name
Site Code	Installation.SiteCode	Identification

AMOS Field (table-name.columnname	TableName.ColumnName	XML/MTML Tag Name
Quotation (QT)		
Quotation Header		
Vendor's Ref	Quotation.VendorQuotationRef	ReferenceNumber
Received Date	Quotation.ReceivedDate	DateTimePeriod
Expiration Date	Quotation.ExpiryDate	DateTimePeriod
Order before Date	Quotation.OrderBeforeDelivery	DateTimePeriod
Del. Time [Days]	Quotation.DeliveryTime	DateTimePeriod
Terms and Conditions	Quotation	Comments
Note from Vendor	Quotation	Comments
Quotation Line Items		
Currency	QuotationLine.CurrencyCode	CurrencyCode
Vendor Quantity/Vendor Unit	QuotationLine.VendorQuantity, QuotationLine.VendorUnit	Quantity, MeasureUnitQualifier
Price*	QuotationLine.QuotedPrice	PriceDetails
% Discount*	QuotationLine.Discount	PriceDetails

AMOS Field	TableName.ColumnName	XML/MTML Tag Name
Purchase Order (PO)		
Form Header		
Vendor	OrderForm.VendorID	Name
Payment Terms	OrderForm.PaymentTermID	Comments
Number	OrderForm.FormNo	ReferenceNumber
Priority	OrderForm.OrderPriorityID	Priority
Latest Delivery Date	OrderForm. LatestDeliveryDate	DateTimePeriod
Delivery Location	OrderForm.DeliveryPlaceID	Pier, Port
Note to Vendor	OrderForm	Comments
Form Line Items		
Part Name	OrderLine.Name	Description
Makers Ref.	OrderLine.MakerRef	Identification
Ordered	OrderLine.Quantity	Quantity
Unit	OrderLine.UnitID	MeasureUnitQualifier
Addresses - Billing, Delivery, Vendor		
Address (1), Address (2), Address (3), Address (4)	Address.Address1; Address.Address2; Address.Address3.; Address.Address4	StreetAddress
Name	Address.Name	Name
Contact Person	Address.Contact	Name
Phone, Fax, Email	Address.Phone; Address.Fax; Address.EMail	Number
Other		
Installation	Installation.InstName	Name
Site Code	Installation.SiteCode	Identification

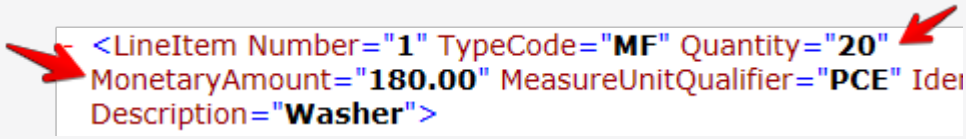
AMOS Field	TableName.ColumnName	XML/MTML Tag Name
Purchase Order Confirmation (POC)		
Form Header		
Vendor's Delivery Date	OrderForm.VendorDeliveryDate	DateTimePeriod
Confirmation Ref.	OrderForm.ConfirmationRef	ReferenceNumber
Confirmed	OrderForm.ConfirmationDate	DateTimePeriod

*Price and Discount Calculations

During an exchange of purchasing forms over a ShipServ portal, any applicable discounts are transformed from a percentage, into the actual value in the xml file, and then back into the percentage again in AMOS.

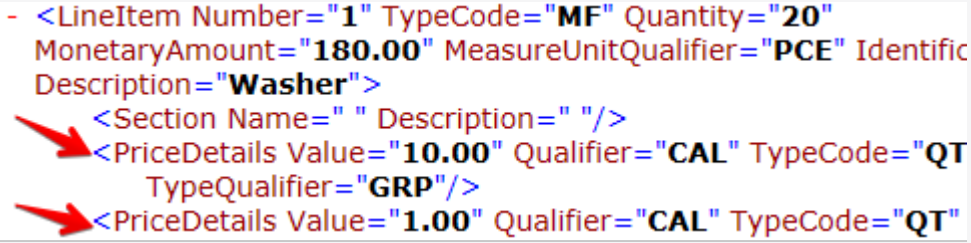
EXAMPLE

You send an RFQ with a single line item, 'Washer', requesting a quantity of 20. The vendor enters a price of 10 USD apiece, with a 10% line item discount. This shows up in the incoming quotation xml file like this:



