

## Introduction

The solutions below are SAWS specific. The solutions include the layout specifications and how Hansen 8 will handle those flat files. Also all types of codes will be defined along with any other functionality needed based off of those codes.

## Datamatic Solution Outline

### Solution Summary

The below solution is for Datamatic import and export only.

### Upload File Template Solution

Hansen to Datamatic

**Upload Template Mapping Specifications:** The below specifies the import layout details and where the fields from the flat file need to be mapped to within Hansen 8.

Header Record					
Field	Type	Length	Start Pos.	End Pos.	Hansen Mapping ( <i>Hardcode in Italics</i> )
Record Type	Alpha	2	1	2	<i>H1</i>
Cycle	Numeric	2	3	4	
Route	Alpha	4	5	8	
Filler	Alpha	2	9	10	<i>(spaces)</i>
Survey Text	Numeric	80	11	90	<i>(spaces)</i>
Survey Resp1	Numeric	1	91	91	<i>(spaces)</i>
Survey Resp2	Numeric	1	92	92	<i>(spaces)</i>
Survey Leng1	Numeric	2	93	94	<i>00</i>
Survey Leng2	Numeric	2	95	96	<i>00</i>

Detail Record					
Field	Type	Length	Start Pos.	End Pos.	Hansen Mapping ( <i>Hardcode in Italics</i> )
Record Type	Alpha	2	1	2	<i>D1</i>
Cycle	Numeric	2	3	4	
Filler	Alpha	1	5	5	<i>(spaces)</i>
Route	Numeric	4	6	9	
Filler	Alpha	1	10	10	<i>(spaces)</i>
Tap	Numeric	6	11	16	
Filler	Alpha	1	17	17	<i>(spaces)</i>
Customer Number	Numeric	1	18	18	
Acct Numb Ext	Alpha	4	19	22	<i>(spaces)</i>
Meter Number	Numeric	8	23	30	
Filler	Alpha	2	31	32	<i>(spaces)</i>
Read Type Filler	Numeric	3	33	35	<i>000</i>
Read Type	Numeric	1	36	36	
Read Seq	Numeric	6	37	42	
Meter Size	Alpha	2	43	44	
Meter Mfg	Alpha	2	45	46	
Filler	Numeric	2	47	48	<i>00</i>
Number Dials	Numeric	2	49	50	

Filler	Numeric	1	51	51	0
High Audit Value	Numeric	10	52	61	
Low Audit Value	Numeric	10	62	71	
Location Code	Numeric	2	72	73	
Filler	Alpha	2	74	75	(spaces)
Instruction Code 1	Numeric	2	76	77	
Filler	Alpha	2	78	79	(spaces)
Instruction Code 2	Numeric	2	80	81	
Filler	Alpha	2	82	83	(spaces)
Acct Status Filler	Alpha	3	84	86	
Account Status	Alpha	1	87	87	
Service Address	Alpha	25	88	112	
Service Addr Filler	Alpha	15	113	127	
Name Filler	Alpha	20	128	147	
Survey Flag	Alpha	1	148	148	
Previous Estimates	Numeric	2	149	150	
Previous Read	Numeric	10	151	160	
Prev Read Date	Numeric	4	161	164	0000
Old Seal ID	Numeric	10	165	174	0000000000

**Trailer Record**

Field	Type	Length	Start Pos.	End Pos.	Hansen Mapping ( <i>Hardcode in Italics</i> )
Record Type	Alpha	2	1	2	T1
Cycle	Numeric	2	3	4	
Route	Numeric	4	5	8	
Filler	Alpha	2	9	10	(spaces)
Total Records	Numeric	6	11	16	(spaces)
Sub Total	Numeric	6	17	22	(spaces)
Filler	Numeric	12	23	34	(spaces)

**Download File Template Solution**

Datamatic to Hansen

**Download Template Mapping Specifications:** The below specifies the import layout details and where the fields from the flat file need to be mapped to within Hansen 8.

**Header Record**

Field	Type	Length	Start Pos.	End Pos.	Hansen Mapping
Record Type	Alpha	2	1	2	No Mapping (Always starts with 'H1' for layout line identification use)
Cycle	Numeric	2	3	4	
Route	Alpha	4	5	8	
Filler	Alpha	2	9	10	No Mapping
Route Start Date	Numeric	8	11	18	yyyymmdd
Route Start Time	Numeric	6	19	24	hhmmss
Route Stop Date	Numeric	8	25	32	yyyymmdd
Route Stop Time	Numeric	6	33	38	hhmmss
Meter Reader ID	Numeric	10	39	48	
Filler	Alpha	146	49	194	No Mapping

Detail Record					
Field	Type	Length	Start Pos.	End Pos.	Hansen Mapping
Record Type	Alpha	2	1	2	No Mapping (Always starts with 'D1' for layout line identification use)
Cycle	Numeric	2	3	4	
Filler	Alpha	1	5	5	
Route	Numeric	4	6	9	
Filler	Alpha	1	10	10	
Tap	Numeric	6	11	16	
Filler	Alpha	1	17	17	
Customer Number	Numeric	1	18	18	
Filler	Alpha	4	19	22	
Meter Number	Numeric	8	23	30	
Filler	Alpha	2	31	32	
Read Type Filler	Numeric	3	33	35	
Read Type	Numeric	1	36	36	
Old Read Seq	Numeric	6	37	42	
Old Location	Numeric	2	43	44	
Filler	Alpha	2	45	46	
Old Instruction Cd1	Numeric	2	47	48	
Filler	Alpha	2	49	50	
Old Instruction Cd2	Numeric	2	51	52	
Filler	Alpha	2	53	54	
Skip Code	Alpha	4	55	58	
Current Read	Numeric	6	60	64	
Read Date	Numeric	8	65	72	
Time Stamp	Numeric	6	73	78	
Trouble Code	Numeric	2	79	80	
Filler	Alpha	2	81	82	
Survey Code	Alpha	10	83	92	
Survey Code2	Alpha	10	93	102	
Fail Audit Flag	Numeric	1	103	103	
New Read Seq	Numeric	6	104	109	
New Location	Alpha	4	110	113	
New Instruction Cd1	Alpha	4	114	117	
New Instruction Cd2	Alpha	4	118	121	
New Seal ID	Alpha	10	122	131	
Filler	Alpha	63	132	194	

