# Daniel Zhang (張道博) Issues Report

From: Maui-Smart-Grid

Bug

MSG-26 — convert all sql execute calls to new method

Daniel Zhang (張道博) 06 Apr 2013 16:15 Commit made by **Daniel Zhang** on 2013-04-06T19:15:06-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/2a616743cd2c0502795fb7619209b4a2a9928d00

setting all executes to use same method: #MSG-26 In Progress

Daniel Zhang (張道博) 16 Apr 2013 12:54 All db executes are now through the db utils.

MSG-55 — full test run is stalling on meco dupe check test

Daniel Zhang (張道博) 22 Apr 2013 16:08

Commit made by **Daniel Zhang** (張道博) on 2013-04-22T19:08:25-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/f47069a4b4ebc9c4b45d2553f64b7d9c0f12c0af

changed erase test meco to commit after every op to reduce transactions; full test run completes successfully: #MSG-55 fixed

MSG-71 — update test\_\_\_\_mecodbutil.py to meco\_v3

Daniel Zhang (張道博) 29 Apr 2013 15:09 Commit made by **Daniel Zhang (**張道博**)** on 2013-04-29T18:09:22-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/9d8a00c885bf6e2fd3ca435962a4dc949c5bcc8d

http://smart-energy-project.myjetbrains.com/youtrack/releaseNotes/...=1 iloy 961 fgf6t6u7ep43h601r&showDescription=true&showComments=true and the properties of the project of the proje

added event data tables to erase method; further reduction of test data: #MSG-71 fixed

MSG-105 — create testing suite runner script

MSG-153 — database connection messages are conflicting

Example from test\_\_\_\_mecodbinserter.py:

Testing Mode is ON.
Using database test\_meco.
Using database meco\_v3.

Closing the DB connection to meco\_v3.

#### -----MeterData

{'UtilDeviceID': 'util\_device\_id', 'MacID': 'mac\_id', 'MeterName': 'meter\_name', '\_pkey': 'meter\_data\_id'}

{'MacID': '00:00:00:00:00:00:00:00', 'UtilDeviceID': '100001', 'MeterName': '100001'}

util\_device\_id 100001

mac id 00:00:00:00:00:00:00

meter\_name 100001

meter\_data\_id DEFAULT

sql=insert into "MeterData" (util\_device\_id,meter\_data\_id,created,mac\_id,meter\_name) values

('100001',DEFAULT,NOW(),'00:00:00:00:00:00:00','100001')

SQL execute was successful.

table name = MeterData

column name = meter data id

SQL execute was successful.

lastSeqVal = 2

selectRecord:

SQL execute was successful.

SQL execute was successful.

Closing database test\_meco.

Testing Mode is ON.

Using database test\_meco.

Using database meco\_v3.

Closing the DB connection to meco\_v3.

Closing database test meco.

Testing Mode is ON.

Using database test\_meco.

Using database meco\_v3.

Closing the DB connection to meco v3.

Closing database test\_meco.

Closing the DB connection to test\_meco.

Cor	Daniel Zhang (張道博)
m	31 May 2013 14:56

The test is likely accessing both databases. It should only access the testing database.

31 May 2013 14:56

This is resolved due to there being no problem with respect to multiple database

Daniel Zhang (張道博) 07 Aug 2013 16:04

accesses.

**MSG-164** — concise logs are not showing meaningful values for duplicates during insert See #MSG-160.

MSG-180 — fix missing readings not inserted during secondary loading

Daniel Zhang (張道博)

An isolated test using test data:

13 Jun 2013 18:35

meco\_v3-energy-test-data\_with\_missing\_interval.xml.gz meco\_v3-energy-test-data.xml.gz resulted in all readings being inserted. Results with actual data cannot be confirmed yet. The attachment shows a discrepancy between secondary loading to meco\_v3 versus primary loading to meco\_v4. Daniel Zhang (張道博) A selection of readings with counts of 12 & 24 are identified as not being dupes. They 21 Jun 2013 17:03 have been loaded to the DB. Daniel Zhang (張道博) Reading counts are matching dupe counts exactly during insert but actual DB data is 21 Jun 2013 23:34 different between v3 and v4 where v3 contains 2013-Mar data from the original export and the re-extracted export and v4 contains only the re-extracted export. Daniel Zhang (張道博) Attachment shows difference in DB. 22 Jun 2013 00:37 Daniel Zhang (張道博) Loading 2013-Mar original data to v4 results in the reading/meter counts matching 22 Jun 2013 01:33 indicating the re-extracted data has less readings than the original+re-extracted. No missing readings are detected as a result of loading.

# MSG-209 — reading/meter plots appear to have doubled plotting

Daniel Zhang (張道博) 21 Jun 2013 16:10 Commit made by **Daniel Zhang (**張道博) on 2013-06-21T19:10:28-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/103ad7ab30ae7a9e0e6b68dced73eebb0b5df11f

the operational class had TEST\_SCRIPT=True: #MSG-209 fixed

MSG-210 — logger error occurs during send mail

attachment = /home/daniel/msg-plots/ReadingAndMeterCounts.png

Sending multipart email.

Attaching file /home/daniel/msg-plots/ReadingAndMeterCounts.png.

Traceback (most recent call last):

File "/home/daniel/dzmbp-maui-smart-grid/src/recursivelyInsertData.py", line 192, in <module> commandLineArgs.testing)

File "/home/daniel/dzmbp-maui-smart-grid/src/meconotifier.py", line 164, in sendMailWithAttachments sys.logger.log('No exceptions occurred.\n', 'info')

AttributeError: 'module' object has no attribute 'logger'

Daniel Zhang (張道博)

Fixed in #MSG-223.

29 Jul 2013 15:56

MSG-221 — event duplicates are not detected on secondary loading

Inserting data to database test\_meco.

Parsing XML in ./meco\_v3-energy-test-data.xml.gz.

 $\label{lem:condition} $$ \{re-dupe==>\} \{32rd,56re,0ev\}(0)[125] < 0rd,0re,4ev,37,37> - \{0rd,0re,0ev\}(0)[125] < 0rd,0re,0ev,0,37>^* \} $$ (0) $$$ 

2013-06-28 16:22:20,262 - mecoxmlparser - INFO - Data process count = 125.

2013-06-28 16:22:20,262 - mecoxmlparser - INFO - Reading dupe check count = 32.

real 0m0.873s user 0m0.604s sys 0m0.044s

Daniel Zhang (張道博) 28 Jun 2013 16:45 Commit made by **Daniel Zhang (**張道博) on 2013-06-28T19:45:28-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/9c39b17b090443df3ccf1049519d7f65949fe674

event dupes are detected and dropped: #MSG-221 fixed

MSG-223 — error during loading

2013-07-02 15:22:15,942 - mecoxmlparser - INFO - Data process count = 694454.

2013-07-02 15:22:15,942 - mecoxmlparser - INFO - Reading dupe check count = 541440.

plotPath = /home/daniel/msg-plots

attachment = /home/daniel/msg-plots/ReadingAndMeterCounts.png

Sending multipart email.

Attaching file /home/daniel/msg-plots/ReadingAndMeterCounts.png.

Traceback (most recent call last):

File "/home/daniel/dzmbp-maui-smart-grid/src/recursivelyInsertData.py", line 193, in <module> commandLineArgs.testing)

File "/home/daniel/dzmbp-maui-smart-grid/src/meconotifier.py", line 164, in sendMailWithAttachments sys.logger.log('No exceptions occurred.\n', 'info')

AttributeError: 'module' object has no attribute 'logger'

Daniel Zhang (張道博) 17 Jul 2013 15:42 Commit made by **Daniel Zhang (**張道博**)** on *2013-07-17T18:41:34-07:00* 

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/a4a05a2bf08fb361de8fd8cc6c1225bbfd6fb02e

fixing logger warning: #MSG-223 fixed

#### **MSG-277** — loading doesn't terminate after keyboard interrupt

Daniel Zhang (張道博) 12 Aug 2013 15:51 Commit made by **Daniel Zhang (**張道博**)** on 2013-08-12T18:51:35-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/6a8079470534f50e15386e06b9603124c7716c46

parallelized data loading: #MSG-272 fixed

keyboard interrupt terminates loading: #MSG-277 fixed

#### MSG-281 — concise log is not being emailed

Daniel Zhang (張道博) Loader needs to use a queue. 13 Aug 2013 17:38 Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-08-13T20:51:25-07:00 13 Aug 2013 17:51 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/44a8af5b9ed73da55377ee3e342fc90ccb348ab0 switched to gueue: #MSG-281 In Progress Daniel Zhang (張道博) Need to get the parse results from the queue. 13 Aug 2013 17:53 Need to pass the process ID to the parser. Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-08-14T18:21:21-07:00 14 Aug 2013 15:21 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/cd00001b03bf7a2d0e75bf3efe308ceee2c9635e process id is passed: #MSG-281 In Progress Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-08-14T20:15:35-07:00 14 Aug 2013 17:15 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/9bc0d6fb11400d6a275eca85246d2fc31a0c10d1 concise log is restored to email: #MSG-281 fixed

#### MSG-291 — weather data loading is not seeing non-loaded entries

Daniel Zhang (張道博) 19 Aug 2013 16:42

Commit made by **Daniel Zhang** (張道博) on 2013-08-19T19:40:47-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/2b7b3355ffcf884d6b618569a2f1452cdf64b392

made keep list use last day in month: #MSG-291 fixed

MSG-311 — an additional, duplicate, download task is being performed during secondary retrieval Additional retrievals can be the past month and one month before that. The calculation of the keep list needs to be examined.

Daniel Zhang (張道博) 11 Sep 2013 13:10

Commit made by **Daniel Zhang** (張道博) on 2013-09-11T16:10:32-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/4c4bd146ccc6bdc0d97644c63ba68b2adef3383b

updating documentation: #MSG-311 In Progress

Daniel Zhang (張道博) 11 Sep 2013 14:34 Commit made by **Daniel Zhang (**張道博) on 2013-09-11T17:33:44-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/d634c3dbbfd08c924d34315be3426ccb7724f2c8

sorted out downloads: #MSG-311 fixed

End of month case should be verified.

If last loaded date is in the last month, there should be two downloads, the last month and the current month.

MSG-325 — weather data directory not accessed during insertion

... File "/usr/lib/python2.7/gzip.py", line 89, in \_\_init\_\_ fileobj = self.myfileobj = \_\_builtin\_\_.open(filename, mode or 'rb') IOError: [Errno 2] No such file or directory: './201308hourly.txt.gz'

Daniel Zhang (張道博) 05 Sep 2013 15:33 Commit made by **Daniel Zhang (**張道博) on 2013-09-05T18:33:04-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/a5565d01bc31baa9cac94fcc0b5612224aeb503a

insert uses weather data path: #MSG-325 fixed

# **Feature**

MSG-2 — Testing

Daniel Zhang (張道博) 14 May 2013 13:20

All tests pass.

MSG-3 — Data Insertion

MSG-20 - meco v2

MSG-45 — Event Data

Daniel Zhang (張道博) 24 Apr 2013 14:55 Commit made by **Daniel Zhang (**張道博) on 2013-04-24T17:55:03-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/52f40d3577deab1c18a6a8333c0b393eb13a06f2

creating v3: #MSG-45 in progress

MSG-56 — Notifications

MSG-122 — Views MSG-156 — MECO Data Loading MSG-175 — Weather Data Loading MSG-198 — Logging MSG-216 — Database Maintenance MSG-231 — Meter Location History MSG-266 — Testing MSG-279 — Views MSG-283 — Error Handling MSG-297 — eGauge Readings MSG-337 — Installer MSG-347 — Documentation MSG-373 — Cloud Export MSG-382 — System Administration MSG-400 — Distribution MSG-407 — Data Processing MSG-412 — Code Maintenance Task MSG-1 — setup test XML source data for test\_\_\_\_mecoxmlparser.py **MSG-4** — perform dupe check prior to insertion Daniel Zhang (張道博) dupe checking on meter name and interval end time works but there exists duplicate channel data in the raw data 21 Mar 2013 17:44 MSG-5 — have meter data, meter IDs, be unique Daniel Zhang (張道博) meter ids should be recorded once and only once 15 Mar 2013 16:05 Daniel Zhang (張道博) this may not be necessary 21 Mar 2013 17:44

MSG-6 — insert test data to test\_meco database

Daniel Zhang (張道博) insert of testing data works fine

15 Mar 2013 16:04

# MSG-7 — reduce static test data set

# MSG-8 — setup insert test data for dupe check test

Daniel Zhang (張道博) 17 Apr 2013 13:25 The same sample data used for the parser test is being used by the dupe check test.

# MSG-9 — determine how to dupe check when parsing data

Daniel Zhang (張道博) 20 Mar 2013 16:39 dupe checking can be accomplished by referencing the meter data id and the end\_time (reading branch) or the read\_time (register branch)

# MSG-10 — determine where to rollback or stop a commit when a dupe is present

Daniel Zhang (張道博)

currently, the end of the reading branch is the commit point.

21 Mar 2013 08:16

does this need to be implemented to explicitly handle the register branch?

# MSG-11 — intercept duplicate channel data

Daniel Zhang (張 22 Mar 2013 16:44	博) there appear to be duplicates of reading data in the raw data. these need intercepted and prevented from being inserted into the database.	I to be
Daniel Zhang (張 22 Mar 2013 16:46	博) using a combined meterName-IntervalEndTime-channel field is possible integrity.	to ensure data
Daniel Zhang (張: 25 Mar 2013 01:47	博) the reading branch is covered for duplicates now.	

# MSG-13 — add additional check to verify that duplicate rows to be discarded have equivalent data in the database

Daniel Zhang (張道博) 25 Mar 2013 01:44	Commit made by <b>Daniel Zhang</b> on 2013-03-25T04:40:24-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/fbff88b9cc88d4d814b34de737d45add9d7aa0c4 changing dupe handling method, focusing on reading branch: #MSG-13 In Progress
Daniel Zhang (張道博) 25 Mar 2013 01:49	removed rollback when dupes are present. testing on meterName-endTlme-channel is lower level than meterName-endTime.
Daniel Zhang (張道博) 25 Mar 2013 11:07	Commit made by <b>Daniel Zhang</b> on 2013-03-25T14:07:15-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/fe29ca7966c091c0deb2ea06a9884b5d52c881c7

typecasting for equality checks works; disabling rollback on dupes: #MSG-13 Fixed

MSG-14 — check for duplicates on the register branch

MSG-15 — stop rolling back for duplicates, rely on three-element unique identifier (meter name, end time, channel) instead

MSG-16 — write equality verification test when dropping reading data due to duplication

Daniel Zhang (張道博) 17 Apr 2013 13:24 This has been accomplished in test\_\_\_\_mecodupecheck.py.

Daniel Zhang (張道博) 17 Apr 2013 15:18

An equality check is performed during insertion of data and a separate test is not

needed.

# MSG-17 — move debug option to local config

Daniel Zhang (張道博) 26 Mar 2013 18:08 Commit made by **Daniel Zhang** on 2013-03-26T21:08:16-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/cd5d70316b00b2135cfc99c61ea7887277ccf9ca

moving debug option: #MSG-17 In Progress

Daniel Zhang (張道博) 07 Jun 2013 13:34

The debugging option works through the local configuration.

# MSG-18 — create meco\_v2 from latest development

Daniel Zhang (張道博) 26 Mar 2013 18:06 Commit made by **Daniel Zhang** on 2013-03-26T21:06:14-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/0791eaa0ba2f8398806f52a446f67a4dc47531c5

adding tables for meco\_v2: #MSG-18 In Progress

Daniel Zhang (張道博) 01 Apr 2013 10:47 still need to add kahalui weather data

Daniel Zhang (張道博) 01 Apr 2013 22:35

Commit made by **Daniel Zhang** on 2013-04-02T01:34:57-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/9fe44c81b3e1f0d1aab1f7d38a2263781e04c00a

adjust weather script: #MSG-18 Fixed

MSG-19 — eliminate duplicate data insertion in 2012 data

MSG-21 — insert aug 2012

MSG-22 — insert sep 2012

MSG-23 — insert oct 2012

MSG-24 — add creation timestamp to meter data table

Daniel Zhang (張道博) 27 Mar 2013 22:14

Commit made by **Daniel Zhang** on 2013-03-28T01:14:34-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/7b613dd8d8dd62585626da34e535dc6165bc62d9

#MSG-24 In Progress

adding creation timestamp upon insert

MSG-25 — change parser to use in-memory file object instead of file on disk this is for gzip support

MSG-27 — transfer views from meco v1 to meco v2

Daniel Zhang (張道博) 02 Apr 2013 17:47 Commit made by **Daniel Zhang** on 2013-04-02T20:46:03-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/808bc26c0b6037f67f7b3380713b93af94338126

dumped meco\_v1 structure, tables and views: #MSG-27 In Progress

Daniel Zhang (張道博) 02 Apr 2013 18:07 Commit made by **Daniel Zhang** on 2013-04-02T21:07:02-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/736d2a6ceb45fe173ee71f4f0e6379f580337a36

separating tables and views for meco\_v1: #MSG-27 In Progress

Daniel Zhang (張道博) 03 Apr 2013 10:45

Commit made by **Daniel Zhang** on 2013-04-03T13:45:41-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/03a9e668436cb416d37376bcb4b9ad04eed5b911

dumping structure for meco\_v2 including transfer of views from meco\_v1: #MSG-27 Fixed

MSG-28 — fix test\_\_\_\_mecodbinserter.py

Daniel Zhang (張道博) 05 Apr 2013 16:59 Commit made by **Daniel Zhang** on 2013-04-05T19:59:35-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/ea22443b8db41831f1f45593e344578852de188c

adding testing meter data table: #MSG-28 fixed

MSG-29 — fix testr	mecodbread.py			
Daniel Zhang (張道博) 05 Apr 2013 18:01	mapper needs updating			
Daniel Zhang (張道博) 06 Apr 2013 01:16	sequence didn't get copied with table copy. add the default value for meter data id and now problem is down to retrieving last sequence value.			
Daniel Zhang (張道博)	Commit made by <b>Daniel Zhang</b> on 2013-04-06T04:55:09-07:00			
06 Apr 2013 15:46	https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/77f90dd3cbeadd9e4feec6cebf677cf38784ca80			
	fixing test by correcting use of sequence: #MSG-29 In Progress			
Daniel Zhang (張道博)	Commit made by <b>Daniel Zhang</b> on 2013-04-06T18:46:19-07:00			
06 Apr 2013 15:46	https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-			
	Grid/commit/d05bf15f3a84739bfe2dbca5ed947ffb604cc500			
	add sequence to update testing table: #MSG-29 fixed			
MSG-30 — fix testr	mecodbutil.py			
Daniel Zhang (張道博)	Commit made by <b>Daniel Zhang</b> on 2013-04-06T18:48:11-07:00			
06 Apr 2013 15:48	https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-			
	Grid/commit/0f11122ae0108239cf43f7c18ead18ccbd38516c			
	change table name: #MSG-30 Fixed			
MSG-31 — fix testr	necoxmlparser.py			
Daniel Zhang (張道博) 09 Apr 2013 15:56	this test needs to be changed to use the test database			
Daniel Zhang (張道博)	Commit made by <b>Daniel Zhang (</b> 張道博 <b>)</b> on <i>2013-04-09T20:39:24-07:00</i>			
09 Apr 2013 17:40	https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-			
	Grid/commit/ec428ec772877f826c5c5691846a73834bb172c9			
	getting parser test to use new testing mode: #MSG-31 in progress			
Daniel Zhang (張道博)	Commit made by <b>Daniel Zhang (</b> 張道博 <b>)</b> on <i>2013-04-10T20:57:04-07:00</i>			
10 Apr 2013 17:57	https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-			
	Grid/commit/d3dc9406f55311414a9ca9c2f059ea599a486388			
	Dumping meco_v2 structure again: #MSG-31 in progress			
	The sequence was wrongly set to the testing meter data sequence id for the meter			
	data table. It has now been set correctly.			

Daniel Zhang (張道博) 11 Apr 2013 18:24 Commit made by **Daniel Zhang (**張道博) on 2013-04-11T21:24:19-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/b66ce5b4d2fa85a89194ac34f8dae41f917a53ac

testEveryElementIsVisited() requires an empty database; setup erase of testing database (test\_meco) before the test: #MSG-31 in progress

Daniel Zhang (張道博) 13 Apr 2013 03:33 Commit made by **Daniel Zhang (**張道博) on 2013-04-13T00:53:44-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/eb048e1e7040cf8b2d78dcd1dc468a186e2da4af

parser tests are now passing: #MSG-31 fixed

Committing after erasing test\_meco, and before running the parser tests, is critical. Not committing results in the server hanging.

MSG-32 — insert new data up to 2013 Mar 11 download

MSG-33 — determine correct cursor usage

ref: http://www.python.org/dev/peps/pep-0249/#cursor-objects

Passing a cursor around may be unnecessary in python. Does it matter whether the cursor reference is maintained during a sequence of database operations?

Daniel Zhang (張道博) 09 Apr 2013 18:12 do cursors need to be passed as parameters?

MSG-34 — ensure that testing tables are fully cleaned after testing

Daniel Zhang (張道博) 17 Apr 2013 13:08 Testing tables are being cleaned BEFORE testing.

Database test\_meco is erased prior to running tests on it.

MSG-35 — rebuild truncated testing data set from latest data export

Daniel Zhang (張道博) 07 Jun 2013 13:33 The current truncated testing data set is based on export data from 2013-Apr.

MSG-36 — fix test\_\_\_\_mecodupecheck.py

Daniel Zhang (張道博) 16 Apr 2013 12:52 Commit made by **Daniel Zhang** (張道博) on 2013-04-16T15:52:45-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/82ee467702978b0cd99cd78a548fe1c2f75657cd

checking for a duplicate in the reading branch works: #MSG-36 fixed

#### MSG-37 — have a script for creating a new meco database

The script is used to set up the structure of the database once the database has been created on the server.

Daniel Zhang (張道博) 09 Apr 2013 17:40

Commit made by **Daniel Zhang (**張道博) on 2013-04-09T20:39:58-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/8816e738197b8d1e953715531be2213ed502979a

creating script for creating a new meco db: #MSG-37 in progress

Daniel Zhang (張道博) 09 Apr 2013 18:35

Commit made by **Daniel Zhang** (張道博) on 2013-04-09T21:35:02-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/c25de2cd02ad44fd461744180b7c8a21ee4d738a

adding full meco\_v2 structure dump: #MSG-37 in progress

# MSG-38 — verify that test\_\_\_\_mecoxmlparser.py is using test\_meco as its database

Daniel Zhang (張道博) 11 Apr 2013 16:57

A separate parameter is being used now that indicates if testing mode is enabled. When testing mode is enabled, then the test\_meco database should be used for tests involving db connections.

