S.E.E.R.

CHECKWEIGHER MODEL

- User Guide: Machine Operator & Supervision
- 2010_1005
- Guide version 1 (for Module version 1)

SUMMARY

The CHECKWEIGHER MODEL is intended to be a reliable and easy means of logging checkweigher / scale weights for various departments and lines throughout an industrial facility. While the system will auto-magically record weights, regardless of user-input, it will not be able to interpret these weights properly, unless the user has declared the proper line condition and line recipe.

The CHECKWEIGHER MODEL functions in WORM mode (Write Once, Read Many), which is to say that once data has been recorded, it cannot be altered. Therefore, it is very important that the proper line condition and recipe are entered every time a product / item changeover occurs, or the line is put into -or taken out of- production mode.

You will be expected to use this MODEL, and to do so properly.

ACCESS

You have been or will be provided a unique username and password to access SEER. These are your own, and are NOT to be shared and NOT to be used by anyone but you.

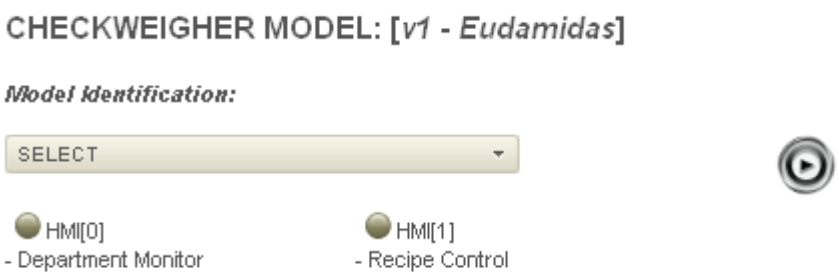
- Navigate to your company's SEER homepage, and select 'LOGIN' from the upper menu.

- Enter your username / password combination, and click the 'Go' button.

  - You should see a 'SUCCESSFUL LOGIN' notification. If you do not, or cannot login, then please contact a System Administrator.

- Now, you may select 'MACHINE CONTROL' from the upper menu.

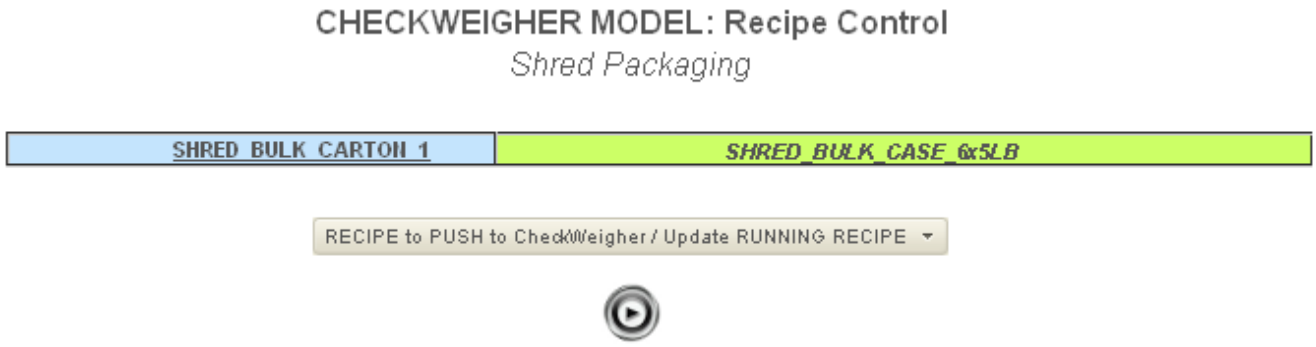
- Scroll down to the section titled 'CHECKWEIGHER MODEL'.



  - Now, select which department you are working in from the drop-down menu.
  - Click the checkbox next to 'HMI[1] Recipe Control'.
  - Finally, click the 'Go' button.

RECIPE CONTROL

- You will now see a list of each checkweigher / scale in your selected department. In addition, the CURRENT RECIPE RUNNING on each scale is listed next to that particular scale's name.



