

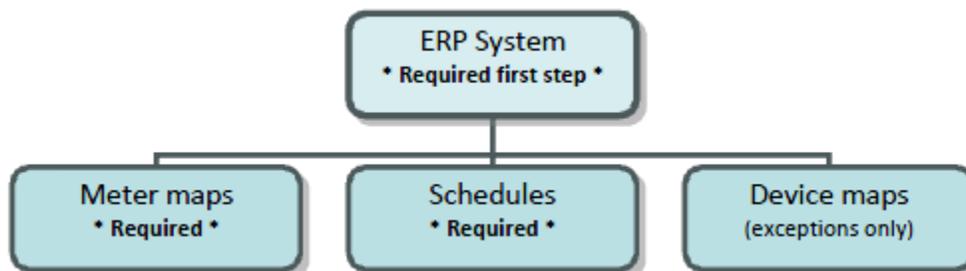


# Meter Export: Best Practices and Troubleshooting

PageTrac Support

# Meter Export: Best Practices and Troubleshooting

Successful meter exports begin with proper configuration of an external ERP system. Meter maps, export schedules, and if necessary, device maps, are associated with a configured ERP system.



## Step 1: Configuring an external ERP system

All other setup items for meter export are subordinate to the ERP system, which must be configured first.

PrintFleet meter export is compatible with the following commercial ERP systems:

- Digital Gateway's e-automate
- OMD NetVision or OMD iManager, with H2O component
- La Crosse NextGen
- Evatic

There is an additional export type, *PFI Export*, that sends a standard XML file with meter information to a designated URL.

Each instance of an external ERP system only has to be set up once. For example, if you are using a single Digital Gateway e-automate system exclusively, your system only needs to be configured once. However, you have the option of creating multiple instances of an ERP system if there is a need, for example, if you have multiple locations that use a single ERP system, and each location should only be given access to the meter export configurations for their applicable groups/devices. If you are using more than one ERP system, each system must be configured separately.

**To configure a new external ERP system:**

1. On the **Settings** menu, click **Meter Export**.
2. Click **New System**.

3. Enter a name for the export system in the **Name** box.
4. Select the group that the export system applies to from the **Group** list (all other configuration items and permissions for the export will be based on the group selected here; if it applies to your entire system, select *Root*).
5. Select the type of export system you are using from the **Export Type** list.
6. Depending on the type of export system you have chosen, do the following:
  - If you have chosen *Digital Gateway – e-automate*.
    - Enter the URL of the e-automate system in the **Destination URL** box.
    - Enter the meter source name configured in the ERP system (eg. *PrintFleet*) in the **Meter Source** box.
    - Enter your company ID for the e-automate system in the **Company ID** box.
    - Enter the version of e-automate you are using in the **Version** box.
    - Enter a username for the e-automate system in the **Username** box.
    - Enter the corresponding password for the e-automate system in the **Password** box.
  - If you have chosen OMD *Multimeter* or *OMD Non-Multimeter*.
    - Enter the URL of your H2O system in the **H2O Destination URL** box (required for all OMD meter exports).
    - Enter the URL of your iManager system in the **iManager Destination URL** box (required for automated device mapping).
    - Enter the username for iManager in the **Username** box.
    - Enter the corresponding password for iManager in the **Password** box.

**Note:** The username and password for iManager must be associated with the accounts in iManager that you want to set up meter exports for. To create a username and password that is associated with multiple accounts, obtain the REQL83 program from OMD.
  - If you have chosen *La Crosse NextGen*.
    - Enter the URL of the NextGen system in the **Destination URL** box.
  - If you have chosen *Evatic*.
    - Enter the e-mail address that was designated for your company to export information into your Evatic system in the **Email To** box.
    - Enter any e-mail address into the **Email From** box.
    - Enter any e-mail subject line into the **Subject** box.
7. Choose the field that you want devices to be automatically mapped by (for Digital Gateway's e-automate and OMD only) from the **Sync By** list. Most commonly, serial number is used, and this is the default selection.
8. Optionally, enter the number of days a device must have reported in to be included in the meter export in the **Device Stale Days** box (value must be greater than 1).
9. Click **Save**.