# MSG-39 — verify database name in eraseTestMeco()

Daniel Zhang (張道博) 18 Apr 2013 12:25

Database name must match testing\_db\_name exactly.

Daniel Zhang (張道博) 19 Apr 2013 14:34

Commit made by **Daniel Zhang** (張道博) on 2013-04-19T17:34:18-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/dc1c10365eabdf4c498008762c9b8e61ebb65747

database name is verified when the testing database is erased: #MSG-39 fixed

#### MSG-40 — switch all testing operations to test\_meco

All database operations during testing should use the testing database or test\_meco exclusively. This is accomplished by setting the Testing argument to True for supported classes.

The classes that accept the testing argument are:

meco db connect and meco xml parser

Daniel Zhang (張道博) 22 Apr 2013 14:43

Commit made by **Daniel Zhang (**張道博) on 2013-04-22T17:42:56-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/f993a9687d2475300e916c490ff679cfb1a0d9b9

testing operations have been switched to testing database: #MSG-40 fixed

There is a problem of the test suite freezing when running all tests that does not happen when running tests individually.

# MSG-41 — Provide permissions checking for .meco-data-operations.cfg

Daniel Zhang (張道博) 17 Apr 2013 13:27 World readability needs to be disabled. Ideally permissions should be no more than

owner readable and writable.

Daniel Zhang (張道博) 17 Apr 2013 16:04 Commit made by **Daniel Zhang** (張道博) on 2013-04-17T19:03:55-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/fc7d67a13fb0d9539ca2d23eeec914914d5a35e4

tightened required config permissions: #MSG-41 fixed

MSG-42 — insert new data for 2013-Mar-18 to 2013-Apr-15

2013\_03\_18\_download

2013\_03\_25\_download

2013\_04\_01\_download

2013 04 08 download

2013\_04\_15\_download

MSG-43 — verify that config option for debugging-debug works correctly

There is too much output to the console and the debugging-debug flag doesn't seem to be respected.

Daniel Zhang (張道博) 07 Jun 2013 13:35 The local debugging option works correctly when its value is properly evaluated.

# MSG-44 — remove testing\_meterdata table

Daniel Zhang (張道博) 23 Apr 2013 14:27 The testing meter data table will be removed from meco\_v3.

2071pi 2010 1 1.21

Daniel Zhang (張道博) 23 Apr 2013 15:14 Commit made by **Daniel Zhang** (張道博) on 2013-04-23T18:13:12-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/df3d63cb6e9b3a1e0e335cb5efc6eaa488d5cac2

removing references to testing meter data table: #MSG-44 in progress

Daniel Zhang (張道博) 23 Apr 2013 15:17 The test suite passes.

Daniel Zhang (張道博)

Testing MeterData was removed from test meco and all tests still pass.

23 Apr 2013 16:08

MSG-46 — create tables for event data

MSG-48 — change insertion code to handle event data

Daniel Zhang (張道博) 30 Apr 2013 15:27 Event data is being inserted as a result of modifying the classes to get the tests to work.

30 Apr 2013 13.27

MSG-49 — Provide parsing of event data

Daniel Zhang (張道博) 25 Apr 2013 16:08

Commit made by **Daniel Zhang (**張道博) on 2013-04-25T19:08:03-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/d3c038593fe68432bd40c1a83a129ea1cea1fe76

starting to provide parsing of event data: #MSG-49 in progress

Daniel Zhang (張道博) 30 Apr 2013 15:29 Event data is parsed as a result of getting the relevant tests to work.

MSG-50 — update schema diagram

Daniel Zhang (張道博) 24 Apr 2013 13:44 Commit made by **Daniel Zhang** (張道博) on 2013-04-24T16:38:16-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/c705aae42f383d6477e4ed790fc99139ddfd618f

created v3 diagrams: #MSG-50 fixed

MSG-51 — Determine an official location for data that has been, or will be, inserted to the database

MSG-53 — add UIQ vs net metering data as a table in the database

MSG-57 — send email on successful data insert

Daniel Zhang (張道博) 13 May 2013 15:54

Commit made by **Daniel Zhang** (張道博) on 2013-05-13T18:54:49-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/e908bc7d80ee2f9b63635e837534a7480a335538

starting class and tests: #MSG-57 in progress

Daniel Zhang (張道博) 15 May 2013 15:13 Commit made by **Daniel Zhang** (張道博) on 2013-05-15T18:13:25-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/bc2e43f5b2ef5f17026b0a1fb5a44d0a25aa06dd

email on data loading works: #MSG-57 fixed

#MSG-107 fixed #MSG-104 fixed

MSG-58 — setup remote login for enter encryption passphrase

MSG-59 — create sequences for event data tables

MSG-60 — provide SQL dump file for meco\_v3

Daniel Zhang (張道博) 24 Apr 2013 14:56

Commit made by **Daniel Zhang** (張道博) on 2013-04-24T17:56:38-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/005bf54cdf317ce67d8e52e32aaeefc89a8f1784

providing sql dump file: #MSG-60 in progress

Daniel Zhang (張道博) 06 May 2013 17:53

Commit made by **Daniel Zhang** (張道博) on 2013-05-06T20:53:41-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/93afae27e5647234a8f4315ed6a721cd54a46cef

adding cascade update and delete to EventData, Interval, and Reading: #MSG-79

fixed

#MSG-60 fixed

**MSG-61** — Establish table ownership for sequences

MSG-62 — add foreign keys to event data tables

Daniel Zhang (張道博) 24 Apr 2013 16:35

Commit made by **Daniel Zhang** (張道博) on 2013-04-24T19:35:41-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/f7b228e909139c7ce651e5652eea6efad9fbfb2b

added foreign keys: #MSG-62 fixed

MSG-63 — add primary keys to event tables

MSG-66 — migrate test\_meco to meco\_v3 Setup test\_meco using the meco\_v3 schema.

Daniel Zhang (張道博) 25 Apr 2013 14:48

Commit made by **Daniel Zhang** (張道博) on 2013-04-25T17:48:28-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/8d239f3182618edae366626960739daa77350999

configured test meco to match meco v3: #MSG-66 fixed

Daniel Zhang (張道博) 25 Apr 2013 15:15

All tests pass.

MSG-67 — Create new test data set based on latest data that includes event data

Daniel Zhang (張道博) 29 Apr 2013 13:45 Daniel Zhang (張道博) 29 Apr 2013 13:57

Commit made by **Daniel Zhang** (張道博) on 2013-04-29T16:45:20-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/8113f32019f7fc9d3c876c2b4dd55c4d05206386

created new truncated, value changed, test data file based on latest data: #msg-67 fixed

Commit made by **Daniel Zhang** (張道博) on 2013-04-29T16:57:08-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/98b6492ed15f46c991d53366f8b0a833cc4a8e01

reduced test data by removing intervals: #msg-67 fixed

NumberIntervals is now incorrectly specified.

Daniel Zhang (張道博) 29 Apr 2013 13:59

Commit made by **Daniel Zhang** (張道博) on 2013-04-29T16:59:26-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/2376b494c6d7f7b1ff51509723c89d13f00444b4

further reduction of test data set for faster testing: #MSG-67 fixed

MSG-68 — Update unit tests to use new test data (v3)

MSG-69 — update test\_\_ \_\_mecoxmlparser.py to meco\_v3

Daniel Zhang (張道博) 29 Apr 2013 15:48

Commit made by **Daniel Zhang** (張道博) on 2013-04-29T18:48:26-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/ad8d7a5525e060a68668b0e682dd390ded3e527c

updated parser test for v3: #MSG-69 fixed

MSG-70 — update test\_ \_mecodupecheck.py to meco\_v3

Daniel Zhang (張道博) 29 Apr 2013 16:19

Commit made by **Daniel Zhang** (張道博) on 2013-04-29T19:19:04-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/9ca18bad94ea990ff78e962752312b0e2e1aa15e

updated dupe check test to v3: #MSG-70 fixed

MSG-72 — verify event data is processed by testing suite

The loading of event data should be verifiable in the testing database.

Daniel Zhang (張道博)

Event data is being loaded to the testing database.

30 Apr 2013 15:26

# MSG-73 — process event text

The separate event text is not being handled.

Daniel Zhang (張道博) 02 May 2013 16:16 Commit made by **Daniel Zhang** (張道博) on 2013-05-02T19:16:38-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/17bc89bf2cc76f2825bde39af77f903375844721

changing parser to handle event text: #MSG-73 in progress

Daniel Zhang (張道博) 03 May 2013 14:49 Commit made by **Daniel Zhang** (張道博) on 2013-05-03T17:49:46-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/1c907083aae7e24c31f44ddb9bf6b1bf97b4df76

event text is now being handled: #MSG-73 fixed

MSG-74 — verify that foreign keys are generated for event data

MSG-75 — fix test\_\_\_\_mecoxmlparser.py after breakage from refactoring

Daniel Zhang (張道博) 02 May 2013 13:13 Commit made by **Daniel Zhang** (張道博) on 2013-05-02T16:13:39-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/47e9816d1af03a07433709c012c0ec6993f33c2d

fixing parse test: #MSG-75 in progress

Daniel Zhang (張道博) 02 May 2013 13:34 'None' is being incorrectly used as a foreign key.

-----MeterData

 $\\ \{ 'UtilDevicelD': 'util\_device\_id', 'MaclD': 'mac\_id', 'MeterName': 'meter\_name', '\_pkey': \\ \\ \\ [ Constant of the content of the conten$ 

'meter data id'}

{'MeterName': '100000', 'UtilDeviceID': '100000', 'MacID': '00:00:00:00:00:00:00'}

util\_device\_id 100000

mac id 00:00:00:00:00:00:00

meter\_name 100000

meter\_data\_id DEFAULT

sql=insert into "MeterData" (util\_device\_id,meter\_data\_id,created,mac\_id,meter\_name)

values ('100000', DEFAULT, NOW(), '00:00:00:00:00:00:00:00', '100000')

SQL execute was successful.

table name = MeterData

column name = meter data id

SQL execute was successful.

fkeyColName = None

-----RegisterData

{'NumberReads': 'number\_reads', 'EndTime': 'end\_time', '\_fkey': 'meter\_data\_id',

'StartTime': 'start\_time', '\_pkey': 'register\_data\_id'}

{'NumberReads': '7', 'EndTime': '2013-04-14T06:00:08.748-10:00', 'StartTime': '2013-04-08T06:00:08.241-10:00'}

number\_reads 7

end time 2013-04-14T06:00:08.748-10:00

meter data id None

start\_time 2013-04-08T06:00:08.241-10:00

register\_data\_id DEFAULT

sql=insert into "RegisterData"

(start\_time,meter\_data\_id,number\_reads,register\_data\_id,end\_time) values ('2013-04-08T06:00:08.241-10:00','None','7',DEFAULT,'2013-04-14T06:00:08.748-10:00')

SQL execute failed using insert into "RegisterData"

(start\_time,meter\_data\_id,number\_reads,register\_data\_id,end\_time) values ('2013-04-08T06:00:08.241-10:00','None','7',DEFAULT,'2013-04-14T06:00:08.748-10:00').

The error is: invalid input syntax for integer: "None"

LINE 1: ...end\_time) values ('2013-04-08T06:00:08.241-10:00','None','7'...

٨

table name = RegisterData
column name = register\_data\_id

SQL execute failed using select

currval(pg\_get\_serial\_sequence('"RegisterData"', 'register\_data\_id')).

The error is: current transaction is aborted, commands ignored until end of transaction block

Daniel Zhang (張道博) 02 May 2013 13:53 Commit made by **Daniel Zhang** (張道博) on 2013-05-02T16:52:45-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/33b64da3e6f9405f1a0104cc6715a2ba058010b0

Reverting parser to last working state: #MSG-75 in progress

This reverts commit 47e9816d1af03a07433709c012c0ec6993f33c2d.

# MSG-76 — be able to run tests within local environment

Daniel Zhang (張道博) 13 May 2013 14:41

Local environment testing can be accomplished by adding the MECO src path to PYTHONPATH.

MSG-77 — test insertion of test data to meco\_v3

Daniel Zhang (張道博)

Data is being successfully inserted.

07 May 2013 15:05

**MSG-78** — fix get last sequence ID for parser parsing xml in ./meco\_v3-energy-test-data.xml

Traceback (most recent call last):

File "/home/daniel/dzmbp-maui-smart-grid/src/insertData.py", line 57, in <module> i.parser.parseXML(fileObject, True)

File "/home/daniel/dzmbp-maui-smart-grid/src/mecoxmlparser.py", line 93, in parseXML self.walkTheTreeFromRoot(root)

File "/home/daniel/dzmbp-maui-smart-grid/src/mecoxmlparser.py", line 217, in walkTheTreeFromRoot pkeyCol)

File "/home/daniel/dzmbp-maui-smart-grid/src/mecodbutils.py", line 41, in getLastSequenceID row = cur.fetchone()

psycopg2.ProgrammingError: no results to fetch

Daniel Zhang (張道博) 06 May 2013 16:00 Commit made by **Daniel Zhang (**張道博**)** on *2013-05-06T19:00:26-07:00* https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/33310de23a993896e71d12b7abde1644982f0ff9

debugging last sequence id error: #MSG-78 in progress

Daniel Zhang (張道博) 07 May 2013 15:04 This error is no longer occurring.

MSG-79 — Change foreign keys to cascade delete and update

This is to allow deleting of branches from their respective meter data roots.

Daniel Zhang (張道博) 06 May 2013 17:53 Commit made by **Daniel Zhang (**張道博) on 2013-05-06T20:51:36-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/12e1b030fcdfe6e07512f8af2933543ff8271912

changed erase code in response to having cascading update and delete with MeterData as the root: #MSG-79 in progress

Daniel Zhang (張道博) 06 May 2013 17:53 Commit made by **Daniel Zhang (**張道博) on 2013-05-06T20:53:41-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/93afae27e5647234a8f4315ed6a721cd54a46cef

adding cascade update and delete to EventData, Interval, and Reading: #MSG-79 fixed

#MSG-60 fixed

MSG-80 — provide updated full structure dump for meco\_v2

Daniel Zhang (張道博) 07 May 2013 13:52 Commit made by **Daniel Zhang (**張道博**)** on 2013-05-07T16:52:09-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/9e971ce0b639b4ca0fc0f115f4dab4efa260540c

updating meco v2: #MSG-80 fixed

# MSG-81 — Test insertion of actual data to meco\_v3

Daniel Zhang (張道博) 07 May 2013 15:53 Data was successfully inserted.

Inserting data to database meco\_v3.

parsing xml in ./20130415-77fdd50d-4768-44fb-b8e1-50d8eafaa114-1-1.xml.gz  $\{0\}[0](6878)\{0\}[1](10313)\{0\}[2](20739)\{0\}[3](24174)\{0\}[4](27609)\{0\}[5](31044)\{0\}[6](34479) \}$ 

{0}[7](37915){0}[8](44788)

parsing xml in ./20130415-77fdd50d-4768-44fb-b8e1-50d8eafaa114-2-1.xml.gz

 $\{0\}[0](51662)\{0\}[1](55097)\{0\}[2](61971)\{0\}[3](65407)\{0\}[4](72280)\{0\}[5](75715)\{0\}[6](82611)[6](61971)\{0\}[6](61971)[6](61971$ 

{0}[7](89485){0}[8](92921)

real 3m46.910s user 0m48.983s sys 0m59.076s

# MSG-82 — write recursive insert script

Daniel Zhang (張道博) 08 May 2013 18:23 Commit made by **Daniel Zhang** (張道博) on 2013-05-08T21:23:28-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/f52aaa6b264293f43ee49bb705963b4462678549

writing script for recursive insert: #MSG-82 in progress

Daniel Zhang (張道博) 09 May 2013 15:24 Commit made by **Daniel Zhang** (張道博) on 2013-05-09T18:24:23-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/c8a09bf2fff6dea42d3e03f0c7524ee65db2de5b

recursive insert works: #MSG-82 fixed

# MSG-83 — Add command line option for file name to insert data script

Daniel Zhang (張道博) 08 May 2013 18:36 Commit made by **Daniel Zhang (**張道博) on 2013-05-08T21:36:44-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/3887407e5adbff61af58bf3713646fbd164400fe

changing insert script to process a single item given by the file path argument: #MSG-83 in progress

Daniel Zhang (張道博) 09 May 2013 15:23 Commit made by **Daniel Zhang (**張道博) on 2013-05-09T18:23:48-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/be703f0fc1365513476e2a4e07057b8f0ef71a66

command line option works: #MSG-83 fixed

# MSG-84 — add xml file pre-checking to recursive insert script

Daniel Zhang (張道博) 10 May 2013 15:03

The intention is to not process files that may not contain valid data.

Daniel Zhang (張道博) 13 May 2013 14:33

The script has support for filtering the log files. No further filtering will be performed at

this time.

# MSG-85 — update config file documentation in the readme to the latest version

Daniel Zhang (張道博) 13 May 2013 14:55

Commit made by **Daniel Zhang** (張道博) on 2013-05-13T17:55:38-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/f85bc8a82cce5d690a21cf55f2bee0c7653c9d75

updating documentation for configuration file: #MSG-85 fixed

# MSG-86 — Skip log files during recursive insert Log files are denoted as \*.log.xml.

Daniel Zhang (張道博) 10 May 2013 01:18

Commit made by **Daniel Zhang** (張道博) on 2013-05-10T04:18:45-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/5d2ce24cf14a2db047e1f5b63215d529ada004b8

skipping log files during recursive insert: #MSG-86 fixed

# MSG-87 — Test recursive insert script on XML data containing event data

Daniel Zhang (張道博) 10 May 2013 16:50

The test completed successfully.

time python ~/dzmbp-maui-smartgrid/src/recursivelyInsertData.py > insert-log.txt Inserting data to database meco\_v3.

parsing xml in ./20130415-77fdd50d-4768-44fb-b8e1-50d8eafaa114-2-1.xml.gz {0}[0](6874){0}[1](10309){0}[2](17183){0}[3](20619){0}[4](27492){0}[5](30927){0}[6](37823) {0}[7](44697){0}[8](48133)Inserting data to database meco\_v3.

parsing xml in ./20130415-77fdd50d-4768-44fb-b8e1-50d8eafaa114-1-1.xml.gz {0}[0](6878){0}[1](10313){0}[2](20739){0}[3](24174){0}[4](27609){0}[5](31044){0}[6](34479) {0}[7](37915){0}[8](44788)

real 2m52.829s 0m43.047s user 0m6.808s sys

# MSG-88 — reduce complexity in walkTheTreeFromRoot

Daniel Zhang (張道博)
O5 Jun 2013 16:09
Commit made by **Daniel Zhang** (張道博) on 2013-06-05T19:09:43-07:00
https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/c317a6a96c959499022f81f49dd35eed80cc9b2c

determine table name per element: #MSG-88 in progress

Daniel Zhang (張道博)
O5 Jun 2013 17:35
Commit made by **Daniel Zhang** (張道博) on 2013-06-05T20:34:52-07:00
https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/9f42ab58ebac2581d4d085c67bee25ba432666d4
extracted insert data processing: #MSG-88 in progress

Daniel Zhang (張道博)
21 Jun 2013 13:48
walkTheTreeFromRoot has been reworked to be more clearly expressed.

MSG-89 — fix cursor error in recursive insert

Receiving 'psycopg2.InterfaceError: cursor already closed' on 'row = cur.fetchone()'.

Daniel Zhang (張道博) 10 May 2013 14:59 The error have been caused by an interruption of the network connection.

MSG-90 — fix insert execution exception

insertScript = /home/daniel/dzmbp-maui-smart-grid/src/insertData.py

./20130415-77fdd50d-4768-44fb-b8e1-50d8eafaa114-2-1.xml.gz

Traceback (most recent call last):

File "/home/daniel/dzmbp-maui-smart-grid/src/recursivelyInsertData.py", line 66, in <module>

call([insertScript, "-filepath", fullPath])

File "/usr/lib/python2.7/subprocess.py", line 493, in call

return Popen(\*popenargs, \*\*kwargs).wait()

File "/usr/lib/python2.7/subprocess.py", line 679, in \_\_init\_\_

errread, errwrite)

File "/usr/lib/python2.7/subprocess.py", line 1249, in \_execute\_child

raise child\_exception

OSError: [Errno 13] Permission denied

Daniel Zhang (張道博)

The permissions problem cleared up when switching to Macfusion vs SFTP.

