

Site Manager v3 Release Notes

1. Introduction

- 1.1 Site Manager v3 introduces new alerts on telehandlers, excavators and dumpers and provides a new Live Alerts dashboard allowing customers to track hot alerts on a real-time basis. Site Manager Analytics includes new reports to profile these alerts. The Site Manager database has been normalised to improve performance and scalability and improvements to the TrackUnit API have improved the accuracy of start and stop times. User administration has been improved to allow users to request changes more easily and to query their settings.

2. New Alerts (see Appendix for a summary of available alerts)

2.1 Definitions

Customer alerts – only visible on the Site Manager portal. Alerts are set up at a customer level for consistent reporting.

User alerts – visible on the Site Manager portal and to users via text and email. User alerts can be 'hot' or 'warm'. User alerts are set up at a user level. Alerts can be enabled or disabled and configured as 'hot' and/or 'warm' with different user thresholds for reporting.

Hot alerts – a hot alert is a user alert that is notified by text and email every 2 hours to the user. Hot alerts are used to flag imminent danger to human life or machine health.

Note that if multiple alerts are received from a manufacturer's telematics system, rather than notifying these as multiple alerts to users these are notified as a single alert every 2 hours. This ensures that notifications are meaningful rather than resulting in endless texts and emails that are latterly ignored.

The exceptions to this are:

CheckMate (CM) alerts – these are notified every 2 hours between site start and finish times. There is little point notifying users if the site is closed and the machine is not being used. Note that the engine must be running for 1 hour first before a CM alert is activated.

Out of Hours (OoH) alerts - notified as a single alert (ie not repeated every 2 hours)

H&S alerts (H&S) – a single 'hot' alert is notified if a health and safety defect (i.e. a safety stand-down) has been advised through Defect Manager and the engine is subsequently running for a minimum of 1 hour within the first 4 hours of the defect being reported.

Warm alerts - are user alerts that are notified by email as a single alert at the beginning of each day. Usually they require activity for a complete day before an alert can be generated e.g. low utilisation of equipment.

Telehandlers

- 2.2 **Driving at Speed (DaS (EB)) with elevated boom** – available as a 'hot' and 'warm' alert if speed exceeds 5kph and the boom angle is 30° or more. Telehandlers should always be driven with the boom lowered to ensure that the centre of gravity of the

machine and the load is as low as possible. Driving with the boom raised should never be considered as "normal" practice given that it introduces an extra risk that must be assessed. If the site is so restricted that manoeuvring is impossible without raising the boom, site management should re-assess the use of a telehandler at all or, at least, consider reselection of the machine chosen. In the past, operators have raised the boom in order to see under it. The modern design of telehandlers makes this unnecessary and regular driving of a telehandler with the boom raised should always be challenged by supervisors.