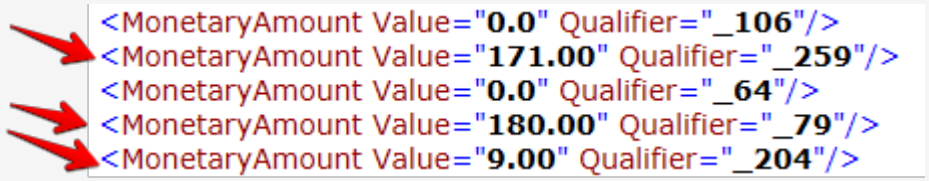
The line item total (MonetaryAmount) is 180 USD, meaning the 20 USD discount has already been deducted: *20 pc x 10 USD = 200 USD - 10% discount (20 USD) = 180 USD*

Below that, you can see the price per unit (PriceDetails=10.00) and the calculated 10% discount (PriceDetails=1.00) per unit:



Furthermore, the vendor has specified a 5% discount on the final total. This percentage has also been calculated and deducted in the xml file: *180.00 USD - 5% discount (9.00 USD) = 171.00 USD*

You can see the discounted final total (MonetaryAmount=171.00) , the original total (MonetaryAmount=180.00) and the USD value of the additional discount (MonetaryAmount=9.00):



When you import this xml file into AMOS, on the quotation line item you'll see the **Quantity** and the unit **Price**, and the two **Discounts** (line item and final total) added together as a percentage:

Item	Name/Title	Quantity	Purchase Unit	Currency	Price	% Discount	Total /USD/
1	Washer	20,00	Pce	USD	10,00	14,50	171,00

The **Total/USD** column shows the line item's price value after both discounts. And the same final total (for all line items) appears on the quotation in the **Quoted Price** field:

Quoted Price:	USD	171,00	===>	USD	171,00
Additional Cost:	USD		===>	USD	0,00
				USD	171,00

Your Outgoing Request for Quote

Your outgoing Request for Quote will look something like this:

```
<?xml version="1.0" standalone="true"?>
<!DOCTYPE MTML SYSTEM "Mtml.dtd">
<!-- AMOSCRC=c8910685f29e38187b65b52b46d18d5473da8a5a -->
<MTML>
  - <Interchange VersionNumber="2" SenderCodeQualifier="ZEX" Sender="10696"
    RecipientCodeQualifier="ZEX" Recipient="224327" PreparationTime="1308"
    PreparationDate="20160921" Identifier="UNOC" ControlReference="843000011">
      - <RequestForQuote VersionNumber="D" ReleaseNumber="96A"
        MessageNumber="843000011.20160921130847.61@"
        MessageReferenceNumber="843000011" LineItemCount="3"
        FunctionCode="_9" CurrencyCode="USD" ControllingAgency="UN"
        AssociationAssignedCode="MARL10">
            <DateTimePeriod Value="201609210000" Qualifier="_137"
                FormatQualifier="_203"/>
            <DateTimePeriod Value="" Qualifier="_2" FormatQualifier="_203"/>
          + <Party Qualifier="OB" Name="">
          + <Party Qualifier="CN" Name="">
          + <Party Qualifier="VN" Name="ShippingVendor">
            <Party Qualifier="UD" Name="AMOS Traveller" Identification=""/>
          + <Party Qualifier="BA" Name="">
          + <Comments Qualifier="ZTP">
            <Reference Qualifier="UC" ReferenceNumber="SH101160002"/>
          + <LineItem Number="1" Identification="6" Quantity="2"
            Description="Rigging" MonetaryAmount="0.000000"
            MeasureUnitQualifier="Pce" TypeCode="MF">
          + <LineItem Number="2" Identification="17" Quantity="10"
            Description="Washer" MonetaryAmount="0.000000"
            MeasureUnitQualifier="Pce" TypeCode="MF">
          + <LineItem Number="3" Identification="24" Quantity="1"
            Description="Cover" MonetaryAmount="0.000000"
            MeasureUnitQualifier="Pce" TypeCode="MF">
            <MonetaryAmount Value="0.000000" Qualifier="_79"/>
          + <Comments Qualifier="PUR">
        </RequestForQuote>
    </Interchange>
</MTML>
```

You can see that the buyer here has requested a quote for three line items: 'Rigging' (2 pieces); 'Washer' (10 pieces); and 'Cover' (1 piece).