10 May 2013 16:37

MSG-91 — perform data insert test with two folders of data

Daniel Zhang (張道博) 13 May 2013 15:38 Results of old data + isolated event data:

Inserting data to database meco\_v3.

parsing xml in ./MSGdataJan29-2-1.xml.gz

{0}[0](14806){0}[1](29556){0}[2](44306){0}[3](59034){0}[4](73762){0}[5](88490){0}[6] (103218){0}[7](117946){0}[8](132674)

Inserting data to database meco\_v3.

parsing xml in ./MSGeventsJan30-1-1.xml.gz

Inserting data to database meco\_v3.

parsing xml in ./MSGeventsJan30-2-1.xml.gz

Inserting data to database meco\_v3.

parsing xml in ./MSGdataJan29-1-1.xml.gz {0}[0](14839){0}[1](29589){0}[2](44350){0}[3](59078){0}[4](73817){0}[5](88545){0}[6] (103273){0}[7](118001){0}[8](132729)

real 8m2.043s user 2m11.028s sys 0m18.809s

# Daniel Zhang (張道博) 13 May 2013 16:22

Two folder test was successful:

Inserting data to database meco\_v3.

parsing xml in ./2013\_02\_04\_DataDownloaded\_wCurtis/MSGdataDec30-2-1.xml.gz  $\{0\}[0](14739)\{0\}[1](29512)\{0\}[2](44240)\{0\}[3](58968)\{0\}[4](73697)\{0\}[5](88425)\{0\}[6] (103153)\{0\}[7](117881)\{0\}[8](132614)$ 

Inserting data to database meco\_v3.

parsing xml in ./2013\_02\_04\_DataDownloaded\_wCurtis/MSGdataDec30-1-1.xml.gz {dupe on insert

}{3776}[0](19449){0}[1](34177){0}[2](48905){0}[3](63638){0}[4](78368){0}[5](93103){0}[6] (107832){0}[7](122565){dupe on insert

>}{29632}[8](174362)

Inserting data to database meco v3.

parsing xml in ./2013\_04\_08\_download/20130408-f02e1048-f11e-4004-a90e-2f1e1a05fbfe-1-1.xml.gz

{0}[0](137770)

Inserting data to database meco\_v3.

parsing xml in ./2013\_04\_08\_download/20130408-f02e1048-f11e-4004-a90e-

2f1e1a05fbfe-2-1.xml.gz

{0}[0](123946){0}[1](131074){0}[2](134552)

real 18m5.586s user 4m34.625s

sys 0m40.019s

**MSG-92** — pass mecodbconnect object instead of raw conn to mecodbinsert The following definition can be changed:

MSG-93 — add destructors to db connecting classes

Daniel Zhang (張道博) 20 May 2013 16:14 Commit made by **Daniel Zhang** (張道博) on 2013-05-20T19:14:14-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/12bc4eae1ffc0339819c0567438e8a05f512e9a6

adding destructor for db closing: #MSG-93 fixed

MSG-100 — be able to send an email message

Daniel Zhang (張道博) 14 May 2013 16:12 Commit made by **Daniel Zhang** (張道博) on 2013-05-14T19:12:04-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/3646d81ff6f6fa71b112ea9f3913f30007407da9

email sending works: #MSG-100 fixed

MSG-101 — add notifications for testing suite

MSG-102 — update config file documentation with notification parameters

Daniel Zhang (張道博) 30 May 2013 13:32 Commit made by **Daniel Zhang** (張道博) on 2013-05-30T16:32:03-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/61e1b48a1c59ca3602ae16ae22c66cb334b871d9

updating documentation to include notification variables and plot path: #MSG-102 fixed

MSG-103 — Support export of data to cloud storage

MSG-104 — add email notification option to recursive insert

Daniel Zhang (張道博) 15 May 2013 14:39

Commit made by **Daniel Zhang** (張道博) on 2013-05-15T17:39:23-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/9f0a5be70187def145d7476157bbd72089447c35

adding email notification: #MSG-104 in progress

Daniel Zhang (張道博) 15 May 2013 15:13 Commit made by **Daniel Zhang (**張道博**)** on 2013-05-15T18:13:25-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/bc2e43f5b2ef5f17026b0a1fb5a44d0a25aa06dd

email on data loading works: #MSG-57 fixed

#MSG-107 fixed #MSG-104 fixed #MSG-106 fixed

# MSG-106 — perform test run of data loading notification

Daniel Zhang (張道博) 15 May 2013 15:13 Commit made by **Daniel Zhang** (張道博) on 2013-05-15T18:13:25-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/bc2e43f5b2ef5f17026b0a1fb5a44d0a25aa06dd

email on data loading works: #MSG-57 fixed

#MSG-107 fixed #MSG-104 fixed #MSG-106 fixed

# MSG-107 — add db name to notification body

Daniel Zhang (張道博) 15 May 2013 15:13 Commit made by **Daniel Zhang** (張道博) on 2013-05-15T18:13:25-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/bc2e43f5b2ef5f17026b0a1fb5a44d0a25aa06dd

email on data loading works: #MSG-57 fixed

#MSG-107 fixed #MSG-104 fixed #MSG-106 fixed

# MSG-108 — add run time profiling to data loading notifications

Daniel Zhang (張道博) 30 May 2013 16:14 Commit made by **Daniel Zhang** (張道博) on 2013-05-30T19:14:36-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/155b085c4fcedb539ff0d4ca37705f90998f1a1c

added wall time measure to recursive insert: #MSG-108 fixed

# MSG-109 — load energy data to production meco\_v3

Daniel Zhang (張道博) 24 May 2013 13:45 Commit made by **Daniel Zhang** (張道博) on 2013-05-24T16:45:28-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/6efd622fd3aedc485331a14ef0dfc6e1265c6593

data is loaded: #MSG-109 fixed

Uploading diagram of result counts.

# MSG-110 — require explicit flag to send email on insert

Daniel Zhang (張道博) 15 May 2013 15:36 Commit made by **Daniel Zhang** (張道博) on 2013-05-15T18:35:53-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/9cc4e425ac6f32b68f57a828f52f2f9e7c7cf35b

adding explicit argument for email notification: #MSG-110 fixed

# MSG-111 — add explicit testing argument to recursive insert

Daniel Zhang (張道博) 16 May 2013 16:32

Commit made by **Daniel Zhang (**張道博) on 2013-05-16T19:32:43-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/2d8bc25f7d4c47e3128655606b79ae2ce0357f63

adding additional testing argument: #MSG-111 in progress

Multiple switch arguments are not currently working as the second argument is being consumed incorrectly.

Daniel Zhang (張道博) 16 May 2013 17:20 Commit made by **Daniel Zhang** (張道博) on 2013-05-16T20:20:46-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/305b826870ad151e43ca11d4b66cdff6e0f58a10

multiple switch arguments are now working: #MSG-111 fixed

#### MSG-112 — perform 14MB data loading test on test meco

Daniel Zhang (張道博) 17 May 2013 15:20 Running with

\$ time python -u ~/dzmbp-maui-smart-grid/src/recursivelyInsertData.py -email -testing > insert-log.txt

\_\_\_\_\_\_ Daniel Zhang (張道博)

Data loading was successful.

17 May 2013 15:52

Testing mode is ON. Email will be sent.

Inserting data to database test meco.

parsing xml in ./October2012/20121107-bc289ebc-f666-4384-a6ee-1baff0657a40-2-2.xml.gz

 $\{0\}[0](15071)\{\text{dupe on insert}==>\}\{11520\}[1](44225)\{0\}[2](58970)\{0\}[3](73714)\{0\}[4](84055)\}$ Inserting data to database test\_meco.

parsing xml in ./October2012/20121107-bc289ebc-f666-4384-a6ee-1baff0657a40-1-2.xml.gz

 $\{0\}[0](14735)\{ \text{dupe on insert} ==> \} \{68096\}[1](114599)\{0\}[2](129332)\{0\}[3](144397)\{0\}[4] \\ (159130)\{0\}[5](163317)\{0\}[6](167487)\{0\}[7](181889)\{ \text{dupe on insert} ==> \} \{11520\}[8](211024) \\ \text{Inserting data to database test\_meco.}$ 

parsing xml in ./October2012/20121107-bc289ebc-f666-4384-a6ee-1baff0657a40-1-1.xml.gz

 $\{ \text{dupe on insert} ==> \} \{11520\}[0](29155)\{0\}[1](43893)\{0\}[2](58626)\{0\}[3](73359)\{0\}[4](88103) \\ \{0\}[5](102842)\{0\}[6](117589)\{0\}[7](132327)\{0\}[8](147073) \\ \text{Inserting data to database test\_meco.}$ 

parsing xml in ./October2012/20121107-bc289ebc-f666-4384-a6ee-1baff0657a40-2-1.xml.gz

 $\{0\}[0](14735)\{0\}[1](29479)\{0\}[2](44223)\{0\}[3](58956)\{0\}[4](73690)\{0\}[5](88439)\{0\}[6] \\ (103172)\{dupe\ on\ insert==>\}\{11520\}[7](132305)\{0\}[8](147039) \\ Inserting\ data\ to\ database\ test\_meco.$ 

parsing xml in ./2013\_02\_11\_download/20130211-27af62d3-5d28-42db-a4a6-1ca4d2b1fb0b-1-1.xml.gz  $\{0\}[0](6874)\{0\}[1](17334)\{0\}[2](20769)\{0\}[3](24204)\{0\}[4](31333)\{0\}[5](34763)\{0\}[6](38198)$  {dupe on insert==>} $\{1856\}[7](50832)\{0\}[8](54267)$  Inserting data to database test\_meco.

parsing xml in ./2013\_02\_11\_download/20130211-27af62d3-5d28-42db-a4a6-1ca4d2b1fb0b-2-1.xml.gz {0}[0](10329){0}[1](20691){0}[2](24126){0}[3](27561){0}[4](37912){0}[5](41342){0}[6](48211) {0}[7](51646){0}[8](61963) Inserting data to database test\_meco.

parsing xml in ./2013\_03\_18\_download/20130318-7b10eca6-c250-4e1d-9ed3-e19a4477254b-2-1.xml.gz

 $\{0\}[0](6887)\{0\}[1](10322)\{0\}[2](13757)\{0\}[3](17192)\{0\}[4](20627)\{0\}[5](24063)\{0\}[6](27498) \\ \{0\}[7](30934)\{\text{dupe on insert}==>}\{1408\}[8](56796)$ 

Inserting data to database test\_meco.

parsing xml in ./2013\_03\_18\_download/20130318-7b10eca6-c250-4e1d-9ed3-e19a4477254b-1-1.xml.gz  $\{0\}[0](3436)\{0\}[1](6871)\{0\}[2](17237)\{0\}[3](20672)\{0\}[4](27549)\{0\}[5](30984)\{0\}[6](37856)\{0\}[7](44762)\{0\}[8](48197)$ 

Inserting data to database test\_meco.

parsing xml in ./2013\_04\_15\_download/20130415-77fdd50d-4768-44fb-b8e1-50d8eafaa114-2-1.xml.gz

{0}[0](6874){0}[1](10309){0}[2](17183){0}[3](20619){0}[4](27492){0}[5](30927){0}[6](37823) {0}[7](44697){0}[8](48133)

Inserting data to database test\_meco.

parsing xml in ./2013\_04\_15\_download/20130415-77fdd50d-4768-44fb-b8e1-50d8eafaa114-1-1.xml.gz

 $\{0\}[0](6878)\{0\}[1](10313)\{0\}[2](20739)\{0\}[3](24174)\{0\}[4](27609)\{0\}[5](31044)\{0\}[6](34479)\{0\}[7](37915)\{0\}[8](44788) Sending email notifications.$ 

real 27m23.419s user 6m48.402s sys 1m3.248s

# MSG-113 — add linefeed after concise status output of data insert

Daniel Zhang (張道博) 17 May 2013 16:16

Commit made by **Daniel Zhang** (張道博) on 2013-05-17T19:16:23-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/c66c98d16fa59fb7d1781a76c55b618fb6fdeb0e

adjusting notification message: #MSG-113 fixed

# MSG-114 — prepare full v3 data set for loading

Separate data by months.

# MSG-115 — verify reading counts

Daniel Zhang (張道博) 20 May 2013 13:43 Loading 2013\_04\_01\_download, 2013\_04\_08\_download, 2013\_04\_15\_download to

test\_meco.

Daniel Zhang (張道博) 20 May 2013 14:10 Insert result:

src/recursivelyInsertData.py –testing > insert-log.txt Testing mode is ON.

Inserting data to database test\_meco.

parsing xml in ./2013\_04\_01\_download/20130401-a589a5b7-bdee-4a5e-8c39-21324efa37c0-2-1.xml.gz

{0}[0](6874){0}[1](10309){0}[2](13744){0}[3](17184){0}[4](27504){0}[5](30939){0}[6](37839) {0}[7](48154){0}[8](51589)

Inserting data to database test\_meco.

parsing xml in ./2013\_04\_01\_download/20130401-a589a5b7-bdee-4a5e-8c39-

21324efa37c0-1-1.xml.gz

 $\{0\}[0](6876)\{0\}[1](17196)\{0\}[2](20631)\{0\}[3](27503)\{0\}[4](30939)\{0\}[5](34375)\{0\}[6](37810)$ 

{0}[7](48122){0}[8](51557)

Inserting data to database test\_meco.

parsing xml in ./2013 04 08 download/20130408-f02e1048-f11e-4004-a90e-2f1e1a05fbfe-1-1.xml.gz {0}[0](137770)

Inserting data to database test\_meco.

parsing xml in ./2013 04 08 download/20130408-f02e1048-f11e-4004-a90e-2f1e1a05fbfe-2-1.xml.gz {0}[0](123946){0}[1](131074){0}[2](134552) Inserting data to database test\_meco.

parsing xml in ./2013 04 15 download/20130415-77fdd50d-4768-44fb-b8e1-50d8eafaa114-2-1.xml.gz {0}[0](6874){0}[1](10309){0}[2](17183){0}[3](20619){0}[4](27492){0}[5](30927){0}[6](37823)

Inserting data to database test\_meco.

{0}[7](44697){0}[8](48133)

parsing xml in ./2013\_04\_15\_download/20130415-77fdd50d-4768-44fb-b8e1-50d8eafaa114-1-1.xml.gz

{0}[0](6878){0}[1](10313){0}[2](20739){0}[3](24174){0}[4](27609){0}[5](31044){0}[6](34479) {0}[7](37915){0}[8](44788)

real 14m40.411s user 3m24.729s 0m33.342s sys

# Daniel Zhang (張道博) 20 May 2013 15:32

Counts are calculated by the the view countOfReadingsByDay. A discontinuity of 15minutes or 1 interval seems to appear at the beginning of each data set. Reading counts appear to be as expected, 96/day, at other times. The meter counts are not as expected. The latest MeterRecords indicate 92 meters.

# MSG-116 — verify local daily backup is present

MSG-117 — eliminate any db connecting class other than MSGDBConnector

Daniel Zhang (張道博)

DB Util uses cursors for DB connections.

30 Jul 2013 14:50

Daniel Zhang (張道博)

DB connection method has been stable and sufficient.

05 Aug 2013 14:08

# MSG-118 — re-verify reading counts

The following check is evaluating to true unexpectedly:

self.configer.configOptionValue("Debugging", "limit\_commits")

Load counts should be re-checked with this check removed.

Daniel Zhang (張道博) 20 May 2013 17:25

Load results:

Inserting data to database test\_meco.

parsing xml in ./2013\_04\_01\_download/20130401-a589a5b7-bdee-4a5e-8c39-21324efa37c0-2-1.xml.gz  $\{0\}[0](6874)\{0\}[1](10309)\{0\}[2](13744)\{0\}[3](17184)\{0\}[4](27504)\{0\}[5](30939)\{0\}[6](37839)\{0\}[7](48154)\{0\}[8](51589)\{0\}[9](72229)\{0\}[10](75664)\{0\}[11](79099)\{0\}[12](82534)\{0\}[13](85969)\{0\}[14](89405)\{0\}[15](96280)\{0\}[16](103170)\{0\}[17](106753)\{0\}[18](110188)\{0\}[19](19180)[19]($ 

Closing the DB connection to test\_meco.

Inserting data to database test meco.

parsing xml in ./2013\_04\_01\_download/20130401-a589a5b7-bdee-4a5e-8c39-21324efa37c0-1-1.xml.gz

(113623){0}[20](117058){0}[21](120494){0}[22](124208){0}[23](127685)\*commit\*

 $\{0\}[0](6876)\{0\}[1](17196)\{0\}[2](20631)\{0\}[3](27503)\{0\}[4](30939)\{0\}[5](34375)\{0\}[6](37810) \\ \{0\}[7](48122)\{0\}[8](51557)\{0\}[9](54992)\{0\}[10](61867)\{0\}[11](72306)\{0\}[12](75741)\{0\}[13] \\ (79176)\{0\}[14](82612)\{0\}[15](86047)\{0\}[16](92920)\{0\}[17](99792)\{0\}[18](103227)\{0\}[19] \\ (106741)\{0\}[20](110177)\{0\}[21](117053)\{0\}[22](120488)\{0\}[23](123924)\{0\}[24](127359)\{0\}[25](130794)\{0\}[26](134662)^*commit^* \\$ 

Closing the DB connection to test\_meco.

Inserting data to database test\_meco.

parsing xml in ./2013\_04\_08\_download/20130408-f02e1048-f11e-4004-a90e-2f1e1a05fbfe-1-1.xml.gz  $\{0\}[0](137770)^* commit^*$  Closing the DB connection to test meco.

Inserting data to database test\_meco.

parsing xml in ./2013\_04\_08\_download/20130408-f02e1048-f11e-4004-a90e-2f1e1a05fbfe-2-1.xml.gz  $\{0\}[0](123946)\{0\}[1](131074)\{0\}[2](134552)^* commit^*$  Closing the DB connection to test\_meco.

Inserting data to database test meco.

parsing xml in ./2013\_04\_15\_download/20130415-77fdd50d-4768-44fb-b8e1-50d8eafaa114-2-1.xml.gz

 $\{0\}[0](6874)\{0\}[1](10309)\{0\}[2](17183)\{0\}[3](20619)\{0\}[4](27492)\{0\}[5](30927)\{0\}[6](37823)\{0\}[7](44697)\{0\}[8](48133)\{0\}[9](72207)\{0\}[10](75643)\{0\}[11](79078)\{0\}[12](82514)\{0\}[13](85950)\{0\}[14](89385)\{0\}[15](96508)\{0\}[16](103381)\{0\}[17](106895)\{0\}[18](110330)\{0\}[19](113765)\{0\}[20](117200)\{0\}[21](120636)\{0\}[22](124065)\{0\}[23](127500)\{0\}[24](130935)\{0\}[22](124065)\{0\}[23](127500)\{0\}[24](130935)\{0\}[23](127500)\{0\}[24](130935)[24](130935)[24](130935)[24](130935)[24](130935)[24](130935)[24](130935)[24](130935)[24](130935)[24](130935)[24](130935)[24](130935)[24](130935)[24](1$ 

[25](134726){0}[26](138203)\*commit\*
Closing the DB connection to test\_meco.

Inserting data to database test\_meco.

parsing xml in ./2013\_04\_15\_download/20130415-77fdd50d-4768-44fb-b8e1-50d8eafaa114-1-1.xml.gz

 $\{0\}[0](6878)\{0\}[1](10313)\{0\}[2](20739)\{0\}[3](24174)\{0\}[4](27609)\{0\}[5](31044)\{0\}[6](34479)\{0\}[7](37915)\{0\}[8](44788)\{0\}[9](48223)\{0\}[10](51659)\{0\}[11](55094)\{0\}[12](58529)\{0\}[13](61964)\{0\}[14](72407)\{0\}[15](75842)\{0\}[16](79278)\{0\}[17](82713)\{0\}[18](86148)\{0\}[19](93021)\{0\}[20](99895)\{0\}[21](103330)\{0\}[22](106845)\{0\}[23](110280)\{0\}[24](117154)\{0\}[25](120590)\{0\}[26](134333)\{0\}[27](137768)\{0\}[28](145125)^*commit^* Closing the DB connection to test meco.$ 

real 25m39.509s user 5m51.750s sys 0m54.251s

Daniel Zhang (張道博) 20 May 2013 17:28 Commit made by **Daniel Zhang (**張道博) on 2013-05-20T20:28:23-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/52e776bd8ef48503672f99e9b10687e32d96ab8e

removing incorrect flag: #MSG-118 fixed

# MSG-119 — determine correct usage of configOptionValue

Daniel Zhang (張道博) 21 May 2013 14:56 Commit made by **Daniel Zhang (**張道博**)** on 2013-05-21T17:55:53-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/363ca88371b2a54e52bf271eb2cf58a21f3d2829

evaluating boolean config values: #MSG-119 fixed

#### MSG-120 — update structure for meco v2

Daniel Zhang (張道博) 21 May 2013 15:42 Commit made by **Daniel Zhang** (張道博) on 2013-05-21T18:41:52-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/59eff552d1d647bd7c3f90b0ae51a94aed27050f

added count of readings and meters views; updated view\_readings: #MSG-120 fixed

# MSG-121 — process files in ascending order during recursive loading

Daniel Zhang (張道博)

Not needed at this time.

07 Aug 2013 16:03

# MSG-123 — remove time portion in readings-meters counts

Daniel Zhang (張道博) 22 May 2013 16:23

Commit made by **Daniel Zhang** (張道博) on 2013-05-22T19:23:10-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/6e8a153e05894d21956345155417f4c391cd9d77

formatting date as text to remove time: #MSG-123 fixed

# MSG-124 — create reading-meter count graph script

Daniel Zhang (張道博) 23 May 2013 01:28 Commit made by **Daniel Zhang (**張道博) on 2013-05-23T04:27:12-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/9367db1a34f02db06f1e38843a6322b98b680a6c

created meter and reading count plot: #MSG-124 fixed

**MSG-125** — add concise logs to notification messages Concise logs should be of the form:

Inserting data to database meco\_v3.

parsing xml in ./2013\_03\_18\_download/20130318-7b10eca6-c250-4e1d-9ed3-e19a4477254b-1-1.xml.gz  $\{0\}[0](3436)\{0\}[1](6871)\{0\}[2](17237)\{0\}[3](20672)\{0\}[4](27549)\{0\}[5](30984)\{0\}[6](37856)\{0\}[7](44762)\{0\}[8](48197)\{0\}[9] \\ (51632)\{0\}[10](55068)\{0\}[11](61942)\{0\}[12](69266)\{0\}[13](72850)\{0\}[14](76285)\{0\}[15](79720)\{0\}[16](83155)\{0\}[17](86590) \\ \{0\}[18](90025)\{0\}[19](93461)\{0\}[20](96897)\{0\}[21](100332)\{0\}[22](103767)\{0\}[23](107281)\{0\}[24](110716)\{0\}[25](117595) \\ \{0\}[26](121030)\{0\}[27](124465)\{0\}[28](127900)\{0\}[29](131336)\{0\}[30](135028)^* commit^* \\ Closing the DB connection to meco_v3.$ 

Daniel Zhang (張道博) 28 May 2013 15:32 Commit made by **Daniel Zhang** (張道博) on 2013-05-28T18:32:26-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/db54af32b5050e3934127029d26c494e96f2f7c7

adding return of parse messages: #MSG-125 in progress

Daniel Zhang (張道博) 28 May 2013 15:58 Commit made by **Daniel Zhang** (張道博) on 2013-05-28T18:57:53-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/577a0073c1ce24e335e5daa7a51a5646c80028f6

changing insert data code to object method: #MSG-125 in progress

Daniel Zhang (張道博) 28 May 2013 17:17

Commit made by **Daniel Zhang** (張道博) on 2013-05-28T20:16:15-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/025d9d5b05e5c9e4efa8f393de9e1f32c8fb785b

disabling execution of script method: #MSG-125 in progress

Daniel Zhang (張道博) 28 May 2013 17:17 Commit made by **Daniel Zhang (**張道博**)** on 2013-05-28T20:17:33-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/56df95332104ed5babb5f17403caa2f91e1f9b26

changing recursive insert to object method: #MSG-125 in progress

Daniel Zhang (張道博) 28 May 2013 18:05 Commit made by **Daniel Zhang** (張道博) on 2013-05-28T20:32:21-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/57589f87c2cb866a5b568b5a84378b5759b140a8

provide logging for case of single commit; added reporting of other commits: #MSG-125 fixed

#### MSG-126 — Be able to send an email attachment

Daniel Zhang (張道博) 22 May 2013 17:18 Commit made by **Daniel Zhang (**張道博) on 2013-05-22T20:18:00-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/b05144c0fe1b17aac7444934355109561e8c24bf

attachments work: #MSG-126 fixed

# MSG-127 — attach meter reading count plot to loading notification

Daniel Zhang (張道博) 23 May 2013 01:54

Commit made by **Daniel Zhang (**張道博) on 2013-05-23T04:54:41-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/76cd5925099da76b9705c04a1911eb3476c0b6de

added plot to notification during recursive insert: #MSG-128 fixed #MSG-127 fixed

#### MSG-128 — add plotting to recursive insert

Daniel Zhang (張道博) 23 May 2013 01:54 Commit made by **Daniel Zhang (**張道博) on 2013-05-23T04:54:41-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/76cd5925099da76b9705c04a1911eb3476c0b6de

added plot to notification during recursive insert: #MSG-128 fixed #MSG-127 fixed

Daniel Zhang (張道博) 23 May 2013 02:44 Commit made by **Daniel Zhang** (張道博) on 2013-05-23T05:44:33-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/42e7d1916f02b95f290f0ea91f55c27048b89af3

corrected use of attachment: #MSG-128 fixed

# MSG-129 — handle plot failure case during loading

If a plot fails to generate during loading the error condition should be handled gracefully.

