



TRANSPORT MANAGEMENT

Migrated&Developed by
Maximea LTD
 MAXIMEA

Sponsor
StabilisOne LTD



Based ADempiere Fleet Management
by e-Evolution SC





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1 Background

Transport Management is the plugin for iDempiere Business Suite ERP/CRM/SCM which can help you consolidate Purchase, Sale and Distribution orders and maximize the return on your transportation spend and enhance freight, fleet, and logistics management.

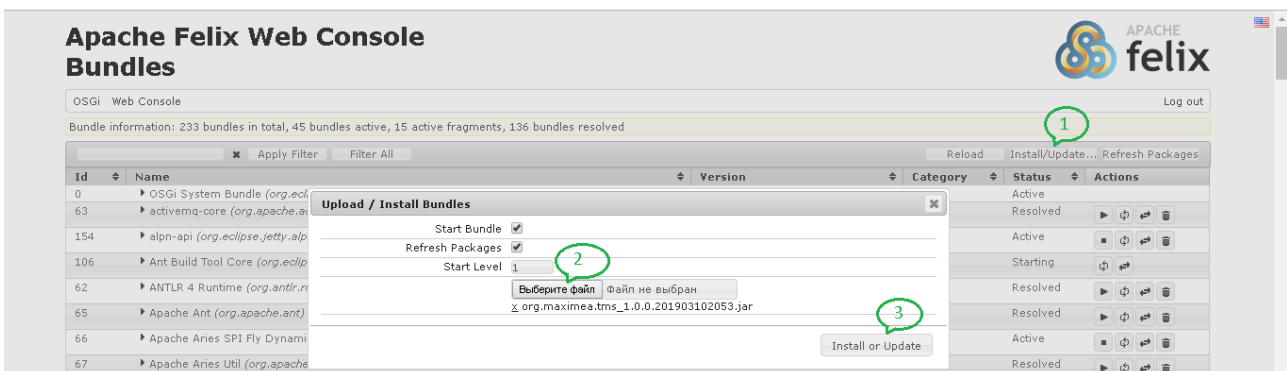
P.S. This version 1.02(alfa) published without support PostGIS&pgRouting.

2 Install

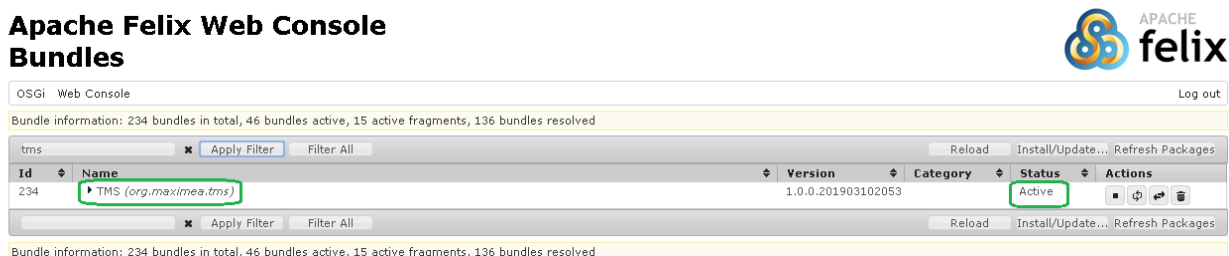
2.1 Download and Install plugin

You can download the TMS plugin plugin for immediate use in your latest iDempiere from <https://bitbucket.org/pshepetko/org.maximea.tms/downloads/>

In Apache Felix Web Console: 1) Install plugin 2) Select file 3) Install and Update



As result must be Status=Active



After that you can use this functionality.



2.2 Setting

2.2.1 Transport Unit Type

Transport unit types are a means of grouping together different transport units according to certain characteristics.

The screenshot shows the 'Transport Unit Type' form in the iDempiere application. The form is for a client named 'myMeals.DEMO' and an organization. The search key is 'fu'. The name is 'Freight Unit'. The description is empty. The 'Active' checkbox is checked. The transport mode is 'Road'. The transport physical type is 'Other weight-bearing units'. The weight unit of measure is 'Kilogram'. The volume unit of measure is 'Metr3'. The dimension unit of measure is 'Each'. There is a checkbox for 'Has Vapor Recovery System' which is unchecked.

2.2.2 Transportation Unit

Freight Unit is a set of goods that are transported together across the entire transportation chain. A freight unit can include transportation constraints for transportation planning.

Create Transportation Unit name Freight Unit and set Volume, Dimension and Weight and etc.

The screenshot shows the 'Transportation Unit' form in the iDempiere application. The form is for a client named 'myMeals.DEMO' and an organization. The search key is 'fu001'. The name is 'Freight Unit:One Order/Day/Customer'. The description is 'One Order per Day for one Delivery Point'. The comment/help text states: 'A freight unit (FU) represents a set of goods that is transported together through the entire transportation chain. The freight unit building rule must defines whether and how to consolidate or split Order items into freight units.' The document note is empty. The transport unit type is 'Freight Unit'. The transport status is 'Available'. The transport compatibility group is empty. The volume unit of measure is 'Metr3'. The volume is 15.0. The minimum volume is 1.0. The maximum volume is 15.0. The dimension unit of measure is 'Each'. The transport length is 0.0. The transport height is 0.0. The weight unit of measure is 'Kilogram'. The weight is 15.0. The minimum weight is 1.0. The maximum weight is 15.0. The unladen weight is 0.0. The number of axes is 0.0.



Add Compartment for this TU if need, example hot, cold, frozen and etc.

iDempiere Open Source ERP System

Home **Transport Unit: fu001 Frei...**

Transport Unit

Record saved

Client* Orga

Search Key

Name*

Description

Comment/Help

Document Note

Compartment Assignment

Sorted: #4

| <input type="checkbox"/> | Transport Compartment | Sequence [^] | uuid | Active |
|--------------------------|-----------------------|-----------------------|------|-------------------------------------|
| <input type="checkbox"/> | Nothing | | 1 | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | Cold box | | 2 | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | Hot Box | | 3 | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | Frozen box | | 4 | <input checked="" type="checkbox"/> |



2.2.3 Compartment

You use compartments to map the loading space.

| Organization | Search Key | Name | Description | Transport Compatibility Group | Maximum Volume | Minimum Volume | Volume Unit of Measure | Active |
|--------------|------------|------------|-------------|-------------------------------|----------------|----------------|------------------------|-------------------------------------|
| mainKitchen | nothing | Nothing | | Nothing | 5.0 | 1.0 | Metr3 | <input checked="" type="checkbox"/> |
| mainKitchen | hot | Hot Box | | Hot boxes | 5.0 | 1.0 | Metr3 | <input checked="" type="checkbox"/> |
| mainKitchen | cold | Cold box | | Cold boxes | 5.0 | 1.0 | Metr3 | <input checked="" type="checkbox"/> |
| mainKitchen | frozen | Frozen box | | Frozen | 5.0 | 1.0 | Metr3 | <input checked="" type="checkbox"/> |

Create Compartment if need to split TU

Client: myMeals.DEMO Organization: mainKitchen

Search Key: nothing Active

Name: Nothing

Description:

Document Note:

Comment/Help:

Transport Compatibility Group: Nothing

Volume Unit of Measure: Metr3

Minimum Volume: 1.0 Maximum Volume: 5.0

For example you use compartments for the following:

You have to separate two freight units on a truck because they contain refrigerated goods and fruit.



2.2.4 Vehicles

You define vehicles for transportation.

The screenshot shows the iDempiere web application interface. At the top, there is a search bar and user information. Below the navigation bar, there is a table titled "Vehicle" with the following columns: Organization, Search Key, Name, Description, and Comment/Help. The table contains 10 rows of data for "Volunteer car" vehicles. Below the table, there are tabs for "Driver Assignment", "Transport Assignment", "License Assignment", and "Requirement Assignment". The "Driver Assignment" tab is active, showing a table with 1 record. The table has columns: Organization, Driver, Vehicle, Sequence, uuid, and Active.

| Organization | Search Key | Name | Description | Comment/Help |
|--------------|------------|------------------|------------------------------|--------------|
| mainKitchen | vc1 | Volunteer car 1 | Volunteer car [max 15 meals] | |
| mainKitchen | vc2 | Volunteer car 2 | Volunteer car [max 15 meals] | |
| mainKitchen | vc3 | Volunteer car 3 | Volunteer car [max 15 meals] | |
| mainKitchen | vc4 | Volunteer car 4 | Volunteer car [max 15 meals] | |
| mainKitchen | vc5 | Volunteer car 5 | Volunteer car [max 15 meals] | |
| mainKitchen | vc6 | Volunteer car 6 | Volunteer car [max 15 meals] | |
| mainKitchen | vc7 | Volunteer car 7 | Volunteer car [max 15 meals] | |
| mainKitchen | vc8 | Volunteer car 8 | Volunteer car [max 15 meals] | |
| mainKitchen | vc9 | Volunteer car 9 | Volunteer car [max 15 meals] | |
| mainKitchen | vc10 | Volunteer car 10 | Volunteer car [max 15 meals] | |

| Organization | Driver | Vehicle | Sequence | uuid | Active |
|--------------|----------|-----------------|----------|------|-------------------------------------|
| mainKitchen | Driver 1 | Volunteer car 1 | 0 | | <input checked="" type="checkbox"/> |

Set Volume, Dimension, Weight and etc.