## ERP System Configuration

**System Configuration - test 1**

Name:

Group:

Export Type:

Destination URL:

Meter Source:

Company ID:

Version:

Username:

Password:

Sync By:

Device Stale Days:

Send Full Meter Group Only

 Save  Back

## Step 2: Configuring meter maps

Meter labels used by PrintFleet software must be mapped to the meter labels used by the external ERP system. For example, if the meter called *Total* in the PrintFleet system is called *Total\_Count* in the external ERP system, this association must be defined for the meters to export properly. A meter map in PrintFleet is a series of these associations applied to one or more groups and/or individual devices.

Multiple meter maps for one external ERP system can be created. Meter maps will be applied to devices based on the meter map applied to the group closest to it. For example, if the group *Root* that includes all groups and all devices has a meter map assigned to it, and the group *Widgets* has another meter map assigned to it, devices within the group *Widgets* will use the meter map assigned to *Widgets* in any cases where the *Root* and *Widgets* meter maps overlap (in areas where they do not overlap, it will use the meter map with the additional information). This allows you to assign a basic meter map to all groups and devices, and customize additional maps for specific groups and devices on an as needed basis.

### To create a new meter map:

1. On the **Settings** menu, click **Meter Export**.
2. Click **Meters** in the row of the external ERP system you want to create a meter map for.
3. Click **New Meter(s)**
4. Select whole groups of devices and/or individual devices to add to the meter map by doing one or both of the following
  - Click to select the check boxes beside groups, to add all devices associated with those groups.
  - Click on the name of a group to view individual devices associated with the group. Click to select the check boxes beside individual devices you want to add. You can use the Check All, Uncheck All, or search function to simplify this process.
5. Click **Continue**.
6. Under the **Destination Meter** column, enter the meter labels from the external ERP system as they correspond to the meters listed under the **PrintFleet Meter** column. All available meters for the devices you selected will be displayed, however, you only have to enter corresponding field names for the ones you want included in the meter export.
7. Optionally, under the **Multiplier** column, enter a multiplier for one or more meter types that will be used to calculate the meter value during export. By default, the value is 1, which will not change the collected value during export. The following are some examples of how you could use a multiplier: export a duplex meter as two pages (multiplier=2), export a legal page as 1.3 letter pages (multiplier=1.3), or convert square feet to square inches (multiplier=144).
8. Click **Save**.

## Meter Map Configuration

Meter Label	Destination Meter	Multiplier
Total	TotalPages	
Mono	MonoPages	
Color	ColorPages	
Fax		
Scan	Scans	
CopierMono		
CopierColor		
PrintMono		

 Save  Back

### *Step 3: Setting up meter export schedules*

Meter export schedules determine what specific meters are exported and how often they are exported. Multiple schedules can be configured for a single external ERP system, for example, if you have one client that is billed on the 15<sup>th</sup> of each month, and one client that is billed at the end of each month, these can be configured as two separate export schedules.

