

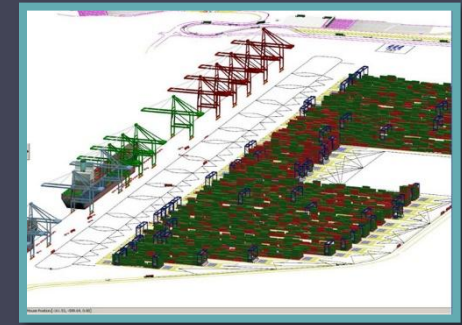


الجامعة المصرية اليابانية للعلوم والتكنولوجيا

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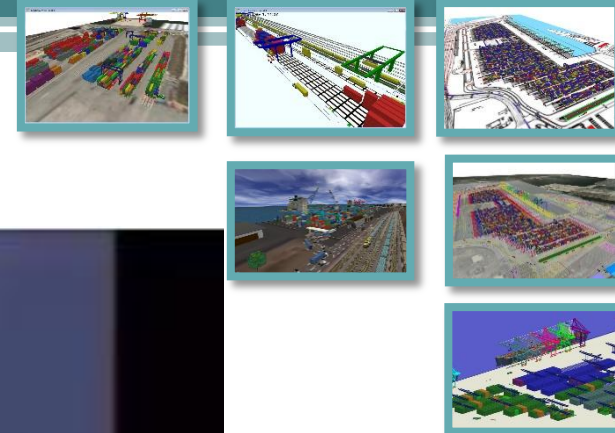
Flexsim CT

Container Terminal Simulation Software

Eng. Omnia Reda Roshdy

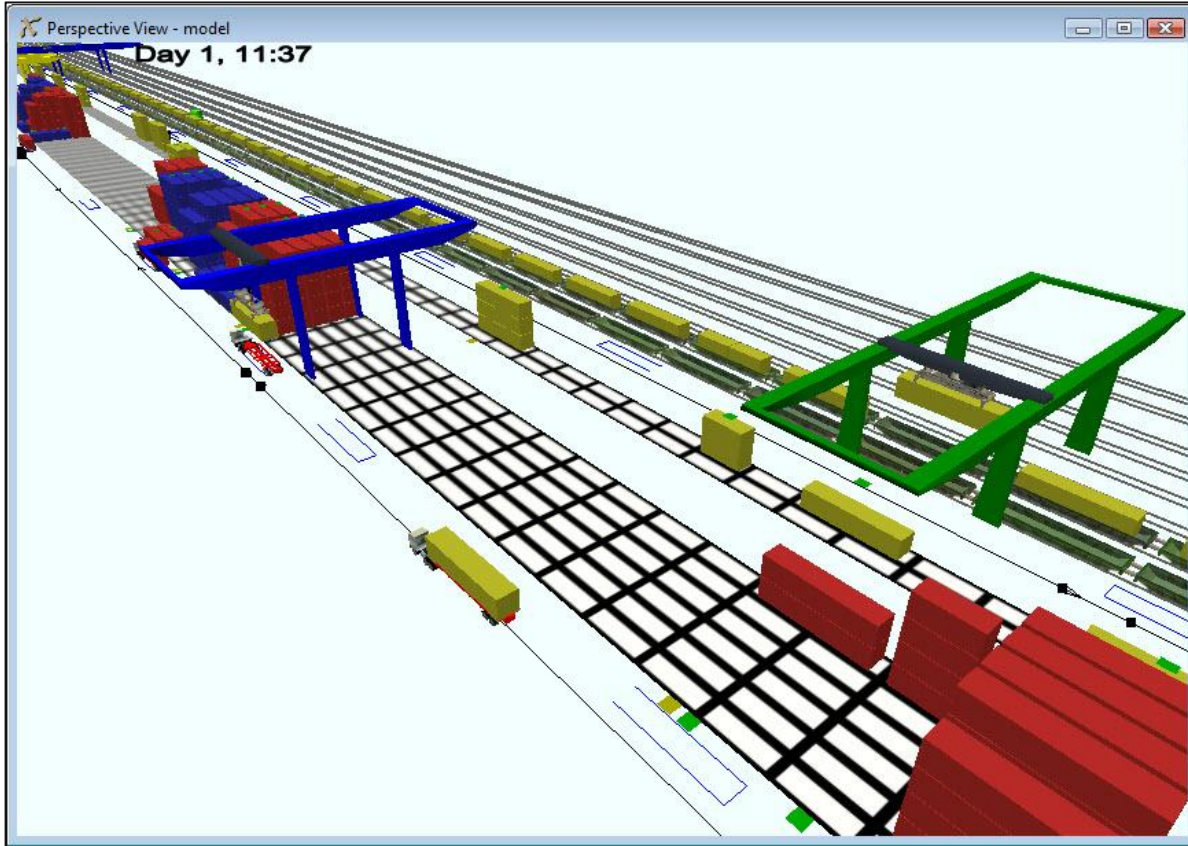
Egypt Japan University of Science and Technology