The Vendor's Incoming Quotation

This is the vendor's response to the RFQ shown above. An incoming quotation looks something like this:

```
<?xml version="1.0"?>
<!DOCTYPE MTML SYSTEM "Mtml.dtd">
<MTML>
 - <Interchange VersionNumber="2" SenderCodeQualifier="ZEX" Sender="224327"
   RecipientCodeQualifier="ZEX" Recipient="10696" PreparationTime="11:28"
   PreparationDate="2016-Sep-21" Identifier="UNOC"
   ControlReference="Quote:14388823">
    - <Quote VersionNumber="D" ReleaseNumber="96A"
      MessageReferenceNumber="Quote:14388823"
      MessageNumber="843000011.20160921130847.61@" LineItemCount="3"
      FunctionCode="_9" CurrencyCode="USD" ControllingAgency="UN"
      AssociationAssignedCode="MARL10">
        <DateTimePeriod Value="201610090000" Qualifier="_175"
            FormatQualifier="_203"/>
        <DateTimePeriod Value="201610100000" Qualifier="_36"
            FormatQualifier="_203"/>
        <DateTimePeriod Value="201609211128" Qualifier="_137"
            FormatQualifier="_203"/>
        <DateTimePeriod Value="5" Qualifier="_69" FormatQualifier="_804"/>
      + <Comments Qualifier="PUR">
      + <Comments Qualifier="ZTP">
      + <Comments Qualifier="ZTC">
        <Reference Qualifier="UC" ReferenceNumber="abc123"/>
        <Reference Qualifier="AGI" ReferenceNumber="843000011"/>
        <Reference Qualifier="AAG" ReferenceNumber="Quote:14388823"/>
      + <Party Qualifier="VN" Name="SpecTec Product Development">
      + <LineItem Number="1" TypeCode="MF" Quantity="2"
        MonetaryAmount="20.00" MeasureUnitQualifier="PCE" Identification="6"
        Description="Rigging">
      + <LineItem Number="2" TypeCode="MF" Quantity="10"
        MonetaryAmount="80.00" MeasureUnitQualifier="PCE" Identification="17"
        Description="Washer">
      - <LineItem Number="3" TypeCode="MF" Quantity="1"
        MonetaryAmount="18.00" MeasureUnitQualifier="PCE" Identification="24"
        Description="Cover">
          - <Comments Qualifier="LIN">
              <Value>discounted</Value>
            </Comments>
            <Section Name=" " Description=" "/>
            <PriceDetails Value="20.00" Qualifier="CAL" TypeCode="QT"
                TypeQualifier="GRP"/>
            <PriceDetails Value="2.00" Qualifier="CAL" TypeCode="QT"
                TypeQualifier="DPR"/>
        </LineItem>
        <MonetaryAmount Value="0.0" Qualifier="_106"/>
        <MonetaryAmount Value="118.00" Qualifier="_259"/>
        <MonetaryAmount Value="0.0" Qualifier="_64"/>
        <MonetaryAmount Value="118.00" Qualifier="_79"/>
        <MonetaryAmount Value="0.00" Qualifier="_204"/>
      </Quote>
   </Interchange>
</MTML>
```

The vendor quoted 10 USD apiece for line item 1 and 8 USD apiece for line item 2. On line item 3, the vendor quoted 20 USD for the single piece, minus a 10% discount of 2 dollars bringing the total to 18 USD. You can see that the quotation total is 118 USD.