#### **To create a new meter export schedule:**

1. On the **Settings** menu, click **Meter Export**.
2. Click **Schedules** in the row of the external ERP system you want to create a new schedule for.
3. Click **New Schedule**.
4. Enter a name or description for the schedule in the **Description** box.
5. Choose one of the following time intervals for the schedule from the Cycle Pattern list. Time intervals are based on the iCalendar standard.
  - **Never**. Schedule will not run. This allows you to set up a schedule before you begin to export, or to cancel an export without deleting the schedule setup.
  - **Daily**. Requires you to enter how often, in days, you want the meters to export. For example, if you enter 1, meters will export everyday, if you enter 2, meters will export every other day, etc.
  - **Weekly**. Requires you to enter how often, in weeks, you want the meters to export. You are also required to select which day of the week you want the meter exported. For example, if you enter 2 and select Monday, meters will be exported every other Monday.
  - **Monthly**. Requires you to enter the day of the month you want meters exported, and how often, in months, you want the meters to export. For example, if you enter 15 and 3, meters will be exported on the fifteenth day of every third month.
  - **Advanced**. Requires you to select the day of the week, which occurrence of that day during the month, and how often, in months, you want the meter export to occur. For example, if you select 2nd, Mon, and enter 2, the meter export will occur on the second Monday of every other month.
6. Enter a start date and time for the export in the **starting** box.
7. Assign whole groups and/or individual devices to the schedule by doing one or both of the following:
  - Click to select the check boxes beside groups to include all devices associated with those groups in the schedule.
  - Click on the name of a group to view individual devices associated with the group. Click to select the check boxes beside individual devices you want to include in the schedule. You can use the Check All, Uncheck All, or search function to simplify this process.

Comparison of Advantages	
Exporting All Devices	Exporting Individual Devices
Simplified process for initial set up, with minimal administrative work.	PrintFleet error report can be used to ensure all devices are exporting correctly.
No additional administration as new clients and/or devices are added.	ERP system only receives request from devices that are located in their system.

**Note:** While there are advantages to either method, due to the increased administration associated with adding individual devices PrintFleet strongly recommends exporting all devices.

8. Click **Save**.

### Export Schedule Configuration

**New Schedule**

Description:

Next Run Date: Friday, May 21, 2010 11:52 AM

Cycle Pattern:  Every  day(s) starting

**Assigned Groups:**

myCustomer (9)

**Assigned Devices:**

Check All  Uncheck All

Device Name	Group Name
10.0.0.50	myCustomer
10.0.0.151	myCustomer
10.0.0.106	myCustomer
10.0.0.140	myCustomer

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Save Back

Once a meter export has been successfully completed, you should identify all meters that have not been recently updated (often this can be done by running a report in your ERP system). By cross-referencing the data in the device view and your ERP system for each device you will be able to identify which data is causing the export to fail and update the data to ensure all exports are correct.

#### *Step 4 (for exceptions only): Configuring device maps*

Devices detected by PrintFleet software must be associated with devices residing in the external ERP system, however, for e-automate and OMD exports, this process will attempt to complete automatically.

You will need to manually configure device maps if:

- You are using an external ERP system other than e-automate or OMD
- You are using e-automate or OMD, but not all devices mapped automatically; this should usually be corrected by changing the sync field (serial number, asset number, or device ID) in the PrintFleet system to match the same field in the external ERP system

#### To map PrintFleet devices to external ERP system devices:

1. On the **Settings** menu, click **Meter Export**.
2. Click **Device Mapping** in the row of the external ERP system you want to configure device maps for.
3. Click the name of a group that contains devices you want to configure device maps for.
4. Do one of the following:
  - Enter the external ERP system device ID for each device you want to map under the **External ID** column. Depending on your system, this may be a unique ID, serial number, asset number, etc.
  - If you are using e-automate or OMD, click **Auto Map** to automatically populate the External ID column. **Note:** This will occur automatically without having to click the Auto Map button, however, it can be used to force an additional sync with the external ERP system, for instance, if you have corrected a serial/asset number in the PrintFleet system and want to immediately map the changed device.
5. Click **Save**.

## Device Map Configuration

Name	External Id	Auto Map
10.0.0.119	<input type="text" value="SDLS6734JK"/>	<input type="checkbox"/>
10.0.0.50	<input type="text" value="KLSD6738JH"/>	<input type="checkbox"/>
10.0.0.151	<input type="text" value="RSD326784G"/>	<input type="checkbox"/>
10.0.0.127	<input type="text" value="QJK36748RP"/>	<input type="checkbox"/>
10.0.0.131	<input type="text"/>	<input type="checkbox"/>

## Testing and Troubleshooting a Meter Export Setup

You can manually force a meter export to occur the next time the export process runs (every 10 minutes), without taking into account your permanent export schedules. This allows you to test and troubleshoot a meter export configuration.