- For example, in the picture above, we see that for the SCALE NAMED “Shred Bulk Carton 1”, the CURRENT RECIPE RUNNING is “Shred Bulk Case 6x5LB”.
  - Notice the GREEN highlight, this indicates that a recipe is loaded and the scale is exporting data properly.
    - GREEN = normal operation (recipe loaded, scale exporting data).
    - GREY = checkweigher is scheduled out of service and no data is being exported.
    - YELLOW = checkweigher is in service (recipe loaded), however no data has been received recently. This could indicate the failure of the scale's communication module, network issue, or simply that the operator went on break but neglected to put the checkweigher into 'Scheduled Down' mode (out of service). Basically, it draws your attention to the scale.
    - RED = checkweigher is out of service (no recipe has been loaded), but the scale is exporting data! This indicates that the operator started up the line and

is running product or items across the scale, but did NOT load a recipe into the checkweigher logging system via SEER. This requires immediate attention, and a recipe should be loaded as soon as possible.

- Now, if you're just starting up for the day, then you'll likely see the checkweigher tagged as 'Scheduled Down' or 'No Recipe Loaded'. If you're performing a changeover, then you should see the existing recipe from your previous product, but either way you should be in a position where there is no product running over the checkweigher / scale yet.
    - Perform your normal operations for setting up your checkweigher (this depends on the scale manufacturer, your existing plant procedures, etc. etc...) at the checkweigher itself.
    - Now, once your checkweigher is ready to run, select the RECIPE you with to load into SEER for that particular checkweigher, from the drop-down menu, and press the 'GO' button.
    - You'll see the recipe update on the SEER display with your new choice.

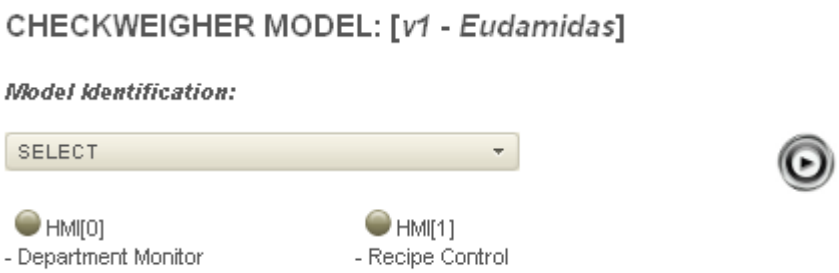
- A note regarding recipes... for ease of use, the recipe you choose on the scale's control panel MUST MATCH the recipe you choose for the scale in the SEER CHECHWEIGHER MODEL.
    - Occasionally, a plant's scale recipes will change. When this happens, it is important that maintenance or administration change the name of the recipe in the scale itself. Then, a SEER administrator must add the changed recipe as a NEW recipe. A SEER administrator should never delete a recipe from the system (and it will not allow that function unless WORM is disabled manually). Recipe parameters must be stored in order to display proper history.
    - For example, if one of the recipes is called “Powder_Bag_20LB”, and a parameter for it has changed, then...
        - Update parameter on the scale, and change recipe name to “Powder_Bag_20LB_01” (the old recipe may be deleted).
        - Create new recipe in SEER, called “Powder_Bag_20LB_01”, and do NOT delete the original! (Again, it will not allow you to regardless).

- When going on break, or when shutting down the checkweigher for any period of time, you should put update the recipe in SEER to reflect this...
    - In the recipe drop-down, simply select “None”, and then press the 'Go' button to take the line out of service.
    - Your plant may use another term, instead of “None”, such as “Line Down” or “Out of Service”. It should be something obvious though.

DEPARTMENT MONITOR

- Select 'MACHINE CONTROL' from the upper menu.

- Scroll down to the section titled 'CHECKWEIGHER MODEL'.

