

Yard Management for Finished Vehicles

Integrated yard management and vehicle processing solution

Total Yard Management

Yard Management for Finished Vehicle Logistics is a member of the ProAct Yard Management suite which includes 'Yard Management for Cross-Dock' and 'Yard Management for Transload'. Finished vehicle logistics and indeed vehicle yard management is a core competency for ProAct and a market that ProAct has been involved in since the late 90's.



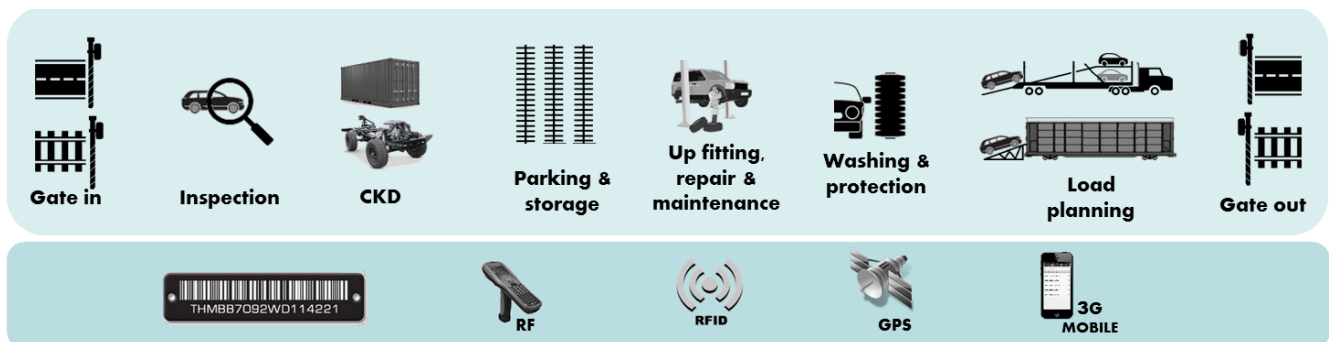
Over the years ProAct has deployed yard management solutions on behalf of a number global 3PL providers. Today we consider both our yard management solution and wider finished vehicle logistics solutions to be unique and differentiating 'best of breed' global capabilities. The summary below only touches on the extensive scope and depth of capabilities available within this solution.

Multi-manufacturer, multi-yard, multi-modal capability

ProAct's browser based, yard management solution supports the majority of functions needed for the complete management of one or more yards processing one or more manufacturers' vehicles. The process typically starts with an electronic production forecast or pre-advice of expected VINs. VINs may arrive from the production line or indeed be gated in from other plants or facilities coming via road, rail, ocean, at unit level or even containerised. For externally arriving vehicles the yard may often be a staging or consolidation point for onward distribution. This applies to both dedicated manufacturer yards and indeed mixing centres dealing with many manufacturers. Furthermore, the ProAct solution can be applied to any yard type including post-production yards, port/terminal yards, VPCs or mixing centres. Equally, the functionality of yard management can be used in whole or in part for activities ranging from full blown yard management to haul away operations.

Configurable, rules based yard processes based on multiple criteria

ProAct's yard management is based on its configurable, process execution technology which allows processes and rules to be user defined and then executed by the solution. There is virtually no limit to the extent or granularity of these processes. This means that virtually any criteria can be applied within the rule base to determine the specific processes and tasks that must take place on a particular VIN. These rules are dynamic, so that any change to the status of the vehicle (eg. Damage, dealer allocation, up fitting) might invoke a totally new process which may include moving the vehicle to a third party location for rectification or modification.

