



SIMULTRA PROJECT

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SIMULATION OF LOGISTICS AND TRANSPORT PROCESSES

INTELLECTUAL OUTPUT 05

Learning materials for the Supply Chain Game

UANT/ Loghman NanwayBoukani, Edwin van Hassel & Thierry Vanelslander

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1. Introduction

This manual will give the players of the supply chain game a theoretical background enabling the successful completion of the game.

2. What is the Supply Chain Management Game (SCMG)?

This simulator allows calculating all costs related to the transport of a container, departing from the Chinese port of Shanghai and destined to the port of Antwerp. Therefore, it allows planning and organizing the entire transport chain, taking also into consideration the historical costs of freight and shipping companies. It includes the evaluation over the simulated time of any change and adjustment to reduce costs for the company that exports the container and the company that organizes the shipment. The simulated process refers to the task mainly carried out by a Supply Chain Designer / Planner.

This game consists of two levels, and each level contains 55 missions. The mission in level 1 is to transfer cargo from Shanghai to Parma, and in level 2 to transfer cargo from Shanghai to Zaragoza. The purpose is to select the 'shipping line', 'European port' and 'Hinterland mode' for transportation in order to end up with minimum cost.

In each mission, one can select 'spot market contract' or fix the current price for future months by choosing "futures contract". Use 'futures contract' whenever the price will likely rise in the future.

What is a Futures Contract

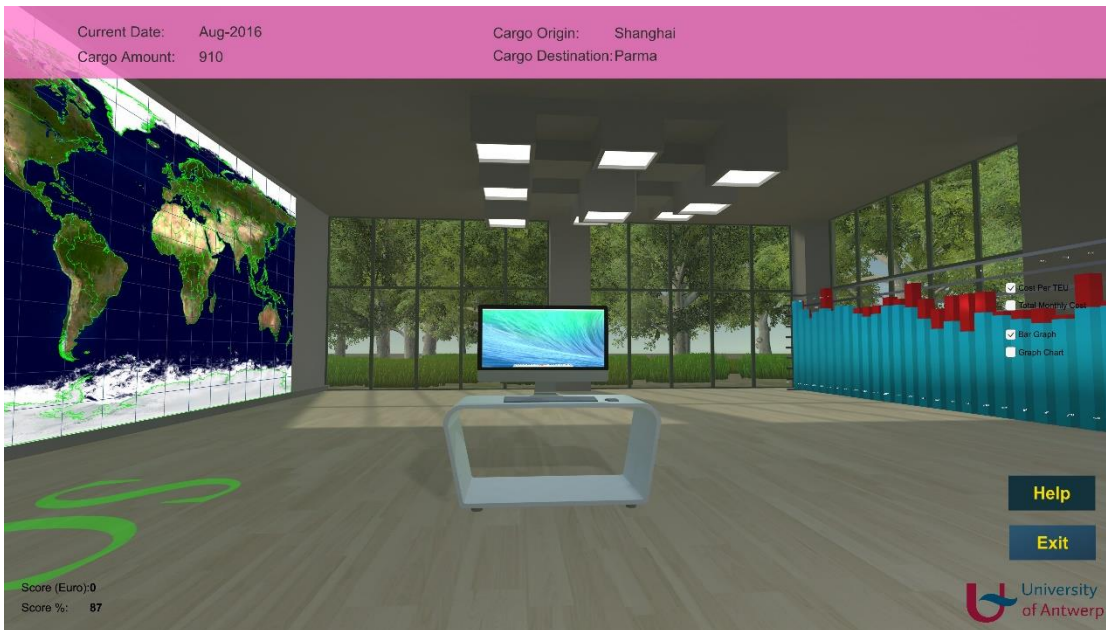
A futures contract is a legal agreement to buy or sell a particular commodity or asset at a predetermined price at a specified time in the future. Futures contracts are standardized for quality and quantity to facilitate trading on a futures exchange. The buyer of a futures contract is taking on the obligation to buy the underlying asset when the futures contract expires. The seller of the futures contract is taking on the obligation to provide the underlying asset at the expiration date [James Chen, 2010].

