## **Downtime**

Downtime is a tool designed to aid SMS in manually tracking and attributing reasons to downtime in the operation, to replace the use of text editors for manual tracking (Notes, TextEdit...)

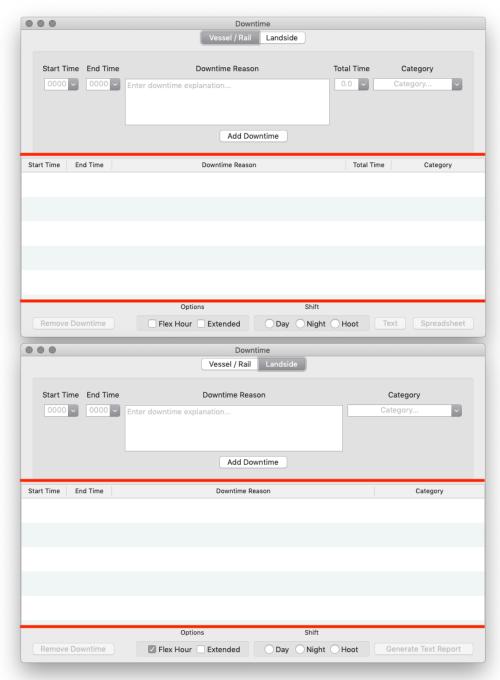
Downtime has two tabs - one for keeping track of downtime for Vessel or Rail operations, and one for keeping track of downtime for the Landside operation; they are separated because the Vessel/Rail operations use one set of rules and categories, and the Landside uses its own set of rules and categories.

Both tabs of Downtime have three major components: the downtime entry area, the downtime table view, and the report controls.

## **Entry Area**

### **Table View**

### **Control Area**



# **Adding Downtime - Entry Area**

The Entry Area is where you will enter all the salient details for each downtime entry. It has labeled fields for each component of a downtime entry.

**Start Time** and **End Time** (if applicable) need to be in 24-hour format.

You cannot add a downtime entry to the table without first selecting a category - any or all of the other fields may be blank for the initial adding to the table.

If you add an entry that requires an **End Time** with no **End Time** (like if you added some downtime before you knew when it would be over), it will display "missing" in the end time field. You must correct this (and assign the **Total Time** on the Vessel/Rail tab, once you have an **End Time**) before being able to generate a report.

In the Vessel/Rail tab, the **Total Times** field is populated with the amount of hours (to the tenths place) between the **Start Time** and **End Time**, multiplied by one through seven (so you can assign a downtime entry for one crane, all seven cranes, or any number of cranes in between). If you click the **Total Times** box without having real **Start Times** and **End Times**, it will be populated with all zeroes, or the **Total Times** from the last entry you added.

The Landside tab does not use the Total Times, since total downtime is not calculated for the Landside operation.

# **Entry Area - Category Prefixes**

On both tabs of Downtime, you can, but you do not have to, use the **Downtime Reason** field to assign a category with prefix commands. There is one prefix command for each category. To use a prefix command, just make sure it is the first text in the **Downtime Reason** field, like the picture below.

#### **Vessel/Rail Prefixes:**

#mech - Mechanical

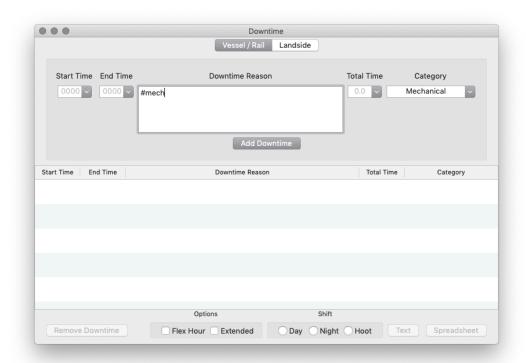
#op - Operational Scenario

#estop - E-Stop

#sys - System / Tech

#dead - Deadtime

#note - Note



### **Landside Prefixes:**

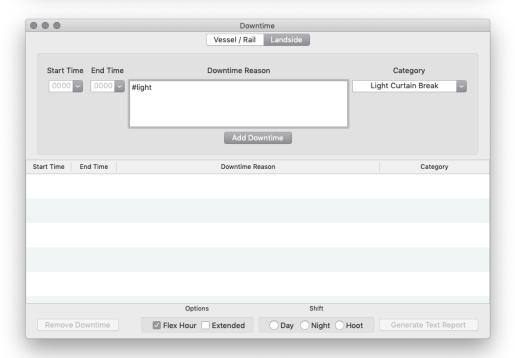
#light - Light Curtain Break

#reland - Reland

#flip - Flip

#asc - ASC Fault

#note - Note



There are six categories for Vessel/Rail, and five categories for Landside, listed above next to their prefix.

The **Note** category is special. You can create a **Note** with no times at all (a note general to the entire operation), or a note with just a **Start Time** (a note general to the hour), or a note with a **Start Time** and **End Time** (a note specific to a range of time.) Because you cannot select a **Total Time** (not allowed in Vessel/Rail, not present in Landside), you have free range to attribute times to any **Note** as you would like with no worry that the time will be counted when calculating the total downtime values. Notes with no times will be displayed at the beginning of the report, before the total values. Notes with times will be displayed with the hour of their Start Time in the report.

When you click "Add Downtime", the details are moved to their own row in the downtime table view area. The program will not keep the #mech prefix (or any other prefix) inside the **Downtime Reason** text when adding it to the table.

