

NEW UNITS OF MEASURE FUNCTIONALITY

- **The Basics:** We have introduced functionality that will allow material items of dispatches to include a wide variety of units of measure beyond just tons and SY (square yardage). Units of measure options now include CY, CM, LF, SF, METERS, and more. More units of measure may be added in the future as well.
- **New fields/properties:** With this new update you will see two new fields for each material item of a dispatch: Quantity and Unit of Measure. Also the Dispatch Type property of the whole dispatch has been removed.
- **Tons (existing already):** The Tons property is still there on every material item, but now contains the quantity converted to tons from the given unit of measure. If you choose a Unit of Measure of “TONS” (the default choice) for a material item, the Tons field will auto-populate to equal your Quantity and cannot be anything else. However, if you choose a Unit of Measure other than “TONS”, you will be able to enter the tons into this field if applicable. DropTime will not convert to tons from another unit of measure as it does not have the data necessary to calculate it, so it accepts the conversion result from the user.
- **Entering TONS as unit of measure:**

The screenshot shows a software interface for entering material item details. A red box highlights the Quantity and Tons fields, which are both set to 1500. A dropdown menu is open for the Unit of Measure field, showing options: TONS, SY, LF, METERS, STA, SF, SQM, CY, CM, EA, and LS. The form also includes fields for Phase, Mix, Liquid AC Type, Liquid AC Perc, and Comments, along with checkboxes for Demand On Plant and Override Plant, and buttons for Cancel and Save Material Item.

- **Entering SY as unit of measure:**

The screenshot shows a software interface with the following fields and options:

- Phase:** 50.89.34 - Paving
- Quantity:** 25
- Tons:** 40
- Mix:** 233545 - 9.5
- Liquid AC Type:** SF
- Liquid AC Perc:** 0%
- Comments:** (empty text box)
- Demand On Plant
- Override Plant
- Buttons:** Cancel, Save Material Item

A dropdown menu is open, showing the following options: TONS, SY (highlighted), LF, METERS, STA, SQM, CY, CM, EA, LS. A red box highlights the 'Quantity' and 'Tons' input fields.

AUTO-CORRECTION OF MISMATCH BETWEEN MATERIAL ITEMS VALUES AND DISPATCH TOTALS

- **IMPORTANT: NEW MATERIAL ITEMS HAVE BEEN AUTOMATICALLY ADDED UPON THIS UPDATE FOR DISPATCHES WITH THE MISMATCH ISSUE DESCRIBED BELOW.**
- **The total mismatch issue:** Under previous rules, users were permitted to add dispatches and enter a Total Tons (or Total SY) value for the whole dispatch without any material items. This means that the sum of the individual material item tons / SY values of the dispatch did not always equal the entered dispatch total. With zero material items the sum would be zero, but the entered value could be anything. As of this update, this is no longer permitted, as DropTime needs to ensure that the sum of the individual material item tons / SY values always matches the corresponding dispatch total values.
- **To correct this going forward,** the Total Tons/SY box on the right in the Material Items and Quantities tab of the Dispatch Edit Pane will now always be read-only. Users will not be able to enter a value there, including when there are no material items (which has been permitted in the case of no material items).
- **To correct for the mismatches in the system already,** DropTime has automatically added a single material item to any dispatch for which (a) there are no material items AND (b) there is a non-zero dispatch total tons or total SY. This new material item has a tons or SY value equal to the dispatch total, bringing it into balance. This correction will ensure that going forward, the sum of all the material items' tons/SY values will always equal the total for each dispatch. Values for each property/field for the new material items have been set as follows:
 - **Phase:** "Unknown Tonnage (or SY) Phase"
 - **Quantity:**
 - If a Tonnage-type dispatch, set to the dispatch total tons.
 - if a SY-type dispatch, set to the dispatch total SY.
 - **Unit of Measure**
 - If a Tonnage-type dispatch, "TONS"
 - if a SY-type dispatch, "SY"
 - **Tons:**
 - If a Tonnage-type dispatch, set to the dispatch total tons.
 - if a SY-type dispatch, set to ZERO.
 - **Material:** "Unknown Material"
 - **Liquid AC:** Blank
 - **Liquid AC Percentage:** Blank
 - **Demand on Plant:** No (unchecked)
 - **Override Plant:** No (unchecked)
 - **Comments:** "auto-added on 7/12/2020 to account for total dispatch Tons (or SY)"