- 2.3 **Driving at Speed (DaS)** is now available as a 'hot' alert as well as a 'warm' alert. Speed thresholds can be set at customer and user level. The provision of DaS hot alerts now enables site managers to challenge operators as speeding events occur real-time rather than information being provided next day.
- 2.4 **Fuel Theft (F Theft)** – available as a 'warm' alert - notifies if fuel level drops by more than a user definable threshold in a 24-hour period.
- 2.5 **LLMC override (LLMC)** – (Longitudinal Load Moment Control) override. Telehandlers with extended loads tend to tip over in the forward direction. The LMI (Load Moment Indicator) provides a visual indication of this risk. Ardent's telehandlers are fitted with a device called the Longitudinal Load Moment Control (LLMC) that monitors this and restricts movement as the telehandler approaches its safe working parameters. Operators can override this control. The alert is triggered if an operator overrides the LLMC more than x times in a 24-hour period where x is a user-definable number >1. A high frequency of LLMC alerts suggests poor operating practices or the need for a larger capacity machine as well as increased risk of forward tipping.
- 2.6 **Movement Alert (Move)** – available as 'hot' and 'warm' alerts. Notifies if the position of the telehandler is more than x km (user defined) from its previous position on the previous day. Users can track the start and finish co-ordinates of the equipment and click through to a map. Indicates possible theft of equipment, authorised or unauthorised movement of equipment.
- 2.7 **Out of Hours (OoH)** – now available as a 'hot' alert as well as the current 'warm' alert. A high frequency of OoH alerts could be indicative of levels of site stress. Also highlights overtime costs, potential issues with lone working practices, or possible pilfering of materials.
- 2.8 **Parking Brake (PB)** – notifies with a 'warm' and 'hot' alert if a machine is left unattended, there is no seat pressure, the machine is idling and the parking brake is set to 'off'.
- 2.9 **Punctures (Pun)** – notifies a 'warm' alert if more than a user-defined number of punctures are reported in a 24-hour period. Helps pinpoint sites where there is a high frequency of repeat punctures which may indicate site housekeeping or other local issues.
- 2.10 **Reversing Time (RevT)**– notifies if reverse engine hours are more than x% of total engine hours in a 24-hour period. Nearly a quarter of all deaths involving vehicles at work occur during reversing. Many other reversing accidents do not result in injury but cause costly damage to vehicles, equipment and premises. The HSE notes that most of these accidents can be avoided by taking simple precautions such as removing the need for reversing altogether, by setting up one-way systems, for example drive-through loading and unloading positions. An excessive number of reversing alerts may indicate poor operating practices or a badly designed site.

2.11 **Seatbelt (S/B)** – now contains an alert inhibitor – alerts are inhibited for a user-defined number of minutes from site start hours (as defined in the Out of Hours box).

2.12 **4th Gear Tracker** – identifies the highest gear used during the time period in question. Can be used to validate that equipment has been supplied with 4th gear disabled (if requested).

3. **Dumpers** - the following new alerts are available for dumpers:

3.1 **Movement Alert** – available as ‘hot’ and ‘warm’ alerts. Notifies if the position of the telehandler is more than x km (user defined) from its previous position on the previous day. Users can track the start and finish co-ordinates of the equipment and click through to a map.

3.2 **Out of Hours (OoH)** – now available as a ‘hot’ alert as well as the current ‘warm’ alert.

3.3 **Punctures (Pun)** – notifies a ‘warm’ alert if more than a user-defined number of punctures are reported in a 24-hour period. Helps pinpoint sites where there is a high frequency of repeat punctures which may indicate site housekeeping or other local issues.

4. **Improved reporting**

4.1 Telehandlers – new reports include trend analysis for machines being driven in reverse, fuel theft alerts, movement alerts, punctures, LMI override and parking brake alerts. Improvements have also been made to the seatbelt compatibility report which enables users to generate a list of non-compliant machines.

4.2 New CheckMate and Defect Manager charts have been added showing bar charts of the top ten divisions and top ten sites with the most alerts. This helps management to focus on those divisions and sites most at risk.

4.3 Dumpers – trend analysis for punctures and movement alerts.

5. **Improved user administration**

5.1 A new menu, ‘users’, accessible from the main menu allows users to request deletion or amendment of users and/or user details. Depending on their level of system access, users can view users and settings at group, division, or site level and request changes.

5.2 Rehire flag – available on customer alert settings for better reporting of rehire customer site locations.

6. **Live alerts reporting**

6.1 A new screen showing hot alerts on a real-time basis is now available as part of the main menu. This allows users to identify different alert types and filter on those which are deemed important, enabling centralised hire departments to focus on issues which might materially affect machine health and/or the safety of the operator.

7. **Integration with other systems**

7.1 Site Manager is now accessible from within Ardent Insite – Ardent’s new portal that enables customers to view machines on hire, offhire equipment, view and copy invoices, access delivery, collection and damage documentation and photographs, LOLER certificates and Ardent TV. Together, Ardent Insite and Site Manager provide a fully comprehensive end-to-end (N2N) solution for users of hired-in equipment.

8. **Default settings**

8.1 ‘Hot’ and ‘warm’ alerts at *user level* are currently set to ‘off’ for new alerts. If you wish for these to be enabled please contact sitemanager@ardenthire.com. Default settings for *customer level* alerts have been set as below (in other words they are only visible in the Site Manager portal). Again, please contact us if you wish for any of these to be modified. Note that requests for changing user parameters can also be made via the Site Manager Portal.

