

MobileIQ Smart SyncTM File Specifications

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Smart Sync File Specifications

About Smart Sync[™]

Smart Sync[™] is a standard developed by MobileIQ to simplify the process of transferring customer, route and delivery information between Headlight[™] and any 3rd party billing, accounting or CRM system. After the files are created, they can be imported into Headlight manually or sent automatically to the Headlight Dropbox using a scheduled task.

1. Manual Smart Sync[™]

The user runs an export routine or report from the billing, accounting or CRM system and saves the Smart Sync files onto their local computer. After logging into Headlight, the user can perform an Import | Smart Sync to manually upload the data files and queue them for processing.

2. Automated Smart Sync[™]

The Smart Sync files can sent to Headlight on a regularly scheduled basis (typically daily or weekly) through two additional steps: (a) use the Windows task scheduler to automatically generate the files and (b) transfer them to the Headlight Dropbox account using FTP along with a "trigger" file". The trigger file indicates the entire data upload has completed successfully and is ready for processing, so it should be the last file transferred via FTP.

Headlight checks for new files every 15-30 minutes and automatically queues them into a batch job for processing. After processing is completed, the Headlight administrator receives an summary email with job information and the trigger file will be deleted to prevent repeat processing. It's recommended that Smart Sync files be created and sent to the Headlight Dropbox on a daily basis.

Each Headlight account has a unique username and password required to send file to the user's Headlight Dropbox.

File Descriptions

The data transferred to Headlight[™] consists of three data files and an optional "trigger" file used for automating Smart Sync transfers to the Headlight Dropbox.

- 1. The Customer File contains account information including id, name and delivery address.
- 2. The Delivery File contains route information, delivery history, product quantities, revenue and frequency.
- 3. The Product File contains product information including SKU, price, weight and volume.
- 4. The Trigger File (optional) is an empty (0 byte) flag file that indicates the files were uploaded successfully.

File Naming Convention

- 1. Customer File must be named mobileiqcust.csv
- 2. Delivery File must be named mobileiqdeliv.csv
- 3. Product File must be named mobileiqprod.csv

4. Trigger File must be named uploadcompleted.txt

General CSV (Comma Separated Values) File Format Notes

- Samples of all file formats are available from the MobilelQ website under Headlight | Smart Sync.
- All files are standard, comma delimited text files.
- Column headers must be included for all files.
- Column headers should be in lower case.
- Column headers must match field names exactly. No additional punctuation in the column headers is allowed.
- Unused or unavailable fields may be left empty or use dummy values, but must include the proper column header.
- Each record is one line of ASCII text terminated by a CRLF (0x0D 0x0A).
- Fields must be separated with commas.

e.g. John Smith, 100 Main St, Chicago, IL, 08123

• Leading and trailing whitespace are ignored, but can be included for readability.

e.g. Chicago , IL, 60612 or Chicago, IL, 60612 is treated the same as Chicago, IL, 60612

• Fields containing embedded commas must be escaped with double-quotation marks (0x22).

e.g. The address 100 Main St, Suite 200 should appear as "100 Main St, Suite 200"

• Fields containing embedded double-quotation marks must be escaped with double-quotation marks (0x22).

e.g. John "Jazz Man" Smith should appear as John ""Jazz Man"" Smith

Special address field instructions

When more than one field is used to hold address information (i.e. ADDRESS1 and ADDRESS2) or the address field contains delivery instructions, use the following convention to help improve the street level geocoding matches within Headlight.

- If both ADDRESS1 and ADDRESS2 contain data, concatenate the two fields using the pipe character and spaces
- If ADDRESS1 is blank, use the data found in ADDRESS2 for delivery address.
- If ADDRESS2 is blank, use the data found in ADDRESS1 for delivery address.

e.g. Different address data available from the billing or CRM system

ADDRESS1 data	ADDRESS2 data	Smart Sync street data
123 Main St.	Suite 23	123 Main St Suite 23
100 Hwy A	Deliver to back door	100 Hwy A Deliver to back door
123 Main St.		123 Main St.

123 Main St.	123 Main St.	
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Customer File Notes (mobileiqcust.csv)

- Each row should contain a unique id number. This can be an account number, contract number, or any other unique index from the billing, accounting or CRM system.
- Only include **active** delivery accounts. Don't include house accounts or ones that are suspended, delinquent, terminated, seasonal or otherwise not being delivered on a regular basis at this time.
- Don't use the same id for multiple delivery or service locations. Instead, concatenate a location or depot code to the front of the id and/or add department or service location codes to the end of the id in order to make it unique.

e.g. Unique id is 100-12345-0001 (Location Code is 100; ID is 12345; Department Code is 0001)

- Delivery customers with multiple accounts and/or contracts should appear as multiple rows with unique ids.
- When the delivery address matches the billing address, include both in the respective fields since the address information is used for different Headlight reports.