The screenshot shows the configuration form for a vehicle in the iDempiere web application. The form includes fields for Client, Organization, Search Key, Name, Description, Document Note, Comment/Help, Asset, Transport Compatibility Group, Vehicle Type, Vehicle Status, Active checkbox, Volume Unit of Measure, Minimum Volume, Maximum Volume, Dimension Unit of Measure, Transport Width, Transport Length, Transport Height, Weight Unit of Measure, Transport Width, and Minimum Weight. The values are: Client: myMeals.DEMO, Organization: mainKitchen, Search Key: vc1, Name: Volunteer car 1, Description: Volunteer car [max 15 meals], Vehicle Type: Volunteer cars, Vehicle Status: Available, Active: checked, Volume Unit of Measure: Metr3, Minimum Volume: 1.0, Maximum Volume: 15.0, Dimension Unit of Measure: Each, Transport Width: 2.0, Transport Length: 2.0, Transport Height: 0.02, Weight Unit of Measure: Each, Minimum Weight: 1.0, Maximum Weight: 15.0.



2.2.5 Drivers

You define Drivers and Licenses for transportation.

The screenshot shows the iDempiere web application interface. At the top, there is a search bar with 'we' and a user profile icon. The user is identified as 'mmAdmin@myMeals.DEMO'. The main content area is titled 'Driver' and contains a form for creating or editing a driver record. The form includes fields for Client (myMeals.DEMO), Organization (*), Search Key (1driver), Name (Driver 1), Name 2, Business Partner, and Driver Status (Available). There is also a checkbox for 'Active' which is checked. Below the form, there are two tabs: 'License Assignment' and 'Requirement Assignment'. The 'License Assignment' tab is active and shows a table with 1 record. The table has columns for Organization, Driver, License, Vehicle, Sequence, uuid, and Active. The record shows Organization: mainKitchen, Driver: Driver 1, License: License Driver, Vehicle: Volunteer car 1, Sequence: 0, and Active: checked.

| Organization | Driver | License | Vehicle | Sequence | uuid | Active |
|--------------|----------|----------------|-----------------|----------|------|-------------------------------------|
| mainKitchen | Driver 1 | License Driver | Volunteer car 1 | 0 | | <input checked="" type="checkbox"/> |



2.2.6 Product

For planning you must set Weight and Volume .

The screenshot shows a web-based form for configuring a product. The form is titled "Product" and has a browser tab "Product: 112 ChickenLemon...". The form contains the following fields and values:

- Client: myMeals.DEMO
- Organization: mainKitchen
- Search Key: 112
- Version No: (empty)
- Name: ChickenLemon (Avgolemono)
- Description: (empty)
- Comment/Help: (empty)
- Document Note: 112
- UPC/EAN: (empty)
- SKU: (empty)
- Active:
- Summary Level:
- Product Category: meals-Meals
- Classification: (empty)
- Tax Category: Standard
- Company Agent: (empty)
- UOM: Each
- Product Type: Item
- Mail Template: (empty)
- Weight: 1.00
- Volume: 1.00
- Own Box:
- Drop Shipment:
- Freight Category: Hot

The "Weight" and "Volume" input fields are circled in blue in the original image.

And if you want o use Compartment you can use field Freight Category.



2.2.7 Business Partner Location

Business Partner must have Address for view route on the Map.

The screenshot shows a web browser window with the following content:

- Home | Product: 112 ChickenLemon... | Business Partner: customer0...
- Business Partner > Location
- Client: myMeals.DEMO
- Business Partner: Customer 1
- Name: [c1] 31-34 North Terrace, Adelaide
- Active
- Address: 97, King William Street, central, Adelaide 50000
- Phone: [empty]
- Fax: [empty]
- Ship Address
- Pay-From Address
- Sales Region: central-Central
- Customer Address ID: [empty]

Sales Region need for routes grouping if you use Multi Stops.



2.2.8 Freight Costing Calculate Definition

2.2.8.1 Freight Calculation Method Window

This definition enables the system to calculate transportation charges according to a specific logic, for example, by considering the Weight or the Length of route.

2.2.8.2 Calculation Method Type

You can choose the type of calculation method to use for each charge. The following calculation method types we can add and use:

| Search Key | Name | Charge | Description | Comment/Help | Active |
|------------|-----------------------------------|-----------------|---|--|-------------------------------------|
| SW | Standard Weight (SW) | Freight Service | Calculates the transportation charges based on the ... | For example, the rate is USD 10 and the calculation r... | <input checked="" type="checkbox"/> |
| BW | Break-Weight (BW) | Freight Service | Calculates the transportation charges by comparing ... | Break-weight is the weight from which it is cheaper ... | <input checked="" type="checkbox"/> |
| OW | Clipping Weight(CW) | Freight Service | calculates the transportation charges by working th... | The system then totals up the calculation results fro... | <input checked="" type="checkbox"/> |
| DWR | Deficit weight rating (DWR) | Freight Service | Calculates the transportation charges for a weight g... | The system calculates the transportation charges fo... | <input checked="" type="checkbox"/> |
| ES | External system (ES) | Freight Service | Connects to an external system to determine the rat... | | <input checked="" type="checkbox"/> |
| ICC | Internal charge calculation (ICC) | Freight Service | Calculate transportation charges between organizat... | You can use internal agreements for internal charge... | <input checked="" type="checkbox"/> |
| SD | Standard - Length (SD) | Freight Service | Calculates the transportation charges based on the ... | For example, the rate is USD 50 and the calculation r... | <input checked="" type="checkbox"/> |
| FS | Fuel Surcharge (FS) | Freight Fuel | Calculates the transportation charges for Fuel. | For example, the rate is USD 10 and the calculation r... | <input checked="" type="checkbox"/> |
| SOC | Stop Off Costs (SOC) | Freight Service | Calculates the transportation charges for Stops. | For example, the rate is USD 10 and the calculation r... | <input checked="" type="checkbox"/> |

| Line No | Description | Calculation Method | Quantity | UOM | Operation | Rate | Is Qty Percentage | Active |
|---------|-------------------------|--------------------|----------|----------|-----------|------|--------------------------|-------------------------------------|
| 10 | >= 100 kg USD 10 per kg | Break-Weight (BW) | 100 | Kilogram | >= | 10.0 | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 20 | >= 500 kg USD 8 per kg | Break-Weight (BW) | 500 | Kilogram | >= | 8.0 | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 30 | >= 1000 kg USD 6 per kg | Break-Weight (BW) | 1,000 | Kilogram | >= | 6.0 | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

You can create and select Charge for each Calculation Method Type. As example Charge=Freight Fuel for Freight Calculation Method Type=Fuel Surcharge (FS)

●Standard - Weight

Record saved

Client* myMeals.DEMO Organization* mainKitchen

Calculation Method* Standard Weight (SW) Line No 10

Description: The system calculates the transportation charges based on the specified rate, calculation rule, and actual weight. For example, the rate is USD 10 and the calculation rule specifies that the rate is for every 100 kg.

Quantity 100 UOM Kilogram

Operation =

Rate 10.0 Is Qty Percentage

Active



The system calculates the transportation charges based on the specified rate, calculation rule, and actual weight. For example, the rate is USD 10 and the calculation rule specifies that the rate is for every 100 kg. The weight is 1800 kg, so the system calculates the transportation charges as USD 180 (1800 kg/100 kg * USD 10).

●Standard - Length

The system calculates the transportation charges based on the specified rate, calculation rule, and actual length. For example, the rate is USD 10 and the calculation rule specifies that the rate is for every 100 km. The weight is 1000 km, so the system calculates the transportation charges as USD 100 (1000 km/100 km * USD 10).

●Break-Weight

The system calculates the transportation charges by comparing and selecting the lower rate from either the actual rate range or the lower end of the next rate range. Break-weight is the weight from which it is cheaper to calculate the rate as opposed to the actual weight of the goods to be transported. One of the scales in the rate must be weight.