Daniel Zhang (張道博) 05 Jun 2013 16:21

Commit made by **Daniel Zhang** (張道博) on 2013-06-05T19:21:01-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/99b173c563006e42bded0ffdaa420126e9d4f295

generating error on plot failure: #MSG-129 fixed

# MSG-130 — Add weather data loading to notifications

Daniel Zhang (張道博) 06 Jun 2013 16:44

Commit made by **Daniel Zhang** (張道博) on 2013-06-06T19:44:09-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/5ab3297a3cb1d2899d581ce8ffb4eb8e9321de42

Added notifications to whether data loading: #MSG-130 fixed

# MSG-131 — Add static location and meter record loading to notifications

Daniel Zhang (張道博) 05 Jun 2013 15:55

Commit made by **Daniel Zhang** (張道博) on 2013-06-05T18:55:00-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/e069526be7b0d2ec012c8a051a22dcb33007ce0e

adding reporting and notifications to static meter record loading and static location

record loading: #MSG-131 fixed

#MSG-140 fixed #MSG-139 fixed

#### MSG-132 — load static location and meter records

MSG-133 — load weather data

Daniel Zhang (張道博) 06 Jun 2013 16:28

Loaded:

KahuluiQCLCD 2012 08.csv KahuluiQCLCD\_2012\_09.csv KahuluiQCLCD 2012 10.csv KahuluiQCLCD\_2012\_11.csv

# MSG-134 — transfer views from v2

Daniel Zhang (張道博) 24 May 2013 15:22

Commit made by **Daniel Zhang** (張道博) on 2013-05-24T18:22:06-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/71c70fbd816507f305ec7eee3b2859bd1cb5945f

views transferred from v2 to v3: #MSG-134 fixed

# MSG-136 — post reading-meter plot to documentation

Daniel Zhang (張道博)

Plot was added.

24 May 2013 15:23

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/07e643361755a533aa446fb2204912a2fd7a2018

# MSG-137 — add parallel notes to documentation

Daniel Zhang (張道博) 03 Jun 2013 16:54

Commit made by **Daniel Zhang** (張道博) on 2013-06-03T19:54:19-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/7ccbeaca29d3b93e65b1cb5364a515dfb1ba8e1d

add parallel loading note to docs: #MSG-137 fixed

# MSG-138 — add gridlines to count plot

Daniel Zhang (張道博) 29 May 2013 15:57

Commit made by **Daniel Zhang** (張道博) on 2013-05-29T18:57:43-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/c45d271c89580e6c99361a875b3bcc3e0b1fd33c

added gridlines: #MSG-138 fixed

# MSG-139 — provide concise report for static location record loading

Daniel Zhang (張道博) 05 Jun 2013 15:55

Commit made by **Daniel Zhang** (張道博) on 2013-06-05T18:55:00-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/e069526be7b0d2ec012c8a051a22dcb33007ce0e

adding reporting and notifications to static meter record loading and static location

record loading: #MSG-131 fixed

#MSG-140 fixed #MSG-139 fixed

# MSG-140 — provide concise report for static meter record loading

Daniel Zhang (張道博) 05 Jun 2013 14:57

Commit made by **Daniel Zhang** (張道博) on 2013-06-05T17:57:42-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/4216d33543a5451d382fc8b5de676c8269b935be

adding notifications to static meter record loading: #MSG-140 fixed

Daniel Zhang (張道博) 05 Jun 2013 15:55 Commit made by **Daniel Zhang (**張道博) on 2013-06-05T18:55:00-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/e069526be7b0d2ec012c8a051a22dcb33007ce0e

adding reporting and notifications to static meter record loading and static location

record loading: #MSG-131 fixed

#MSG-140 fixed #MSG-139 fixed

MSG-141 — add separate testing recipient list to config file and support for it in the notifier

Daniel Zhang (張道博) 29 May 2013 14:37 The configuration option will be testing\_email\_recipients.

Daniel Zhang (張道博) 29 May 2013 14:41 Commit made by **Daniel Zhang** (張道博) on 2013-05-29T17:41:07-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/be11dfec29bf5dbf24d8b2327497fb2c93d6db5b

added support for testing mode to sendMailWithAttachments: #MSG-141 fixed

Daniel Zhang (張道博) 29 May 2013 14:49 Commit made by **Daniel Zhang** (張道博) on 2013-05-29T17:48:03-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/07304b01d646f6929ebf3ac81a79d1f358738bfb

setting testing support to single part mail sender while removing its deprecated status: #MSG-141 fixed

MSG-142 — have plotting support testing mode

This is a function of the recursive insert script and can be implemented there.

Daniel Zhang (張道博) 29 May 2013 14:49 Commit made by **Daniel Zhang** (張道博) on 2013-05-29T17:49:10-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/83531e60585482a39e36c200faa4cb022ee42442

mail with attached plot and other mails now support testing mode: #MSG-142 fixed

MSG-143 — have db destructor message handle testing mode

MSG-144 — provide source data monitoring service

The file system is continuously monitored such that the presence of source data will initiate the loading process.

MSG-145 — test support for testing mode in notifications

Daniel Zhang (張道博) 30 May 2013 16:05 Commit made by **Daniel Zhang (**張道博) on 2013-05-30T19:04:55-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/5ab379da1c6b2376ef91fce85dfe6f67a68a0d3a

reverting imports to deal with TypeError: #MSG-145 in progress

TypeError: 'LazyImporter' object is not callable

Daniel Zhang (張道博) 18 Jun 2013 15:57 Logging configuration, including that of providing notice for testing mode, is handled on a class-by-class. Therefore, issues related to logging should address specific classes.

# MSG-146 — create script for PV data loading

Daniel Zhang (張道博) 28 Jun 2013 13:06 PV data was added by Eileen.

# MSG-147 — fix /src/tests/test\_\_\_\_mecoconfig.py

Daniel Zhang (張道博) 31 May 2013 15:33 Commit made by **Daniel Zhang (**張道博**)** on 2013-05-31T18:32:58-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/693c5c3b5630d69c596c08878ee47fef3ec5600a

fixed test by correcting use of debugging option: #MSG-147 fixed

# MSG-154 — drop duplicates in the event branch on insert

Daniel Zhang (張道博) 28 Jun 2013 15:15 Commit made by **Daniel Zhang (**張道博**)** on 2013-06-28T18:14:27-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/d525927d3b193e06d328005a05ffe4774fda7c85

determining event dupes: #MSG-154 In Progress

Daniel Zhang (張道博) 28 Jun 2013 16:14

Commit made by **Daniel Zhang (**張道博) on 2013-06-28T19:14:53-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/ddcc4fc153513e2c44d7a4a442c573e21e5fb332

added event dupe dropping: #MSG-154 fixed

Needs testing.

Daniel Zhang (張道博) 28 Jun 2013 16:21

Commit made by **Daniel Zhang** (張道博) on 2013-06-28T19:21:49-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/6a890d188d57a4216ec636ac9fb9b142bbe9b4cc

adding additional needed items for event dupes: #MSG-154 fixed

## MSG-155 — drop duplicates in the register branch on insert

Comment

Daniel Zhang (張道博) 24 Jun 2013 16:34 Commit made by **Daniel Zhang (**張道博**)** on 2013-06-24T19:34:27-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/8df87bd63cfd56a10f626b37976d923a62dd4cc8

detecting duplicates in the register branch: #MSG-155 In Progress

Daniel Zhang (張道博) 25 Jun 2013 15:39 Commit made by **Daniel Zhang (**張道博) on 2013-06-25T18:39:03-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/12ac3fbca2ac3fe8094ffac9d92091de361fea17

adding register dupe dropping to parser: #MSG-155 In Progress

Daniel Zhang (張道博) 25 Jun 2013 16:48 Commit made by **Daniel Zhang** (張道博) on 2013-06-25T19:48:27-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/71fe9062e92592d6bd8c03cbb786261c5ac7d264

fixed numerous code problems: #MSG-155 In Progress

Daniel Zhang (張道博) 26 Jun 2013 16:43 Register duplicates are dropped on insert:

~/msg-data/unit-test-data\$ time python ~/dzmbp-maui-smart-grid/src/recursivelyInsertData.py -testing > insert-log.txt 2013-06-26 16:38:53,060 - \_\_main\_\_ - INFO - Testing mode is ON.

2013-06-26 16:38:53,061 - mecoxmlparser - INFO - Testing Mode is ON.

Inserting data to database test\_meco.

Parsing XML in ./meco\_v3-energy-test-data.xml.gz.

 $\label{eq:condition} $$\{re-dupe==>\}{32rd,56re}(0)[125]<0rd,0re,37,37>-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-\{0rd,0re\}(0)[125]=0rd,0re,37<-[0rd,0re](0)[125]=0rd,0re,37<-[0rd,0re](0)[125]=0rd,0re,37<-[0rd,0re](0)[125]=0rd,0re,37<-[0rd,0re](0)[125]=0rd,0re,37<-[0rd,0re](0)[125]=0rd,0re,37<-[0rd,0re](0)[125]=0rd,0re,37<-[0rd,0re](0)[125]=0rd,0re,37<-[0rd,0re](0)[125]=0rd,0re,37<-[0rd,0re](0)[125]=0rd,0re,37<-[0rd,0re](0)[125]=0rd,0re,37<-[0rd,0re](0)[125]=0rd,0re,37<-[0rd,0re](0)[125]=0rd,0re,37<-[0rd,0re](0)[125]=$ 

<0rd,0re,0,37>\*

2013-06-26 16:38:53,413 - mecoxmlparser - INFO - Data process count = 125.

2013-06-26 16:38:53,413 - mecoxmlparser - INFO - Reading dupe check count = 32.

MSG-157 — fix problem where recursive insert immediately terminates upon finding duplicate data

Daniel Zhang (張道博) 03 Jun 2013 17:03

Tail of the insert log is:

SQL execute was successful.

table name = Interval

column name = interval id

SQL execute was successful.

SQL execute was successful.

Duplicate meter-endtime-channel exists.

SQL execute was successful.

table name = Reading

column name = reading\_id SQL execute failed using select currval(pg get serial sequence("Reading", 'reading id')). The error is: currval of sequence "reading\_id\_seq" is not yet defined in this session Daniel Zhang (張道博) If a dupe is encountered before a reading\_id is generated, as in the first MeterData set, 04 Jun 2013 14:02 then this error can occur. Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-06-04T18:25:30-07:00 04 Jun 2013 15:25 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/c84a20ec5c7558d247901f6a22cb3e4f9b858fba recursive insert proceeds if readings dupes are immediately encountered: #MSG-157 fixed

MSG-158 — report sql failures through stderr during loading

MSG-159 — create separate plot during testing mode

Daniel Zhang (張道博) 12 Jun 2013 14:53

Commit made by **Daniel Zhang** (張道博) on 2013-06-12T17:52:21-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/81f8482b06e692639b7a8508b44577fd86daf40f

Adding support for testing mode to mecoplotting: #MSG-159 in progress

Daniel Zhang (張道博) 12 Jun 2013 16:09

Commit made by **Daniel Zhang (**張道博) on 2013-06-12T19:09:45-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/1bf4ff0ba00b4f32d3c03b719fec906656986f71

pass testing to plotter: #MSG-159 in progress

Daniel Zhang (張道博) 22 Aug 2013 13:59

Separate plot during testing is generated.

MSG-160 — load month-long data set

Daniel Zhang (張道博) 04 Jun 2013 16:28

Results are:

Inserting data to database meco\_v3.

Parsing XML in ./All of May-2-1.xml.gz.

{dupe on insert==>}\*commit\*{9968}[0](14735){dupe on insert==>}\*commit\*{9968}[1]

(29468){dupe on insert==>}\*commit\*{9968}[2](4

4197){dupe on insert==>}\*commit\*{9968}[3](58926){dupe on insert==>}\*commit\*{9968}[4]

(73655){dupe on insert==>}\*commit\*{9968}

[5](88384){dupe on insert==>}\*commit\*{9968}[6](103113){dupe on insert==>}\*commit\*

{9968}[7](117841){dupe on insert==>}\*commit

• {9968}[8](132570){dupe on insert==>}\*commit\*{9968}[9](147304){dupe on insert==>}\*commit\*{9968}[10](162038){dupe on insert==

}\*commit\*{9968}[11](176772){dupe on insert==>}\*commit\*{9968}[12](191502){dupe on insert==>}\*commit\*{9968}[13](206232){dupe on insert==>}\*commit\*{9968}[14](220960){dupe on insert==>}\*commit\*{9968}[15] (235688){dupe on insert==>}\*commit\*{9968}[16](25 0423){dupe on insert==>}\*commit\*{9968}[17](265152){dupe on insert==>}\*commit\* {9968}[18](279881){dupe on insert==>}\*commit\*{9 968}[19](294611){dupe on insert==>}\*commit\*{9968}[20](309345){dupe on insert==>}\*commit\*{9968}[21](324074){dupe on insert==> }\*commit\*{9968}[22](338807){dupe on insert==>}\*commit\*{9968}[23](353541){dupe on insert==>}\*commit\*{9968}[24](368270){dupe o n insert==>}\*commit\*{9968}[25](383004){dupe on insert==>}\*commit\*{9968}[26](397732) {dupe on insert==>}\*commit\*{9968}[27](412 461){dupe on insert==>}\*commit\*{9968}[28](427189){dupe on insert==>}\*commit\*{9968} [29](441918){dupe on insert==>}\*commit\*{99 68}[30](456979){dupe on insert==>}\*commit\*{9968}[31](471708){dupe on insert==>}\*commit\*{9968}[32](486436){dupe on insert==>} commit{9968}[33](501165){dupe on insert==>}\*commit\*{9968}[34](515899){dupe on insert==>}\*commit\*{9968}[35](530627){dupe on insert==>}\*commit\*{9968}[36](545356){dupe on insert==>}\*commit\*{9968}[37](560084) {dupe on insert==>}\*commit\*{2476}[38](5657 65){dupe on insert==>}\*commit\*{2476}[39](571114){dupe on insert==>}\*commit\*{2476} [40](576474){dupe on insert==>}\*commit\*{9968}[41](591389){dupe on insert==>}\*commit\*{9968}[42](606299)\*commit\* Closing the DB connection to meco v3.

Inserting data to database meco\_v3.

Parsing XML in ./All of May-1-1.xml.gz. {dupe on insert==>}\*commit\*{9968}[0](14730){dupe on insert==>}\*commit\*{9968}[1] (29480){dupe on insert==>}\*commit\*{9968}[2](44208){dupe on insert==>}\*commit\*{9968} [3](58936){dupe on insert==>}\*commit\*{9968}[4](73665){dupe on insert==>}\*commit\* {9968}[5](88399){dupe on insert==>}\*commit\*{9968}[6](103128){dupe on insert==>}\*commit\*{9968}[7](117862){dupe on insert==>}\*commit\*{9968}[8](132596) {dupe on insert==>}\*commit\*{9968}[9](147325){dupe on insert==>}\*commit\*{9968}[10] (162054){dupe on insert==>}\*commit\*{9968}[11](176783){dupe on insert==>}\*commit\* {9968}[12](191512){dupe on insert==>}\*commit\*{9968}[13](206246){dupe on insert==>}\*commit\*{9968}[14](220974){dupe on insert==>}\*commit\*{9968}[15](235703) {dupe on insert==>}\*commit\*{9968}[16](250431){dupe on insert==>}\*commit\*{9968}[17] (265165){dupe on insert==>}\*commit\*{9968}[18](279894){dupe on insert==>}\*commit\* {9968}[19](294954){dupe on insert==>}\*commit\*{9968}[20](309683){dupe on insert==>}\*commit\*{9968}[21](324417){dupe on insert==>}\*commit\*{9968}[22](339146) {dupe on insert==>}\*commit\*{9968}[23](353874){dupe on insert==>}\*commit\*{9968}[24] (368602){dupe on insert==>}\*commit\*{9968}[25](383330){dupe on insert==>}\*commit\* {9968}[26](398059){dupe on insert==>}\*commit\*{9968}[27](412787){dupe on

 $\label{eq:commit} $$ [28](427515) = 0 insert==>\\ commit [9968][28](427515) = 0 insert==>\\ commit [9968][29](442585) = 0 insert==>\\ commit [9968][31](472041) = 0 insert==>\\ commit [9968][32](486770) = 0 insert==>\\ commit [9968][32](486770) = 0 insert==>\\ commit [9968][32](501503) = 0 insert==>\\ commit [9968][32](516232) = 0 insert==>\\ commit [9968][35](530960) = 0 insert==>\\ commit [9968][36](545688) = 0 insert==>\\ commit [9968][37](560417) = 0 insert==>\\ commit [9968][38](575146) = 0 insert==>\\ commit [9968][39](589875) = 0 insert==>\\ commit [9968][40](604604) = 0 insert==>\\ commit [2476][42](615302) = 0 insert==>\\ commit [2476][43](620651) = 0 insert==>\\ commit [2476][42](615302) = 0 insert==>\\ commit [2476][43](620651) = 0 insert==>\\ commit [2476][45](631366) = 0 insert==>\\ commit [4576][45](631366) =$ 

Closing the DB connection to meco\_v3.

plotPath = /home/daniel/msg-plots

attachment = /home/daniel/msg-plots/ReadingAndMeterCounts.png

Sending multipart email.

Attaching file /home/daniel/msg-plots/ReadingAndMeterCounts.png.

No exceptions occurred.

Closing the DB connection to meco\_v3.

real 29m33.394s user 4m53.446s sys 2m59.439s

# Daniel Zhang (張道博) 04 Jun 2013 16:58

Results according to plot comparison of v3 vs v4 appear correct but the concise log dupe counts don't appear to be meaningful, being mostly the same value of 9968.

# MSG-161 — create v4 structure

Daniel Zhang (張道博) 04 Jun 2013 16:25 Commit made by **Daniel Zhang** (張道博) on 2013-06-04T19:25:03-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/c8475ed7953602dbea60b767b322975114888eec

adding meco v4 structure: #MSG-161 fixed

MSG-162 — insert 2013 06 03 All of May 2013 to v4

Daniel Zhang (張道博) 04 Jun 2013 17:01 Results are:

./All of May-2-1.xml.gz

Inserting data to database meco\_v4.

Parsing XML in ./All of May-2-1.xml.gz.

commit{0}[0](14735)\*commit\*{0}[1](29468)\*commit\*{0}[2](44197)\*commit\*{0}[3] (58926)\*commit\*{0}[4](73655)\*commit\*{0}[5](88384)\*commit\*{0}[6](103113)\*commit\*{0}[7] (117841)\*commit\*{0}[8](132570)\*commit\*{0}[9](147304)\*commit\*{0}[10](162038)\*commit\*{0}[11](176772)\*commit\*{0}[12](191502)\*commit\*{0}[13](206232)\*commit\*{0}[14] (220960)\*commit\*{0}[15](235688)\*commit\*{0}[16](250423)\*commit\*{0}[17] (265152)\*commit\*{0}[18](279881)\*commit\*{0}[19](294611)\*commit\*{0}[20] (309345)\*commit\*{0}[21](324074)\*commit\*{0}[22](338807)\*commit\*{0}[23] (353541)\*commit\*{0}[24](368270)\*commit\*{0}[25](383004)\*commit\*{0}[26] (397732)\*commit\*{0}[27](412461)\*commit\*{0}[28](427189)\*commit\*{0}[29] (441918)\*commit\*{0}[30](456979)\*commit\*{0}[31](471708)\*commit\*{0}[32] (486436)\*commit\*{0}[33](501165)\*commit\*{0}[34](515899)\*commit\*{0}[35] (530627)\*commit\*{0}[36](545356)\*commit\*{0}[37](560084)\*commit\*{0}[38] (565765)\*commit\*{0}[39](571114)\*commit\*{0}[40](576474)\*commit\*{0}[41] (591389)\*commit\*{0}[42](606299)\*commit\*

Wall time = 805.68 seconds. ./All of May-1-1.xml.gz

Inserting data to database meco\_v4.

Parsing XML in ./All of May-1-1.xml.gz.

commit{0}[0](14730)\*commit\*{0}[1](29480)\*commit\*{0}[2](44208)\*commit\*{0}[3]
(58936)\*commit\*{0}[4](73665)\*commit\*{0}[5](88399)\*commit\*{0}[6](103128)\*commit\*{0}[7]
(117862)\*commit\*{0}[8](132596)\*commit\*{0}[9](147325)\*commit\*{0}[10](162054)\*commit\*
{0}[11](176783)\*commit\*{0}[12](191512)\*commit\*{0}[13](206246)\*commit\*{0}[14]
(220974)\*commit\*{0}[15](235703)\*commit\*{0}[16](250431)\*commit\*{0}[17]
(265165)\*commit\*{0}[18](279894)\*commit\*{0}[19](294954)\*commit\*{0}[20]
(309683)\*commit\*{0}[21](324417)\*commit\*{0}[22](339146)\*commit\*{0}[23]
(353874)\*commit\*{0}[24](368602)\*commit\*{0}[25](383330)\*commit\*{0}[26]
(398059)\*commit\*{0}[27](412787)\*commit\*{0}[28](427515)\*commit\*{0}[29]
(442585)\*commit\*{0}[30](457313)\*commit\*{0}[31](472041)\*commit\*{0}[32]
(486770)\*commit\*{0}[33](501503)\*commit\*{0}[31](516232)\*commit\*{0}[35]
(530960)\*commit\*{0}[39](545688)\*commit\*{0}[37](560417)\*commit\*{0}[38]
(575146)\*commit\*{0}[39](589875)\*commit\*{0}[40](604604)\*commit\*{0}[41]
(609953)\*commit\*{0}[42](615302)\*commit\*{0}[43](620651)\*commit\*{0}[44]
(626017)\*commit\*{0}[45](631366)\*commit\*{0}[46](646546)\*commit\*

Wall time = 968.81 seconds.

Processed file count is 2.

