Mitsubishi Logisnext Oy - PDP 2022 project proposal



Company

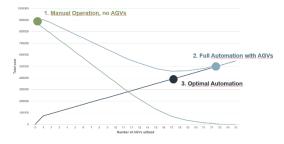
Mitsubishi Logisnext Oy is a part on Mitsubishi Heavy industries group, one of world's biggest companies. Mitsubishi Logisnext Oy has been developing AGVs and electric lift trucks since 80s.



Background

Manual and automatic lift trucks have their own advantages. Automatic trucks work relentlessly 24h in a day and do not make mistakes. However, like humans, they are not good at problem solving nor they are especially skillfull in handling tasks that are not pre-defined. In Mixed Fleet concept, best of both worlds is combined.

Optimal combination of manual and automatic trucks leads to optimal results for the investment. In order for the two systems to <u>co-operate</u> instead of <u>co-exists</u>, we need a way to communicate between AGV and lift trucks. In the heart of this communication is Fleet Controller, which allocates tasks based on predefined rules. Now we need to build a link between Fleet Controller and manual lift truck drivers. Here PDP comes into play.



Scope

- Study what kind of information must be provided to/from manual lift truck drivers to make them work efficiently together with automatic lift trucks.
- Business plan and
- How and where to show the information, display, HUD, etc.
- Select correct hardware for a prototype
- Communication between truck inverters (CAN bus) and system control (Ethernet)
- Software for prototype user interface
- Build a working prototype and test it as a part of the system



Stretch goals

- Manual lift trucks have a lot of different needs to show various information like fork camera image, speed, height, weight etc. Embedding all or part of this information into one easy to understand well thought and ergomic display system.
- Study different kind of non conventional display methods like HUD, projectors etc.
- Haptic feedback

Contact

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