●Clipping

The system calculates the transportation charges by working through all scales level-by-level, even if the value lies outside the scale. The system then totals up the calculation results from each scale level to produce the overall result. For clipping, one scale item must have a relative calculation type.

●Deficit weight rating

The system calculates the transportation charges for a weight greater than the actual weight of the goods to be transported, if it results in a lower transportation charge. The system calculates the difference between the actual weight and the next scale level and adds this difference to the goods to be transported as a deficit weight. The system then calculates the costs for the deficit weight using the cheaper rate. Deficit weight rating (DWR) is primarily used in U.S. land transportation.

●External system

The system connects to an external system to determine the rates.

●Other Calculation Method Type

Your custom Calculation Method Type

More details about Calculation Methods you can see on the [SAP TMS manual](#).



2.2.8.3 Freight Agreement

You can use the following Calculation Methods to Freight Cost Calculation.

●Example for Shipper 1

The screenshot shows the 'Shipper and Vehicle: Carrier 1' interface. The 'Shipper' section includes fields for Client (myMeals.DEMO), Organization (*), Name (Carrier 1), Active (checked), and Business Partner (Carrier 1). The 'Freight Agreement' section shows 3 records in a table:

| Line No | Description | Shipper | Date From | Date To | Active | Calculation Method |
|---------|-------------------|-----------|------------|---------|-------------------------------------|------------------------|
| 10 | Standard Distance | Carrier 1 | 01-01-2019 | | <input checked="" type="checkbox"/> | Standard - Length (SD) |
| 20 | Fuel Surcharge | Carrier 1 | 01-01-2019 | | <input checked="" type="checkbox"/> | Fuel Surcharge (FS) |
| 30 | Stop Off Costs | Carrier 1 | 01-01-2019 | | <input checked="" type="checkbox"/> | Stop Off Costs (SOC) |

●Example for Shipper 2

The screenshot shows the 'Shipper and Vehicle: Carrier 2' interface. The 'Shipper' section includes fields for Client (myMeals.DEMO), Organization (*), Name (Carrier 2), Active (checked), and Business Partner (Carrier 2). The 'Freight Agreement' section shows 1 record in a table:

| Line No | Description | Shipper | Date From | Date To | Active | Calculation Method |
|---------|---------------------|-----------|------------|---------|-------------------------------------|---------------------|
| 10 | Fuel Surcharge (FS) | Carrier 2 | 01-01-2019 | | <input checked="" type="checkbox"/> | Fuel Surcharge (FS) |

●Example for Shipper 3

The screenshot shows the 'Shipper and Vehicle: Carrier 3' interface. The 'Shipper' section includes fields for Client (myMeals.DEMO), Organization (*), Name (Carrier 3), Active (checked), and Business Partner (Carrier 3). The 'Freight Agreement' section shows 1 record in a table:

| Line No | Description | Shipper | Date From | Date To | Active | Calculation Method |
|---------|------------------------|-----------|------------|---------|-------------------------------------|------------------------|
| 10 | Standard Distance (SD) | Carrier 3 | 01-01-2019 | | <input checked="" type="checkbox"/> | Standard - Length (SD) |

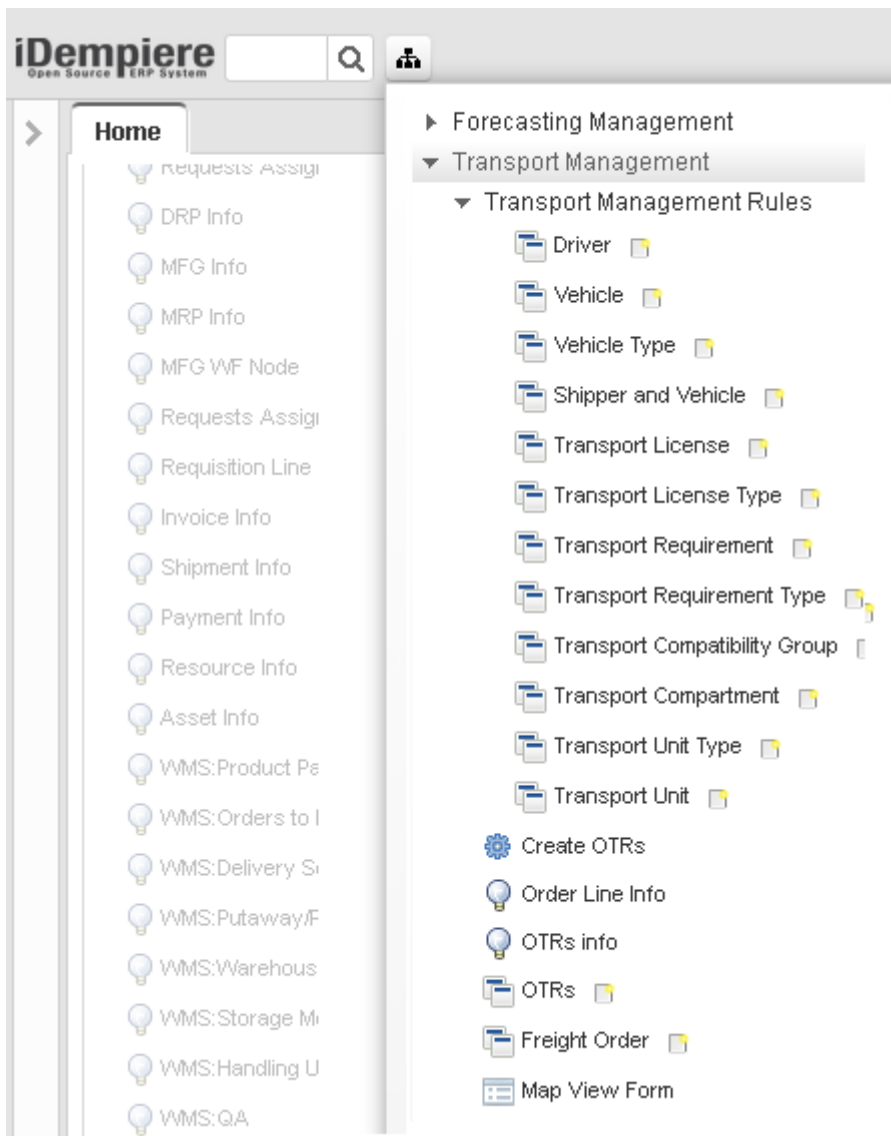
Note that you can use many Calculation Methods on Freight Agreements for one Shipper.

The next Step Run [Freight Cost Calculation Process](#) for calculation.



3 Transport Management functionality

3.1 Overview



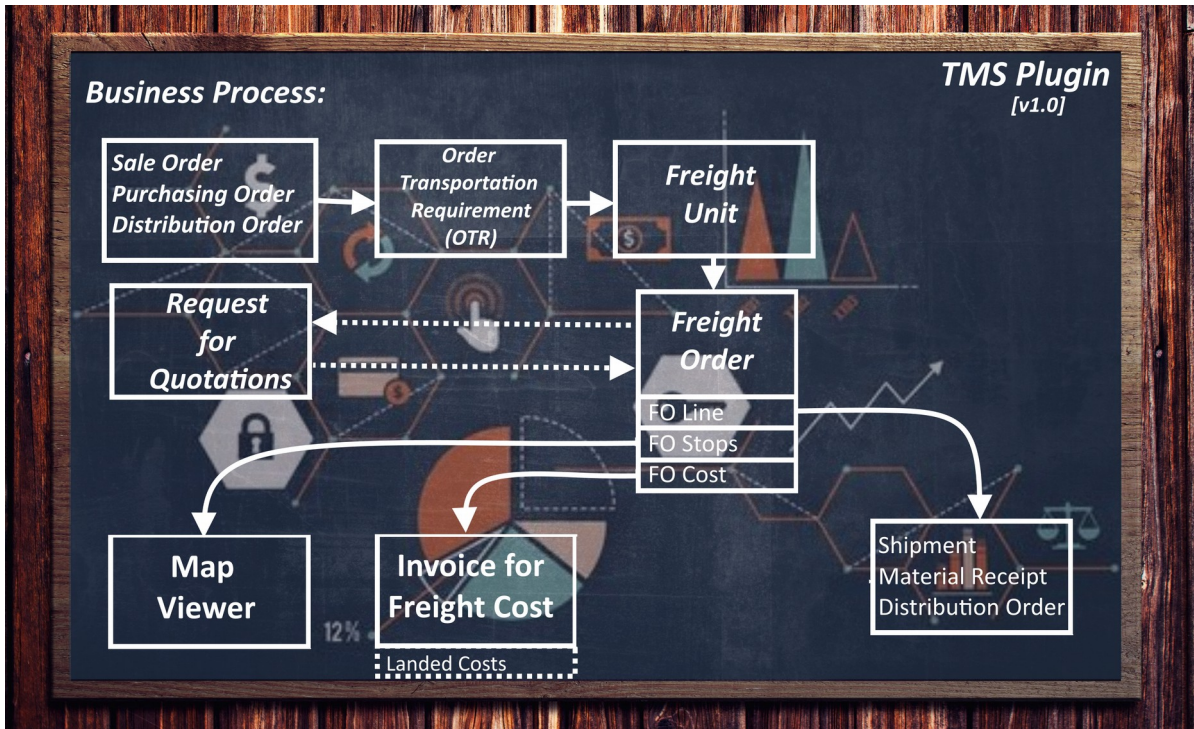
Transportation Management System (TMS) is a plugin for iDempiere Business Suite ERP/CRM/SCM. TMS Solution has been designed for transportation and logistics requirement of all industries and helps them to reduce transportation costs and improve logistics efficiency and flexibility.