Mismatched Dispatch Before Update (Total does not match total of material items which is zero):

General | Material Items & Quantities | Information | History | Location Update

Material Items

+ Add material item

Phase Code	Tons	Mix Code	Liquid Type	Liquid AC Percent	Comments
No material items					

Dispatch Type: Tonnage

Quantities

Total Tons: 250

Tonnage per round: 0

Tonnage per hour: 0

Cycle Time:

Corrected Dispatch After Update (Total matches total of material items):

General | Material Items & Quantities | Information | History | Location Always auto-calculated - Read only Update

Material Items

+ Add material item

Phase Code	Quantity	Unit	Tons	Mix Code	Liquid Type	Liquid AC Percent	Comments
Unknown Tonnage Phase	250	TONS	250	Unknown Material			Auto-added on 7/10/2020 to account for total dispatch Tons

Quantities

Total Tons: 250

Tonnage per round: 0

Tonnage per hour: 0

Cycle Time:

CONVERTING EXISTING SY-TYPE AND TONNAGE-TYPE DISPATCHES

- **Removal of “Dispatch Type”** in Dispatch Edit Pane on the Material Items and Quantities tab, top of right side: This choice between Tons and SY for the whole dispatch has been removed. With the more sophisticated update each individual material item can have its own unit of measure and therefore it makes no sense anymore to set an entire dispatch to any particular unit of measure. A dispatch can now contain material items with different units of measure.
- **Material items initial values:** Upon the update, all material items of every dispatch have the following property values set as follows
 - For dispatches that previously had a Dispatch Type of **“Tonnage”**
 - **Quantity** was set to the “Tons” value
 - **Unit of measure** was set to “TONS”
 - **Tons** is unchanged (= Quantity)
 - **Demand on Plant** was set to checked
 - For dispatches that previously had a Dispatch Type of **“SY”**
 - **Quantity** was set to the previous “SY” value
 - **Unit of measure** was set to “SY”
 - **Tons** was set to ZERO (We cannot convert SY to tons)
 - **Demand on Plant** was set to unchecked

SY-Type Dispatch - Before Update:

General	Material Items & Quantities	Information	History	Location	Update	
Material Items + Add material item					Dispatch Type <input type="radio"/> Tonnage <input checked="" type="radio"/> SY <hr/> Quantities Total SY: <input type="text" value="5845"/> Tonnage per round: <input type="text" value="0"/> Tonnage per hour: <input type="text" value="0"/> Cycle Time: <input type="text"/>	
Phase Code	SY	Mix Code	Liquid Type	Liquid AC Percent		Comments
Reclaim - Intervale	2800			0%		
Reclaim - Mitchell	1625			0%		
Reclaim - Brook	1420			0%		

SY-Type Dispatch - After Update:

General	Material Items & Quantities	Information	History	Location	Update			
Material Items + Add material item					Quantities Total Tons: <input type="text" value="0"/> Total SY: <input type="text" value="5845"/> Tonnage per round: <input type="text" value="0"/> Tonnage per hour: <input type="text" value="0"/> Cycle Time: <input type="text"/>			
Phase Code	Quantity	Unit	Tons	Mix Code		Liquid Type	Liquid AC Percent	Comments
Reclaim - Intervale	2800	SY	0				0%	
Reclaim - Mitchell	1625	SY	0				0%	
Reclaim - Brook	1420	SY	0			0%		

Tons-Type Dispatch - Before Update:

General	Material Items & Quantities	Information	History	Location	Update	
Material Items						
+ Add material item						
Phase Code	Tons	Mix Code	Liquid Type	Liquid AC Percent	Comments	
Machine Pave	240	65 gyr 19mm	64-22	4.7%		
Machine Pave	120	65 gyr 9.5mm	64-22	6%		

Dispatch Type

Tonnage

Other

Quantities

Total Tons:

Tonnage per round:

Tonnage per hour:

Cycle Time:

Tons-Type Dispatch - After Update:

General	Material Items & Quantities	Information	History	Location	Update		
Material Items							
+ Add material item							
Phase Code	Quantity	Unit	Tons	Mix Code	Liquid Type	Liquid AC Percent	Comments
Machine Pave	240	TONS	240	65 gyr 19mm	64-22	4.7%	
Machine Pave	120	TONS	120	65 gyr 9.5mm	64-22	6%	

Quantities

Total Tons:

Tonnage per round:

Tonnage per hour:

Cycle Time: