



MOntoring the yard in CONtainer Terminals - Trials

Scheda informativa

Informazioni relative al progetto

MOCONT-II

ID dell'accordo di sovvenzione: IST-2001-
34186




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1 Aprile 2002

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completamento**
30 Settembre 2003

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Coordinato da
UNIVERSITA DEGLI STUDI DI
GENOVA
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Obiettivo

MOCONT-II is a complete set of field trials performing on the basis of the results of a previous IST project named MOCONT (IST-1999-10057). MOCONT is a system that automatically tracks the containers inside a terminal from the reception to the delivery at the gate. Its main capabilities are the automatic identification of the container code and its location on the terminal yard, communicating that information to the Terminal Operating System. Starting from the first MOCONT prototype, MOCONT-II equips a fleet of 8 reach stackers with MOCONT technology and performs six months of tests in a container terminal in order to verify and evaluate the system. Therefore, the main objective of MOCONT-II is to verify the manifold impacts that MOCONT system has on the operation of a terminal container. Expected results are the analysis of impacts in terms of the average container

handling time, terminal productivity, return of investment, working conditions, level of service and cost reduction.

Objectives:

The objective of MOCOCONT-II is to verify the impacts MOCOCONT has on the operation of a container terminal. The specific target is to investigate the potential of MOCOCONT leading to a marketable industrial product. From an economic and financial point of view, the aim is to estimate the return of investment a terminal operator may have using MOCOCONT, together with the business opportunities for the supplier. Economic and financial analysis will be the key to show the benefits of the technology application. MOCOCONT-II will realise 8 replications of the MOCOCONT functional prototype in order to equip a fleet of reach stackers. The fleet will operate for a period lasting 6 months and relevant data will be collected for off-line evaluation. The analysis will allow a thorough evaluation, ranging from the economic impacts on the terminal operation and management to the reduction of handling time, to the impact on the working conditions for the terminal workers.

Work description:

The work is divided into 4 work packages (WP), regarding the major activities to be carried out during the project.

WP1 will establish the Project Management and Exploitation Boards. Then, the Overall quality plan will be issued, in order to set the quality requirements of the project. The Project Management Board will monitor the project development along the project lifetime;

WP2, Installation and set-up, regards the replication in 8 copies of MOCOCONT in order to equip a fleet of reach stackers. The 8 boxes will be installed and set-up activities will follow. A communication channel between the boxes and the TOS will be set-up;

WP3 deals with measurement and evaluation of results. Tests will be defined and split into 2 groups: on and off-board tests. The on-board tests will monitor the behaviour of the reach stacker operations through the continuous measurement of sensible parameters. The off-board tests will consider all the interactions between each reach stacker and the TOS. Appropriate metrics and a complete set of evaluation means will be selected and adopted. Data collected will be subdivided in different groups according to their typology. The evaluation range will be wide, embracing technical, organisational, and business impacts, and further aspects like workers conditions and environmental impacts;

WP4 is related to dissemination activities, quite critical being the beginning of the exploitation. Terminal operators will be invited to keep their eyes on the trials, putting into evidence the main features of the system and further development. Moreover, publicity actions will be carried on, presenting the project results at conferences, exhibitions and magazines. Reviews and recommendation for engineering and industrialisation of the system will be discussed during the trials.

Milestones:



M1-end month 1, 8 prototypes realised;
M2-end month 4, end of installation and set-up;
M3-end month 10, trials and evaluation completed;
M4-end month 11, project completion. The trials will evaluate the impacts in terms of: container handling time, terminal productivity, return of investment, working conditions, quality of work for terminal workers, level of service for terminal clients, cost reduction.

Programma(i)



Argomento(i)



Meccanismo di finanziamento

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