TMS plugin enables you to manage all inbound and outbound domestic and international freight in the same environment and provides traceability and visibility of orders, shipments, items, and logistics processes.

With TMS plugin, you can plan the transportation of shipments for many common order types such as sales and purchase orders, returns, and stock transfers.



3.2 Business Process



3.3 Create OTRs process

Run process for create Order Transportation Requirements (OTR) from

- Sales Order
- Purchasing order
- Distribution Order

You can delete old/existing records if need.



The screenshot shows the iDempiere web interface. At the top left is the iDempiere logo with the text "Open Source ERP System". The top right shows the user "mmAdmin@myMeals.DEMO.mainKitchen/myMeals.DEMO Admin" and navigation links for "Feedback", "Preference", "Change Role", and "Log Out". Below the header is a tabbed interface with tabs for "Home", "FMS:OTRs info", and "Create OTRs". The main content area displays a confirmation message: "Do you want to start the Process?" followed by "** [V.1.02] Created OTRs lines 2978 from SO:2973/PO:3/DO:2". Below this message is a "Saved Parameters" section with a dropdown menu and two icons. At the bottom right, there are two buttons: "Parameter" with a green arrow icon and "Close Window" with a red X icon.

Result of process for tree months.



3.4 Order Transportation Requirement Info Window

Here you can see OTR records and run processes for selected records.

The screenshot shows the 'FMS:OTRs info' window in iDempiere. It features a search and filter interface at the top with fields for Date Promised, Warehouse, Business Partner, Product, Vehicle, Freight Category, and Delivered. Below this is a table with the following columns: Date Promised, Date Promised, FU, Vehicle, Location From, Location To, Business Partner, Product, Ordered Quantity, Delivered Quantity, Delivered, UOM, Order Type, and Description. The table contains several rows of data, all with a date of 01-03-2019. At the bottom, there are buttons for 'Create Freight Units', 'Vehicle Assignment', 'Create Freight Order', and 'Create RFQs'. A status bar at the bottom indicates 'Selected 0 rows, 2977 Rows found - Enter query criteria (optionally with %)'.

3.4.1 OTR Window

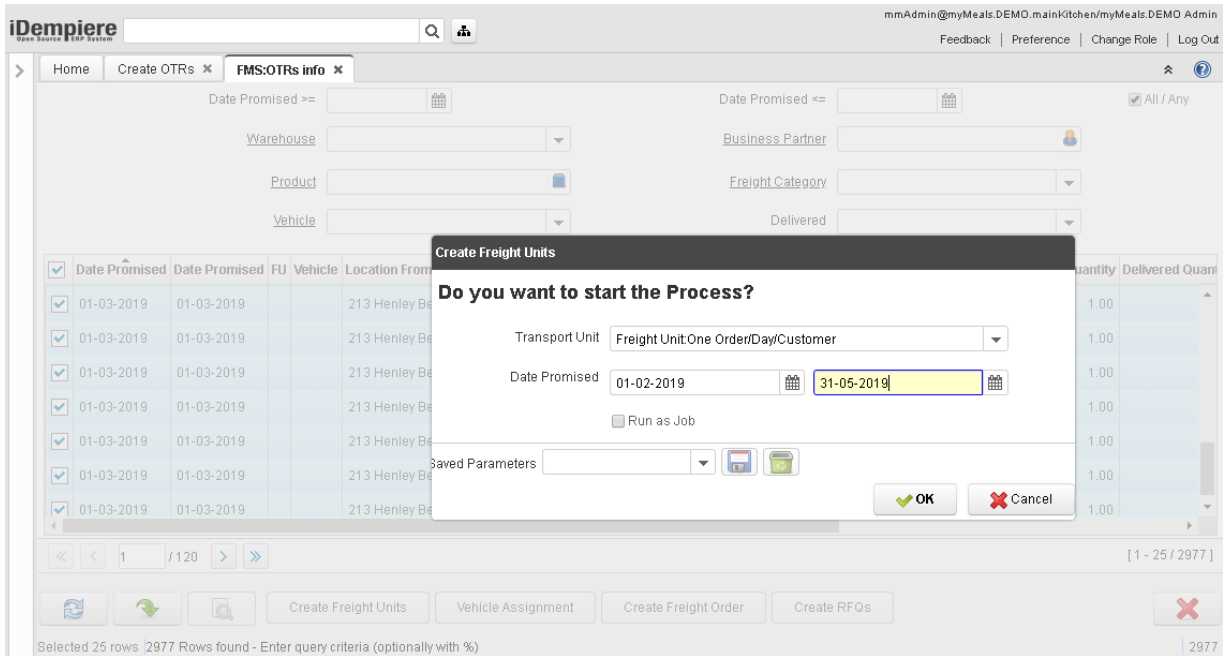
Use double-click you can see OTR Window.

The screenshot shows the 'Order Transportation Requirement' window in iDempiere. It displays detailed information for a specific OTR record. The fields are organized into two columns. The left column includes: Client (myMeals.DEMO), Date Ordered (01-03-2019 12:00:00 AM), Business Partner (Customer 8), Source Warehouse, Product (115/213/315/413_Lentil (Faki)), Ordered Quantity (1), Sales Order Line (50088_01-03-2019_20_0), Order Type (SOO), Freight Unit (fu001-Freight Unit:One Order/Day/Customer), FU Volume (1.0), Vehicle (Volunteer car 2), Transport Unit, and Volume (15.0). The right column includes: Organization (mainKitchen), Date Promised (01-03-2019 12:00:00 AM), Warehouse (Main Kitchen WH), UOM (Each), Delivered Quantity (0), Distribution Order Line, checkboxes for Processed and Active (Active is checked), FU (1010000230000020), FU Weight (1.0), TU (9010000230000002), and Weight (15.0).