#### MSG-163 — add timestamp to plot

Daniel Zhang (張道博) 11 Jun 2013 16:37 Commit made by **Daniel Zhang** (張道博) on 2013-06-11T19:37:38-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/82c6c188350317fd2ca176dc9a3efbfd43dc8064

## added timestamp to plot: #MSG-163 fixed

## MSG-165 — add test for static meter record loading

Daniel Zhang (張道博)

No longer loading static meter records.

22 Aug 2013 13:57

# MSG-166 — add test for static location record loading

Daniel Zhang (張道博)

No longer loading static location records.

22 Aug 2013 13:58

# MSG-167 — eliminate connections to the production DB in testing mode

For reference:

Testing mode is ON.

Email will be sent.

Inserting data to database test\_meco.

Parsing XML in ./meco\_v3-energy-test-data.xml.gz.

{0}[0](126)\*commit\*

Closing the DB connection to test\_meco.

Closing the DB connection to meco\_v4.

plotPath = /home/daniel/msg-plots

attachment = /home/daniel/msg-plots/ReadingAndMeterCounts.png

Sending multipart email.

Notification testing mode is ON.

Attaching file /home/daniel/msg-plots/ReadingAndMeterCounts.png.

No exceptions occurred.

Closing the DB connection to meco\_v4.

real 0m5.177s

user 0m0.628s

sys 0m0.132s

Daniel Zhang (張道博)

This is not a problem at this time.

05 Aug 2013 14:10

## MSG-168 — add log legend

Daniel Zhang (張道博)

Commit made by **Daniel Zhang (**張道博) on 2013-06-05T20:34:05-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/42794135586fb83fe3a182de5826d913e00be48c

added log legend: #MSG-168 fixed

Daniel Zhang (張道博)
10 Jun 2013 13:54

Commit made by Daniel Zhang (張道博) on 2013-06-10T16:52:32-07:00
https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/0833cdb491b22f0c642cd1eb5b087c22fb85e979

revise legend: #MSG-168 fixed

MSG-169 — add email and testing command-line arguments to static meter record loading

MSG-170 — add email and testing command-line arguments to static location record loading

Daniel Zhang (張道博) 22 Aug 2013 13:59 No longer loading static location records.

MSG-171 — add email and testing command-line arguments to weather data loading

Daniel Zhang (張道博) 09 Jul 2013 15:55 These arguments are supported in insertCompressedWeatherData.py.

MSG-172 — add last date test for weather data loading

Daniel Zhang (張道博) 30 Jul 2013 15:18 Commit made by **Daniel Zhang** (張道博) on 2013-07-30T18:18:05-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/a9ad32a871c9e869695933118b36c73962ede70d

adding test stub: #MSG-172 In Progress

Daniel Zhang (張道博) 30 Jul 2013 16:56

Commit made by **Daniel Zhang** (張道博) on 2013-07-30T19:56:25-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/95cd03a2d1737a9abec56d01a8e1c0827be9a3f1

filling out last date test; renamed db connector: #MSG-172 In Progress

Daniel Zhang (張道博) 31 Jul 2013 14:38 Commit made by **Daniel Zhang** (張道博) on 2013-07-31T17:38:00-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/a540a8bb94b5f1888ec6778d910a9358c6a11626

added test for last date: #MSG-172 fixed

MSG-173 — cleanup views

Daniel Zhang (張道博) Commit made by **Daniel Zhang (**張道博) on 2013-06-06T19:46:42-07:00

ıment

06 Jun 2013 16:46

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/5a6ab85ef69977a3269de83f2fa6725a6f2770ef

removed view with camel case name: #MSG-173 fixed

# MSG-174 — Update dependencies in the documentation

Daniel Zhang (張道博) 11 Jun 2013 13:19 Fixed in https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/38420a8dca2e8f99162ee4dda1461238357b49ee.

## MSG-176 — support processing of NOAA weather data

Daniel Zhang (張道博) 02 Jul 2013 17:13

Commit made by **Daniel Zhang (**張道博**)** on 2013-07-02T20:13:13-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/13d8d57f8f8346944eef7be0a8c2b992454d19be

setting up weather data loading: #MSG-176 In Progress #MSG-178 In Progress #MSG-222 In Progress

Daniel Zhang (張道博) 03 Jul 2013 17:27 Commit made by **Daniel Zhang (**張道博**)** on *2013-07-03T20:26:56-07:00* https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

setting up weather data loading: #MSG-176 In Progress

Grid/commit/82231b6c03b516801d36703ed5ea9708de5820e5

#MSG-178 In Progress #MSG-222 In Progress

Daniel Zhang (張道博) 03 Jul 2013 17:47 Weather data insertion is enabled by insertCompressedWeatherData.py.

## MSG-177 — support weather data plot notification

MSG-178 — provide class for duplicate checking during weather data loading

Daniel Zhang (張道博) 02 Jul 2013 17:13 Commit made by **Daniel Zhang (**張道博**)** on 2013-07-02T20:13:13-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/13d8d57f8f8346944eef7be0a8c2b992454d19be

setting up weather data loading: #MSG-176 In Progress

#MSG-178 In Progress #MSG-222 In Progress

Daniel Zhang (張道博) 03 Jul 2013 17:27 Commit made by **Daniel Zhang (**張道博) on 2013-07-03T20:26:56-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/82231b6c03b516801d36703ed5ea9708de5820e5

setting up weather data loading: #MSG-176 In Progress #MSG-178 In Progress #MSG-222 In Progress

Daniel Zhang (張道博) 03 Jul 2013 17:45 Support is provided by MSGWeatherDataDupeChecker.

# MSG-179 — Add database name to plot

Daniel Zhang (張道博) 11 Jun 2013 17:05 Commit made by **Daniel Zhang (**張道博**)** on 2013-06-11T20:05:32-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/23c73187a02035fadd8b40ac8b0fe609343bcd44

added db name to plots: #MSG-179 fixed

Daniel Zhang (張道博) 12 Jun 2013 13:23

Commit made by **Daniel Zhang (**張道博) on 2013-06-12T16:23:25-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/fa6c7c152bfa544ec8b78f223882c8f4ecf86157

fixed argument count: #MSG-179 fixed

Daniel Zhang (張道博) 12 Jun 2013 15:51 Commit made by **Daniel Zhang** (張道博) on 2013-06-12T18:51:18-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/93054ceb50e7f1e240a2be991a3bb2e7d0e5dd41

adding dbname to plot: #MSG-179 fixed

# MSG-181 — Create test data set with a missing interval

Daniel Zhang (張道博) 12 Jun 2013 14:53 Commit made by **Daniel Zhang** (張道博) on 2013-06-12T17:53:28-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/2961371e1d300bd441def814566ccddb1e111851

created test data set with missing interval: #MSG-181 fixed

# **MSG-183** — fix email setting during testing for recursive insert Email is getting sent without the email option.

Daniel Zhang (張道博) 12 Jun 2013 14:33 Commit made by **Daniel Zhang** (張道博) on 2013-06-12T17:33:35-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/d7757880a1c8a04a7318e9075d7ecaace609b3d0

added email check to fail case: #MSG-183 fixed

MSG-184 — fix display of 'using database' on recursive insert using --testing

Display is incorrect:

Using database meco\_v4.

Testing mode is ON.

Recursively inserting data to the database named test\_meco.

...

Found XML files that are not gzip compressed.

Unable to proceed.

Sending email notifications.

Closing the DB connection to meco\_v4.

real 0m2.729s user 0m0.272s sys 0m0.032s

Daniel Zhang (張道博)

Not a problem at this time.

22 Aug 2013 13:54

MSG-185 — be able to generate plots from the command-line using mecoplotting

Daniel Zhang (張道博)

Not needed at this time.

24 Sep 2013 16:22

MSG-186 — support db name adding to plot when running mecoplotting as script

Daniel Zhang (張道博)

Support is provided for in #MSG-179.

12 Jun 2013 15:51

MSG-188 — reduce quantity of db connections

Example:

recursivelyInsertData.py -testing > insert-log.txt Using database meco\_v4.

Opened DB connection to meco\_v4.

Using database meco\_v4.

Opened DB connection to meco\_v4.

Opened DB connection to meco\_v4.

Closing the DB connection to meco\_v4.

Using database meco\_v4. Opened DB connection to meco v4. Opened DB connection to meco\_v4. Testing mode is ON. Testing Mode is ON. Testing Mode is ON. Using database test meco. Opened DB connection to test\_meco. Opened DB connection to test\_meco. Inserting data to database test\_meco. Parsing XML in ./meco\_v3-energy-test-data\_with\_missing\_interval.xml.gz. {dupe on insert==>}{28}[0][121]\* Closing the DB connection to test\_meco. Using database meco\_v4. Opened DB connection to meco\_v4. Testing Mode is ON. Using database test\_meco. Opened DB connection to test\_meco. Opened DB connection to test\_meco. Closing the DB connection to test\_meco. Closing the DB connection to meco\_v4. Closing the DB connection to meco\_v4. Closing the DB connection to meco\_v4.

real 0m9.645s user 0m1.532s sys 0m0.100s

Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-06-14T17:49:14-07:00 14 Jun 2013 14:49 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/e578ed0b7010f2619ebf0f8af5aa1887d74e2eec migrating to logging module: #MSG-188 In Progress Daniel Zhang (張道博) Less DB connections are now reported. Individual classes establish their own 18 Jun 2013 15:54 connections and should be addressed individually. MSG-189 — adapt mecologger to logging Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-06-14T16:33:38-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-14 Jun 2013 13:36 Grid/commit/74bb59e1d9534ed4085f26070d10d4d9ee546417 adding logger to mecologging: #MSG-189 in progress Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-06-14T17:48:28-07:00 14 Jun 2013 14:49 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/cc9d336c108eab97a450e3a3f8d8a109134fd03f added explicit flush but it may not be necessary: #MSG-189 In Progress Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-06-14T18:00:53-07:00 14 Jun 2013 15:01 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/46f87e4e04fff8258d2b11d977a13d9d60a02f15 changing logging idiom to self reported class name: #MSG-189 In Progress Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-06-14T18:53:02-07:00 14 Jun 2013 15:53 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/ab20eb9dfa88dba52f962d8ce3cb3796b4c129ba adding multiple switches to logging: #MSG-189 In Progress Logging level can be set per item. It is also set by class and it defaults to Silent. Daniel Zhang (張道博) MECOLogger is in place and available throughout the project using the logging module. 18 Jun 2013 15:52 Individual classes should be migrated to MECOLogger for their logging needs.

# MSG-191 — create db dump script

Daniel Zhang (張道博) 07 Aug 2013 16:28

Commit made by **Daniel Zhang** (張道博) on 2013-08-07T19:28:30-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/883f86d1d00721fbaca16c73b87c6e85963549a9

adding db dump script: #MSG-191 fixed

# MSG-192 — regenerate meco\_v4 to clean up views

Daniel Zhang (張道博)

This is for meco\_v4.

07 Aug 2013 16:05

MSG-193 — report count of readings inserted before the last reading Need last end\_time and last MeterData creation time.

Daniel Zhang (張道博)

#MSG-208 may be sufficient.

20 Jun 2013 15:37

MSG-194 — view for energy and voltages for houses without pv

Daniel Zhang (張道博) 15 Jun 2013 01:57 Commit made by **Daniel Zhang (**張道博**)** on *2013-06-15T04:57:43-07:00* https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/8257179e38821f77cf433f454fa88ffcb01a9e6b

added view for energy and voltages for houses without pv: #MSG-194 fixed

Daniel Zhang (張道博) 15 Jun 2013 01:59

```
(cost=256592.58..257706.53 rows=26940 width=46
GroupAggregate
            (cost=256592.58..256677.03 rows=33782 width=46) (a
      Sort
        Sort Key: "Interval".end_time
        Sort Method: external merge Disk: 166688kB
            Hash Join (cost=9431.69..253012.00 rows=33782 wid
              Hash Cond: ("Reading".interval_id = "Interval".;
                  Seq Scan on "Reading" (cost=0.00..193374.5]
                    Filter: ((channel = 1::smallint) OR (channel = 1::smallint)
                        (cost=8802.15..8802.15 rows=29563 wid
                    Buckets: 2048 Batches: 256 (originally 4)
                    -> Nested Loop (cost=53.25..8802.15 rows
                              Hash Join (cost=53.25..102.33
                                 Hash Cond: ("IntervalReadData'
                                     Seg Scan on "IntervalRead[
                                     Hash
                                          (cost=52.96..52.96 |
                                       Buckets: 1024 Batches:
                                           Nested Loop
                                                        (cost=1
                                                 Hash Anti Joir
                                                   Hash Cond:
                                                        Seg Scar
                                                       Hash
                                                          Bucket
                                                              Sŧ
                                                 Bitmap Heap So
```

Daniel Zhang (張道博) 15 Jun 2013 02:02

Commit made by **Daniel Zhang** (張道博) on 2013-06-15T05:02:09-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/be944a4a8d29e2300f2f46bda2b3e3c9760d09a8

adding comment: #MSG-194 fixed

Daniel Zhang (張道博) 17 Jun 2013 00:30

Corrected in #MSG-195.

MSG-195 — provide corrected view for energy and voltages for houses without pv

Daniel Zhang (張道博) 17 Jun 2013 00:28

Commit made by **Daniel Zhang** (張道博) on 2013-06-17T03:28:16-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/883ef7967464c3d5d3f31cbe38182a8ff21c8efd

corrected view to show all houses with correct readings: #MSG-195 fixed

Daniel Zhang (張道博) 17 Jun 2013 00:29

```
Subquery Scan on dz_energy_voltages_for_houses_without_pv
     GroupAggregate (cost=256592.58..257774.95 rows=33782 w:
                  (cost=256592.58..256677.03 rows=33782 width=
            Sort
              Sort Key: "LocationRecords".device_util_id, "Int
              Sort Method: external merge Disk: 166688kB
                 Hash Join (cost=9431.69..253012.00 rows=331
                    Hash Cond: ("Reading".interval_id = "Inter
                        Seq Scan on "Reading" (cost=0.00..19]
                          Filter: ((channel = 1::smallint) OR
                              (cost=8802.15..8802.15 rows=2956
                       Hash
                          Buckets: 2048 Batches: 256 (original
                              Nested Loop (cost=53.25..8802.1
                                    Hash Join (cost=53.25..10
                                      Hash Cond: ("IntervalRea
                                          Seg Scan on "Interva
                                          Hash
                                                (cost=52.96...)
                                            Buckets: 1024 Bat
                                                Nested Loop
                                                      Hash And
                                                        Hash (
                                                           Sŧ
                                                            Ηā
```

MSG-196 — add option to report element count only during recursive insert

Daniel Zhang (張道博) 20 Jun 2013 16:55

Current reporting is aligning exactly.

http://smart-energy-project.myjetbrains.com/youtrack/releaseNotes...=1iloy961fgf6t6u7ep43h601r&showDescription=true&showComments=true

9

MSG-197 — Prevent timeout during automated DB operations

MSG-199 — change testing mode output to use logging

Example:

time python -u ~/dzmbp-maui-smart-grid/src/recursivelyInsertData.py -testing > insert-log.txt Testing mode is ON.

Testing Mode is ON.

Inserting data to database test\_meco.

**MSG-200** — determine problem for duplicates not matching during sucessive loading of the same set Current situation:

Insert to empty:

Inserting data to database test\_meco.

Parsing XML in ./20130304-da4c4461-c0ef-4b9b-9c19-541ee55e2c17-1-1.xml.gz.

 $\{0\}[0][3431]\{0\}[1][6877]^*\{0\}[2][17246]^*\{0\}[3][20682]^*\{0\}[4][24128]^*\{0\}[5][27564]\{ dupe on insert==>\}^*\{1472\}[6][36301]^*\{0\}[3][29736]^*\{0\}[8][46608]^*\{0\}[9][50043]^*\{0\}[10][53478]^*\{0\}[11][56913]^*\{0\}[12][63788]^*\{0\}[13][67223]^*\{0\}[14][70658]^*\{0\}[15][74229]^*\{0\}[16][77675]^*\{0\}[17][81126]^*\{0\}[18][84562]^*\{0\}[19][87997]^*\{0\}[20][91432]^*\{0\}[21][94867]^*\{0\}[22][98302]^*\{0\}[23][101737]^*\{0\}[24][105172]^*\{0\}[25][108686]^*\{0\}[26][112121]^*\{0\}[27][115567]^*\{0\}[28][119014]^*\{0\}[29][122461]^*\{0\}[30][125896]^*\{0\}[31][129326]^*$ 

real 5m27.510s user 1m4.592s sys 1m23.421s

Insert to loaded:

=============

Inserting data to database test meco.

Parsing XML in ./20130304-da4c4461-c0ef-4b9b-9c19-541ee55e2c17-1-1.xml.gz. {dupe on insert==>}\*{2680}[0][3431]{dupe on insert==>}\*{2684}[1][6877]{dupe on insert==>}\*{8052}[2][17246]{dupe on insert==>}\*{2684}[3][20682]{dupe on insert==>}\*{2684}[4][24128]{dupe on insert==>}\*{2684}[5][27564]{dupe on insert==>}\*{6840}[6][36301]{dupe on insert==>}\*{2684}[7][39736]{dupe on insert==>}\*{5368}[8][46608]{dupe on insert==>}\*{2684}[9][50043]{dupe on insert==>}\*{2684}[10][53478]{dupe on insert==>}\*{2684}[11][56913]{dupe on insert==>}\*{2684}[12][63788]{dupe on insert==>}\*{2684}[13][67223]{dupe on insert==>}\*{2684}[17][81126]{dupe on insert==>}\*{2684}[18][84562]{dupe on insert==>}\*{2684}[19][87997]{dupe on insert==>}\*{2684}[20][91432]{dupe on insert==>}\*{2684}[21][94867]{dupe on insert==>}\*{2684}[22][98302]{dupe on insert==>}\*{2684}[23][101737]{dupe on insert==>}\*{2684}[27][115567]{dupe on insert==>}\*{2684}[28][119014]{dupe on insert==>}\*{2684}[29][122461]{dupe on insert==>}\*{2684}[29][125896]{dupe on insert==>}\*{2684}[28][119014]{dupe on insert==>}\*{2684}[29][122461]{dupe on insert==>}\*{2684}[29][122861]{dupe on insert==>}\*{2684}[29][122861]{dupe on insert==>}\*{2684}[29][122861]{dupe on insert==>}\*{2684}[29][122461]{dupe on insert==>}\*{2684}[29][122461]{dupe on insert==>}\*{2684}[29][122861]{dupe on insert==>}\*{2684}

real 4m13.370s user 0m49.435s sys 0m33.826s

Daniel Zhang (張道博) 18 Jun 2013 17:35 Commit made by **Daniel Zhang** (張道博) on 2013-06-18T20:33:36-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/dec003af970ace6bc642f10ec9d58a15f0351ed8

debugging insert discrepancy: #MSG-200 In Progress

Daniel Zhang (張道博) 18 Jun 2013 18:01 Commit made by **Daniel Zhang** (張道博) on 2013-06-18T20:50:42-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/509e62a373801cf244892a1612721eaa5f29d65a

correcting assert; adding insert count: #MSG-200 In Progress

Daniel Zhang (張道博) 18 Jun 2013 18:01 Commit made by **Daniel Zhang** (張道博) on 2013-06-18T21:01:29-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/17b5c0d6463a3a155c2b600a0dd9b6d199cbe83d

identified floating point equality problem: #MSG-200 fixed

Daniel Zhang (張道博) 18 Jun 2013 18:11 Also dupe count != data process count due to data types other than Readings.

MSG-201 — fix floating point equality check in mecodupecheck

Daniel Zhang (張道博) 19 Jun 2013 16:30 Commit made by **Daniel Zhang** (張道博) on 2013-06-19T19:30:10-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/b564dcfb0247f9f8cd4edbdc3bfa8c16fb9e2f7c

debugging dupe checking: #MSG-201 In Progress

Daniel Zhang (張道博) 19 Jun 2013 16:54 Commit made by **Daniel Zhang** (張道博) on 2013-06-19T19:52:35-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/4ccc7d60779b2ab2e847829593d66a589969bcb1

floating point equality works: #MSG-201 fixed

Added DEBUG logging option.

MSG-202 — clean up unused views in meco\_v3

Daniel Zhang (張道博) 18 Jul 2013 17:27 Commit made by **Daniel Zhang** (張道博) on 2013-07-18T20:27:10-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/ec9e0f809a36b7392ddac4da9ef1c9ed48809d0b

deprecating unused views: #MSG-202 In Progress Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-07-23T19:57:18-07:00 23 Jul 2013 16:57 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/924e3ea8882ab79139d1dcc6cba17a0f069b029a deprecating unused/irrelevant views: #MSG-202 In Progress Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-08-07T16:08:27-07:00 07 Aug 2013 13:08 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/711560baa362213872800e31356268e4d0be5c25 removing deprecated views: #MSG-202 fixed \* PVServicePointIDs has changes.

MSG-203 — determine why insert count vs element count is initially one off Example:

Parsing XML in ./20130304-da4c4461-c0ef-4b9b-9c19-541ee55e2c17-1-1.xml.gz. {0}[0][3431]<3430>\*{0}[1][6877]<3446>\*{0}[2][17246]<10368>\*{0}[3][20682]<3435>\*{0}[4][24128]<3446>\*{0}[5][27564] <3435>\*{dupe on insert==>}{1472}[6][36301]<7262>\*{0}[7][39736]<3435>\*{0}[8][46608]<6872>\*{0}[9][50043]<3435>\*{0} [10][53478]<3435>\*{0}[11][56913]<3435>\*{0}[12][63788]<6875>\*{0}[13][67223]<3435>\*{0}[14][70658]<3435>\*{0}[15] [74229]<3571>\*{0}[16][77675]<3446>\*{0}[17][81126]<3446>\*{0}[18][84562]<3435>\*{0}[19][87997]<3435>\*{0}[20][91432] <3435>\*{0}[21][94867]<3435>\*{0}[22][98302]<3435>\*{0}[23][101737]<3435>\*{0}[24][105172]<3435>\*{0}[25][108686] <3514>\*{0}[26][112121]<3435>\*{0}[27][115567]<3446>\*{0}[28][119014]<3446>\*{0}[29][122461]<3446>\*{0}[30][125896] <3435>\*{0}[31][129326]<3430>\*{0}[32][136464]<0>\*

2013-06-19 16:55:18,541 - mecoxmlparser - INFO - Data process count = 136444.