### 8.3.4 Datamatic Skip Code Solution

Skip codes are codes that define why a meter was skipped in the reading process. These codes are defined within Hansen 8 under Resources>Code Definition Management>Hansen Code Tables>AssetManagement>Water>MeterReaderCode

#### *Datamatic Skip Codes and Descriptions*

Code	Description
00	(no description)
01	No Reading

02	Bad Dog
04	Can't Loc/Going Back
08	Locked Out/No Acc.
18	Wrong Route

### 8.3.5 Datamatic Trouble Code Solution

Trouble codes are codes that define what was wrong with a meter when the meter reader was at the meter taking a reading. These codes will help define if a service request or work order need to be created based off of what is wrong with the meter. These codes are defined within Hansen 8 under

Resources>Code Definition Management>Hansen Code Tables>AssetManagement>Water>MeterProblemCode

#### *Datamatic Trouble Codes and Descriptions*

<b>Code</b>	<b>Description</b>
00	(no description)
29	Ant in box/no read
30	Missing small lid
31	Missing #2 box lid
32	Missing plate and lid
33	Missing #1 box lid
35	Raise box
40	Adjust meters
42	Adjust meter box/haz
45	Vault lk/flooded
46	Meter Leak
48	Replace meter box
49	Replace vlt lid
50	Reset meter: sick
53	Uncover/clean box
54	Lg mtr/occ/wr rd/o
55	Lg mtr/vac/wrg rd/o
56	Wrong route
57	Constrtn/ no acc
59	Bees/wasp in box
61	Rain day-cant read
62	Reset mtr – damaged
63	Reset mtr – backwards

64	Reset mtr – scratch
65	Vault mtr – dmgd
68	Foggy mtr - #unclr
70	Brush/trash
71	Dumpster on meter
72	Move meter
75	Straight connection
76	Trim area around mtr
77	Vehicle on meter
78	New reset/wrg mtr#
80	Can't test
81	Meter removed
82	V- acct shows cons
83	Water off
84	O cons/occ/mtr ok
85	Meter for sprklr sys
88	Vac lot-foundation
89	Rdng less than prev
90	O cons. – for sale
94	Bad owners leak
99	Reading correct

### 8.3.6 Datamatic Instruction Code Solution

Instruction codes are passed to the meter reader and back which gives instructions on how the reader should handle the meter or area of the meter while reading or to designate how the read should be handled in Hansen 8. These codes are defined in the Instruction Code Setup form.

#### *Datamatic Instruction Codes and Descriptions*

<b>Code</b>	<b>Description</b>
00	(no description)
01	Part locator
31	Bad Dog
32	Call cust 1 <sup>st</sup>
33	Close gate
34	Combination/code
35	Contact customer

36	Cross drainage
37	Customer irate
38	Don't jump fence
39	Don't test
40	Don't unwrap hydrant
41	Dr to next address
42	Dr rest of route
43	Go right
44	Go left
45	Go straight ahead
46	Go back
47	Have customer move
48	Hazard
49	Keep vehicle off
50	Lines crossed
51	Meter across street
52	No inspection
53	Private well
54	Read first
55	Sprinkler system
56	Standby meter
57	Use front entrance
58	Use key
59	Don't park here
60	3 stat os
61	V.I.P.
62	Ch. Meter seal
63	2 mtrs in box
64	Cross railroad
65	Close cap and lid
66	Keep off grass
67	Meter for park
90	Compound meter
91	Small dial

92	Large dial
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### 8.3.7 Datamatic Location Code Solution

Location codes are codes that define what were the meter is located on the property. These codes will help provide the meter reader staff to locate the meter on the property. These codes are defined within Hansen 8 under Resources>Code Definition Management>Hansen Code Tables>AssetManagement>Water>WaterLocation

#### *Datamatic Location Codes and Descriptions*

<b>Code</b>	<b>Description</b>
00	Front
01	Rear
02	Alley
03	Side
04	Basement
05	Other st.
06	Driveway
07	Sidewalk
08	Terrace-curb
09	Read-o-matic
10	Front
11	Corner
12	Front-inside fence
13	Side-inside fence
14	Island
15	Side alley
16	Street
17	Vault
18	Front telephone pole
19	Front Fire hydrant
20	Front mail box
21	Under bridge
22	Close to front bldg
23	Close to side bldg
24	Close to rear bldg
25	Sign or light post
26	Parking lot

27	Rear/light pole
28	Front left
29	Front right
30	Front neighbors driv
31	Front inside bush
32	Front near corner
33	Alley sign/pole
34	Alley gate
35	Alley fire hydrant
36	Alley inside hedge
37	Alley driveway
38	Side sign/pole
39	Side gate
40	Side mail box
41	Side fire hydrant
42	Side near alley
43	Side near corner
44	Side driveway
45	Side alley
46	Other st. sign/pole
47	Other st. gate
48	Other st. mail box
49	Other st. fire hyd
50	Other st. driveway
51	Other backyard
52	Island inside bush