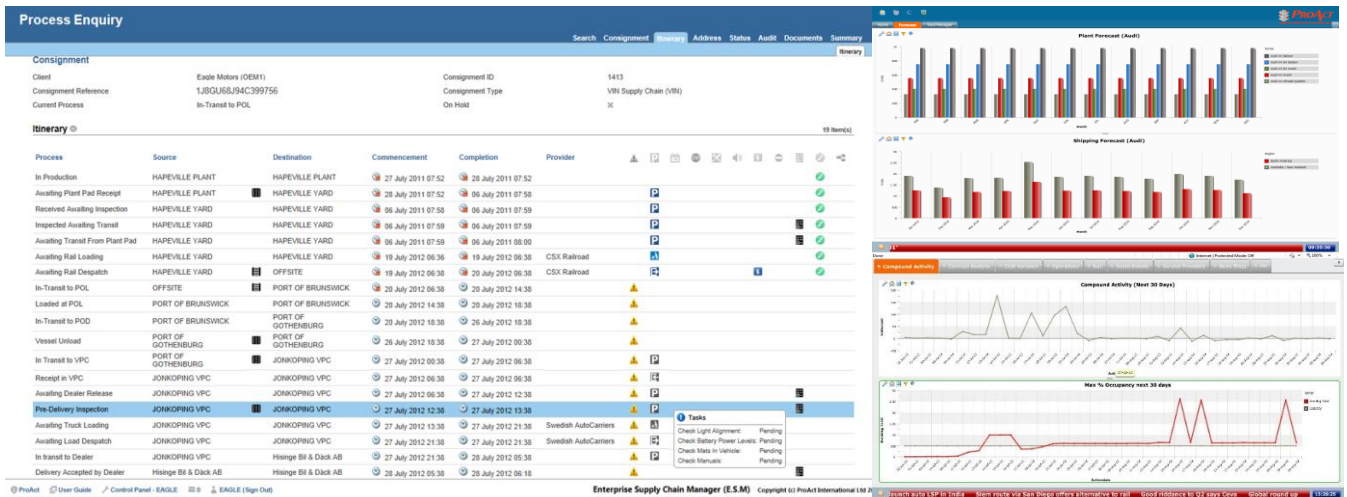


Such rules (which include vehicle routing rules) will also determine how the solution moves the VIN through the yard itself by automatically allocating the next yard location based on the status of the VIN. This may include moving the VIN into inspection, maintenance, preparation, up fitting, staging etc. Configurable task management also ensures the correct value added services are applied to the vehicle at the right time either via internal resources or indeed via web browser based collaboration with external providers (eg. Up-fitters). Ultimately any and all tasks and processes relevant to that specific VIN can be scheduled, sequenced, managed and enforced by the solution. Many such activities will be communicated via mobile scanning devices within the yard running over RF, 3/4G or

Wifi. Equally the solution has support for Rfid message capture, GPS feeds and also for native smart apps running on Android.

Yard visualisation and process visualisation

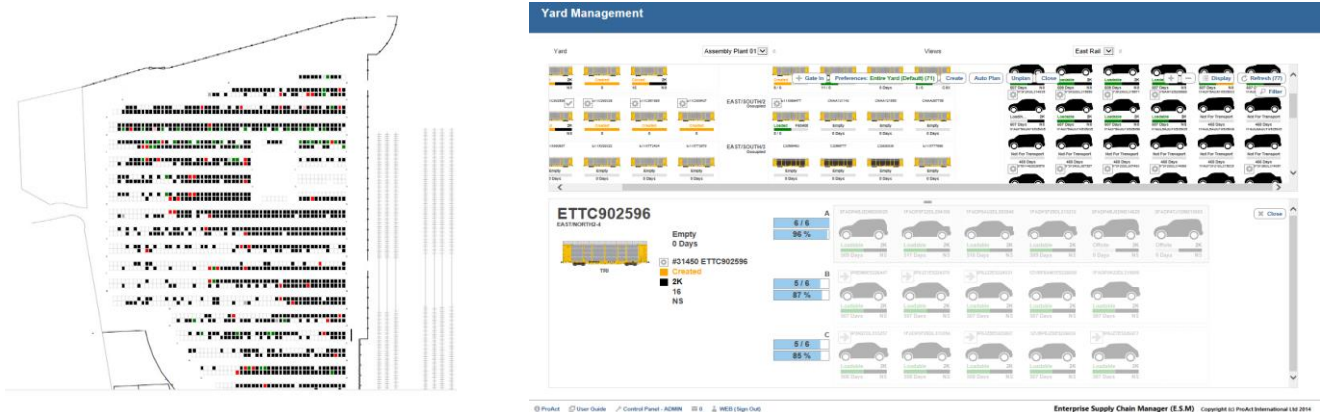
Both the state of the individual VIN and also that of the entire yard can be visualised and reported on in many different ways. The process projection (below) predetermines the life of the VIN from gate in to gate out (or even beyond) by creating a baseline of events and processes against which the VIN's progress and performance can be monitored and alerted against. Any deviation from this planned process may result in one or more system alerts or even that the process itself may be automatically revised in response to a particular event. Even within a single yard, it may be that there are multiple service providers, so they too must be managed and coordinated in accordance with the plan. Orchestration and control is what ProAct's yard management solution does best.



Above left: Individual VIN process and task projection baseline and status. Above right: example MIS dashboard showing capacity projection

Automated load planning

At the backend of any yard process is typically a hand off to a third party carrier. VINs can either be advised to the carrier individually or a load preassigned. This is where automated (or manual) planning may be used to plan the best load configuration be it road transporter, rail car or container. Equipment type configurations can be user defined and planning parameters set to automatically determine the best balance of efficiency vs priority. Planned manifests can then be communicated to the carrier and physical loading managed via mobile devices.



Integration and MIS

Extensive functionality is also supported by extensive EDI and integration capabilities. These may be based on many methods of integration including XML, Web Services, X12, Message queues and others. All these methods are further supported by extensive data validation and exception management capabilities. Finally, the entire solution is underpinned by 'Dashboard' functionality allowing configurable charting and drilling of the extensive operational underlying data.

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