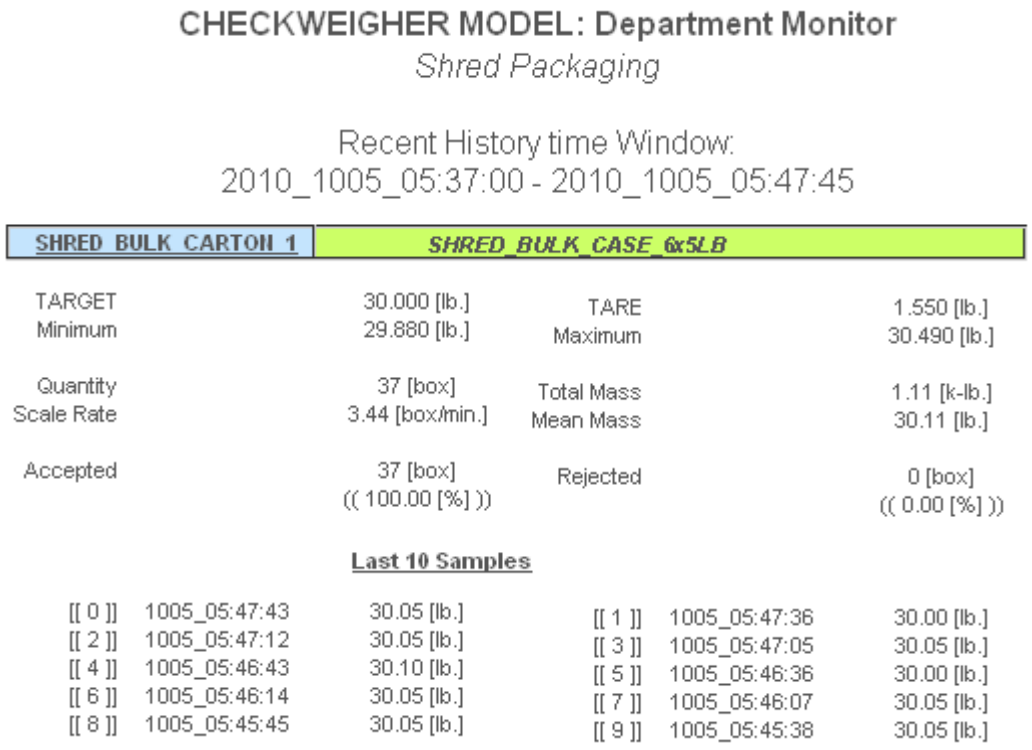


  - Now, select which department you are working in from the drop-down menu.
  - Click the checkbox next to 'HMI[0] Department Monitor'.
  - Finally, click the 'Go' button.

- You will now see a list of each checkweigher / scale in your selected department. In addition, the CURRENT RECIPE RUNNING on each scale is listed next to that particular scale's name.

  - The color coding scheme, discussed earlier (Red, Green, Yellow, Grey), is the same.

  - You will also see some important information that will help you to better run your process, anticipate, and correct problems.



  - You will see the target (desired) item weight, the package tare, minimum and maximum (these are all recipe parameters).
  - You'll also see performance data, such as the number of boxes run in

the snapshot time period (note, this time period is indicated underneath the scale title, and is adjustable by your system administrator), scale rate, mass run, average mass, quantity and percentage accepted, quantity and percentage rejected, along with the actual weights of the last 10 items to cross the scale / checkweigher.

TIPS FOR MAINTENANCE / ADMINS

- If a scale / checkweigher is flagged as RED, indicating that although a recipe is entered, data is not being exported to the SEER system, troubleshoot as follows...
  - Although a recipe is entered in SEER, is it also entered on the physical scale itself?
    - ACTION = If not, set the scale itself up properly.
  - Communication may be down.
    - Can you ping the scale's terminal server IP address?
      - If not, check to ensure that the scale's terminal server output (or the serial-to-ethernet terminal server module [such as models built by Lantronix, Nport Moxa, Digi, etc...] is powered up.
        - ACTION = power up terminal server.
      - If it is, check for a bad ethernet connection.
        - Crossover cable from a laptop directly to the terminal server ethernet port with a shared IP address, or jack in to a local port switch.
        - ACTION = repair ethernet as needed (cable / port switch / etc...)
        - Note: it is also possible the terminal server itself has failed. If your ethernet cabling and switches are good, this is likely the case.
  - If you can ping the terminal server, ensure that syphon (SEER communication module) is running properly.
    - Check your server for a process titled “syphon_[name of your checkweigher]” (POSIX systems), or scroll through your open syphon connections (WIN systems).
      - ACTION = if syphon is down, restart it.
  - If syphon is running, ensure that the database socket has not gone stale.
    - Syphon has a builtin 'keep alive', however if your database configuration is faulty, the socket may go stale after long periods where the scale was not running (not exporting data – such as a weekend where the scale was shut off).
      - TEMPORARY ACTION = kill the running syphon process and restart it.
      - LONG TERM FIX = examine your MySQL configuration file, and adjust parameters for socket staleness. These should be set reasonably long, 24 hours is not unreasonable.