Daniel Zhang (張道博) 19 Jun 2013 17:23

Commit made by **Daniel Zhang** (張道博) on 2013-06-19T20:23:28-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/29e21fd761f91cdd9e28ca4c6507afc2337ebb27

corrected by changing counter position: #MSG-203 fixed

MSG-204 — determine divergence of insert count vs element count at iteration 2 and 3 Parsing XML in ./20130304-da4c4461-c0ef-4b9b-9c19-541ee55e2c17-1-1.xml.gz. {0}(0)[3430]<3430,3430>\*{0}(1)[6876]<3446,6876>\*{0}(2)[17245]<10368,17244>\*{0}(3)[20681]<3435,20679>\*{0}(4) [24127]<3446,24125>\*{0}(5)[27563]<3435,27560>\*

Daniel Zhang (張道博) 19 Jun 2013 18:35

Non-insert elements were being included in the count.

Daniel Zhang (張道博) 19 Jun 2013 18:39 Commit made by **Daniel Zhang** (張道博) on 2013-06-19T21:39:18-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/19365ebb9ef670e9110d512d138ac45812eba57a

insert count matches process for insert element count: #MSG-204 fixed

Daniel Zhang (張道博) 19 Jun 2013 18:39 Parsing XML in ./20130304-da4c4461-c0ef-4b9b-9c19-541ee55e2c17-1-1.xml.gz. {0}(0)[3430]<3430,3430>\*{0}(1)[6876]<3446,6876>\*{0}(2)[17244]<10368,17244>\*{0}(3) [20679]<3435,20679>\*{0}(4)[24125]<3446,24125>\*{0}(5)[27560]<3435,27560>\*{dupe on insert==>}{1472}(6)[36294]<7262,34822>\*{0}(7)[39729]<3435,38257>\*{0}(8)[46601]<6872,45129>\*{0}(9)[50036]<3435,48564>\*{0}(10)[53471]<3435,51999>\*{0}(11)[56906]<3435,55434>\*{0}(12)[63781]<6875,62309>\*{0}(13)[67216]<3435,65744>\*{0}(14)[70651]<3435,69179>\*{0}(15)[74222]<3571,72750>\*{0}(16)[77668]<3446,76196>\*{0}(17)[81114]<3446,79642>\*{0}(18)[84549]<3435,83077>\*{0}(19)[87984]<3435,86512>\*{0}(20)[91419]<3435,89947>\*{0}(21)[94854]<3435,103687>\*{0}(22)[98289]<3435,96817>\*{0}(23)[101724]<3435,100252>\*{0}(24)[105159]<3435,103687>\*{0}(25)[108673]<3514,107201>\*{0}(26) [112108]<3435,110636>\*{0}(27)[115554]<3446,114082>\*{0}(28)[119000]<3446,117528>\*\*{0}(29)[122446]<3446,120974>\*{0}(30)[125881]<3435,124409>\*{0}(31)[129311]<3430,127839>\*{0}(32)[136444]<0,134972>\*\*2013-06-19 18:38:32 359 - mecoxymlparser - INFO - Data process count - 136444

2013-06-19 18:38:32,359 - mecoxmlparser - INFO - Data process count = 136444. 2013-06-19 18:38:32,359 - mecoxmlparser - INFO - Data process count = 136444. 2013-06-19 18:38:32,359 - mecoxmlparser - INFO - Dupe check count = 106140. 2013-06-19 18:38:32,359 - mecoxmlparser - INFO - Dupe check count = 106140.

real 3m45.605s user 0m51.879s sys 0m8.873s

# MSG-205 — update data insert documentation

Daniel Zhang (張道博) 17 Sep 2013 14:48 Commit made by **Daniel Zhang** (張道博) on 2013-09-17T17:48:19-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/6cc9df36f73dd0f6e4ac1d86e8c49932143cda19

updating documentation: #MSG-205 fixed

#### MSG-206 — rewrite location records

Daniel Zhang (張道博) 20 Jun 2013 15:28 Loading static location record data in file 01e25a6c-95cf-4741-ac63-f7df530808e2-LOCATION.tsv to database meco v3.

Processed 97 lines.

Finished inserting location records.

http://smart-energy-project.myjetbrains.com/youtrack/releaseNotes...=1 iloy 961 fg f6t 6u7ep43h601r & show Description=true & show Comments=true between the project of t

MSG-207 — rewrite meter records

Daniel Zhang (張道博) 20 Jun 2013 15:29 Loading static meter record data in file 01e25a6c-95cf-4741-ac63-f7df530808e2-

METER.tsv to database meco\_v3.

Processed 99 lines.

# MSG-208 — count inserted readings separately

Daniel Zhang (張道博) 20 Jun 2013 16:20

Commit made by **Daniel Zhang (**張道博) on 2013-06-20T19:19:50-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/e790cef5c147cb6214827b00edf6879f50ea1ecc

added separate readings insert count; updated log legend: #MSG-208 fixed

# MSG-211 — Provide separate script-based method of plotting

Daniel Zhang (張道博) 07 Aug 2013 16:06 Script-based plotting is not needed at this time.

# MSG-212 — determine duplicate register records

Daniel Zhang (張道博) 24 Jun 2013 16:13 Commit made by **Daniel Zhang** (張道博) on 2013-06-24T19:13:01-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/d82f412df3a2dd4c5ebf7cd50374f1a6d2580065

added view to count register branch duplicates: #MSG-212 fixed

# MSG-213 — eliminate duplicate log messages

Daniel Zhang (張道博) 26 Jun 2013 16:40 Commit made by **Daniel Zhang** (張道博) on 2013-06-26T19:40:38-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/4973d7f77426106911c09ae9512892e298c4ae77

duplicate logging output is fixed by explicitly handling the stream handler: #MSG-213 fixed

#### MSG-214 — add count of register duplicates to concise log

Daniel Zhang (張道博) 26 Jun 2013 13:46 Commit made by **Daniel Zhang** (張道博) on 2013-06-26T16:45:52-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/f616051190191f6892adc5c33db1f3179ac5d0b2

Register duplicates are added to the concise log: #MSG-214 fixed

# MSG-215 — determine remaining dupes

37 are dupes:

Parsing XML in ./meco v3-energy-test-data.xml.gz.  ${re-dupe==>}{rd-dupe==>}{32rd,56re}(0)[125]<0rd,0re,37,37>-{0rd,0re}(0)[125]<0rd,0re,0,37>^*$ 

Daniel Zhang (張道博)

Remaining dupes are attached.

26 Jun 2013 23:25

MSG-217 — have the capability to remove register branches that do not have register data

MSG-218 — have the capability to remove reading branches that do not have reading data

MSG-219 — have the capability to remove event branches that do not have event data

MSG-220 — automatically obtain weather data

Daniel Zhang (張道博) 01 Jul 2013 17:18

Commit made by **Daniel Zhang** (張道博) on 2013-07-01T20:18:25-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/7399cd22fb82b843ec5cbc3cadd581f7294caa5b

national weather data is retrieved: #MSG-220 fixed

# MSG-222 — support extract of local climate data

Daniel Zhang (張道博) 02 Jul 2013 17:13

Commit made by **Daniel Zhang** (張道博) on 2013-07-02T20:13:13-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/13d8d57f8f8346944eef7be0a8c2b992454d19be

setting up weather data loading: #MSG-176 In Progress

#MSG-178 In Progress #MSG-222 In Progress

Daniel Zhang (張道博) 03 Jul 2013 17:27

Commit made by **Daniel Zhang** (張道博) on 2013-07-03T20:26:56-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/82231b6c03b516801d36703ed5ea9708de5820e5

setting up weather data loading: #MSG-176 In Progress

#MSG-178 In Progress #MSG-222 In Progress

Daniel Zhang (張道博) 03 Jul 2013 17:47

Local climate data is extracted during insertion.

MSG-224 — provide parsing of noaa weather data

Daniel Zhang (張道博) 04 Jul 2013 16:01

Commit made by **Daniel Zhang** (張道博) on 2013-07-04T19:01:33-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

#### Grid/commit/20d69e9e64495fc213cd63a4d304b6430a702020

weather data is returned in-memory: #MSG-224 fixed

# MSG-225 — provide duplicate checking for noaa weather data

Daniel Zhang (張道博) 09 Jul 2013 17:27

Commit made by **Daniel Zhang** (張道博) on 2013-07-09T20:26:59-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/f32d3eebf8c65f90e25d7e5603d6cb01723c92cf

dupes are dropped: #MSG-225 fixed

# MSG-226 — be able to insert parsed weather data to the db

Daniel Zhang (張道博) 05 Jul 2013 17:56 Commit made by **Daniel Zhang** (張道博) on 2013-07-05T20:56:09-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/4e333aa05ef65a25b1be3e071ebf1ef6f9cf5272

putting data into insertable form: #MSG-226 In Progress

Daniel Zhang (張道博) 08 Jul 2013 15:45 Commit made by **Daniel Zhang** (張道博) on 2013-07-08T18:44:53-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/1e1d93fe429fed800d221aba94458260ea42ceeb

parsed data is insertable: #MSG-226 fixed

#### MSG-227 — convert in-memory parsing to dict format

Daniel Zhang (張道博) 05 Jul 2013 16:13 Commit made by **Daniel Zhang (**張道博) on 2013-07-05T19:13:07-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/d153118279a3896416787eb3e495541f32800077

converted to dict structure: #MSG-227 fixed

# MSG-228 — set primary key on noaa table

Daniel Zhang (張道博) 08 Jul 2013 17:12 Commit made by **Daniel Zhang (**張道博) on 2013-07-08T20:12:30-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/ee53a8e2e9d75e87ffcb9d9a98b9d553dd869322

adding pkwy; adding tz to timestamp: #MSG-228 fixed

Daniel Zhang (張道博) 08 Jul 2013 19:09

Commit made by **Daniel Zhang** (張道博) on 2013-07-08T22:08:55-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

#### Grid/commit/44c7544be765c3bba939db6908e6acf8d30e3d48

pkwy set to wban-datetime-record\_type: #MSG-228 fixed

Tested using hourly data for 2012-01 to 2013-07.

Daniel Zhang (張道博) 08 Jul 2013 19:11

Commit made by **Daniel Zhang** (張道博) on 2013-07-08T22:10:58-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/f7c80a50b75c12f065326e71fd9549254b85b6db

pkey set to wban-datetime-record\_type: #MSG-228 fixed

Tested with 2012-01 to 2013-07 hourly data.

#### MSG-229 — test use of tz in MeterData

Daniel Zhang (張道博) 22 Jul 2013 13:45

Decided to not use tz in meter data at this time.

## MSG-230 — support weather data loading notifications

- Report records loaded.
- Report time intervals loaded.

Daniel Zhang (張道博) 11 Jul 2013 17:16

Commit made by **Daniel Zhang** (張道博) on 2013-07-11T20:16:33-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/2d9a31634103f06531ffa14afb273cdb60efee32

return date times to be used for interval calcs: #MSG-230 In Progress

Daniel Zhang (張道博) 12 Jul 2013 17:40

Commit made by **Daniel Zhang** (張道博) on 2013-07-12T20:40:19-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/dda72b960020d87b5e443c05941ad0bc0930642e

days are reported for weather loading: #MSG-230 fixed

# MSG-232 — create location history table

Daniel Zhang (張道博) 16 Jul 2013 14:59

Commit made by **Daniel Zhang** (張道博) on 2013-07-16T17:59:43-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/d85db14f6ceb50df012a90787ea2b6d522080556

adding meter location history table: #MSG-232 fixed

# MSG-233 — isolate days during weather data loading notifications

Daniel Zhang (張道博) 15 Jul 2013 14:46 Commit made by **Daniel Zhang (**張道博) on 2013-07-15T17:46:38-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/5d31d79fa77347b033ac8b021dd4e9bb8784a7a1

datetimes are grouped by day: #MSG-233 fixed

Daniel Zhang (張道博) 15 Jul 2013 15:12 Days are not being grouped.

Daniel Zhang (張道博) 15 Jul 2013 15:16

Commit made by **Daniel Zhang (**張道博) on 2013-07-15T18:16:38-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/bba07b4403c749e771800fa481dface13d4de1c0

days are grouped: #MSG-233 fixed

MSG-234 — fix assertion error in time util during loading of actual data

... line 39, in reportOfDays

assert type(day) is dt.datetime, "Day should be type datetime."

AssertionError: Day should be type datetime.

Daniel Zhang (張道博)

Commit made by **Daniel Zhang** (張道博) on 2013-07-15T18:03:27-07:00

15 Jul 2013 15:04 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/d2ec223c423fef92fc71c2a96216d9f96bbd9bd1

correctly submitting datetime type: #MSG-234 fixed

MSG-235 — fix smtp error

... line 150, in sendMailWithAttachments

self.config.configOptionValue('Notifications', 'email\_smtp\_server'))

File "/usr/lib/python2.7/smtplib.py", line 249, in \_\_init\_\_

(code, msg) = self.connect(host, port)

File "/usr/lib/python2.7/smtplib.py", line 309, in connect

self.sock = self.\_get\_socket(host, port, self.timeout)

File "/usr/lib/python2.7/smtplib.py", line 284, in \_get\_socket

return socket.create\_connection((port, host)

, timeout)

File "/usr/lib/python2.7/socket.py", line 553, in create\_connection

for res in getaddrinfo(host, port, 0, SOCK\_STREAM):

socket.gaierror: [Errno -2] Name or service not known

Daniel Zhang (張道博)

Error is due to timeout during connection to the SMTP server.

15 Jul 2013 15:18

#### MSG-236 — load weather data to meco\_v3

Daniel Zhang (張道博)

Data is loaded.

15 Jul 2013 15:35

Processed 546 days between 2012-01-01 to 2013-06-29, inclusive.

# MSG-237 — remove unnecessary weather data

Daniel Zhang (張道博) 15 Jul 2013 16:43

Commit made by **Daniel Zhang** (張道博) on 2013-07-15T19:26:35-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/4b2be0d27db6d5e8988dde3ab550c45ea1d30c56

restricting retrieval: #MSG-237 fixed

# MSG-238 — prevent retrieval of existing weather data

Daniel Zhang (張道博) 23 Jul 2013 15:47

Commit made by **Daniel Zhang** (張道博) on 2013-07-23T18:47:36-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/6379354e64956d0f41f96a923a186b380ea74eaa

separating retrieve: #MSG-238 In Progress

Daniel Zhang (張道博) 23 Jul 2013 16:22

Commit made by **Daniel Zhang (**張道博) on 2013-07-23T19:22:32-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/dd63f24709a1b02dbcc0e77cab8e67e1bd86b306

existing files are not retrieved: #MSG-238 fixed

## MSG-239 — handle incomplete retrieval

... line 39, in downloadWeatherData curl.perform()

pycurl.error: (6, "Couldn't resolve host 'cdo.ncdc.noaa.gov'")

Daniel Zhang (張道博) 06 Aug 2013 16:51

Commit made by **Daniel Zhang** (張道博) on 2013-08-06T19:51:28-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/ef56f405697c90ca8c632e1aecc6f4cf8873f2d9

added error checking to downloading: #MSG-239 fixed

# MSG-240 — insert meter location history records

Daniel Zhang (張道博) 16 Jul 2013 17:09

Loading Meter Location History data in file mecoMeterHistory20130715.txt to database

meco v3.

Processed 117 lines.

# MSG-241 — adapt houses without pv view to meter location history

Daniel Zhang (張道博) 18 Jul 2013 17:18

Commit made by **Daniel Zhang** (張道博) on 2013-07-18T20:18:41-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/95356b0feb25828bb4e7754e527df6fb58c466eb

added view for houses without pv using meter location history: #MSG-241 fixed

MSG-242 — support testing during insertion

Provide support for insertion to testing DBs.

Daniel Zhang (張道博) 17 Jul 2013 16:43 Commit made by **Daniel Zhang** (張道博) on 2013-07-17T19:43:03-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/a163fe5eed3e34482754ffbfd4803c4f12c53eb7

testing mode is supported: #MSG-242 fixed

MSG-243 — support insertion of meter location history records

Daniel Zhang (張道博) 16 Jul 2013 17:11 Commit made by **Daniel Zhang** (張道博) on 2013-07-16T20:09:30-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/e51dfab638396419e22d6b8f237051006d10ef4f

adding support for inserting meter location history records: #MSG-243 fixed

**MSG-244** — report records processed count during meter location history loading Current count is line count.

Daniel Zhang (張道博) 24 Sep 2013 16:26 Not needed at this time.

MSG-245 — add view for readings by meter location history

Daniel Zhang (張道博) 18 Jul 2013 16:37 Commit made by **Daniel Zhang (**張道博**)** on 2013-07-18T19:37:41-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/5c2254a94ec1a9b3d991ccaafa5ee82a72951948

adding readings by meter location history view: #MSG-245 fixed

- Deprecating some unused views.
- · Adding some indices to Meter Location History.

Daniel Zhang (張道博)
18 Jul 2013 17:01
Commit made by **Daniel Zhang (**張道博) on 2013-07-18T20:01:01-07:00
https://github.com/Hawaii-Smart-Energy-Project/Maui-SmartGrid/commit/bf0da43545496cff9f3ae15b11154fdeccf4c709
removing end time alias; removing start time: #MSG-245 fixed

Daniel Zhang (張道博)
Commit made by **Daniel Zhang (**張道博) on 2013-07-18T20:09:10-07:00
https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/9b2fbefd0031098f1b7a55a905e2857980c909e8
adding address: #MSG-245 fixed

MSG-246 — determine cause of readings not referenced by meter location history

Total readings = 10011736 MLH readings = 9730256 Difference = 281480

Daniel Zhang (張道博) 19 Jul 2013 17:13 Commit made by **Daniel Zhang (**張道博) on 2013-07-19T20:13:31-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/9a597771e0c6019eec2d8166f22d5dadb47d5e64

adding views to help determine unreferenced readings: #MSG-246 In Progress

Daniel Zhang (張道博) 22 Jul 2013 13:44 Meters not referenced by MLH include readings before install and readings after uninstall.

# MSG-247 — add views for unreferenced readings

Daniel Zhang (張道博) 22 Jul 2013 16:15 Commit made by **Daniel Zhang (**張道博**)** on 2013-07-22T19:15:27-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/e740f7af4f51d41ad9bf8d27cfe50aedba9c369c

added views for nonMLH readings: #MSG-247 fixed

- Cleaned up MLH readings view.
- Cleaned up dz without PV view.
- Removed views returning incorrect results for nonMLH readings.

#### MSG-248 — retrieve data where there is an existing partial set

Daniel Zhang (張道博) 25 Jul 2013 13:43 Commit made by **Daniel Zhang (**張道博**)** on 2013-07-25T16:43:14-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/0dbd637a9d643a814fc6a7c944b5dcadbc970cce

retrieving last data set on retrieval: #MSG-248 fixed

parallelized retrieval: #MSG-249 fixed

Daniel Zhang (張道博) 25 Jul 2013 13:46 Commit made by **Daniel Zhang (**張道博) on 2013-07-25T16:46:41-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/88c46ee488f588c7877972c3f82f7b71be3bf5eb

retrieving last data set on retrieval: #MSG-248 fixed

parallelized retrieval: #MSG-249 fixed

Daniel Zhang (張道博) 25 Jul 2013 13:49 Commit made by **Daniel Zhang** (張道博) on 2013-07-25T16:49:23-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/f14ec17b02749b7b8dbfeb8bb16a1332c6812f7f

parallelized retrieval: #MSG-249 fixed

retrieving last data set on retrieval: #MSG-248 fixed

MSG-249 — uncompress retrieved data and compress hourly data using multiprocessing

Daniel Zhang (張道博) 25 Jul 2013 13:43 Commit made by **Daniel Zhang** (張道博) on 2013-07-25T16:43:14-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/0dbd637a9d643a814fc6a7c944b5dcadbc970cce

retrieving last data set on retrieval: #MSG-248 fixed

parallelized retrieval: #MSG-249 fixed

Daniel Zhang (張道博) 25 Jul 2013 13:46 Commit made by **Daniel Zhang** (張道博) on 2013-07-25T16:46:41-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/88c46ee488f588c7877972c3f82f7b71be3bf5eb

retrieving last data set on retrieval: #MSG-248 fixed

parallelized retrieval: #MSG-249 fixed

Daniel Zhang (張道博) 25 Jul 2013 13:49

Commit made by **Daniel Zhang** (張道博) on 2013-07-25T16:49:23-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/f14ec17b02749b7b8dbfeb8bb16a1332c6812f7f

parallelized retrieval: #MSG-249 fixed

retrieving last data set on retrieval: #MSG-248 fixed

MSG-250 — create energy view with PV readings by service point ID

Daniel Zhang (張道博) 25 Jul 2013 17:53 Commit made by **Daniel Zhang (**張道博) on 2013-07-25T20:53:03-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/fc980252cad5cbd96ff82f0a64a1f96322399f3e

.

adding view readings\_with\_pv\_service\_point\_id: #MSG-250 fixed

- Corrected dz\_energy\_voltages\_for\_houses\_without\_pv view.
- Changed col name in PVServicePointIDs.
- Updating DB.
- Needs further cleanup to remove unused added views.

## MSG-252 — load data after retrieval of last dated set

Daniel Zhang (張道博) 26 Jul 2013 17:43 Commit made by **Daniel Zhang** (張道博) on 2013-07-26T20:43:09-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/25039a07f7d452bc4793deb85b3e7c63c629fb70

last dated weather set is supported: #MSG-252 fixed

- Added all data argument.
- Code needs reorganization.