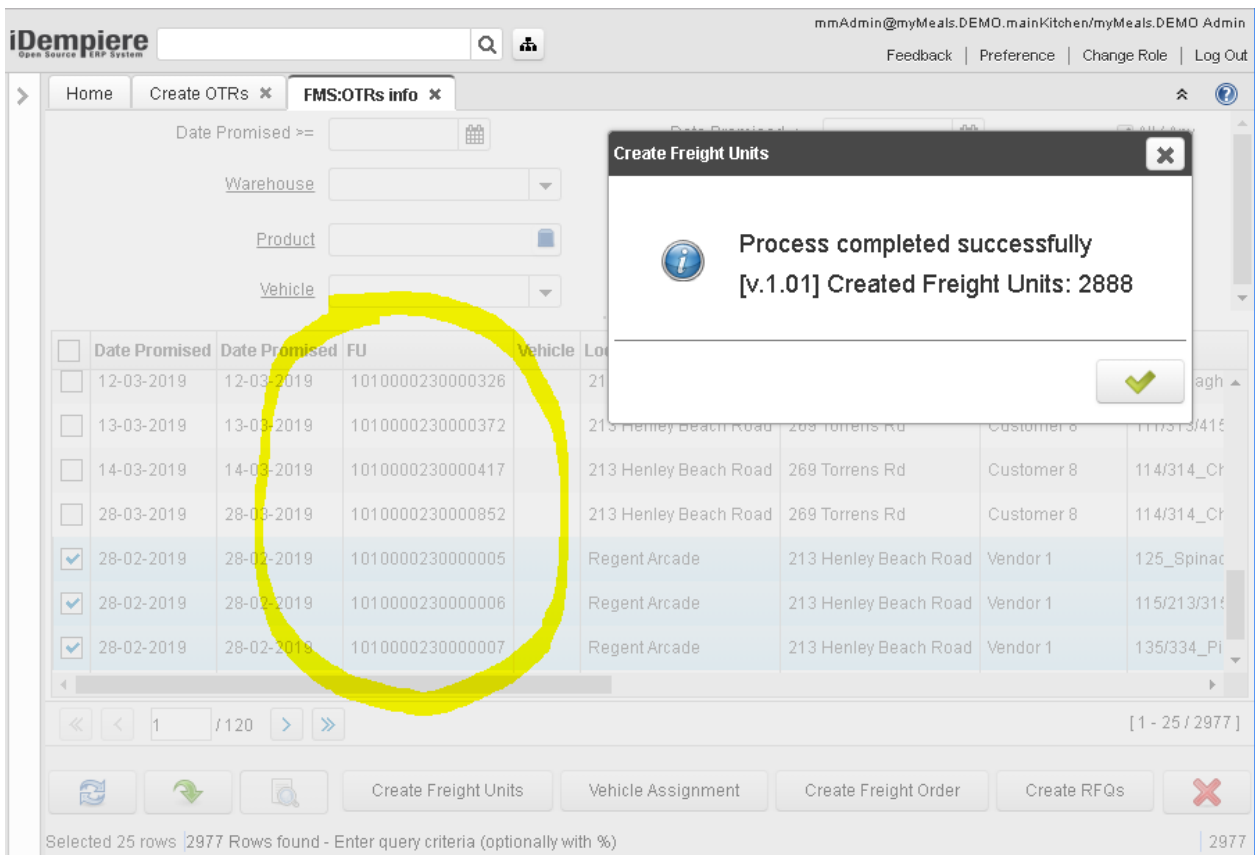


3.4.2 Create Freight Units

This process Create Freight Units based selected Transport Unit for selected records of grid (when parameter Date promised is empty).But if you entered parameter Date promised that process run for period.



Process updates the field FU and you can see result..



P.S. We can combine this process with Create OTRs process and create FU automatically (used rules) as in SAP TM.



3.4.3 Vehicle Assignment

This process Assign Vehicles based selected Vehicle Type for selected records of grid (when parameter Date promised is empty).But if you entered parameter Date promised that process run for period.

The screenshot shows the 'FMS:OTRs info' window in iDempiere. A modal dialog box titled 'Vehicle Assignment' is open, asking 'Do you want to start the Process?'. The dialog contains the following fields and options:

- Date Promised: 01-02-2019 (start) and 31-05-2019 (end)
- Vehicle Type: Volunteer cars
- Run as Job:
- Saved Parameters: Last Run 2019-03-10 1

The background window shows a table with columns: Date Promised, Date Promised, FU, Vehicle, and Location. The table contains 25 rows of data. At the bottom, there are buttons for 'Create Freight Units', 'Vehicle Assignment', 'Create Freight Order', and 'Create RFQs'. The status bar indicates 'Selected 25 rows 2977 Rows found - Enter query criteria (optionally with %)'.

Process updates the field Vehicle and you can see result.

The screenshot shows the 'FMS:OTRs info' window after the process has completed. A modal dialog box titled 'Vehicle Assignment' is open, displaying the message: 'Process completed successfully [v.1.01] Vehicles assigned:2975'. The background window shows the same table as in the previous screenshot, but with a yellow circle highlighting the 'Vehicle' column. The status bar indicates 'Selected 25 rows 2977 Rows found - Enter query criteria (optionally with %)'.



3.4.4 Create RFQs (optional)

You can create Request For Quotations and use standard Purchasing functionality for a Carriers select.

The screenshot shows the 'TMS:OTRs info' interface. A modal dialog titled 'Create RFQs' is open, displaying the following fields and options:

- RFQ Topic***: Tender freight
- Business Partner Group***: Carrier
- Run as Job
- Saved Parameters**: [Dropdown menu]
- Buttons: **OK** (green checkmark) and **Cancel** (red X).

The background interface includes a table with columns: Date Promised, Date Promised, FU, Vehicle, Location From, Location To, Business Partner, and Product. The table contains several rows of data, with the first few rows having checkmarks in the first column.

Parameters RfQ Topic and BP Group are mandatory.

The screenshot shows the 'iDempiere' interface with the 'FMS:OTRs info' window. A modal dialog titled 'Create RFQs' is open, displaying the following message:

Process completed successfully
[v.1.00] Created RFQs: 3

The dialog box includes a close button (X) in the top right corner and a green checkmark button at the bottom right.

The background interface shows the 'FMS:OTRs info' window with filters for 'Date Promised >= 01-03-2019' and 'Date Promised <= 01-03-2019'. It also includes fields for Warehouse, Business Partner, Product, Freight Category, and Vehicle. A table with columns: Date Promised, Date Promised, FU, and Vehicle is visible below the filters.

Process create a new RfQs and you can see result.



iDempiere ERP System mmAdmin@myMeals.DEMO.mainKitchen/myMeals.DEMO Admin

Feedback | Preference | Change Role | Log Out

Home | Create OTRs * | FMS:OTRs info * | **RfQ: 1000044 Daily Meal de...**

RfQ 1/3

| <input type="checkbox"/> | Work Start | Organization | Document # | Name | Description | Active | Sales Representative | RfQ Topic | RfQ Type | Quot |
|--------------------------|------------|--------------|------------|---------------------|-------------------------------------|-------------------------------------|----------------------|----------------|----------------------|------|
| <input type="checkbox"/> | 01-03-2019 | mainKitchen | 1000044 | Daily Meal delivery | Meal delivery [FU:9010000230000007] | <input checked="" type="checkbox"/> | mmAdmin | Tender freight | Quote Selected Lines | |
| <input type="checkbox"/> | 01-03-2019 | mainKitchen | 1000045 | Daily Meal delivery | Meal delivery [FU:9010000230000008] | <input checked="" type="checkbox"/> | mmAdmin | Tender freight | Quote Selected Lines | |
| <input type="checkbox"/> | 01-03-2019 | mainKitchen | 1000043 | Daily Meal delivery | Meal delivery [FU:9010000230000006] | <input checked="" type="checkbox"/> | mmAdmin | Tender freight | Quote Selected Lines | |

Detail record

For the next step you can use Web Store for communication with your Carriers.

Adempiere - 1999-2007 Welcome Carrier 1 User | Verify Email | Update User Info | Logout | Help

Web Store

My RfQ's

| Name | Description | Details | Response by | Work Start | Delivery |
|---------------------|-------------------------------------|---------|-------------|-------------|----------|
| Daily Meal delivery | Meal delivery [FU:9010000230000006] | | Mar 1, 2019 | Mar 1, 2019 | - 0 days |
| Daily Meal delivery | Meal delivery [FU:9010000230000008] | | Mar 1, 2019 | Mar 1, 2019 | - 0 days |
| Daily Meal delivery | Meal delivery [FU:9010000230000007] | | Mar 1, 2019 | Mar 1, 2019 | - 0 days |

