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Watchmen 2.5.2 Release Notes

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1 Changes since version 2.5.1

1.1 RASA State of Health (SOH) Parser Updated

Issue:

- RASA sensor data stream had unknown sensors that do not conform the original format structure. The RASA RMSSOH files do not report sensor data in the #PROCESS_SENSOR section, rather they report in a custom #RASAData section. Therefore, the additional sensors were not processed. This data was being stored into a separate SOH_RASA_DATA database table rather than being stored in the SOH_PROCESS_SENSOR with the rest of the #PROCESS_SENSOR data.

  o When Mothman attempts to process a RASA RMSSOH file and parse the table, it expects a set number of columns that correspond to specific sensors and a timestamp

  o As more sensors are added to RASA RMSSOH file and specifically the table, the Mothman parser is unable to process the table since it does not meet the predefined format, and thus the files are being placed into the error queue.

  o Because the number of sensors will likely change in the future, rather than updating the SOH_RASA_DATA table with additional columns each time the sensor collection is changed, the Mothman parser will dynamically parse the #RASAData section and ingest them into the SOH_PROCESS_SENSOR table.

  o This has the added benefit of all the SOH data being in a single table, allowing a single method to access SOH data, independent of system.

1.2 Various Fixes

- Fixed URL path for loading select images.
- Fixed the 30-keV (Region 4 – coincidence Gamma projection) graph interpreting the region incorrectly.
- Fixed the coding so an analyst is able to pass a measurement to another role.
- Fixed a bug causing 7-Region analysis results to be stored in the database as Bq/m^3 instead of mBq/m^3.
- Fixed a bug causing extremely verbose logging.
- Fixed a rare bug that could cause analysis code to no longer perform additional analysis.

1.3 Miscellaneous Changes

- Internet Explorer is no longer supported.

2 Upgrade

There are three parts to this upgrade, these upgrades need to be performed in order, without skipping any steps, or erroneous behavior may result.

2.1 Java Upgrade

The minimum required version of Java has been changed to Java 8.

- Run the following to determine if system is running Java 8 or higher:

  java -version

- If the version is "1.8" or higher the remainder of this section can be skipped and proceed to the Database Upgrade instructions.

To install Java 8 (OpenJDK8)

- Run the following to install:

  yum install -y java-1.8.0-openjdk

- Verify that system is pointing to OpenJDK 8:

  java -version

If version returned is not 1.8.x_y then the new install has not been selected as the default version and the user will need to adjust the system's configuration.

- Run the following

  alternatives --config java

- Sample response:

  ```
  There are 4 programs which provide 'java'.

      Selection    Command
  -----------------------------------------------
     1            /usr/lib/jvm/jre-1.5.0-gcj/bin/java
  *+ 2            /usr/lib/jvm/jre-1.6.0-openjdk.x86_64/bin/java
     3            /usr/lib/jvm/jre-1.7.0-openjdk.x86_64/bin/java
     4            /usr/lib/jvm/jre-1.8.0-openjdk.x86_64/bin/java

  Enter to keep the current selection[+], or type selection number:
  ```

- In the example the user should select 4
- Verify that system is now pointing to OpenJDK 8 by default

  java -version

2.2 Database Upgrade

Perform the database upgrade, connecting with the SQL client of choice and run the following scripts.