You should follow these steps to test and troubleshoot:

1. Manually force a meter export to occur.
2. Verify with the external ERP system that all desired meters have been submitted.
3. If there are any meters in the external ERP system that you expected to populate but did not, check the PrintFleet meter export log to determine the reason that those specific meters did not export.

**To manually force a meter export to occur:**

1. On the **Settings** menu, click **Meter Export**.
2. Click **Schedules** in the row of the system you want to test.
3. Under the **Run Export** column, click **Run** in the row of the schedule you want to test. The meter export will occur within the next 10 minutes.

**To view the meter export log:**

1. On the **Settings** menu, click **Meter Export**.
2. Do one of the following:
  - Click **Logs** in the row of the system you want to view.
  - Click **Schedules** in the row of the system you want to view, and then click **Logs** in the row of the specific schedule you want to view logs for.
  - Click **Meters** in the row of the system you want to view, and then click **Logs** in the row of the specific meter map you want to view logs for.

3. Click **View Results** in the row of the export you want to view logs for.

The meter export logs will tell you why a specific meter was not exported into the external ERP system. It is important to understand that the PrintFleet logs may display errors for meters that you would not expect to be successful, for example, a color meter export for a monochrome device. The following table lists all possible entries in the **Result Message** column of the meter export log, and examples of what could cause each result.

## Result Messages in Meter Export Log: Causes and Solutions

Failure Message	Cause	Possible Solutions
MeterPostFail	The ERP system did not accept our meter post (generic failure message not covered by the blow cases)	Start by looking in the ERP system for the specific device to ensure it is configured correct and has the proper meters assigned to it.  Double check PrintFleet has established a device mapping for the device and ensure the correct meters are assigned to it in PrintFleet.
MeterSourceDoesntExist	The meter source does not exist in the ERP system.	The meter source entered for the ERP system in PrintFleet must match exactly to a meter source configured in the ERP system (case sensitive).
Communication Error	PrintFleet could not communicate with the ERP system (timeout, ERP system is offline, etc).	Ensure the ERP system is online and accepting web requests. Double check the system configuration to ensure the correct credentials have been added for this system.
AuthenticationError	The credentials entered for the ERP system are incorrect.	Double check the system configuration to ensure the correct credentials have been added for this system.
OtherError	PrintFleet did not receive a specific error message from the ERP system (an unhandled exception) so we log a generic error message.	The error message returned will always be different. It should be very specific to what the problem is.
MeterDoesntExist	The meter label configured in PrintFleet for the meter mappings does not exist for this specific device in the ERP system.	Ensure this device in the ERP has this meter assigned to it. Double check the meters mapped for this device in the PrintFleet system.
EquipmentDoesntExist	A device has been configured to export from PrintFleet that does not exist in the ERP system.	Check the ERP system to ensure the device has been set up and has an external ID assigned to it. If it is set up in the ERP system, double check PrintFleet's device mapping and if need be, apply the external ID manually here.
NoModelAssigned	No model is associated to the device in the ERP system (OMD only).	Assign the device a model in OMD.

Informational Message	Cause
MeterPostSuccess	The meter was posted successfully.
MissingRequiredMeters	A required meter for a device in an ERP system was not configured in PrintFleet. This is informational to let you know for the additional meter posts to be successful, PrintFleet had to post this required meter (e-automate only).
MeterReadingLessThan Previous	The current meter reading in the ERP system is greater than the current PrintFleet meter reading. This log should be followed by an additional message indicating that PrintFleet re-exported the current value in the ERP system so the other meter posts would not fail.
MeterReadingEmpty	PrintFleet obtained a meter reading of 0, or could not obtain a meter reading from our system to post into the ERP system.