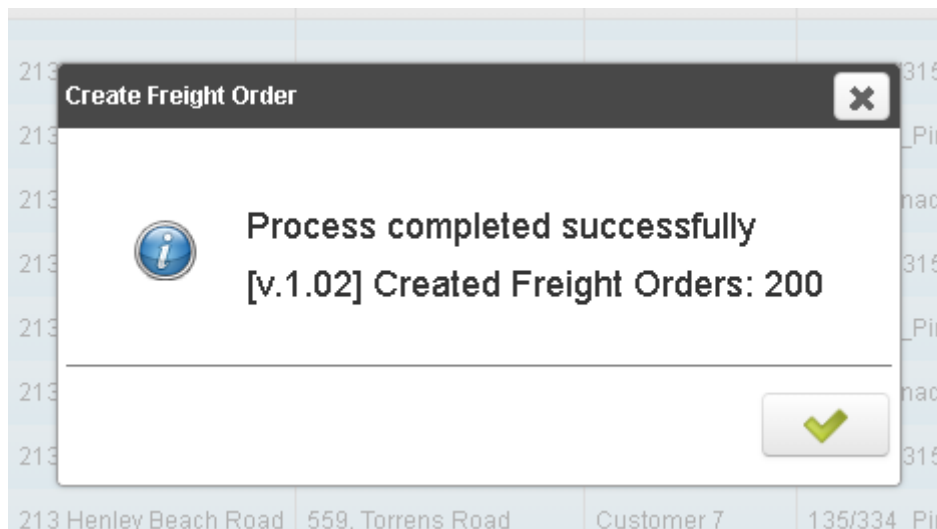
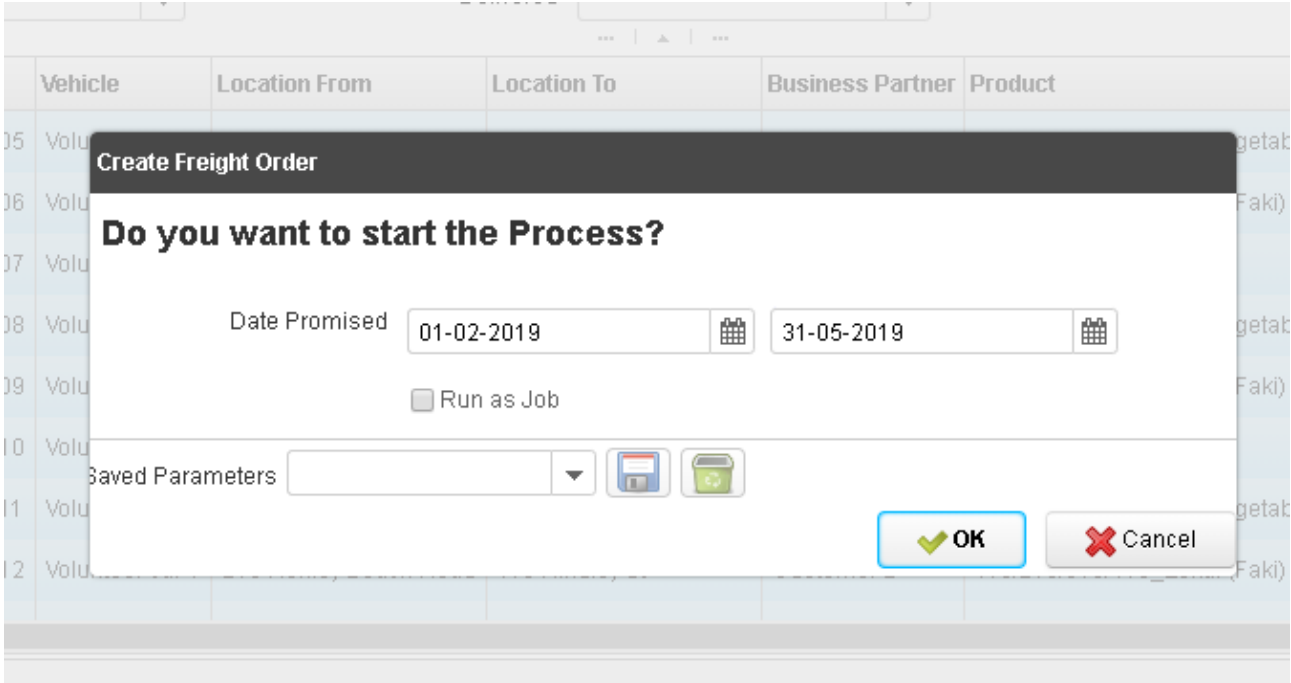
Contact us
myMeals.DEMO

More about RfQs you can found in Purchasing module.



3.4.5 Create Freight Orders

This process create new Freight Orders for selected records of the grid (when parameter Date promised is empty).But if you entered parameter Date promised that process run for period.





Process create a new FOs and you can see result.

The screenshot shows the 'Freight Order' list view in the iDempiere application. The table lists several freight orders with columns for Date Ordered, Document No, Document Type, Vehicle, Driver, Process Freight Order, Description, Document Status, Approved, and Freight Category. The first row is highlighted in yellow.

| Date Ordered | Document No | Document Type | Vehicle | Driver | Process Freight Order | Description | Document Status | Approved | Freight Category |
|------------------------|-------------|---------------|-----------------|--------|-----------------------|------------------|-----------------|--------------------------|------------------|
| 31-05-2019 12:00:00 AM | 1002130 | Freight Order | Volunteer car 3 | | Document Action | N#1002130 Dat... | Drafted | <input type="checkbox"/> | |
| 31-05-2019 12:00:00 AM | 1002129 | Freight Order | Volunteer car 2 | | Document Action | N#1002129 Dat... | Drafted | <input type="checkbox"/> | |
| 31-05-2019 12:00:00 AM | 1002128 | Freight Order | Volunteer car 1 | | Document Action | N#1002128 Dat... | Drafted | <input type="checkbox"/> | |
| 30-05-2019 12:00:00 AM | 1002127 | Freight Order | Volunteer car 3 | | Document Action | N#1002127 Dat... | Drafted | <input type="checkbox"/> | |

The header of Freight Order.

The screenshot shows the 'Freight Order' header form in the iDempiere application. It contains various input fields for client, organization, document details, and delivery information.

| | | | |
|--|-----------------------|----------------------|------------------------|
| Client | myMeals.DEMO | Organization | mainKitchen |
| Document No | 1002130 | Document Type | Freight Order |
| Document Date | 31-05-2019 | Date Ordered | 31-05-2019 12:00:00 AM |
| Description: N#1002130 Date:31.05.2019 Vehicle:Volunteer car 3 | | | |
| Date Start Schedule | 08-06-2019 4:00:00 PM | Date Finish Schedule | 08-06-2019 9:00:00 PM |
| Length | 17.5 | Duration | 32 |
| Business Partner | | Shipper | test |
| Vehicle | Volunteer car 3 | Driver | |
| Document Status | Drafted | Document Action | |

P.S. The fields Length and Duration you need to enter manually from the map if you don't use some API or Postgis/pgRouting.



The Lines tab of the Freight Order document contain info about Products.

| Line No | Ship Date | Location From | Location To | Product | Ordered Quantity | Delivered Quantity | Sales Order Line | Distribution Order Line |
|---------|------------|-----------------------|----------------------|------------------------------|------------------|--------------------|--------------------------|-------------------------|
| 0 | 31-05-2019 | 213 Henley Beach Road | 748 Anzac Highway | 125_Spinach/rice with ve... | 1 | 0 | 50092_01-03-2019_1970... | |
| 1 | 31-05-2019 | 213 Henley Beach Road | 748 Anzac Highway | 115/213/315/413_Lentil (...) | 1 | 0 | 50092_01-03-2019_1960... | |
| 2 | 31-05-2019 | 213 Henley Beach Road | 748 Anzac Highway | 135/334_Pineapple cake | 1 | 0 | 50092_01-03-2019_1980... | |
| 3 | 31-05-2019 | 213 Henley Beach Road | 33a, Hastings Street | 125_Spinach/rice with ve... | 1 | 0 | 50093_01-03-2019_1980... | |
| 4 | 31-05-2019 | 213 Henley Beach Road | 33a, Hastings Street | 115/213/315/413_Lentil (...) | 1 | 0 | 50093_01-03-2019_1970... | |
| 5 | 31-05-2019 | 213 Henley Beach Road | 33a, Hastings Street | 135/334_Pineapple cake | 1 | 0 | 50093_01-03-2019_1990... | |
| 6 | 31-05-2019 | 213 Henley Beach Road | 150, Brighton Road | 125_Spinach/rice with ve... | 1 | 0 | 50094_01-03-2019_1980... | |
| 7 | 31-05-2019 | 213 Henley Beach Road | 150, Brighton Road | 115/213/315/413_Lentil (...) | 1 | 0 | 50094_01-03-2019_1970... | |
| 8 | 31-05-2019 | 213 Henley Beach Road | 150, Brighton Road | 135/334_Pineapple cake | 1 | 0 | 50094_01-03-2019_1990... | |
| 9 | 31-05-2019 | 213 Henley Beach Road | 2 Morley Street | 125_Spinach/rice with ve... | 1 | 0 | 50095_01-03-2019_1980... | |
| 10 | 31-05-2019 | 213 Henley Beach Road | 2 Morley Street | 115/213/315/413_Lentil (...) | 1 | 0 | 50095_01-03-2019_1970... | |
| 11 | 31-05-2019 | 213 Henley Beach Road | 2 Morley Street | 135/334_Pineapple cake | 1 | 0 | 50095_01-03-2019_1990... | |
| 12 | 31-05-2019 | 213 Henley Beach Road | 18, Carlisle Street | 125_Spinach/rice with ve... | 1 | 0 | 50096_01-03-2019_1980... | |
| 13 | 31-05-2019 | 213 Henley Beach Road | 18, Carlisle Street | 115/213/315/413_Lentil (...) | 1 | 0 | 50096_01-03-2019_1970... | |

The Freight Stops tab of Freight Order document contain info about Stops of the current route.

| Sequence | Business Partner | Location From | Location To | Volume | Weight | % Utilization | Active |
|----------|------------------|-----------------------|----------------------|--------|--------|---------------|-------------------------------------|
| 1.0 | Customer 11 | 213 Henley Beach Road | 748 Anzac Highway | | | | <input checked="" type="checkbox"/> |
| 2.0 | Customer 12 | 213 Henley Beach Road | 33a, Hastings Street | | | | <input checked="" type="checkbox"/> |
| 3.0 | Customer 13 | 213 Henley Beach Road | 150, Brighton Road | | | | <input checked="" type="checkbox"/> |
| 4.0 | Customer 14 | 213 Henley Beach Road | 2 Morley Street | | | | <input checked="" type="checkbox"/> |
| 5.0 | Customer 15 | 213 Henley Beach Road | 18, Carlisle Street | | | | <input checked="" type="checkbox"/> |

P.S. You can change a field Squence manually for a sequence of stops if you don't use optimization with some API or Postgis/pgRouting.