Flexsim CT Sample Model

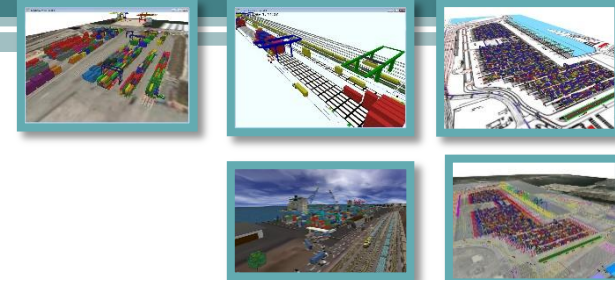


Gate + Berth + Rail + Yard

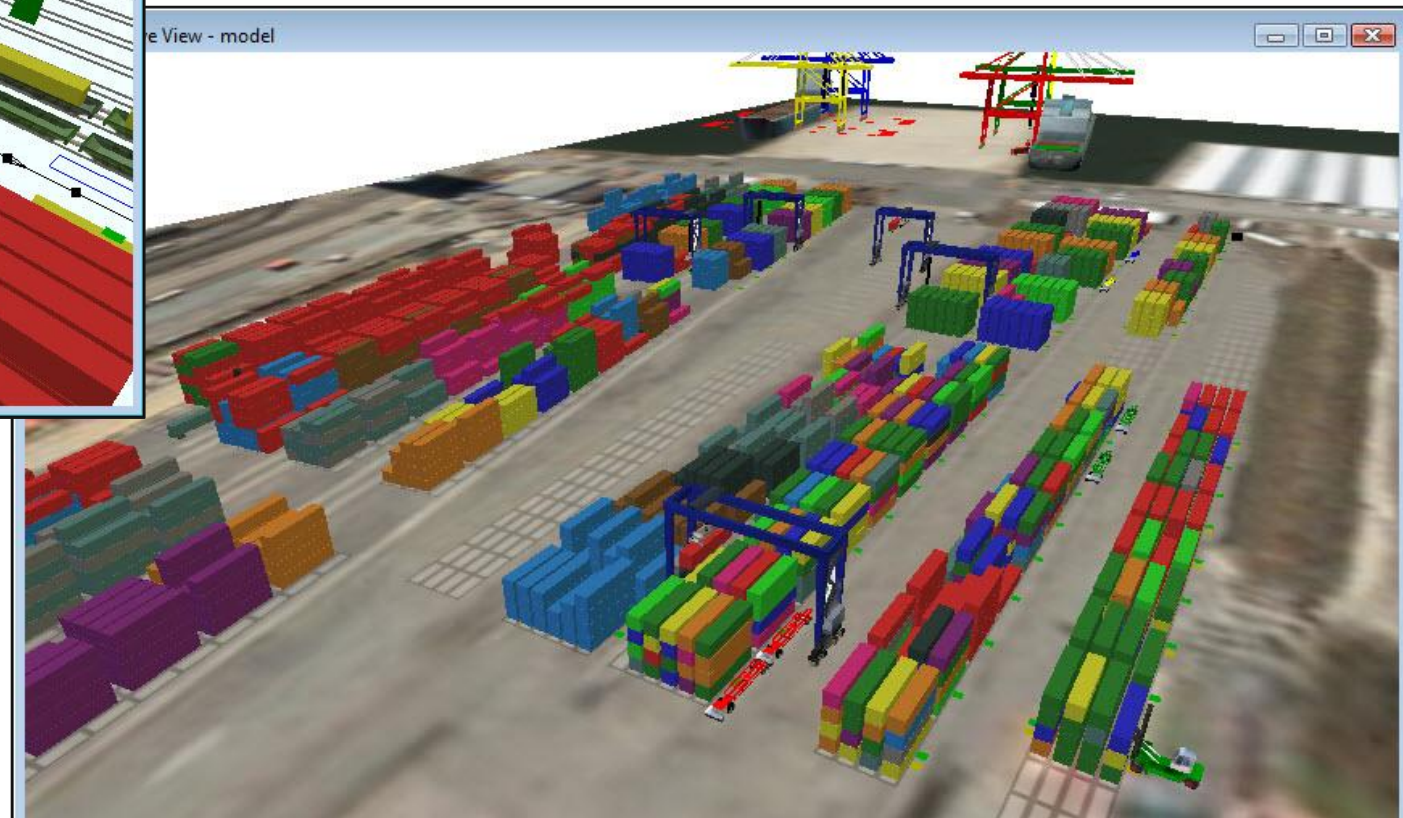




Rail + Yard

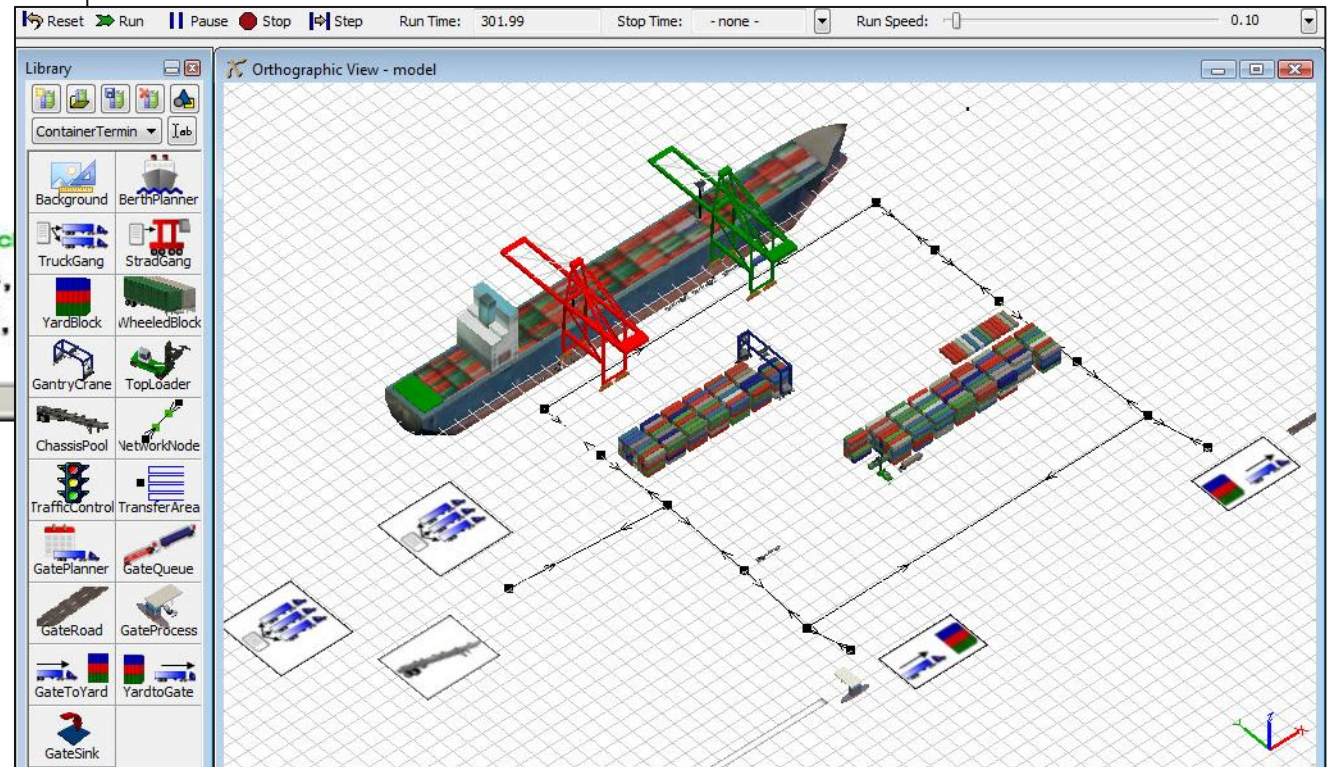
