Message

From: SWMM-USERS [SWMM-USERS@LISTSERV.UOGUELPH.CA]
on behalf of Robert Dickinson Ex. 6 Personal Privacy (PP)
Sent: 3/26/2020 12:38:46 AM
To: SWMM-USERS@LISTSERV.UOGUELPH.CA
Subject: [SWMM-USERS] SWMM engine

Hello Joseph,

Posted earlier by me: Thanks as always, Michelle. I just wanted to note that this version of the engine zip file makes a folder that compiles right away in the release version of Visual Studio 2019.

In addition, the new GUI code compiles in Delphi and based on LR comments in the code it is updated for //(5.0.014 - LR)

The new bug fixes and new features file have not changed so the files are the same (my opinion only). The engine zip file had the wrong .h files for text and keywords so that had to be updated.

Regards,
Robert Dickinson

From: SWMM-USERS On Behalf Of Joseph Pang
Sent: Wednesday, March 25, 2020 10:38 PM [UTC]
Subject: SWMM engine

Hello Michelle,

The "Date" on the https://www.epa.gov/water-research/storm-water-management-model-swmm#tab-1 still says 2/18/2020 for the "Self-Extracting Installation Program for SWMM 5.1.014" and "SWMM 5 Updates and Bug fixes (TXT)". Are they the ones from 3/16/2020?

From: SWMM-USERS On Behalf Of Robert Dickinson
Sent: Wednesday, March 25, 2020 04:38 PM [UTC]
Subject: SWMM engine

Thanks as always, Michelle. I just wanted to note that this version of the engine zip file makes a folder that compiles right away in the release version of Visual Studio 2019.

From: SWMM-USERS On Behalf Of Michelle Simon
Sent: Thursday, March 19, 2020 05:22 PM [UTC]
Subject: SWMM engine

Hello SWMM-USERS,

We updated USEPA's SWMM page so that the engine has a release date of 3/16/2020.

From: SWMM-USERS On Behalf Of Michelle Simon
Sent: Wednesday, March 18, 2020 09:14 PM [UTC]
Subject: SWMM engine

Hello SWMM-USERS,

There was an incorrect SWMM 5.1.014 engine source code placed on replaced the SWMM 5.1.014.1 engine on https://www.epa.gov/water-research/storm-water-management-model-swmm
On Match 2. On March 16, we replaced the code.

Please let me know if you continue to have trouble.

Sorry about that.

From: SWMM-USERS On Behalf Of Saleh Mahamat
Sent: Thursday, March 05, 2020 02:10 AM [UTC]

Subject: SWMM engine

en français

From: SWMM-USERS On Behalf Of Saleh Mahamat
Sent: Thursday, March 05, 2020 02:10 AM [UTC]
Subject: SWMM engine

svp je veu de mail en francais

From: SWMM-USERS On Behalf Of Michael Tryby
Sent: Wednesday, March 04, 2020 08:01 PM [UTC]
Subject: SWMM engine

Ming and Bob,

We are aware of the problem and currently working on a patch to fix it. We will update the new SWMM release ASAP.

From: SWMM-USERS On Behalf Of Robert Dickinson
Sent: Wednesday, March 04, 2020 07:07 PM [UTC]
Subject: SWMM engine

I am not sure how that even happened but if you copy the lines from v13 to v14 that deal with Slot and Extran you can compile the code and it works. Of course, the answers now have to be compared to the previous version of SWMM5 to make sure there are no other code regressions.

From: SWMM-USERS On Behalf Of Robert Dickinson
Sent: Wednesday, March 04, 2020 06:54 PM [UTC]
Subject: SWMM engine

In addition to what Ming mentioned it seems other lines of code for warnings that were added in EPA SWMM 5.1.013 are also not included in this code. For example,

```
#define WARN10a "WARNING 10: crest elevation is below downstream invert for regulator Link"
//(5.1.013)
#define WARN10b "WARNING 10: crest elevation raised to downstream invert for regulator Link"
//(5.1.013)
```

It seems the engine code for using the newer slot option is still there but the code for reading and ultimately using either Extran or Slot for the users model is not there in the code.
For example, these lines from keywords.c and keywords.h are missing. You can copy them from EPA SWMM 5.1.013 and then the program will compile.

```
extern char* SurchargeWords[];
```

From: SWMM-USERS On Behalf Of Ming Jin
Sent: Wednesday, March 04, 2020 06:17 PM [UTC]
Subject: SWMM engine

Hello, Michelle

We are excited for the new v14 update and integrating the changes to our engine. There seem to be a problem in the new code, here is what we have experienced:

In v13, a "Surcharge Method" (Extran or Slot) calc option was added, but in v14 it seems that this is causing compiling error (the dynwave.c file is referencing a global variable that has been deleted and the code does not compile). It seems that either it was intended to remove this v13 feature but did not finish the job or code has been messed up with some previous v12 code.

From: SWMM-USERS On Behalf Of Robert Dickinson
Sent: Monday, March 02, 2020 10:13 PM [UTC]
Subject: SWMM engine

Thank you very much Michelle for posting this code and the install file from Lew Rossman. Harking back to the original posters question the OWA version of Lew's was what we were using in our software. I am happy we can now change the engine number to 5.1.014 in the report file.