The Cost tab of Freight Order document contain info about costing for this document.

Client: myMeals.DEMO Organization: mainKitchen

Freight Order: 1002404

Product:

Quantity: 17.5 Charge: Freight Service

Amount: 17.50 Price: 10.00

Description:

Active Processed

You can add manually Cost for Fuel, Loading , Unloading and etc. for the Invoice generate.



3.4.6 Freight Cost Calculation Process

Order Transportation Requirements(OTRs) Info Window

The screenshot shows the 'TMS:OTRs info' window with various filters and a table of OTRs. The 'Freight Cost Calculation' button is highlighted with a green box.

| Date Promised | Date Promised | FU | Vehicle | Location From | Location To | Business Partner | Product | Ordered Quantity | Delivered Qua |
|---------------|---------------|------------------|-----------------|-----------------------|-------------------------|------------------|------------------------|------------------|---------------|
| 01-04-2019 | 01-04-2019 | 1010000230000029 | Volunteer car 2 | 213 Henley Beach Road | 499, Port Road | Customer 6 | 111/313/415_Minestrone | 1.00 | |
| 01-04-2019 | 01-04-2019 | 1010000230000044 | Volunteer car 3 | 213 Henley Beach Road | 18, Carlisle Street | Customer 15 | 111/313/415_Minestrone | 1.00 | |
| 01-04-2019 | 01-04-2019 | 1010000230000020 | Volunteer car 2 | 213 Henley Beach Road | 269 Torrens Rd | Customer 8 | 111/313/415_Minestrone | 1.00 | |
| 01-04-2019 | 01-04-2019 | 1010000230000017 | Volunteer car 2 | 213 Henley Beach Road | 559, Torrens Road | Customer 7 | 111/313/415_Minestrone | 1.00 | |
| 01-04-2019 | 01-04-2019 | 1010000230000008 | Volunteer car 1 | 213 Henley Beach Road | 233 Victoria Square | Customer 4 | 111/313/415_Minestrone | 1.00 | |
| 01-04-2019 | 01-04-2019 | 1010000230000014 | Volunteer car 1 | 213 Henley Beach Road | 82 King William Street | Customer 3 | 111/313/415_Minestrone | 1.00 | |
| 01-04-2019 | 01-04-2019 | 1010000230000005 | Volunteer car 1 | 213 Henley Beach Road | 118 Hindley St | Customer 2 | 111/313/415_Minestrone | 1.00 | |
| 01-04-2019 | 01-04-2019 | 1010000230000002 | Volunteer car 1 | 213 Henley Beach Road | 97, King William Street | Customer 1 | 111/313/415_Minestrone | 1.00 | |
| 01-04-2019 | 01-04-2019 | 1010000230000026 | Volunteer car 2 | 213 Henley Beach Road | 34 Days Rd | Customer 10 | 111/313/415_Minestrone | 1.00 | |
| 01-04-2019 | 01-04-2019 | 1010000230000032 | Volunteer car 3 | 213 Henley Beach Road | 748 Anzac Highway | Customer 11 | 111/313/415_Minestrone | 1.00 | |
| 01-04-2019 | 01-04-2019 | 1010000230000035 | Volunteer car 3 | 213 Henley Beach Road | 33a, Hastings Street | Customer 12 | 111/313/415_Minestrone | 1.00 | |
| 01-04-2019 | 01-04-2019 | 1010000230000023 | Volunteer car 2 | 213 Henley Beach Road | 92 Days Rd | Customer 9 | 111/313/415_Minestrone | 1.00 | |

Buttons: Create Freight Units, Vehicle Assignment, Create Freight Order, Create RFQs, **Freight Cost Calculation**, [Close]

Selected 25 rows. 225 Rows found - Enter query criteria (optionally with %)

●Freight Cost Calculation Process Run

The dialog box 'Freight Cost Calculation' asks 'Do you want to start the Process?'. It includes date fields for 'Date Promised' (01-04-2019 to 30-04-2019) and a 'Run as Job' checkbox. There are 'OK' and 'Cancel' buttons.

●Process Calculation Result

The message box displays: 'Process completed successfully [v.1.00] Freight Cost Calculation: 15 [error:0].' with a green checkmark icon.



3.4.7 Freight Order Cost tab

Freight Order Cost Calculate result used [Freight Agreements](#) for each Shippers:

●for **Shipper 1 = Carrier 1**

Home TMS:OTRs info x Order Transportation Requir... x **Freight Order: 1002227** x

Freight Order 2/15

| Date Ordered | Document No | Document Type | Vehicle | Driver | Shipper | Length | Duration | Process Freight Order | Description | Docume |
|------------------------|-------------|---------------|-----------------|--------|-----------|--------|----------|-----------------------|------------------|--------|
| 01-04-2019 12:00:00 AM | 1002216 | Freight Order | Volunteer car 2 | | Carrier 2 | 75 | 1 | Document Action | N#1002216 Dat... | Drafte |
| 05-04-2019 12:00:00 AM | 1002227 | Freight Order | Volunteer car 2 | | Carrier 1 | 50 | 1 | Document Action | N#1002227 Dal | Draft |
| 05-04-2019 12:00:00 AM | 1002228 | Freight Order | Volunteer car 2 | | Carrier 3 | 25 | 1 | Document Action | N#1002228 Dat... | Drafte |
| 05-04-2019 12:00:00 AM | 1002229 | Freight Order | Volunteer car 3 | | Carrier 3 | 1 | 1 | Document Action | N#1002229 Dat... | Drafte |

Freight Order Line Freight Stops **Freight Order Cost**

3 Records

| Organization | Description | Freight Order | Processed | Charge | Quantity | Price | Amount | Active | Product |
|--------------|------------------------|---------------|--------------------------|-----------------|----------|-------|--------|-------------------------------------|---------|
| mainKitchen | Stop Off Costs (SOC) | 1002513 | <input type="checkbox"/> | Freight Service | 1 | 10.00 | 10.00 | <input checked="" type="checkbox"/> | |
| mainKitchen | Standard - Length (SD) | 1002513 | <input type="checkbox"/> | Freight Service | 50 | 0.50 | 25.00 | <input checked="" type="checkbox"/> | |
| mainKitchen | Fuel Surcharge (FS) | 1002513 | <input type="checkbox"/> | Freight Fuel | 50 | 0.05 | 2.50 | <input checked="" type="checkbox"/> | |

●for **Shipper 2 = Carrier 2**

Home TMS:OTRs info x Order Transportation Requir... x **Freight Order: 1002216** x

Freight Order 1/15

| Date Ordered | Document No | Document Type | Vehicle | Driver | Shipper | Length | Duration | Process Freight Order | Description | Docum |
|------------------------|-------------|---------------|-----------------|--------|-----------|--------|----------|-----------------------|------------------|--------|
| 01-04-2019 12:00:00 AM | 1002216 | Freight Order | Volunteer car 2 | | Carrier 2 | 75 | 1 | Document Action | N#1002216 Dat... | Drafte |
| 05-04-2019 12:00:00 AM | 1002227 | Freight Order | Volunteer car 1 | | Carrier 1 | 50 | 1 | Document Action | N#1002227 Dat... | Drafte |
| 05-04-2019 12:00:00 AM | 1002228 | Freight Order | Volunteer car 2 | | Carrier 3 | 25 | 1 | Document Action | N#1002228 Dat... | Drafte |
| 05-04-2019 12:00:00 AM | 1002229 | Freight Order | Volunteer car 3 | | Carrier 3 | 1 | 1 | Document Action | N#1002229 Dat... | Drafte |

Freight Order Line Freight Stops **Freight Order Cost**

1 Records

| Organization | Description | Freight Order | Processed | Charge | Quantity | Price | Amount | Active | Product |
|--------------|---------------------|---------------|--------------------------|--------------|----------|-------|--------|-------------------------------------|---------|
| mainKitchen | Fuel Surcharge (FS) | 1002502 | <input type="checkbox"/> | Freight Fuel | 75 | 0.05 | 3.75 | <input checked="" type="checkbox"/> | |

