

VisionLink Unified Fleet Asset-Specific Utilization Details Quick Reference Guides

Which Utilization Quick Reference Guide is right for you?

These Quick Reference Guides explain *where* VisionLink Unified Fleet Utilization data comes from and *how* it is calculated based on the data source and the configured work definition. The work definition tells VisionLink Unified Fleet Utilization when the asset is considered to be “working.”

Regardless of the configured work definition, some data is reported by the device or ECM. This may include:

- Hours and Location messages
- Idle data
- Fuel data
- Odometer data
- Engine/Ignition On/Off events

In addition, some data is calculated from user-specified values:

- Target Values
- Fuel Burn Rates (for off-board assets only)

The asset status, active subscriptions, and types of devices (satellite, cell, dual mode, etc.) also determine which utilization data is supported and how often data is reported. For example:

- For Hours to be reported, the asset must have an active core subscription for all or part of a selected date range. Runtime, Working, and Idling data are available only for the time when the core subscription was active.
- For Fuel data to be reported, the asset must have an active fuel subscription for all or part of a selected date range.

Answer the question below to determine which Utilization Quick Reference Guide is right for you.

Is the data...	For example	Review this Quick Reference Guide
Calculated using on-board work definitions?	Machine-Sourced (Engine-Sourced)	On-board Work Definition
Calculated using off-board work definitions?	Switch Movement Movement + Switch	Off-board Work Definition

On-board Work Definition Quick Reference Guide

Column	Units	Data source	Details
Hours			
Reported Time	N/A	Utilization data	Date and time the last complete utilization data was reported in the asset's time zone
Runtime – Target	(hr)	User	Target daily Runtime Hours
Runtime – Meter	(hr)	Device	Hour Meter value at the time of the utilization report from the asset
Runtime – Daily*	(hr)	Calculated	(Last Reported Runtime – Meter Hours) - (Runtime – Meter Hours from the previous day)
Runtime – Performance	%	Calculated	$[(\text{Runtime} - \text{Daily}) / (\text{Runtime} - \text{Target})] \times 100$
Idle – Target	(hr)	User	Target daily Idle Hours
Idle – Meter	(hr)	Device	Idle Hour meter value at the time of the utilization report from the asset
Idle – Daily*	(hr)	Calculated	(Last Reported Idle – Meter) – (Idle – Meter from the previous day)
Idle – Performance	%	Calculated	$[(\text{Idle} - \text{Daily}) / (\text{Idle} - \text{Target})] \times 100$
Idle – Idle %	%	Calculated	(Idle – Daily) / (Runtime – Daily)
Working – Daily*	(hr)	Calculated	(Runtime – Daily) - (Idle – Daily)

Fuel Burned			
Runtime – Lifetime Fuel	(gal) or (l)	Device	Total fuel burned for the life of the asset
Runtime – Fuel Burned*	(gal) or (l)	Calculated	(Last Reported Runtime – Lifetime Fuel) - (Runtime – Lifetime Fuel from the previous day)
Runtime – Burn Rate	(gal/hr) or (l/hr)	Calculated	(Runtime – Fuel Burned) / (Runtime – Daily)
Idle – Lifetime Fuel	(gal) or (l)	Device	Total fuel burned while the asset is idling for the life of the asset
Idle – Fuel Burned*	(gal) or (l)	Calculated	(Last Reported Idle – Lifetime Fuel) - (Idle – Lifetime Fuel from the previous day)
Idle – Burn Rate	(gal/hr) or (l/hr)	Calculated	(Idle – Fuel Burned) / (Idle – Daily)
Working – Fuel Burned	(gal) or (l)	Calculated	(Runtime – Fuel Burned) - (Idle – Fuel Burned)
Working – Burn Rate	(gal/hr) or (l/hr)	Calculated	(Working – Fuel Burned) / (Working – Daily)

* If there is no report for more than a day or for a day in the selected date range, then VisionLink Unified Fleet will search back in time until a day is found with a report. It uses the last report from that day for these calculations:

- Daily Runtime
- Idle Hours
- Runtime Fuel Burned
- Idle Fuel Burned
- Distance Traveled