Note: The script does not specify the Schema Name, so ensure you connect appropriately to avoid altering the wrong schema.
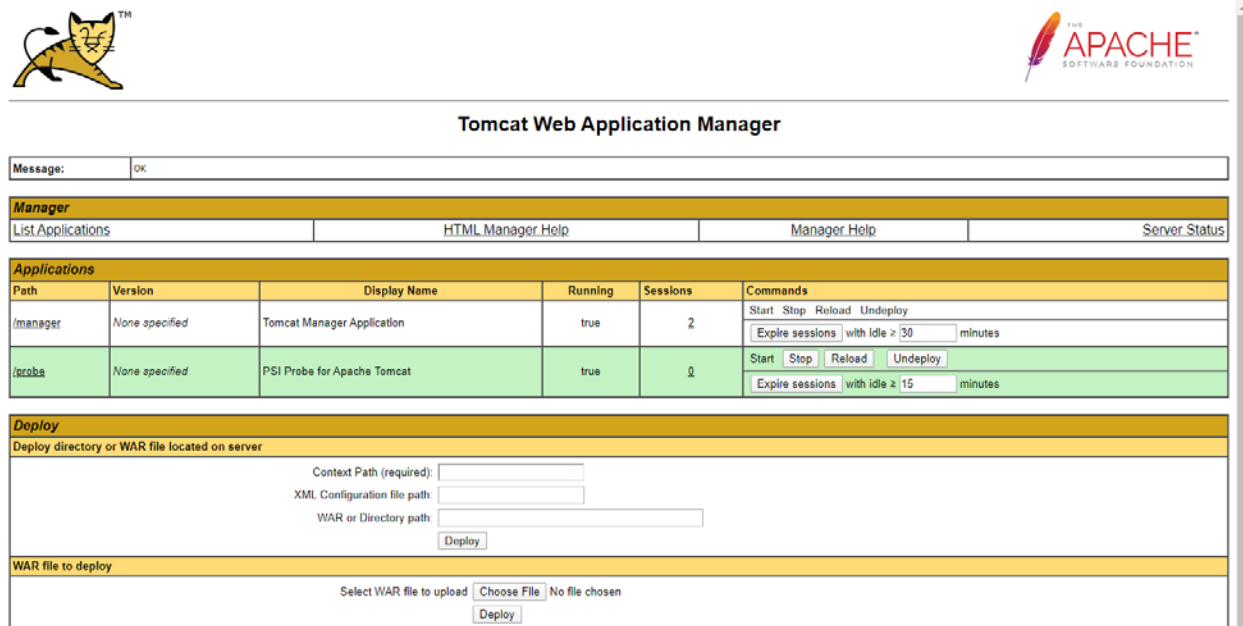
- SQLUpgrade2.5.2.sql

Note: If you have already run the above scripts, there is no need to run them again.

2.3 Executable Upgrade

The upgrade is completed by deploying the new WAR files and updating the Analysis Tools executables, see sections 2.3.1– 2.3.3.

2.3.1 Accessing the Tomcat Manager App

The easiest way to stop and update WAR deployments is via the /manager application on Tomcat.

Figure 1 Tomcat Web Application Manager

2.3.2 Stop the existing WAR deployments

The existing WARs should be stopped to avoid an erroneous analysis with an incompatible version of the analysis tools. Press the `Stop` button. Once WAR has stopped, press the `Undeploy` button.

Figure 2 Webviewer Deployed and Running

Figure 3 Webviewer Stopped and Ready for Undeploy

2.3.3 Update the Analysis Tools

Once the AnalysisTools zip file has been placed into deployment system's filesystem, unpack and overwrite the existing AnalysisTools installation including the "plugins" folder (`unzip /path/to/file.zip -d /path/to/analysis/tools/installation/dir`).

2.3.4 Updating the WAR

Use "Select WAR file to upload" section (see Figure 1) to deploy the two WAR files (only one WAR can be deployed at a time via the dialog box). Press `Choose`, select a WAR, press `Open` and then press `Deploy`.
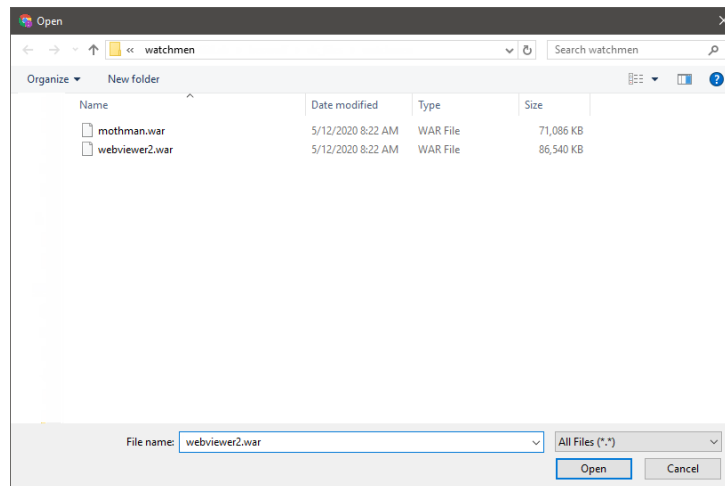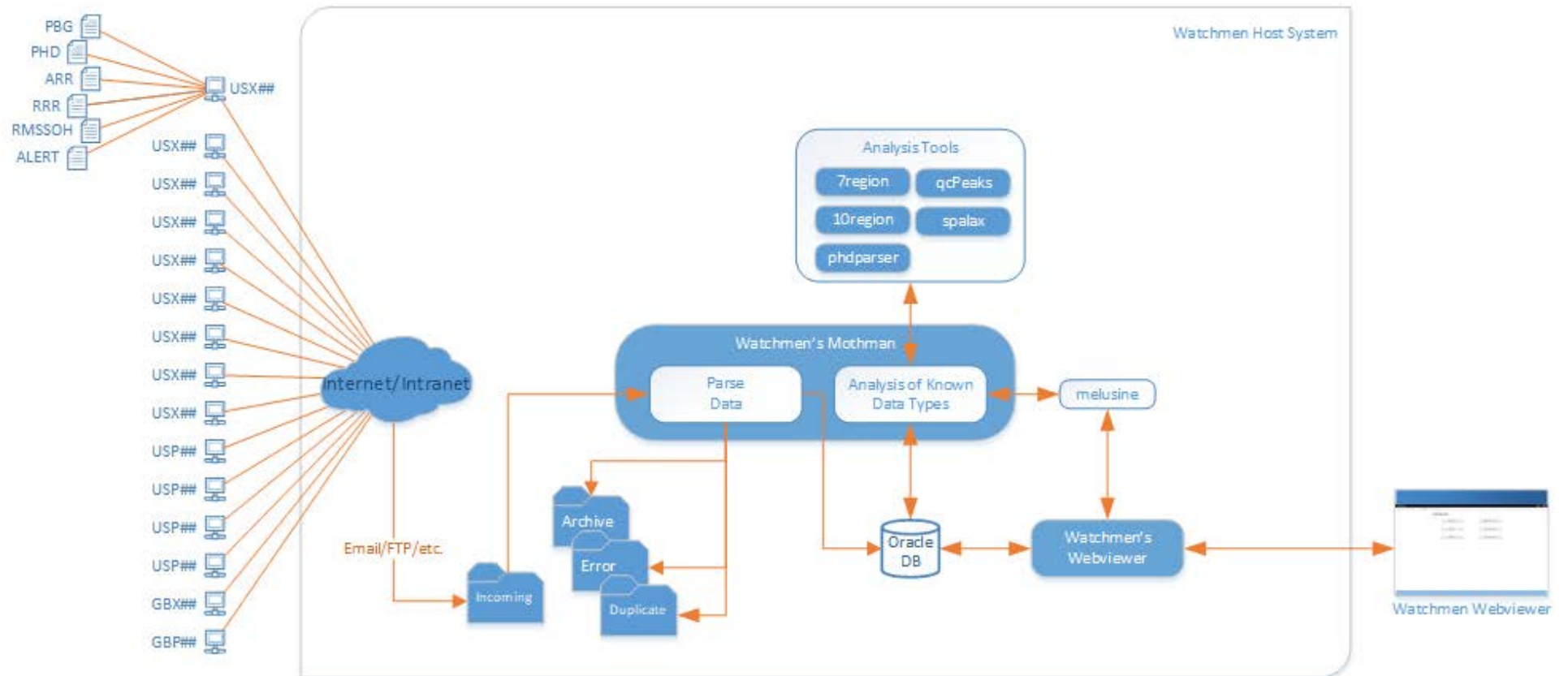
- mothman.war
- webviewer2.war

Figure 4 Manager Deploy Dialog Box

3 Block Diagram

4 Other Information

4.1 System Requirements

Web Browser: Chrome, or Firefox

Server:

RedHat Enterprise Linux 6+ or CENTOS 6+ 64bit

Java 8+ (note: Java 8 is not compatible with Apache Tomcat versions prior to 7.0.58)

Apache Tomcat 7/8/9

An Oracle Database

4.2 Known Issues

Chart legends are not printed correctly in Firefox and Internet Explorer (Workaround: Print from Chrome or take a screenshot of the chart)

A graphical glitch sometimes does not show the decimal point when viewing calibration data for a measurement. This is anticipated to be fixed in the Aug 2020 update.

5 Other Contributors Acknowledgement

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