●for **Shipper 3 = Carrier 3**

Home TMS:OTRs info x Order Transportation Requir... x **Freight Order: 1002228** x

Freight Order 3/15

| Date Ordered | Document No | Document Type | Vehicle | Driver | Shipper | Length | Duration | Process Freight Order | Description | Docume |
|------------------------|-------------|---------------|-----------------|--------|-----------|--------|----------|-----------------------|------------------|--------|
| 01-04-2019 12:00:00 AM | 1002216 | Freight Order | Volunteer car 2 | | Carrier 2 | 75 | 1 | Document Action | N#1002216 Dat... | Drafte |
| 05-04-2019 12:00:00 AM | 1002227 | Freight Order | Volunteer car 1 | | Carrier 1 | 50 | 1 | Document Action | N#1002227 Dat... | Drafte |
| 05-04-2019 12:00:00 AM | 1002228 | Freight Order | Volunteer car 2 | | Carrier 3 | 25 | 1 | Document Action | N#1002228 Dat... | Drafte |
| 05-04-2019 12:00:00 AM | 1002229 | Freight Order | Volunteer car 3 | | Carrier 3 | 1 | 1 | Document Action | N#1002229 Dat... | Drafte |

Freight Order Line Freight Stops **Freight Order Cost**

1 Records

| Organization | Description | Freight Order | Processed | Charge | Quantity | Price | Amount | Active | Product |
|--------------|------------------------|---------------|--------------------------|-----------------|----------|-------|--------|-------------------------------------|---------|
| mainKitchen | Standard - Length (SD) | 1002514 | <input type="checkbox"/> | Freight Service | 25 | 0.50 | 12.50 | <input checked="" type="checkbox"/> | |



3.4.8 Create Invoice for Freight Cost (will be soon)

This process create new Invoice for selected records of the grid (when parameter Date promised is empty).But if you entered parameter Date promised that process run for period.

P.S. This process requires coordination.

3.4.8.1 Product or Charge

Create Invoice based a Product or Charge.

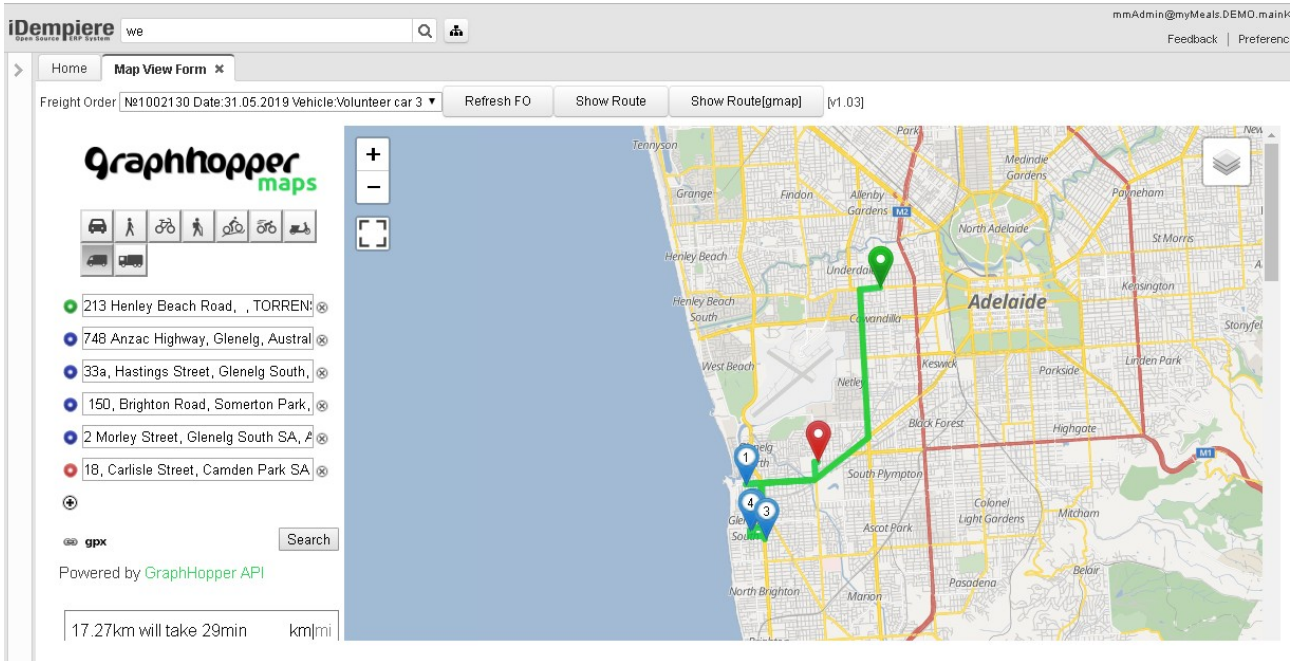
3.4.8.2 Landed Cost

Create Invoice based a Charge and Shipments for Landed Cost.

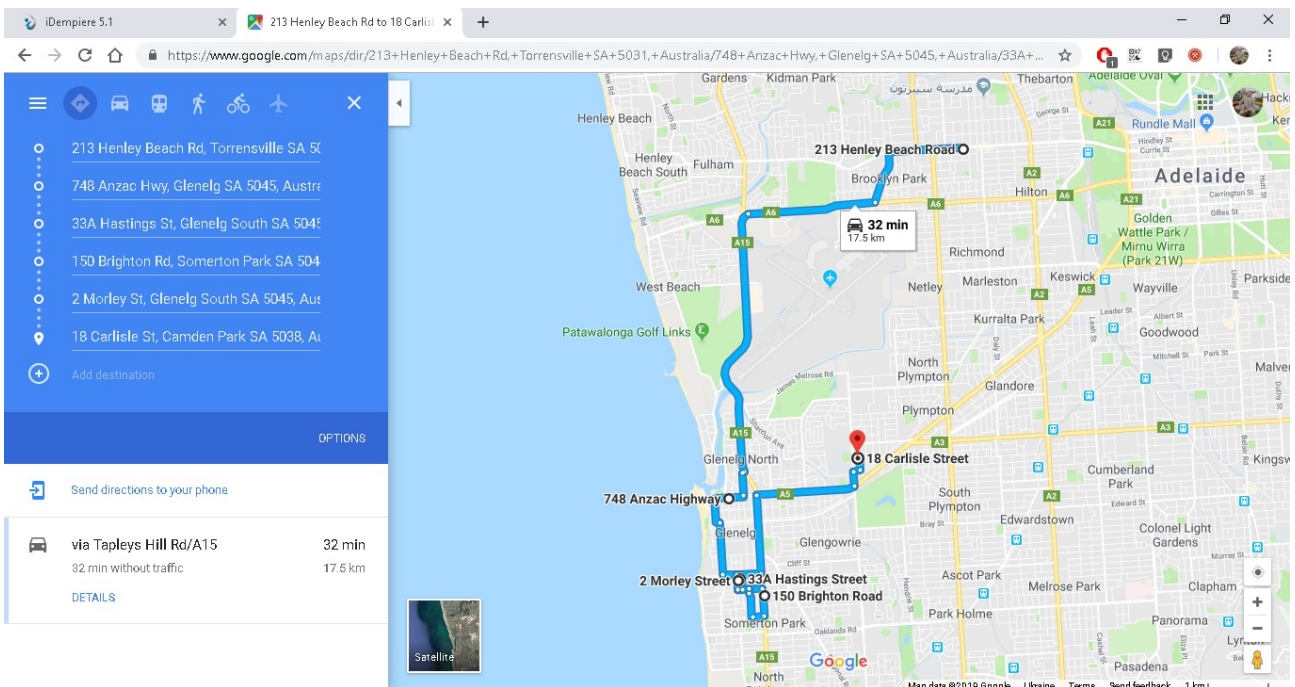


3.5 Map View Form

You can see Route on the map for each Freight Orders on GraphHopper Maps in the frame.



or/and Google Maps on the new browser tab





4 Project Protocol

4.1.1 Project Version

Transport Management v1.0.1a [*without support PostGIS&pgRouting*]

4.1.2 Source Repository

<https://bitbucket.org/pshepetko/org.maximea.tms>

4.1.3 Project Forum for Support

General support forum <https://groups.google.com/forum/#!forum/idempiere>

Issues for this plugin <https://bitbucket.org/pshepetko/org.maximea.tms/issues>

4.1.4 Contact

Maximea company: maximea@maximea.pl

Peter Shepetko: pshepetko@gmail.com