On-board Work Definition Quick Reference Guide

Column	Units	Data source	Details
Distance			
Distance*	(mi) or (km)	Calculated	(Last Reported Odometer) - (Odometer for the previous day)
Odometer	(mi) or (km)	Device	Total distance traveled for the life of the asset
Mileage	(mi/gal) or (km/l)	Calculated	Distance / (Runtime – Fuel Burned)

Location			
Last Location	N/A	Device	Asset's location at the time the latest utilization data was reported
Current Geofence	N/A	Device	The geofence the asset is in when reporting its location, regardless of date range

*If there is no report for more than a day or for a day in the selected date range, then VisionLink Unified Fleet will search back in time until a day is found with a report. It uses the last report from that day for the Distance Traveled calculation.

Off-board Work Definition Quick Reference Guide

Column	Units	Data source	Details
Hours			
Reported Time	N/A	Utilization data	Date and time the last complete utilization data was reported in the asset's time zone
Runtime – Target	(hr)	User	Target daily Runtime Hours
Runtime – Meter	(hr)	N/A	
Runtime – Daily	(hr)	Calculated	(Working – Daily) + (Idle – Daily)
Runtime – Performance	%	Calculated	$[(\text{Runtime} - \text{Daily}) / (\text{Runtime} - \text{Target})] \times 100$
Idle – Target	(hr)	User	Target daily Idle Hours
Idle – Meter	(hr)	N/A	
Idle – Daily	(hr)	Device	Sum of the Asset Operation Idle segments
Idle – Performance	%	Calculated	$[(\text{Idle} - \text{Daily}) / (\text{Idle} - \text{Target})] \times 100$
Idle – Idle %	%	Calculated	$(\text{Idle} - \text{Daily}) / (\text{Runtime} - \text{Daily})$
Working – Daily	(hr)	Device	Sum of the Asset Operation Working segments
Fuel Burned			
Runtime – Lifetime Fuel*	(gal) or (l)	Device	Total fuel burned for the life of the asset
Runtime – Fuel Burned**	(gal) or (l)	Calculated	(Working – Fuel Burned) + (Idle – Fuel Burned)
Runtime – Burn Rate	(gal/hr) or (l/hr)	Calculated	$(\text{Runtime} - \text{Fuel Burned}) / (\text{Runtime} - \text{Daily})$
Idle – Lifetime Fuel	(gal) or (l)	N/A	
Idle – Fuel Burned	(gal) or (l)	Calculated	$(\text{Idle} - \text{Daily}) \times (\text{Idle} - \text{Burn Rate})$

Idle – Burn Rate	(gal/hr) or (l/hr)	User	Estimated Idle Fuel Burn Rate
Working – Fuel Burned	(gal) or (l)	Calculated	$(\text{Working} - \text{Daily}) \times (\text{Working} - \text{Burn Rate})$
Working – Burn Rate	(gal/hr) or (l/hr)	User	Estimated Working Fuel Burn Rate
Distance			
Distance***	(mi) or (km)	Calculated	(Last Reported Odometer) - (Odometer for the previous day)
Odometer	(mi) or (km)	Device	Total distance traveled for the life of the asset
Mileage	(mi/gal) or (km/l)	Calculated	$(\text{Distance}) / (\text{Runtime} - \text{Fuel Burned})$
Location			
Last Location	N/A	Device	Asset's location at the time the latest utilization data was reported
Current Geofence	N/A	Device	The geofence the asset is in when reporting its location, regardless of date range

*When Fuel Burn Rate Estimates are set in Administrator, the Runtime Lifetime Fuel will be N/A in the Asset Utilization Details page. When Fuel Burn Rate Estimates are *not* set in Administrator, the Runtime Lifetime Fuel will come from the ECM (the actual meter value). *See the next two pages for displayed values.*

**When Fuel Burn Rate Estimates are set in Administrator, the Runtime Fuel Burn is calculated based on the sum of Working Fuel Burned and Idle Fuel Burned. When Fuel Burn Rate Estimates are *not* set in Administrator, the Runtime Fuel Burn is calculated based on the delta of the current day and previous day meter value (value from the ECM). *See the next two pages for displayed values.*

***If there is no report for more than a day or for a day in the selected date range, then VisionLink Unified Fleet will search back in time until a day is found with a report. It uses the last report from that day for the Distance Traveled calculation.