Customer File Data Fields

Required fields are in bold; unused fields should include blank values.

Field Name		Field Description	Field Format		
id	Unique identifier for each acti	ve customer	VARCHAR(20)		
company	Company name		VARCHAR(255)		
contact	Customer contact name (e.g	Customer contact name (e.g. John Smith)			
phone	Customer phone number (e.	g. 888-555-4444)	VARCHAR(12)		
street	Delivery address		VARCHAR(255)		
city	Delivery city		VARCHAR(255)		
state	Delivery state (or province) us	sing standard abbreviations	VARCHAR(2)		
zip	Delivery Zip Code, Zip+4 or F	Postal Code	VARCHAR(10)		
closed_times	string formatted as hh:mm-hl	ant is closed or can't be delivered. This is a name using military time. Multiple closed time uld be separated with the '*' (0x42) character.	VARCHAR(60)		
	Closed Time	Description			
	09:00-11:30	closed from 9:00 am to 11:30 am			
	11:20-13:00	closed from 11:20 am to 1:00 pm			
	15:00-18:00	closed from 3:00 pm to 6:00 pm			
	09:00-11:30*15:00-18:00	closed from 9:00 am to 11:30 am AND closed from 3:00 pm to 6:00 pm			
startdate	Date when the account was	created or the first delivery was completed	DATE		
custtype	\mathbf{C} = commercial \mathbf{R} = reside	ntial I = Industrial	VARCHAR(1)		

Field Name	Field Description	Field Format
payment	Charge or cash account	VARCHAR(6)
instruction1	Miscellaneous delivery instructions	VARCHAR(255)
instruction2	Miscellaneous delivery instructions	VARCHAR(255)
bill_to_company	Bill To company name	VARCHAR(255)
bill_to_contact	Bill To contact name (e.g. John Smith)	VARCHAR(255)
bill_to_phone	Bill To phone number (e.g. 888-555-4444)	VARCHAR(12)
bill_to_street	Bill To address	VARCHAR(255)
bill_to_city	Bill To city	VARCHAR(255)
bill_to_state	Bill To state (or province) using standard abbreviations	VARCHAR(2)
bill_to_zip	Bill To Zip Code, Zip+4 or Postal Code	VARCHAR(10)
cust_st	Minutes required to service the account (i.e. premise time or service time)	FLOAT >= 0.00
email	Email address for the delivery contact person	VARCHAR(255)
bill_to_email	Email address for the billing contact person	VARCHAR(255)

Delivery File Notes (mobileiqdeliv.csv)

HeadlightTM accommodates two different types of delivery file specifications:

Water Delivery, Water Treatment & Coffee Delivery Companies

The Water Delivery File Specification allows for twenty (20) route days each month, delivery frequencies up to an entire year and Will Call deliveries.

Here's an example of the delivery calendar. The red numbers indicate Route Days 1 through 20 on a bump schedule.

Industrial Laundry & Linen Supply Companies

The Laundry Delivery File Specification allow for multiple deliveries each week, weekly deliveries, every other week (EOW) deliveries and monthly (E4W) deliveries.

Here's an example of the delivery calendar.

Both file specifications require one row of data for every product delivered. For example, an account receiving five different products on the same day would have five distinct rows in the delivery file.

January						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	²⁰ 3	¹ 4	² 5	³ 6	7
8	⁴ 9	⁵ 10	⁶ 11	⁷ 12	⁸ 13	14
15	16	⁹ 17	¹⁰ 18	¹¹ 19	¹² 20	21
22	¹³ 23	¹⁴ 24	¹⁵ 25	¹⁶ 26	¹⁷ 27	28
29	¹⁸ 30	¹⁹ 31				



Note: Each row must be unique based upon the combination of **id + product code + service code**.

Delivery File Data Fields

Required fields are in bold; unused fields should include blank values.