000 Downtime Vessel / Rail Landside Start Time End Time Downtime Reason Total Time Category 1800 | 1830 | #mech Crane 8 beam swap 0.5 Mechanical Add Downtime Start Time End Time Downtime Reason Total Time Category Options Flex Hour Extended Opay Night Hoot 000 Downtime Vessel / Rail Landside Start Time End Time Downtime Reason Total Time Category 0000 Enter downtime explanation Add Downtime Start Time Downtime Reason Total Time Category Crane 8 beam swap 1800 1830 0.5 0 Mechanical

Oay Night Hoot

Category prefix entered in the Downtime Reason field

Category prefix removed when the downtime entry is added to the table

# **Editing and Viewing Downtime - Table View**

The fields in the table view can also be edited, if for example you made a typo in the **Downtime Reason**, wanted to change the **Start Time** or **End Time**, or mistakenly clicked the wrong multiple of **Total Times**, or need to change the **Category**. To edit the **Start Time**, **End Time**, or **Downtime Reason** for a table view entry, just double click the text. To edit **Total Times** and **Category**, click the arrows next to those values.

If you change a Start Time or End Time and it would change the sorting of an entry, it will re-sort immediately after exiting the text field that you changed. This may look like the value "disappeared," but it only moved.

The table automatically sorts the downtime entries according to the following rules;

- Downtime entries are initially sorted by **Start Time**, low to high.
- If two entries have the same **Start Time**, they are sorted by the **End Time**, low to high.
- If a downtime entry stretches into the next hour (i.e., 0830-0942), then it will be sorted based on the **Start Time**.
- If an entry is a **Note** that **DOES NOT HAVE** a **Start Time**, it is sorted to the very end of the table, in the order it was added.
- If an entry is a Note that DOES HAVE a Start Time, it is sorted to the end of the hour for that Start Time. in the order it was added.

## **Configuring and Generating Reports - Control Area**

Downtime can generate text and spreadsheet reports for all of the entries currently in the table view.

Before exporting a **Text Report** or a **Spreadsheet Report**, you have to first select the **Shift** you will be generating a report for.

If your **Shift** will include a flex hour, or go extended, be sure to check these boxes so that the program will display and count these downtimes.

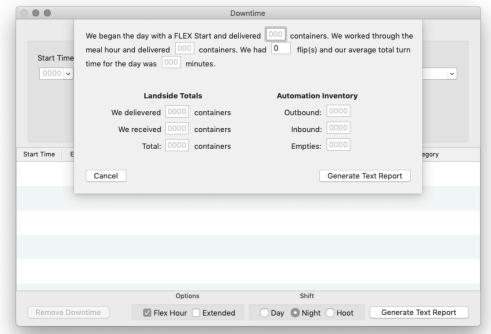
Clicking the **Flex Hour** checkbox will generate the **Text Report** or **Spreadsheet** report with an extra hour before the shift start (0700-0800, 1700-1800). Clicking the **Extended** checkbox will generate the **Text Report** or **Spreadsheet Report** with two extra hours after the shift end (1700-1900, 0300-0500).

On the Vessel/Rail tab, a report will generate immediately after you press the button to generate it. On the Landside tab, a drop down appears for the final information needed for the report.

This drop down view prompts the user to fill in the header sentence for the report, as well as the delivered/received totals and the automation inventory that is part of the final Landside shift report.

The **Flips** field will automatically populate based on however many Flips are present in the table view, but you may change this value,.

The **Total** field for **Landside Totals** will automatically add the amount of delivered and received containers for you.



Once you have finished entering the total views, you can hit the "Generate Text Report" button again to generate the final Landside report.

## **Fixing Malformed Data**

To be able to export a report with Downtime, the data you provide the application has to meet certain criteria. The two different tabs of Downtime have different requirements based on how the report is formatted.

#### For Vessel/Rail:

- All entries must have a Category assigned from the list.
- If an entry is not a Note;
  - Start Time must be 4 digits and numeric only.
  - End Time must be 4 digits and numeric only.
  - · Downtime Reason must not be empty.
  - **Downtime Reason** must **not** contain the strings %\$ or &#~. Downtime uses these strings to delimit your save data, so you may not use them in your downtime fields.
  - Total Time must not be empty and must match one of the total times from the list.
- If an entry is a Note:
  - Start Time must be 4 digits and numeric only or empty.
  - End Time must be 4 digits and numeric only or empty.
  - · Downtime Reason must not be empty.
  - **Downtime Reason** must **not** contain the strings %\$ or &#~. Downtime uses these strings to delimit your save data, so you may not use them in your downtime fields.
  - Total Time must be empty.

#### For Landside:

- All entries must have a Category assigned from the list.
- All entries must not contain the strings %\$ or &#~ in the **Downtime Reason**. Downtime uses these strings to delimit your save data, so you may not use them in your downtime fields.
- All Light Curtain Breaks must have a Start Time and End Time assigned.
- All Relands must have a Start Time assigned.
- Flips may not have a Start Time or End Time.
- ASC Faults must have a Start Time, and may or may not have an End Time.
- Notes may or may not have a Start Time or End Time.

If any of your values do not match the export criteria when you attempt to generate a report, Downtime will display a warning indicating what is wrong. Downtime also checks your data every time you make an entry, but only displays the warning when you click a button or try to quit the application and data is malformed. When data is missing entirely, the field will be highlighted yellow. When data is not allowed (like times with letters in them, or fields that contain the save characters), the text will turn red.