What is Spot Market:

Also called the cash market or the physical market, the spot market is where assets are sold for cash and delivered immediately [James Chen, 2010].

Following information can be seen in the game:

- Current date
- Cargo amount
- Cargo origin
- Cargo destination

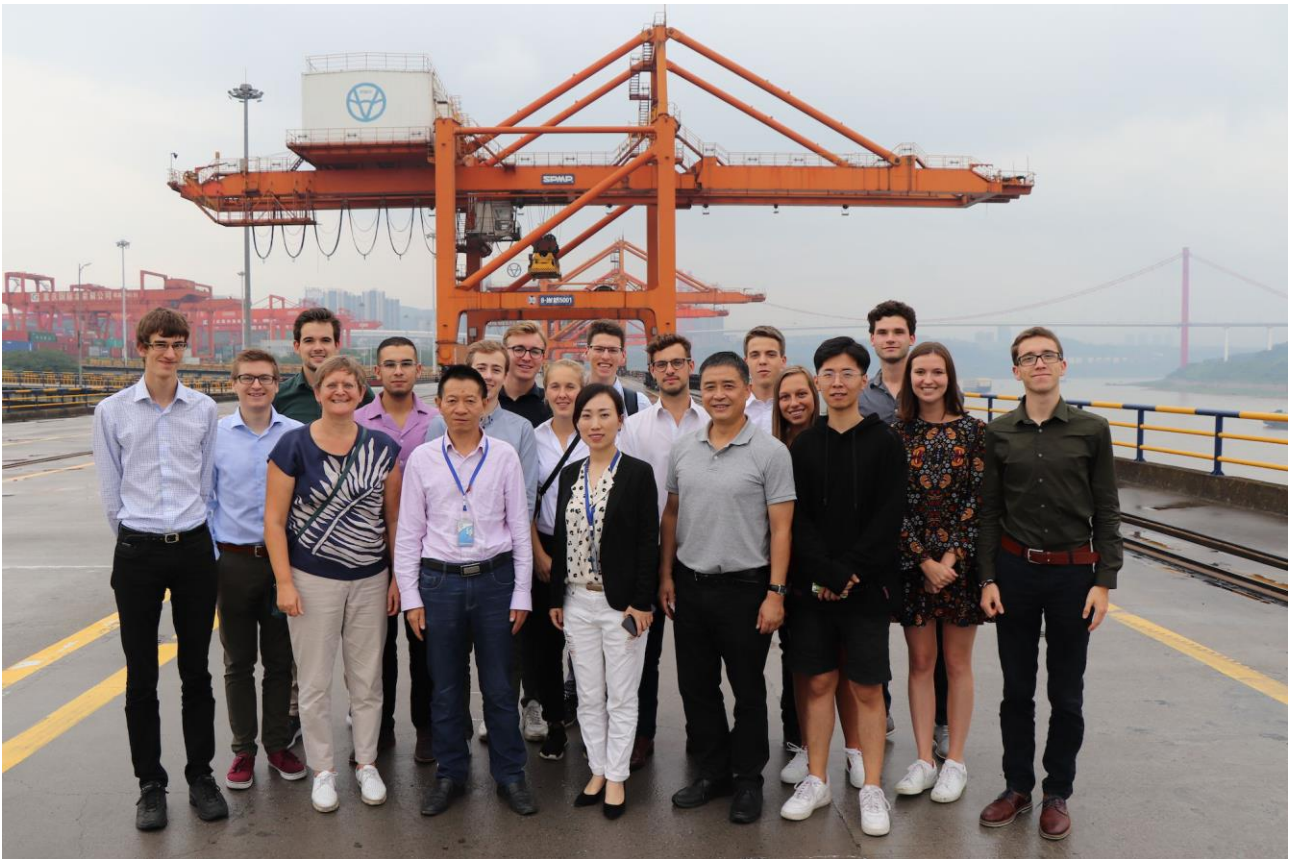


One must transfer cargo from origin to the destination by selecting the following items, in order to end up with the minimum cost.

- Shipping line



- European port



- Hinterland mode