Water Delivery File Specification

Field Name	Field Description	Field Format
id	Unique identifier for each active customer	VARCHAR(20)
	Note: This must match a corresponding id in the Customer File	
productcode	Unique SKU identifying the product delivered	VARCHAR(20)
	Note: This must match a corresponding productcode in the Product File.	
servicecode	Unique SKU identifying the service being performed.	VARCHAR(20)
	Note: This must match a corresponding productcode in the Product File.	
quantity	Number of items dropped of for a particular delivery.	INT >= 0
	Note: Instead of using only the last delivery, it's preferably to average the last 3 or 4 completed orders to balance out any unusually large one-time orders.	
price	By default, pricing information from the Product File will be used when calculating revenue. Any pricing information in this field will override the default price.	FLOAT >= 0.00
frequency	 7 = Delivered every 7 days (weekly) 14 = Delivered every 14 days (biweekly) 28 = Delivered every 28 days (monthly) 56 = Delivered every 56 days (every two months) 84 = Delivered every 84 days (every three months) any other frequencies 365 = Delivered every 365 days (every year) Note: A frequency value of zero or greater than 9999 (> 9999) will indicate that the customer is NOT a regularly scheduled delivery and will be imported as a "Will Call" or "Special" delivery. 	INT >= 0
next_delivery_date	Calendar date of the next scheduled delivery. e.g. 1/1/2012 Note: Next Delivery Date should always be the current date or a future date.	DATE
location	Unique identifier for starting point of route (i.e. plant, depot, branch)	VARCHAR(4)
route1	Route identifier for Day 1	VARCHAR(4)
route2	Route identifier for Day 2 (used for weekly and biweekly deliveries only)	VARCHAR(4)
route3	Route identifier for Day 3 (used for weekly deliveries only)	VARCHAR(4)
route4	Route identifier for Day 4 (used for weekly deliveries only)	VARCHAR(4)
route5	Not used for Calendar Type A; leave this field blank	n/a

Field Name	Field Description	Field Format
route6	Not used for Calendar Type A; leave this field blank	n/a
route7	Not used for Calendar Type A; leave this field blank	n/a
day1	Route Day (Valid values are 1 through 20)	INT 1-20
day2	Route Day (Valid values are 1 through 20)	INT 1-20
day3	Route Day (Valid values are 1 through 20)	INT 1-20
day4	Route Day (Valid values are 1 through 20)	INT 1-20
sequence1	Sequence or Stop # for Day 1	INT 0-9999
sequence2	Sequence or Stop # for Day 2 (used for weekly and biweekly deliveries only)	INT 0-9999
sequence3	Sequence or Stop # for Day 3 (used for weekly deliveries only)	INT 0-9999
sequence4	Sequence or Stop # for Day 4 (used for weekly deliveries only)	INT 0-9999
sequence5	Not used for Calendar Type A; leave this field blank	n/a
sequence6	Not used for Calendar Type A; leave this field blank	n/a
sequence7	Not used for Calendar Type A; leave this field blank	n/a
deliv_st	Minutes required to service the account (i.e. premise time or service time)	FLOAT >= 0.00

Laundry Delivery File Specification

Field Name	Field Description	Field Format
id	Unique identifier for each active customer	VARCHAR(20)
	Note: This must match a corresponding id in the Customer File	
productcode	Unique SKU identifying the product delivered	VARCHAR(20)
	Note: This must match a corresponding productcode in the Product File.	
servicecode	Unique SKU identifying the service being performed.	VARCHAR(20)
	Note: This must match a corresponding productcode in the Product File.	
quantity	Number of items delivered per delivery.	INT >= 0
	Note: Ideally, the quantity will represent an average of the total items delivered over the past 3 or 4 completed deliveries rather than using only the last completed delivery. The idea is to balance out unusually large individual orders on a single day.	
price	By default, pricing information from the Product File will be used when calculating revenue. The field allows you to overrides the default price for a specific delivery.	FLOAT >= 0.00
frequency	1234 = Delivery every week	INT >= 0
	13 = Delivered every other week on Week 1 & Week 3 (EOW odd weeks)	
	24 = Delivered every other week on Week 2 & Week 4 (EOW even weeks)	
	1 = Delivered monthly on Week 1 (E4W)	
	2 = Delivered monthly on Week 2 (E4W)	
	3 = Delivered monthly on Week 3 (E4W)	
	4 = Delivered monthly on Week 4 (E4W)	
	Note: Don't use spaces between digits for weekly and EOW frequencies	
next_delivery_date	Calendar date of the next scheduled delivery. e.g. 1/1/2012	DATE
	Note: Next Delivery Date should always be the current date or a future date.	
location	Unique identifier for starting point of route (i.e. plant, depot, branch)	VARCHAR(4)
route1	Route identifier for Monday	VARCHAR(4)
route2	Route identifier for Tuesday	VARCHAR(4)
route3	Route identifier for Wednesday	VARCHAR(4)
route4	Route identifier for Thursday	VARCHAR(4)
route5	Route identifier for Friday	VARCHAR(4)
route6	Route identifier for Saturday	VARCHAR(4)
route7	Route identifier for Sunday	VARCHAR(4)