Thanks also, Lew for fixing those problems so fast as listed here on the EPA site https://www.epa.gov/sites/production/files/2020-03/epaswmm5_updates.txt

It also installs and runs for me, Michelle.

Regards,
Robert Dickinson
Innovyze Inc.

From: SWMM-USERS On Behalf Of Michelle Simon
Sent: Monday, March 02, 2020 09:57 PM [UTC]
Subject: SWMM engine

Hello Joseph et al.,

SWMM 5.1.014 is now on the official EPA SWMM page: https://www.epa.gov/water-research/storm-water-management-model-swmm

Please let know if anyone has problems with installing this code.

From: SWMM-USERS On Behalf Of Robert Dickinson
Sent: Monday, February 10, 2020 07:20 PM [UTC]
Subject: SWMM engine

More from Lew on the same bug fixes (copied from Github)

The EPA-SWMM repo identifies 7 bugs that also appear in this forked version of SWMM. They are listed below and are all relatively easy to fix:
1. Incorrect rainfall occurs when RDII and subcatchments use different rain gages that use the same time series.
2. There is no recovery of soil moisture deficit for exfiltration from storage units.
3. Element names that begin with 'ALL' in the [REPORT] section of an input file are not parsed correctly.
4. An access violation error occurs if a model has LID units defined but no subcatchments.
5. The check for inconsistent sets of rain gages skips the first gage.
6. Street sweeping doesn't work if the ending month precedes the starting month on the calendar.
7. LIDs that send their drain flows back onto their subcatchment are not accounted for correctly when computing pollutant mass loading out of the subcatchment.

From: SWMM-USERS On Behalf Of Robert Dickinson
Sent: Monday, February 10, 2020 07:12 PM [UTC]
Subject: SWMM engine

The bug fixes were originally posted on the EPA GIthub site which is https://gcc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgithub.com%2FUSEPA%2FStormwater-Management-Model%2Fissues%2F22&data=02%7C01%7CSimon.Michelle%40epa.gov%7Ce70bcfe8b38e460531d608d7d11e15e4%7C88b378b367484867acf976aacbeca6a7%7C0%7C0%7C637207799454080749&sdata=uQkI1mIZGB9TrkEN1PVLYMXTMjdqzO74ogtCDJ4iChA%3D&reserved=0

From: SWMM-USERS On Behalf Of Robert Dickinson
Sent: Monday, February 10, 2020 07:01 PM [UTC]
Subject: SWMM engine

You need to ask the EPA that question, Joseph. If you look at the OWA site, you will see the new code is not really a new version of SWMM5 but bug fixes for the EPA SWMM 5.1.013 code.

From: SWMM-USERS On Behalf Of Joseph Pang
Sent: Monday, February 10, 2020 06:22 PM [UTC]
Subject: SWMM engine

Hello Michael and Bob,

Is there a timeline when EPA SWMM 5.1.014 on the OWA Github will become the official EPA SWMM 5.1.014?

From: SWMM-USERS On Behalf Of Ming Jin
Sent: Monday, February 10, 2020 01:43 PM [UTC]
Subject: SWMM engine

I can tell what we do in supporting SWMM engine in Bentley. When doing simulations using explicit solver we provide 2 engine options:
1 Using EPA SWMM, this would be using whatever the latest EPA SWMM build executable (the latest one is 5.1.013)

2 Using Bentley extended SWMM, this engine still produces identical results for any features that are supported in EPA version but provides additional calculation features and enhancements, such as supporting node head loss, HEC-22 inlet integration, Tractive force, H2S, stability enhancement on gravity-pressure transitions, etc.

From: SWMM-USERS On Behalf Of Robert Dickinson
Sent: Friday, February 07, 2020 08:06 PM [UTC]
Subject: SWMM engine

Hello Mohammad,
I will answer as you address our software explicitly. The 5.1.013+ engine you mention is what we label our engine since it is based on Lew Rossman newer code called EPA SWMM 5.1.014 on the OWA Github. So it is not a one to one comparison if you compare our engine to EPA SWMM 5.1.013. I will let Mike Gregory or Rob James comment on the actual engine in their software. I will contact you by email with better comparisons and statistics.
Regards,
Robert Dickinson
Innovyze Inc.

From: SWMM-USERS On Behalf Of Mohamad Azzam
Sent: Friday, February 07, 2020 07:58 PM [UTC]
Subject: SWMM engine

I am looking for clarification and deferences when doing the model using EPA SWMM; so if I am using PCSWMM , InfowSWMM and Bentley SewerGEMS (Explicit EPA SWMM) to do a model network for a stormwater network, will be any discrepancy in the output since all of them using same engine (5.1.013)? if yes what is the discrepancy percentage and how will affect the design of the network?

From: SWMM-USERS On Behalf Of Mohamad Azzam
Sent: Sunday, February 02, 2020 05:49 AM [UTC]
Subject: SWMM engine

I am looking for clarification and deferences when doing the model using EPA SWMM; so if I am using PCSWMM , InfowSWMM and Bentley SewerGEMS (Explicit EPA SWMM) to do a model network for a stormwater network, will be any discrepancy in the output since all of them using same engine (5.1.013)? if yes what is the discrepancy percentage and how will affect the design of the network?

****
* To sign off, email to: listserv@listserv.uoguelph.ca *
* In the body of the message type: signoff swmm-users *
****