Off-board Work Definition Quick Reference Guide

	Input?		Displayed in the Utilization Summary page (one or more assets)								
	Idle Burn Rate	Working Burn Rate	Runtime (hr)	Runtime Fuel Burned*	Runtime Burn Rate	Idle (hr)	Working - Burn Rate (hr)	Working (hr)	Idle – Burn Rate (gal/hr) or (l/hr)	Idle – Fuel Burned (gal) or (l)	Working – Fuel Burned (gal) or (l)
Fuel Burn Rate Estimates are set in Administrator and the asset <i>has</i> reported all events necessary for calculating Working, Idle, Runtime Hours, and Runtime Fuel.	Yes	Yes	<value>	<value>	<value>	<value>	<value>	<value>	<value>	<value>	<value>
Fuel Burn Rate Estimates are set in Administrator and the asset <i>has not</i> reported all events necessary for calculating Working, Idle, Runtime Hours, and Runtime Fuel.	Yes	Yes	-	-	-	-	-	-	-	-	-
Fuel Burn Rate Estimates are <i>not set</i> in Administrator and the asset <i>has</i> reported all events necessary for calculating Working, Idle, Runtime Hours, and Runtime Lifetime Fuel.	No	No	<value>	<value>	<value>	<value>	-	<value>	-	-	-
Fuel Burn Rate Estimates are <i>not set</i> in Administrator and the asset <i>has</i> reported all events necessary for calculating Working, Idle, Runtime Hours <i>except</i> Runtime Lifetime Fuel.	No	No	<value>	-	-	<value>	-	<value>	-	-	-
Fuel Burn Rate Estimates are <i>not set</i> in Administrator and the asset <i>has not</i> reported all events necessary for calculating Working, Idle, Runtime Hours, and Runtime Lifetime Fuel.	No	No	-	-	-	-	-	-	-	-	-

*The Runtime Fuel Burned value is the sum of calculated Idle and Working Fuel Burned only when Estimated Fuel Burn Rates are set in Administrator.

Off-board Work Definition Quick Reference Guide

	Input?		Displayed in Asset Utilization Details page (single asset)										
	Idle Burn Rate	Working Burn Rate	Runtime Meter	Idle Meter	Runtime Lifetime Fuel	Runtime Fuel Burned	Runtime - Burn Rate (gal/hr) or (l/hr)	Working - Burn Rate (gal/hr) or (l/hr)	Idle - Burn Rate (gal/hr) or (l/hr)	Idle Lifetime Fuel	Working Daily (hr)	Runtime Daily	Idle Daily
Fuel Burn Rate Estimates are set in Administrator and the asset <i>has</i> reported all events necessary for calculating Working, Idle, Runtime Hours, and Runtime Fuel.	Yes	Yes	N/A	N/A	N/A	<value>	<value>	<value>	<value>	N/A	<value>	<value>	<value>
Fuel Burn Rate Estimates are set in Administrator and the asset <i>has not</i> reported all events necessary for calculating Working, Idle, Runtime Hours, and Runtime Fuel.	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-
Fuel Burn Rate Estimates are <i>not set</i> in Administrator and the asset <i>has</i> reported all events necessary for calculating Working, Idle, Runtime Hours, and Runtime Lifetime Fuel.	No	No	N/A	N/A	<value>	<value>	<value>	-	-	N/A	<value>	<value>	<value>
Fuel Burn Rate Estimates are <i>not set</i> in Administrator and the asset <i>has</i> reported all events necessary for calculating Working, Idle, Runtime Hours <i>except</i> Runtime Lifetime Fuel.	No	No	N/A	N/A	-	-	-	-	-	N/A	<value>	<value>	<value>
Fuel Burn Rate Estimates are <i>not set</i> in Administrator and the asset <i>has not</i> reported all events necessary for calculating Working, Idle, Runtime Hours, and Runtime Lifetime Fuel.	No	No	-	-	-	-	-	-	-	-	-	-	-