Field Name	Field Description	Field Format
day1	1 = Monday delivery	INT > 0
	2 = Tuesday delivery	
	3 = Wednesday delivery	
	4 = Thursday delivery	
	5 = Friday delivery	
	6 = Saturday delivery	
	7 = Sunday delivery	
	14 = Mon, Thu delivery (2x per week)	
	25 = Tue, Fri delivery (2x per week)	
	35 = Wed, Fri delivery (2x per week)	
	135 = Mon, Wed, Fri delivery (3x per week)	
	1234 = Mon, Tue, Thu, Fri delivery (4x per week)	
	12345 = Mon, Tue, Wed, Thu, Fri delivery (5x per week)	
day2	Not used for Calendar Type B; leave this field blank	n/a
day3	Not used for Calendar Type B; leave this field blank	n/a
day4	Not used for Calendar Type B; leave this field blank	n/a
sequence1	Sequence or Stop # for Monday	INT 0-9999
sequence2	Sequence or Stop # for Tuesday	INT 0-9999
sequence3	Sequence or Stop # for Wednesday	INT 0-9999
sequence4	Sequence or Stop # for Thursday	INT 0-9999
sequence5	Sequence or Stop # for Friday	INT 0-9999
sequence6	Sequence or Stop # for Saturday	INT 0-9999
sequence7	Sequence or Stop # for Sunday	INT 0-9999
deliv_st	Minutes required to service the account (i.e. premise time or service time)	FLOAT >= 0.00

Product File Notes (mobileiqprod.csv)

This file provides an SKU lookup for all delivery products and allows grouping into customized Headlight Product Groups. Due to its relatively static nature, the Product File can be created and saved on a one-time basis rather than generated each time the Smart Sync files are created.

Product File Data Fields

Field Name	Field Description	Field Format
productcode	Unique SKU identifying the product being delivered or service being	VARCHAR(20)
	performed.	
description	Description of product or service	VARCHAR(255)
weight	Weight of product in pounds or kilograms	FLOAT >= 0.0

Field Name		Field Description				
productcategory	A throu	A through H are valid codes.				
	Note: H	Note: Headlight can combine related items (SKUs) into product groups.				
	There are eight customizable product groups available. For example, you					
		• ·	d yellow shirts into a single product group			
	called '	'Shirts." This will contain the	e total quantity of shirts delivered to each			
	accour	nt. By default, Headlight will	also create a matching revenue group			
	called '	'\$ Shirts" that contains the t	otal revenue of those shirts.			
	Individu	ual items (SKUs) are assigne	ed to specific groups in the Product			
	Definitio	on File. Items without a grou	up code (or with an invalid group code) will			
	be com	nbined into a catch-all group	o called "Misc."			
	e.g. Sa	mple product groups for tw	o different industries.			
		Industrial Laundry	Water Delivery			
	A	Uniforms	Salt	1		
	В	Mats	Water			
	С	Shop Towels & CRTs	Chemicals			
	D	Linens	Portable Exchange			
	E	Mops	Filter			
	F	Bathroom Supplies	Coffee & Beverage			
	G	NOG	DI Regeneration			
	Н	Other	Other			
price	Standa	rd price per unit in dollars a	nd cents. This default value may be	FLOAT >= 0.00		
	overridden in the delivery file for a specific delivery.					
valid	TRUE = Indicates active SKUs.					
	FALSE	FALSE = Indicates obsolete SKUs, discontinued SKUs or non-deliverable				
	items (e.g. adjustments, taxes, installation fees, service charges,					
	environ	imental charges, fuel surcha	arges).			

Field Name		Field Description	Field Format
normalized	products. For exam unit and scale other normalized factor (e salt is similar in size 1.0 normalized factor of water and would	hormalized factor to calculate unit volume for different ple, you might define a 5 gallon bottle of water to be one products to match. A 3 gallon bottle would use a 0.6 .g. 3 gallons / 5 gallons = 0.6 units). A 40# or 50% bag of and volume to the 5 gallon water bottle and would use a br. An 80# bag of sale is twice the size of a 5 gallon bottle use a 2.0 normalized factor.	FLOAT >= 0.0
	Example 1	ter bottles as the standard volume unit	
	PRODUCT	NORMALIZED VALUE	
	3 gallon water 5 gallon water 50# salt 80# salt PE tank	0.6 1.0 1.25 2.0 3.0	
	Example 2	as the standard up have with	
		as the standard volume unit	
	PRODUCT 4' x 6' mat 4' x 8' mat 2' x 3' mat	NORMALIZED VALUE 1.0 1.33 0.25	
prod_st		deliver this product. This can be used to calculate a for each delivery using the formula prod_st * quantity.	FLOAT >= 0.00

About Publish Scenario

Route Balancing Scenarios created in Headlight can easily be exported to a CSV file. This is helpful for both reviewing the planned routes and uploading to the billing system instead of manually keypunching the route changes.

Before exporting, you'll need to decide the Export Format, Route Scenario and Start Date. There are three Export Formats available: Daily Routes, Prescheduled Delivery Routes and Vehicle Navigation Device. Each has different characteristics, so it's important to pick the format suited for your industry and needs.

Export Format

1. Daily Routes

This format is suitable for companies making daily deliveries that don't repeat on a regular basis.

Typical Usage: appliance repair, phone repair, service calls, home furniture delivery, home building materials delivery.

2. Prescheduled Delivery Routes

This format is suitable for companies making deliveries to customers on a published schedule. For example, account may be serviced weekly, biweekly or monthly or with other predictable frequencies. It's flexible enough to handle "will call" and "off-schedule" deliveries, but those are the exception - the majority of accounts will be serviced on their scheduled delivery date.

Typical Usage: industrial laundry, water delivery & treatment, coffee service, magazines & periodicals.

3. Vehicle Navigation Device

This format is compatible with many popular GPS navigation devices such as Tom Tom and Magellan. In addition to the Headlight export file, you'll usually need special software provided by the vendor to import the routing information into the device.

Route Scenario

Select the Customer table or any available scenario.

Start Date

The Start Date or "Go Live" Date date is when the new routes will be run or will be implemented. Headlight uses this information to calculate the next scheduled delivery date for every delivery and includes it with other information in the publish file.

Publish Scenario File Data Fields

Prescheduled Delivery Routes

Field Name	Field Description	Field Format
id	Unique identifier for each active delivery	VARCHAR(20)
	Note: This will match a corresponding id in the Customer File	
productcode	One or more SKUs identifying the product(s) being delivered to the account.	VARCHAR
	Depending on the specific export options, this will either be a single product	(255)
	code or a comma delimited list of all product codes for the account.	
	Note: This will match a corresponding productcode in the Product File.	
servicecode	One or more of SKUs identifying the service(s) being performed for the	VARCHAR
	account. Depending on the specific export options, this will either be a single	(255)
	service code or a comma delimited list of all service codes for the account.	
	Note: This must match a corresponding servicecode in the Product File.	
frequency	Number of calendar weeks between deliveries (ignoring holidays)	INT >= 0
	0 = Will Call	
	1 = Delivered every 7 days (weekly)	
	2 = Delivered every 14 days (biweekly)	
	4 = Delivered every 28 days (monthly)	
	8 = Delivered every 56 days (every two months)	
next_delivery_date	Calendar date of the next scheduled delivery. e.g. 1/1/2012	DATE
	Note: Next Delivery Date will always be the current date or a future date.	
location	Unique identifier for starting point of route (i.e. plant, depot, branch)	VARCHAR(4)
route1	Route identifier for Day 1	VARCHAR(4)
route2	Route identifier for Day 2 (used for weekly and biweekly deliveries only)	VARCHAR(4)
route3	Route identifier for Day 3 (used for weekly deliveries only)	VARCHAR(4)
route4	Route identifier for Day 4 (used for weekly deliveries only)	VARCHAR(4)
day1	Route Day (Valid values are 1 through 20)	INT 1-20
day2	Route Day (Valid values are 1 through 20)	INT 1-20
day3	Route Day (Valid values are 1 through 20)	INT 1-20
day4	Route Day (Valid values are 1 through 20)	INT 1-20
sequence1	Sequence or Stop # for Day 1	INT 0-9999
sequence2	Sequence or Stop # for Day 2 (used for weekly and biweekly deliveries only)	INT 0-9999
sequence3	Sequence or Stop # for Day 3 (used for weekly deliveries only)	INT 0-9999
sequence4	Sequence or Stop # for Day 4 (used for weekly deliveries only)	INT 0-9999

Revisions to Smart Sync Specifications

Version 5.0

• added service code to the export file format