# MSG-253 — move weather URL to site config

Daniel Zhang (張道博) 31 Jul 2013 15:53 Commit made by **Daniel Zhang** (張道博) on 2013-07-31T18:53:31-07:00 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/c1a5168900b76fef82f2d8f804e79cba427336a4

removing unused; changing url source, changing pattern source, renaming weather related scripts: #MSG-253 fixed

#MSG-263 fixed

MSG-254 — move file download pattern to site config

MSG-255 — be able to load weather data from last date

Daniel Zhang (張道博) 01 Aug 2013 15:56 Commit made by **Daniel Zhang (**張道博**)** on 2013-08-01T18:56:32-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/c9e1e5ff98a33c61133fe6d05d8465ff3ed2116b

overloaded datepart: #MSG-255 In Progress

Daniel Zhang (張道博) 01 Aug 2013 17:26 Commit made by **Daniel Zhang (**張道博**)** on 2013-08-01T20:25:57-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/a57eb954efb61e736a425da046cf6a79aef79a2e

retrieve data from last date and also the previous month: #MSG-255 In Progress Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-08-02T17:41:16-07:00 02 Aug 2013 14:41 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/b943122788a10aa6dbe839ebd43e7e7ed7307a2a rearranging to prevent dupe download: #MSG-255 In Progress Daniel Zhang (張道博) Compressed insert script needs processing from last date. 02 Aug 2013 14:48 Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-08-02T18:37:57-07:00 02 Aug 2013 15:38 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/466c0a9962a4d18839a1c634b703159c5fb813f9 distributing operations: #MSG-255 In Progress Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-08-02T19:12:38-07:00 02 Aug 2013 16:12 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/4f06a20f625947f85c0bf0ee9abd64955116c7c4 weather data is loaded from last loaded date: #MSG-255 fixed MSG-257 — fix /src/tests/test\_\_\_\_mecodbutil.py Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-07-29T19:48:26-07:00 29 Jul 2013 16:48 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/36ae57b89f8585aa95454978867416eed9ccc3a1 fixed tests by correcting msg\_db\_util: #MSG-257 fixed MSG-258 — fix /src/tests/test\_\_\_mecodupecheck.py Daniel Zhang (張道博) Dupe check tests pass. 30 Jul 2013 14:44 MSG-259 — fix /src/tests/test\_\_\_mecoxmlparser.py Daniel Zhang (張道博) Commit made by **Daniel Zhang** (張道博) on 2013-07-30T17:47:28-07:00 30 Jul 2013 14:47 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/3f8a229e1836bbf15a497b50da90524f49d6ca31 parse test fixed: #MSG-259 fixed

MSG-260 — raise exception on unmatched logger type

#### MSG-261 — rename config file

Daniel Zhang (張道博) 31 Jul 2013 15:40 Commit made by **Daniel Zhang (**張道博**)** on 2013-07-31T18:40:29-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/a8122a667bd50065bf7c48668f469fcd2db93b53

renaming config; updating documentation: #MSG-261 fixed

# MSG-262 — remove need for log type in log() method

Daniel Zhang (張道博) 31 Jul 2013 17:06 Commit made by **Daniel Zhang** (張道博) on 2013-07-31T20:05:50-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/cf66f34e822dfd752bcf07b3ea488aa547691958

removed need for type arg on log(): #MSG-262 fixed

# MSG-263 — move weather data file pattern to site config

Daniel Zhang (張道博) 31 Jul 2013 15:53 Commit made by **Daniel Zhang** (張道博) on 2013-07-31T18:53:31-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/c1a5168900b76fef82f2d8f804e79cba427336a4

removing unused; changing url source, changing pattern source, renaming weather

related scripts: #MSG-253 fixed

#MSG-263 fixed

## MSG-264 — fix weather data retrieval

Map method only accepts sequence argument.

Daniel Zhang (張道博) 01 Aug 2013 15:29 Commit made by **Daniel Zhang** (張道博) on 2013-08-01T18:29:03-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/a67fda1385d70320950482eb648710e9ee977f68

fixed weather data retrieval: #MSG-264 fixed

\* Cleaned up globals.

## MSG-265 — perform cleanup of unused decompressed files

Daniel Zhang (張道博) 06 Aug 2013 16:12 Commit made by **Daniel Zhang (**張道博) on 2013-08-06T19:11:58-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/3c4c924b73f6f20dfb3f424ce7e877a2b7f931d4

cleaning up unused txt files: #MSG-265 fixed

# MSG-267 — parallelize secondary retrieval

Daniel Zhang (張道博)

Use of map is impeded by forceDownload = True.

05 Aug 2013 15:58

Daniel Zhang (張道博) 05 Aug 2013 16:20 Commit made by **Daniel Zhang (**張道博) on 2013-08-05T19:20:04-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/5fa80d916f088994c6445de626be9e442445e74d

parallelized secondary retrieval: #MSG-267 fixed

# MSG-268 — compress exported dbs

Daniel Zhang (張道博) 19 Aug 2013 16:32 Commit made by **Daniel Zhang (**張道博) on 2013-08-19T19:32:10-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/e97d2117add6ee3964036a88734a36d86aabd6ef

dbs are compressed: #MSG-268 fixed

# MSG-269 — support multiple db export

# MSG-270 — update sample config in repo

Daniel Zhang (張道博) 16 Aug 2013 15:50 Commit made by **Daniel Zhang (**張道博) on 2013-08-16T18:50:40-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/2e9389d7c67d0623d415ff869744f18e22c9650d

updating sample config: #MSG-270 fixed

## MSG-271 — add copyright/license to src

Daniel Zhang (張道博) 20 Aug 2013 14:13 Commit made by **Daniel Zhang (**張道博) on 2013-08-20T17:13:20-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/2d48ac742b11db9f5a7262597ce0529262201bd3

added copyright and license notes: #MSG-271 fixed

# MSG-272 — parallelize meco energy data loading

Daniel Zhang (張道博) 12 Aug 2013 15:51 Commit made by **Daniel Zhang** (張道博) on 2013-08-12T18:51:35-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/6a8079470534f50e15386e06b9603124c7716c46

parallelized data loading: #MSG-272 fixed

keyboard interrupt terminates loading: #MSG-277 fixed

MSG-273 — update view meter\_ids\_for\_houses\_without\_pv to work with mlh

Daniel Zhang (張道博) 15 Aug 2013 14:30

Commit made by **Daniel Zhang** (張道博) on 2013-08-15T17:30:11-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/ae1102d154d08173477dd04adf5d7029ac3b4681

added view meter ids for nonpv service points: #MSG-273 fixed

This replaces meter\_ids\_for\_houses\_with\_pv because it works with the MLH instead of the Location table.

MSG-274 — have a view for new pv instances

This is for providing notification of new PV instances.

Daniel Zhang (張道博) 16 Aug 2013 13:48

Commit made by **Daniel Zhang** (張道博) on 2013-08-16T16:48:18-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/49bc7d832308b7ef3c3cd749ac0e4c8c91037d73

additions & changes related to pv readings in nonpv mlh: #MSG-274 fixed

MSG-275 — add view for monthly energy summary for houses without pv

Daniel Zhang (張道博) 09 Aug 2013 17:09

Commit made by **Daniel Zhang** (張道博) on 2013-08-09T20:09:44-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/6c2c3e4621efe1464b9ec504ab06466bb261442c

added nonpy service point id view; added monthly energy summary for nonpy sp: #MSG-275 fixed

- PVServicePointIDs has new columns.
- CD views added.
- Deprecating get voltage views.
- Monthly energy summary views added.
- PV sec pt spec view added

Daniel Zhang (張道博) 09 Aug 2013 17:13

Commit made by **Daniel Zhang** (張道博) on 2013-08-09T20:13:30-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/560ccca1a25ea127eda2aedf8057ac73a717f92a

added nonpv service point id view; added monthly energy summary for nonpv sp: #MSG-275 fixed

- PVServicePointIDs has new columns.
- · CD views added.
- Deprecating get voltage views.
- Monthly energy summary views added.
- PV svc pt spec view added

# MSG-276 — change multiprocessing instances to use config option

Daniel Zhang (張道博) 16 Aug 2013 16:21 Commit made by **Daniel Zhang (**張道博) on 2013-08-16T19:21:34-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/32af6426ccc882f5ef9f1535cd33928ae88e1bb2

using config-based limit: #MSG-276 fixed

MSG-278 — adjust live output during multiprocessing loading

MSG-280 — add job id to parallel loader

Daniel Zhang (張道博) 13 Aug 2013 15:17 Commit made by **Daniel Zhang** (張道博) on 2013-08-13T18:16:51-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/e5d6cde90960ffae80b8e55283f0c28fc744a756

added job id: #MSG-280 fixed

MSG-282 — send latest view results to email

MSG-284 — handle db connect exception

MSG-285 — test multiprocessing log results

Daniel Zhang (張道博)

Multiprocessing results have correctly separated output.

14 Aug 2013 17:39

MSG-286 — keyboard interrupt doesn't terminate multiprocessing

Daniel Zhang (張道博)

Terminate works after double interrupt.

14 Aug 2013 17:46

MSG-287 — add linefeeds to concise log

Daniel Zhang (張道博)

Not necessary at this time.

22 Aug 2013 13:55

# MSG-288 — get view results since a last processed date

Provide storage for a last processed date.

This is to allow notifications based on views.

Daniel Zhang (張道博) 16 Aug 2013 16:10

Commit made by **Daniel Zhang** (張道博) on 2013-08-16T19:10:00-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/bb6d35c85d5686283c5098eb6a390639469313ab

stubbing out notifier: #MSG-288 In Progress

# MSG-289 — evaluate performance of flattened readings

Daniel Zhang (張道博)

Not applicable at this time.

24 Sep 2013 16:21

# MSG-290 — verify insertion sums during loading

...4:{0rd,0re,0ev}(39)[151646]<2688rd,56re,0ev,3440,151003>\*4:{rd-dupe==>}4:{48rd,0re,0ev}(40)[155086] <2640rd,56re,0ev,3392,154395>\*4:{ord,0re,0ev}(41)[158526]<2688rd,56re,0ev,3440,157835>\*4:{rd-dupe==>}4: {34rd,0re,0ev}(42)[161966]<2654rd,56re,0ev,3406,161241>\*4:{0rd,0re,0ev}(43)[165504] <2688rd,147re,0ev,3538,164779>\*-4:{0rd,0re,0ev}(44)[165504]<0rd,0re,0ev,0,164779>\*

The final summarization should display a sum of insertions. It is currently showing all zero values except for total items processed.

Daniel Zhang (張道博) 06 Sep 2013 16:24

Commit made by **Daniel Zhang** (張道博) on 2013-09-06T19:24:14-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/a4dc01b477912f290570208facb3d01415a677e9

updating documentation: #MSG-290 In Progress

Daniel Zhang (張道博) 09 Sep 2013 16:24

Output using unit test data on a fresh db:

Inserting data to database test\_meco.

Parsing XML in ./meco\_v3-energy-test-data.xml.gz. 8:{Ord,Ore,Oev}(0)[125]<32rd,56re,4ev,125,125>-8:{Ord,Ore,Oev}(0)[125] <0rd,0re,0ev,0,125>\*

Wall time = 0.33 seconds.

The summary totals are incorrectly reported as zero.

Daniel Zhang (張道博) 09 Sep 2013 17:36 Commit made by **Daniel Zhang (**張道博) on 2013-09-09T20:35:55-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/96ecc12c61fa3e8bda034d53a830313905ac800c

adding support for final report: #MSG-290 In Progress

Daniel Zhang (張道博) 10 Sep 2013 16:11 Commit made by **Daniel Zhang (**張道博) on 2013-09-10T19:11:07-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/eb95044d6c364a4e4136b7133c53fd70c712d907

insertion sums added: #MSG-290 fixed

## MSG-292 — remove source file after compress

Daniel Zhang (張道博) 20 Aug 2013 16:59 Commit made by **Daniel Zhang** (張道博) on 2013-08-20T19:59:47-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/1eb8462b3542421f759c48f8b9c2efeec8849ab8

uncompressed file is removed: #MSG-292 fixed removal error is handled: #MSG-296 fixed

### MSG-294 — write export to cloud storage

Daniel Zhang (張道博) 25 Oct 2013 14:20 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/7ecca7a6433dca3f5ee2e3240a1fc9fa0019eac8

MSG-295 — verify compressed file

MSG-296 — handle error during remove

Daniel Zhang (張道博) 20 Aug 2013 16:59 Commit made by **Daniel Zhang** (張道博) on 2013-08-20T19:59:47-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/1eb8462b3542421f759c48f8b9c2efeec8849ab8

uncompressed file is removed: #MSG-292 fixed removal error is handled: #MSG-296 fixed

MSG-298 — test data retrieval

MSG-299 — create data table

Daniel Zhang (張道博) 22 Aug 2013 17:25 Commit made by **Daniel Zhang (**張道博) on 2013-08-22T20:23:58-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/8d8be3448b7230d3d996a1277428414199371dea

adding table structure for egauge service: #MSG-299 fixed

### MSG-300 — adapt egauge service to msg

Daniel Zhang (張道博) 22 Aug 2013 16:11 Commit made by **Daniel Zhang (**張道博) on 2013-08-22T19:10:52-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/d11661da07b4413a889e20c9f85c04616f93cf78

initial adaptation: #MSG-300 fixed

MSG-301 — switch automated services to automated role

A separate DB role should be used for automated operations. They are currently being run under a user role.

### MSG-302 — be able to retrieve egauge data

Daniel Zhang (張道博) 23 Aug 2013 14:44 Commit made by **Daniel Zhang (**張道博) on 2013-08-23T17:43:58-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/79659b417dc8723ee4bd3165bb975c8749fd7617

modifying to support MSG egauge retrieval: #MSG-302 In Progress

Daniel Zhang (張道博) 23 Aug 2013 16:13

Commit made by **Daniel Zhang (**張道博) on 2013-08-23T19:13:07-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/792e38629723555229092d8ab41548c38229c8b4

data is retrieved: #MSG-302 fixed

\* Added username and password.

#### MSG-303 — be able to insert egauge data

Daniel Zhang (張道博) 26 Aug 2013 15:24 Commit made by **Daniel Zhang** (張道博) on 2013-08-26T18:24:16-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/1bab3ce768557deafec4ba41f91df9d3b94c6fca

data can be inserted: #MSG-303 fixed

## MSG-304 — add config docs for msg egauge service

Daniel Zhang (張道博) 11 Sep 2013 16:10 Commit made by **Daniel Zhang** (張道博) on 2013-09-11T19:10:32-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/c8892dbbfd90c06c4d58c9ce71198760b72cdaa4

adding msg egauge service config example: #MSG-304 fixed

### MSG-305 — add sequence for msg egauge service

Daniel Zhang (張道博)

Not needed.

23 Aug 2013 16:29

#### MSG-306 — alter table to include all columns present

Daniel Zhang (張道博) 23 Aug 2013 17:17 Commit made by **Daniel Zhang** (張道博) on 2013-08-23T20:17:06-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/9476b93aee7b445bfd09a7334d5f672d746134ca

adding table and view creation script: #MSG-306 fixed

#### MSG-307 — remove house mappings

Daniel Zhang (張道博) 26 Aug 2013 14:36 Commit made by **Daniel Zhang** (張道博) on 2013-08-26T17:36:04-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/0e6f82fa5daa38287be6c9009b9e31d2b53a484b

removed use of house id: #MSG-307 fixed

MSG-308 — remove duplicate usage cols

Columns with \_usage suffixes should be removed.

Daniel Zhang (張道博)

15 Oct 2013 15:48

Re-evaluate later.

#### MSG-309 — provide notification of newly loaded data

Daniel Zhang (張道博) 30 Aug 2013 14:59 Commit made by **Daniel Zhang** (張道博) on 2013-08-30T17:57:17-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/686922e06e390b0e553780ef0353d8e0c31924af

working on notification: #MSG-309 In Progress

Daniel Zhang (張道博) 02 Sep 2013 16:08 Commit made by **Daniel Zhang** (張道博) on 2013-09-02T19:07:58-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/3098275d41f3fc11a2f2569af802479eeca79e3d

adding last report date check: #MSG-309 In Progress

Daniel Zhang (張道博) 02 Sep 2013 17:37 Commit made by **Daniel Zhang** (張道博) on 2013-09-02T20:37:06-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/eebf31bc3528fec0e7200343d9b27a84cf6ce90a

reporting works: #MSG-309 fixed

MSG-310 — write duplicate dropping test

MSG-312 — schedule automated retrieval & insertion

Daniel Zhang (張道博)

Scheduled.

05 Sep 2013 15:34

MSG-313 — Provide persistent notification data storage

This is for the purpose of tracking automatic notifications.

Daniel Zhang (張道博) 28 Aug 2013 16:09 Commit made by **Daniel Zhang** (張道博) on 2013-08-28T19:09:36-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/1c4ad342d890062a015255afd5d719f09740373f

adding notification history table: #MSG-313 In Progress

Daniel Zhang (張道博) 04 Sep 2013 13:29 Persistent storage implemented.

MSG-315 — verify dz\_monthly\_energy\_summary\_for\_nonpv\_service\_points makes correct use of MLH The view should return readings that are specified by the MLH including meter changes if they exist.

MSG-316 — change definition of PV service point

PV service points are those that have either one or two PV meters as indicated in PVServicePointIDs. The definition and use may be incorrect. This definition has numerous view-based dependencies within the database.

MSG-318 — provide array-based access to readings

MSG-319 — enable weather data auto loading

Daniel Zhang (張道博)

Enabled.

05 Sep 2013 15:34

MSG-320 — write last reported time to notification history

Daniel Zhang (張道博) 03 Sep 2013 16:58 Commit made by **Daniel Zhang (**張道博**)** on 2013-09-03T19:58:15-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/e261c81291cc99008ace22573898b39243df5582

writing notification time: #MSG-320 fixed

MSG-321 — determine problem with email notification not being sent automatically

Daniel Zhang (張道博) 04 Sep 2013 14:40 Added PYTHONPATH to execution environment.

MSG-322 — create installer for full local server install of MSG software

An installer script should be provided. This is to facilitate proper synchronization of locally installed code with the working repository.

Daniel Zhang (張道博) 18 Sep 2013 17:21 Commit made by **Daniel Zhang (**張道博) on 2013-09-18T20:20:52-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/31822283d7ed5dc72d9021635a4ff085fb2ff5d5

working on setup: #MSG-322 In Progress

Daniel Zhang (張道博) 19 Sep 2013 17:06 Commit made by **Daniel Zhang** (張道博) on 2013-09-19T20:06:37-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/7f6a85492e17b78ddf3203ee8e1a5f4bec2dde31

developing setup script: #MSG-322 In Progress

Daniel Zhang (張道博) 20 Sep 2013 15:49 Commit made by **Daniel Zhang** (張道博) on 2013-09-20T18:49:10-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/06964b7d49f0f59dfa3b3b73ccfbc61ea93b7325

moving unit tests to root: #MSG-322 In Progress

Daniel Zhang (張道博) 20 Sep 2013 16:21 Commit made by **Daniel Zhang** (張道博) on 2013-09-20T19:21:23-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/49b7b3dbe36fa1d221203bf50b0c938008272441

Adding long description: #MSG-322 fixed

#### MSG-323 — prevent retrieval of existing files

Existing files are not determined correctly for the script being started in arbitrary working directories.

Daniel Zhang (張道博) 04 Sep 2013 17:12

Commit made by **Daniel Zhang** (張道博) on 2013-09-04T20:12:30-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/c4e5f4bfb6f2c4ce4d28dde7a0d26f4558e92ca0

existing files are handled correctly: #MSG-323 fixed

**MSG-324** — determine problem with cron-based log messages not being sent This is related to Postfix.

Daniel Zhang (張道博)

Fixed by modifying Postfix config (/etc/postfix/main.cf).

# 05 Sep 2013 14:37

### MSG-327 — add summary count of dupes

Daniel Zhang (張道博) 10 Sep 2013 16:16 Commit made by **Daniel Zhang (**張道博**)** on 2013-09-10T19:16:11-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/7404891efbf6e564117bf653e7ab0f269411b6a5

added summary dupe counts: #MSG-327 fixed

### MSG-328 — report weather data download results during report of inserts

Daniel Zhang (張道博) 12 Sep 2013 16:43 Commit made by **Daniel Zhang (**張道博) on 2013-09-12T19:43:39-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/0c21ff0f1fe795fc7ab1241c0b9abb3b91aadf32

storing retrieval results: #MSG-328 In Progress

Daniel Zhang (張道博) 13 Sep 2013 14:44

Commit made by **Daniel Zhang** (張道博) on 2013-09-13T17:44:43-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/b484b2088b306d918b247d7a5118353aa31e3401

reporting download results: #MSG-328 fixed

Daniel Zhang (張道博) 17 Sep 2013 13:02 Needs to be redone. Weather data download results are not getting used.

Daniel Zhang (張道博) 17 Sep 2013 15:52

Weather data results are verified to be reported.

## MSG-329 — provide folder monitoring for automatic data processing

Daniel Zhang (張道博) 24 Sep 2013 16:04

Commit made by **Daniel Zhang** (張道博) on 2013-09-24T19:04:38-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/82a88dc0174f2e7fa1c3e9f96c24681a94b0ad53

generating initial API: #MSG-329 In Progress

Daniel Zhang (張道博) 25 Sep 2013 16:35 Commit made by **Daniel Zhang** (張道博) on 2013-09-25T19:35:07-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/643bb9810b909d6a2a733e0fc82f18f3f557faa2

added new data checking: #MSG-329 In Progress

Daniel Zhang (張道博) 03 Oct 2013 13:12 Folder monitoring has been implemented through this issue and #MSG-352, #MSG-351.

MSG-330 — Update egauge service installation to account for config change

Daniel Zhang (張道博)

Installation in /usr/local/msg-egauge-service was updated.

13 Sep 2013 15:30

MSG-331 — only output duplicate counts to the concise log if duplicates are present

Daniel Zhang (張道博) 25 Sep 2013 14:54

Commit made by **Daniel Zhang** (張道博) on 2013-09-25T17:54:33-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/3a2b0a98b6cf985a1dfac8c0a26b0b4f030998fc

Preventing log output for final and intermediary concise logging where dupes are not

present: #MSG-331 fixed

MSG-332 — determine a standard for a python enum type

MSG-333 — add timestamp to retrieval results

Daniel Zhang (張道博) 13 Sep 2013 14:44

Commit made by **Daniel Zhang** (張道博) on 2013-09-13T17:35:53-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/e0d8e19ff01b76cd466cd7eb74f1b02cefcf7ead

adding timestamp: #MSG-333 fixed

MSG-334 — determine effect of removal of cumulative count in angled brackets in the concise log

Daniel Zhang (張道博) 25 Sep 2013 15:47

Commit made by **Daniel Zhang** (張道博) on 2013-09-25T18:47:38-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/c5cd8267a869e6eb332e6e0872c0761d7d2ff3c5

removing cumulative count in final summary because it is redundant: #MSG-334 fixed

MSG-335 — update automation documentation for weather data loading

MSG-336 — provide support for multiple login profiles

MSG-338 — add msg egauge service to setup script

Daniel Zhang (張道博) 23 Sep 2013 15:51

Commit made by **Daniel Zhang** (張道博) on 2013-09-23T18:50:36-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/f7ea087e45acaba3a9cbdec6072a0de3184aa732

adding/updating configs: #MSG-338 fixed

#MSG-339 fixed

Daniel Zhang (張道博)

Commit made by **Daniel Zhang** (張道博) on 2013-09-23T19:08:30-07:00

23 Sep 2013 16:08

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/6b590aa6e0afa06873e1c8fd2e4787cec40c07e0

including msg egauge service: #MSG-338 fixed

## MSG-339 — add sample egauge config

Daniel Zhang (張道博) 23 Sep 2013 15:51

Commit made by **Daniel Zhang** (張道博) on 2013-09-23T18:50:36-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/f7ea087e45acaba3a9cbdec6072a0de3184aa732

adding/updating configs: #MSG-338 fixed

#MSG-339 fixed

Daniel Zhang (張道博) 23 Sep 2013 15:53

Commit made by **Daniel Zhang** (張道博) on 2013-09-23T18:53:08-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/2ef5a2a997cb3a18b5e7433a4ea0937782576482

add/update sample configs: #MSG-339 fixed

#MSG-340 fixed

# MSG-340 — add sample main config

Daniel Zhang (張道博) 23 Sep 2013 15:53

Commit made by **Daniel Zhang** (張道博) on 2013-09-23T18:53:08-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/2ef5a2a997cb3a18b5e7433a4ea0937782576482

add/update sample configs: #MSG-339 fixed

#MSG-340 fixed

## MSG-341 — provide archive directory for previously loaded data

Daniel Zhang (張道博) 25 Sep 2013 15:06

Commit made by **Daniel Zhang** (張道博) on 2013-09-25T18:06:38-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/d080cb0b5bb1aed6daf64cc15f75c7a669f551ac

added dirs; updated config and sample config: #MSG-342 fixed

#MSG-341 fixed

### MSG-342 — Provide location for bad data

Daniel Zhang (張道博) 25 Sep 2013 15:06

Commit made by **Daniel Zhang** (張道博) on 2013-09-25T18:06:38-07:00

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/d080cb0b5bb1aed6daf64cc15f75c7a669f551ac

> added dirs; updated config and sample config: #MSG-342 fixed #MSG-341 fixed

### MSG-343 — remove debug output during data loading

Daniel Zhang (張道博)

Data loading obeys the debug config option.

26 Sep 2013 16:12

#### MSG-344 — document testing mode

Daniel Zhang (張道博)

09 Oct 2013 16:50

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/89975bf16cb3fb0dee37f17566e14e49f04b4b6a

#### MSG-345 — fix column error for 4913

egauge number = 4913

item = Date & Time

item = use [kW]

item = gen [kW]

item = Whole House [kW]

item = Refrigerator [kW]

item = Dryer [kW]

item = Washer [kW]

item = Stove Top [kW]

ERROR: nonmatching column: does not match

Daniel Zhang (張道博)

Commit made by **Daniel Zhang** (張道博) on 2013-09-27T19:10:03-07:00

27 Sep 2013 16:10

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/1a2fb12684e46182df25af9e0cc69f6525ebc235

adding columns: #MSG-345 fixed

## MSG-346 — setup daily meco\_v3 export

Daniel Zhang (張道博) 30 Sep 2013 16:14

Daily export was setup as a cron job using msg\_db\_exporter.py. It should be switched to

a system-wide path ASAP.

## MSG-348 — document automatic processes using crontab

Daniel Zhang (張道博)

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

04 Dec 2013 13:09 Grid/commit/6a88c5e34757d64977e52b9026a1b001a27ba22e

## MSG-349 — perform user-based install of MSG python code on SEP server

#### Future installation:

Install modules and scripts.

- Scripts should go to /usr/local/bin.
- Modules should go in /usr/local/lib.

Daniel Zhang (張道博) 02 Dec 2013 16:28 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/bda8284dd7be1b9f731964ba591e9a76b80142b9

## MSG-350 — install google api client library for python

Daniel Zhang (張道博)

Successfully installed using remote pip.

30 Sep 2013 16:31

## MSG-351 — be able to load MECO data from autoload location using the autoloader

Daniel Zhang (張道博) 01 Oct 2013 16:10 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/b5063c3d39c0c04d9eadc8c1c61c8d752bb6c481

## MSG-352 — move autoloaded data after loading

Daniel Zhang (張道博)

02 Oct 2013 13:13

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/f54798b2da9d186435f7d31886ec605b9f6c6356

MSG-353 — handle error case during autoloading

If data fails to load it should be moved to the invalid data storage area.

MSG-354 — Provide a locking mechanism on data being processed

Data being processed should not be accessible to any other processes.

Daniel Zhang (張道博) 03 Oct 2013 13:13 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/daba9623676e3ec97a6e497286f4faa7c4e9716a

MSG-355 — maintain copy of live autoloading status

GH readme image should be represenative of the live status of the database.

MSG-356 — Test file locking

MSG-357 — Change performance time log messages to minute-seconds format

Daniel Zhang (張道博) 18 Oct 2013 13:26 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/5b3bf553b74065a1b39fec35c00be99e487f9802

Commen

MSG-358 — get executable scripts to install to bin path

Daniel Zhang (張道博) 04 Oct 2013 15:43 Scripts, as defined in the setup definition file, can be installed to bin using the –home option of install like so

python setup.py install -home=~/test-install

Executable scripts are then installed in ~/test-install/bin

MSG-359 — determine method of integration for eGauge service Perl-based installer with Python setup

Daniel Zhang (張道博)

The eGauge service has its own separate installer.

09 Oct 2013 16:45

MSG-360 — add DB creation scripts to setup package

Daniel Zhang (張道博) 09 Oct 2013 16:43 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/bf5cee817da6e1dbee0bac26e789e8d5d16df9c8

MSG-361 — fix meco xml parser test

E2013-10-11 15:54:21,429 - meco\_xml\_parser - INFO - Testing Mode is ON.

\_\_\_\_\_

ERROR: testAllTableNamesArePresent ( main .TestMECOXMLParser)

Traceback (most recent call last):

File "/Users/daniel/DZDevelopment/github-maui-smart-grid/test/test\_\_\_meco\_xml\_parser.py", line 45, in testAllTableNamesArePresent

fileObject = open(self.p.filename, "rb")

IOError: [Errno 2] No such file or directory: '../../test-data/meco\_v3-energy-test-data.xml'

\_\_\_\_\_\_

ERROR: testEveryElementIsVisited (\_\_main\_\_.TestMECOXMLParser)

Traceback (most recent call last):

File "/Users/daniel/DZDevelopment/github-maui-smart-grid/test/test\_\_\_meco\_xml\_parser.py", line 35, in testEveryElementIsVisited

fileObject = open(self.p.filename, "rb")

IOError: [Errno 2] No such file or directory: '../../test-data/meco\_v3-energy-test-data.xml'

Ran 3 tests in 2.498s

FAILED (errors=2)

#### MSG-362 — create unit test data set

Daniel Zhang (張道博) 21 Oct 2013 14:52 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/422522cdd52a6561d827afc03c8f51e9344be5fd

MSG-363 — correct column error for 4915

colAssoc = Garage AC [kW]garage\_ac\_kwRange.Usage [kW]range\_usage\_kwOven [kW]oven\_kwWasher [kW]clotheswasher\_kwgen [kW]gen\_kwGrid [kW]grid\_kwDHW [kW]dhw\_kwRange [kW]range\_kwDate & TimedatetimeLarge AC [kW]large\_ac\_kwOven.Usage [kW]oven\_usage\_kwuse [kW]use\_kwStove [kW]stove\_kwRefrigerator [kW]refrigerator\_kwDishwasher [kW]dishwasher\_kwDryer.Usage [kW]dryer\_usage\_kwAC+ [kW]acplus\_kwSolar Pump [kW]solarpump\_kwFan [kW]fan\_kwStove Top [kW]stove\_kwLarge AC.Usage [kW]large\_ac\_usage\_kwRest of House.Usage [kW]rest\_of\_house\_usage\_kwOven and Microwave [kW]oven\_and\_microwave\_kwGarage AC.Usage [kW]garage\_ac\_usage\_kwWhole House [kW]grid\_kwRefrigerator.Usage [kW]refrigerator\_usage\_kwAC [kW]ac\_kwSolar [kW]solarpump\_kwWasher.Usage [kW]clotheswasher\_usage\_kwOven and Microwave+ [kW]oven\_and\_microwave\_plus\_kwDryer [kW]dryer\_kw item = house [kW]

ERROR: nonmatching column: does not match

mments	Daniel Zhang (張道博) 16 Oct 2013 13:05	Problem is still occurring.
	Daniel Zhang (張道博) 16 Oct 2013 19:09	4911,4912,4913 are working.
	Daniel Zhang (張道博) 17 Oct 2013 17:22	4915 is offline.
	Daniel Zhang (張道博) 23 Oct 2013 15:47	The problem is no longer occurring at this time.

## MSG-364 — suppress cron log output on no data found

Daniel Zhang (張道博) htt 16 Oct 2013 17:10 Gri

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/2897de6ca69c6f9b426d23dbe3444d0afb08c23e

#### MSG-365 — determine cause of invalid data processing for 4914

Daniel Zhang (張道博)

Retrieval is timing out.

18 Oct 2013 15:31

#### MSG-366 — correct column error for 4914

colAssoc = Range.Usage [kW]range\_usage\_kwWasher [kW]clotheswasher\_kwGrid [kW]grid\_kwDate & TimedatetimeLarge AC [kW]large\_ac\_kwOven.Usage [kW]oven\_usage\_kwuse [kW]use\_kwStove [kW]stove\_kwSolar Pump [kW]solarpump\_kwAC+ [kW]acplus\_kwDryer.Usage [kW]dryer\_usage\_kwStove Top [kW]stove\_kwFan [kW]fan\_kwOven and Microwave [kW]oven\_and\_microwave\_kwRest of House.Usage [kW]rest\_of\_house\_usage\_kwWhole House [kW]grid\_kwRefrigerator.Usage [kW]refrigerator\_usage\_kwAC

[kW]ac\_kwWasher.Usage [kW]clotheswasher\_usage\_kwGarage AC [kW]garage\_ac\_kwOven [kW]oven\_kwgen [kW]gen\_kwDHW [kW]dhw\_kwRange [kW]range\_kwRefrigerator [kW]refrigerator\_kwDishwasher [kW]dishwasher\_kwHouse [kW]house\_kwLarge AC.Usage [kW]large\_ac\_usage\_kwGarage AC.Usage [kW]garage\_ac\_usage\_kwGolar [kW]solarpump\_kwOven and Microwave+ [kW]oven\_and\_microwave\_plus\_kwDryer [kW]dryer\_kw item = Shop [kW]

EDDOD: -- ------

ERROR: nonmatching column: does not match

Daniel Zhang (張道博) 22 Oct 2013 13:08 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/0fda401abd313326a97db76e102812017edd7ed5

### MSG-367 — record successful egauge data operations in the database

The motivation for this are the failed loading of data sets that can go unnoticed for extended periods of time. Having away of monitoring these operations would be useful.

MSG-368 — Provide PDF form of software documentation

MSG-369 — Handle overflowing monospaced code blocks in latex

MSG-370 — Be able to write to cloud storage

Daniel Zhang (張道博)

Write was successful.

23 Oct 2013 17:46

## MSG-371 — store persistent cloud authentication token

This is to eliminate the need for verification upon every upload invocation.

Daniel Zhang (張道博) 25 Oct 2013 17:30 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/f24d782533be987b821ac3ca692a19453ba4afd5

#### MSG-374 — provide notification of exported DBs

MSG-375 — have automatic daily export be mirrored to cloud storage

Daniel Zhang (張道博) 26 Oct 2013 02:27 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/0e02c82078f30c226e81ec6039fbcb34651d19ac

## MSG-376 — parse upload results to determine success of upload

MSG-377 — fix exporter error

2013-10-27 18:30:01,743 - \_\_main\_\_ - INFO - Exporting meco\_v3.

2013-10-27 18:45:22,037 - main - INFO - Authorizing credentials.

Compressing meco\_v3 using gzip.

Traceback (most recent call last):

File "/home/daniel/dzmbp-maui-smart-grid/src/msg\_db\_exporter.py", line 205, in <module> toCloud = True)

File "/home/daniel/dzmbp-maui-smart-grid/src/msg\_db\_exporter.py", line 106, in exportDB self.uploadDBToCloudStorage('%s.sql.gz' % fullPath)

File "/home/daniel/dzmbp-maui-smart-grid/src/msg db exporter.py", line 136, in uploadDBToCloudStorage http = self.googleAPICredentials.authorize(http)

AttributeError: 'NoneType' object has no attribute 'authorize'

Daniel Zhang (張道博)

Error is still occurring.

28 Oct 2013 18:59

Daniel Zhang (張道博) 29 Oct 2013 16:34

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/87c073ee774b4879dbe4fbd5717a7924f1d0604f

## MSG-378 — add ability to record log messages within the logger object

Daniel Zhang (張道博) 29 Oct 2013 16:34

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/32c13c3c0dc0249a4a2a87d74748a73003435845

### MSG-379 — be able to report cloud storage free space

Daniel Zhang (張道博) 30 Oct 2013 22:13

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/7b59e3230debea172731381403b38310c3532c63

# MSG-380 — support symmetrically encrypted export

MSG-381 — fix logger error

2013-10-28 18:30:01,218 - main - INFO - Exporting meco v3.

Traceback (most recent call last):

File "/home/daniel/dzmbp-maui-smart-grid/src/msg\_db\_exporter.py", line 212, in <module> toCloud = True)

File "/home/daniel/dzmbp-maui-smart-grid/src/msg\_db\_exporter.py", line 85, in exportDB self.logger.log('Exporting %s.' % db)

File "/home/daniel/dzmbp-maui-smart-grid/src/msg\_logger.py", line 107, in log self.recording += msg

TypeError: cannot concatenate 'str' and 'NoneType' objects

Daniel Zhang (張道博) 29 Oct 2013 16:34

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/32c13c3c0dc0249a4a2a87d74748a73003435845

#### MSG-383 — remove unused linux headers and linux images

Daniel Zhang (張道博) 29 Oct 2013 13:46

Removed using

sudo apt-get remove linux-headers-\${SPECIFIER}

sudo apt-get remove linux-image-\${SPECIFIER}

#### MSG-384 — eliminate duplicate recorded log entries in the MSGLogger

Daniel Zhang (張道博) 30 Oct 2013 14:07 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/238c3351db4d97900b9740eb30460c86036c349a https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/5a852330a47fd8880cfcfe5a7ffa0e4c594c5faf

## MSG-385 — report elapsed upload time

Daniel Zhang (張道博) 31 Oct 2013 17:36 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/09c8cd78dfc0e246b97bb04727a64abc684d1eff

#### MSG-386 — perform instantaneous delete of outdated files

Daniel Zhang (張道博) 04 Nov 2013 13:04 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/7eb434d7747951a86d9fb233026a1d8c571ff0e7

### MSG-387 — remove pprint output & recording from automatic job report

Daniel Zhang (張道博) 31 Oct 2013 17:37 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/09c8cd78dfc0e246b97bb04727a64abc684d1eff

## MSG-388 — verify uploaded file by md5 checksum

Daniel Zhang (張道博) 04 Nov 2013 16:47 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/a0694a84e621fbe8d70e5f238495974afdc79049

### MSG-389 — retrieve md5sum of cloud-based files

Daniel Zhang (張道博) 04 Nov 2013 16:47 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/a0694a84e621fbe8d70e5f238495974afdc79049

## MSG-390 — add delete outdated to automatic export process

Daniel Zhang (張道博) 06 Nov 2013 13:54 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/ec2ae38c3f880d371e70421511e2bfb8e1dac848

#### MSG-391 — fix md5 checksum verification problem

2013-11-04 17:34:16,624 - \_\_main\_\_ - INFO - Exporting meco\_v3.

2013-11-04 17:37:49,752 - \_\_main\_\_ - INFO - Compressing meco\_v3 using gzip.

2013-11-04 17:49:17,336 - \_\_main\_\_ - DEBUG - full path /home/daniel/msg-db-dumps

2013-11-04 17:49:17,336 - \_\_main\_\_ - DEBUG - Uploading 2013-11-04\_171116\_meco\_v3.sql.gz.

```
2013-11-04 17:49:17,358 - __main__ - INFO - Authorizing credentials.
2013-11-04 17:49:17,358 - __main__ - INFO - Authorized.
2013-11-04 17:55:35,506 - main - DEBUG - title: 2013-11-04 171116 meco v3.sql.gz
2013-11-04 17:55:35,506 - __main__ - DEBUG - local md5: 568d25692144a4ac937def74a6cf369b
2013-11-04 17:55:35,859 - main - DEBUG - remote md5: 8fa4825dc3362574f4624a14bc0caca7
2013-11-04 17:55:35,860 - __main__ - DEBUG - Failed MD5 checksum verification.
                           https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-
Daniel Zhang (張道博)
05 Nov 2013 17:27
                           Grid/commit/15945fcd7113f5319b69c4455d717e60e652f807
MSG-392 — create db export unit test file
Daniel Zhang (張道博)
                           https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-
05 Nov 2013 17:28
                            Grid/commit/ab6279ba4957f9e59e156d1b5d4b0cc9c922d6a5
MSG-393 — Provide status notification during loading process of MECO energy data
Ref: meco_data_autoloader.py
MSG-394 — fix logger error
Traceback (most recent call last):
 File "/home/daniel/dzmbp-maui-smart-grid/src/insertMECOEnergyData.py", line 164, in <module>
  inserter = Inserter()
 File "/home/daniel/dzmbp-maui-smart-grid/src/insertSingleMECOEnergyDataFile.py", line 47, in __init__
  self.parser = MECOXMLParser(testing)
 File "/home/daniel/dzmbp-maui-smart-grid/src/meco xml parser.py", line 38, in init
  self.logger = MSGLogger(__name__, 'silent')
File "/home/daniel/dzmbp-maui-smart-grid/src/msg_logger.py", line 87, in __init__
  self.logger.setLevel(self.loggerLevel)
 File "/usr/lib/python2.7/logging/__init__.py", line 1116, in setLevel
  self.level = _checkLevel(level)
 File "/usr/lib/python2.7/logging/__init__.py", line 190, in _checkLevel
  raise TypeError("Level not an integer or a valid string: %r" % level)
TypeError: Level not an integer or a valid string: None
                           https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-
Daniel Zhang (張道博)
                            Grid/commit/8ef6749080cba02a646cb4b2dedc10ac20e1f401
 06 Nov 2013 13:56
```

**MSG-395** — fix reporting of seconds in elapsed loading time It's appearing as Wall time = 11 min 655.33 s.

MSG-396 — increase export queue timespan to 48 h

Daniel Zhang (張道博) Timespan has been set. Software install needs to be refreshed for the setting to be used.

18 Nov 2013 14:15

Daniel Zhang (張道博)

The 48 h timespan is being used.

03 Dec 2013 17:01

MSG-397 — provide notification upon failed data loading

MSG-399 — switch automated processes to user-based install

Daniel Zhang (張道博)

Processes were switched within the crontab.

03 Dec 2013 17:02

MSG-401 — Provide 1.0.0 release archive

MSG-402 — test scheduled msg\_db\_exporter for user-based install

Daniel Zhang (張道博)

New exporter script works from user-based install.

12 Nov 2013 13:57

MSG-403 — test scheduled autoload meco data for user-based install

Daniel Zhang (張道博)

Tested using ~ in the crontab & in the data\_load\_command var in the msg config.

08 Nov 2013 17:44

MSG-404 — extract script from msg db exporter

This is needed for the installer.

Daniel Zhang (張道博)

12 Nov 2013 13:59

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/78addd0632886d5372be035ebc0611fa299a1387

MSG-405 — create install script

Generate dist archive.

Install using current code base.

Daniel Zhang (張道博)

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

27 Nov 2013 16:55 Grid/commit/c0ffd963e7101946f9b7ec3e67cf0e2b9060faf9

MSG-406 — add temp & humidity data from 2013\_11\_14\_scada

Daniel Zhang (張道博) https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/4d2c5706cb0901e80b89033d5d0e7a466ee6aa80 19 Nov 2013 10:52

Runtime: 19 min Daniel Zhang (張道博)

19 Nov 2013 10:56

#### MSG-408 — generate aggregated irradiance data for 15 min intervals

Daniel Zhang (張道博) 19 Nov 2013 10:57 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/a3a04a4260fa6d035cb9733394d119534b5f8b4c

#### MSG-409 — insert aggregated irradiance data to a table

Daniel Zhang (張道博) 19 Nov 2013 10:57 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/7c0d27e2c14404e0d2dc91ce93cc25938dd3ba0c

MSG-410 — provide db storage report

MSG-411 — average scada weather data at 15 min

Daniel Zhang (張道博) 20 Nov 2013 13:11 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/54fd6a42f22c4d30edde4134e170908f7f13d3e4

MSG-413 — be able to import MSG classes in a symmetric manner as standard library classes

Daniel Zhang (張道博)

This is based around using the "home scheme" vs the system scheme, iirc.

04 Dec 2013 18:17

# MSG-414 — generate view with uniform intervals for irradiance averages

Daniel Zhang (張道博)

25 Nov 2013 13:33

last commit: https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-

Grid/commit/e7c7d58f6d5b497bdb53c2bf2fcf0bb8160d602c

MSG-415 — restore noaa weather view removed by sql script error

MSG-416 — perform system-based install of MSG python code on SEP server

MSG-417 — generate automatic documentation from source code

MSG-418 — ensure python path specification is correct during install

Installer is modifying the path relative to the site. This can result in an unwanted python binary path spec.

Daniel Zhang (張道博)

Scripts installed to bin have an incorrect python binary path.

02 Dec 2013 16:31

Daniel Zhang (張道博)

Verified that /usr/bin/python is being used on SEP server during use of install-msg.py.

02 Dec 2013 17:55

MSG-419 — test ability to perform a user-based software update on SEP server where source code is modified

Commen:

Daniel Zhang (張道博) 03 Dec 2013 17:17 Modified code was updated using the custom installer.

**MSG-420** — have installer provide a default path along with software version The default path should have the form Maui-Smart-Grid-x.x.x.

Daniel Zhang (張道博) 02 Dec 2013 15:17 Software version is obtained from setup.py.

Install path is obtained from a command line arg.

Daniel Zhang (張道博) 02 Dec 2013 15:58

Need to add the package name.

Daniel Zhang (張道博) 02 Dec 2013 16:28

https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/bda8284dd7be1b9f731964ba591e9a76b80142b9

### MSG-421 — have tar extract use tarfile

Daniel Zhang (張道博) 02 Dec 2013 13:13 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/35d433c1e80d4ad3c02f3d0a5d270c10da7b5d0d

MSG-422 — support install of msg egauge software using install-msg.py

MSG-423 — add power event data to meco\_v3

Daniel Zhang (張道博)

Data added to PowerMeterEvents.

11 Dec 2013 13:47

#### MSG-424 — create new power meter event table

Daniel Zhang (張道博) 09 Dec 2013 13:55 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/46dd201cc0e98d1867145280748eeeb7873a31d2

#### MSG-425 — create power meter event insert script

Daniel Zhang (張道博) 11 Dec 2013 13:47 https://github.com/Hawaii-Smart-Energy-Project/Maui-Smart-Grid/commit/29c46d3c76e94c35f5dbef294f4aa526f2ceb3b2

MSG-426 — Determine a method of reporting MSG software prerequisites

MSG-427 — provide documentation for automatic software distribution updating