Alert Type	Default thresholds (in any 24 hour period)
Fuel theft	50%
LLMC override	3 times
Movement alert	3km
Punctures	3 times on the same machine
Seatbelt not worn	No offset applied
Time spent in reverse	25%

Appendix: Site Manager v3 Alerts

Telehandlers				
Alert Type	Customer Level	User Level		User definable threshold setting
		Hot	Warm	
CheckMate	✓	✓	✓	✗
Driving at Speed	✓	✓ <i>New</i>	✓	✓
Fuel idling	✓	✗	✓	✓
Fuel theft <i>New</i>	✓	✗	✓	✓
H&S	✓	✓	✓	✗
LLMC override <i>New</i>	✓	✗	✓	✓
Low battery	✓	✓	✓	✓
Low utilisation	✓	✗	✓	✓
Movement alert <i>New</i>	✓	✗	✓	✓
Out of hours	✓	✓ <i>New</i>	✓	✓
Parking brake <i>New</i>	✓	✓	✓	✗
Punctures <i>New</i>	✓	✗	✓	✓
Seatbelt not worn	✓	✓	✓	✓ <i>New</i>
Time in reverse <i>New</i>	✓	✗	✓	✓
Travelling with boom in air at speed <i>New</i>	✓	✓	✓	✗
Water-in-fuel	✓	✓	✓	✗

<5T Dumpers				
Alert Type	Customer Level	User Level		User definable threshold setting
		Hot	Warm	
Low battery	✓	✓	✓	✓
CheckMate	✓	✓	✓	✗
Driving at Speed	✓	✓	✓	✓
Engine idling	✓	✗	✓	✓
H&S	✓	✓	✓	✗
Movement alert <i>New</i>	✓	✗	✓	✓
Out of hours	✓	✓	✓	✓
Punctures <i>New</i>	✓	✗	✓	✓
Seatbelt not worn	✓	✓	✓	✗
Seatbelt compromise	✓	✓	✓	✗
Low utilisation	✓	✗	✓	✓

>5T Dumpers				
Alert Type	Customer Level	User Level		User definable threshold setting
		Hot	Warm	
Blocked Air Filter	✓	✓	✓	✗
Low battery	✓	✓	✓	✓
Low engine coolant	✓	✓	✓	✗
CheckMate	✓	✓	✓	✗
Driving at Speed	✓	✓	✓	✓
Engine idling	✓	✗	✓	✓
H&S	✓	✓	✓	✗
Low oil level	✓	✓	✓	✗
Movement alert <i>New</i>	✓	✗	✓	✓
Out of hours	✓	✓	✓	✓
Punctures <i>New</i>	✓	✗	✓	✓
Seatbelt not worn	✓	✓	✓	✗
Seatbelt compromise	✓	✓	✓	✗
Low utilisation	✓	✗	✓	✓
Water-in-fuel	✓	✓	✓	✗

<9T Excavators				
Alert Type	Customer Level	User Level		User definable threshold setting
		Hot	Warm	
CheckMate	✓	✓	✓	✗
H&S	✓	✓	✓	✗
Movement alert <i>New</i>	✓	✗	✓	✓
Out of hours	✓	✓	✓	✓
Low utilisation	✓	✗	✓	✓

>9T Excavators				
Alert Type	Customer Level	User Level		User definable threshold setting
		Hot	Warm	
CheckMate	✓	✗	✓	✗
H&S	✓	✗	✓	✗
Movement alert <i>New</i>	✓	✗	✓	✓
Out of hours	✓	✗	✓	✓
Low utilisation	✓	✗	✓	✓

Rollers				
Alert Type	Customer Level	User Level		User definable threshold setting
		Hot	Warm	
CheckMate	✓	✓	✓	✗
H&S	✓	✓	✓	✗
Out of hours	✓	✓	✓	✓
Low utilisation	✓	✗	✓	✓