Your Outgoing Purchase Order

Your outgoing Purchase Order will look something like this:

```
<?xml version="1.0" standalone="true"?>
<!DOCTYPE MTML SYSTEM "Mtml.dtd">
<!-- AMOSCRC=5118a3d2529c866f7e14147a5b8d389b9ee8b359 -->
<MTML>
  - <Interchange VersionNumber="2" SenderCodeQualifier="ZEX" Sender="10696"
    RecipientCodeQualifier="ZEX" Recipient="224327" PreparationTime="0920"
    PreparationDate="20160922" Identifier="UNOC" ControlReference="843000030">
      - <Order VersionNumber="D" ReleaseNumber="96A"
        MessageNumber="843000030.20160922092024.26@"
        MessageReferenceNumber="843000030" LineItemCount="3"
        FunctionCode="_9" CurrencyCode="USD" ControllingAgency="UN"
        AssociationAssignedCode="MARL10">
            <DateTimePeriod Value="201609220000" Qualifier="_137"
                FormatQualifier="_203"/>
            <DateTimePeriod Value="" Qualifier="_2" FormatQualifier="_203"/>
          + <Party Qualifier="OB" Name="">
          + <Party Qualifier="CN" Name="">
          + <Party Qualifier="VN" Name="ShippingVendor">
            <Party Qualifier="UD" Name="AMOS Traveller" Identification=""/>
          + <Party Qualifier="BA" Name="">
          + <Comments Qualifier="ZTP">
            <Reference Qualifier="UC" ReferenceNumber="SH101160002"/>
            <Reference Qualifier="AAG" ReferenceNumber="Quote:14388823"/>
          + <LineItem Number="1" Identification="6" Quantity="2"
            Description="Rigging" MonetaryAmount="20.000000"
            MeasureUnitQualifier="Pce" TypeCode="MF">
          + <LineItem Number="2" Identification="17" Quantity="10"
            Description="Washer" MonetaryAmount="80.000000"
            MeasureUnitQualifier="Pce" TypeCode="MF">
          - <LineItem Number="3" Identification="24" Quantity="1"
            Description="Cover" MonetaryAmount="18.000000"
            MeasureUnitQualifier="Pce" TypeCode="MF">
              + <Comments Qualifier="LIN">
                <PriceDetails Value="20.000000" Qualifier="CAL"
                    TypeQualifier="GRP"/>
                <PriceDetails Value="2.000000" Qualifier="CAL" TypeQualifier="DPR"/>
            </LineItem>
            <MonetaryAmount Value="118.000000" Qualifier="_79"/>
            <MonetaryAmount Value="118.000000" Qualifier="_259"/>
            <MonetaryAmount Value="0.000000" Qualifier="_204"/>
            <MonetaryAmount Value="0.000000" Qualifier="_64"/>
            <MonetaryAmount Value="0.000000" Qualifier="_106"/>
          + <Comments Qualifier="PUR">
        </Order>
    </Interchange>
</MTML>
```

The Vendor's Incoming Purchase Order Confirmation

This is the vendor's response to the Purchase Order shown above. An incoming purchase order confirmation will look something like this:

```
<?xml version="1.0"?>
<!DOCTYPE MTML SYSTEM "Mtml.dtd">
- <MTML>
  - <Interchange VersionNumber="2" SenderCodeQualifier="ZEX"
    Sender="224327" RecipientCodeQualifier="ZEX" Recipient="10696"
    PreparationTime="07:44" PreparationDate="2016-Sep-22"
    Identifier="UNOC" ControlReference="OrderConfirmation:7559491">
    - <OrderConfirmation VersionNumber="D" ReleaseNumber="96A"
      MessageReferenceNumber="OrderConfirmation:7559491"
      MessageNumber="843000030.20160922092024.26@"
      LineItemCount="3" FunctionCode="_9" CurrencyCode="USD"
      ControllingAgency="UN" AssociationAssignedCode="MARL10">
        <DateTimePeriod Value="201610080000" Qualifier="_2"
          FormatQualifier="_203"/>
        <DateTimePeriod Value="201609220743" Qualifier="_137"
          FormatQualifier="_203"/>
      - <Comments Qualifier="PUR">
          <Value>Thank you for your order. </Value>
        </Comments>
      - <Comments Qualifier="ZTP">
          <Value>Pay on delivery</Value>
        </Comments>
        <Reference Qualifier="UC" ReferenceNumber="6623981"/>
        <Reference Qualifier="AGI" ReferenceNumber="843000030"/>
        <Party Qualifier="UD" Name="AMOS Traveller"/>
      + <Party Qualifier="VN" Name="SpecTec Product Development">
      + <LineItem Number="1" TypeCode="MF" Quantity="2"
        MeasureUnitQualifier="PCE" Identification="6"
        Description="Rigging">
      + <LineItem Number="2" TypeCode="MF" Quantity="10"
        MeasureUnitQualifier="PCE" Identification="17"
        Description="Washer">
      - <LineItem Number="3" TypeCode="MF" Quantity="1"
        MeasureUnitQualifier="PCE" Identification="24"
        Description="Cover">
          <Section Name=" " Description=" "/>
          <PriceDetails Value="20.00" Qualifier="CAL" TypeCode="QT"
            TypeQualifier="GRP"/>
          <PriceDetails Value="2.00" Qualifier="CAL" TypeCode="QT"
            TypeQualifier="DPR"/>
        </LineItem>
        <MonetaryAmount Value="0.0" Qualifier="_106"/>
        <MonetaryAmount Value="118.00" Qualifier="_259"/>
        <MonetaryAmount Value="0.0" Qualifier="_64"/>
        <MonetaryAmount Value="118.00" Qualifier="_79"/>
        <MonetaryAmount Value="0.00" Qualifier="_204"/>
      </OrderConfirmation>
    </Interchange>
</MTML>
```