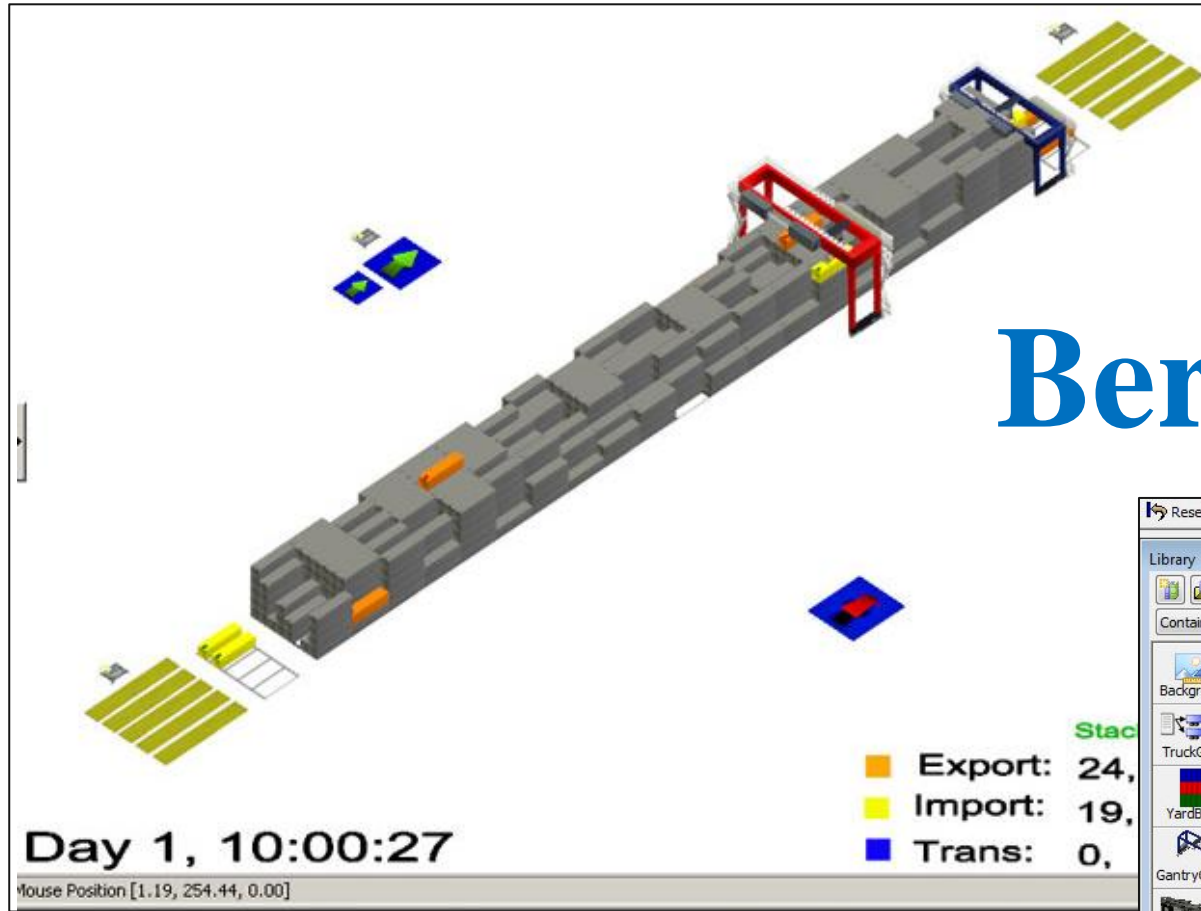


Berth + Yard





Berth + Gate + Yard



Gate + Yard

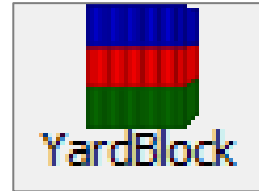
Flexsim CT Library



Quay Area



Yard Area



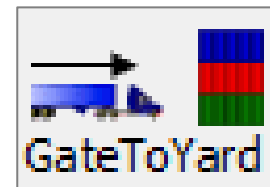
Transport Area



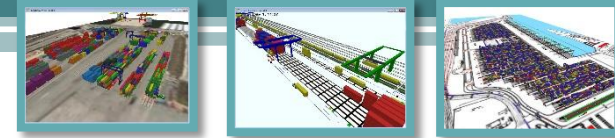
Rail Area



Gate Area



Analyze and Plan ..

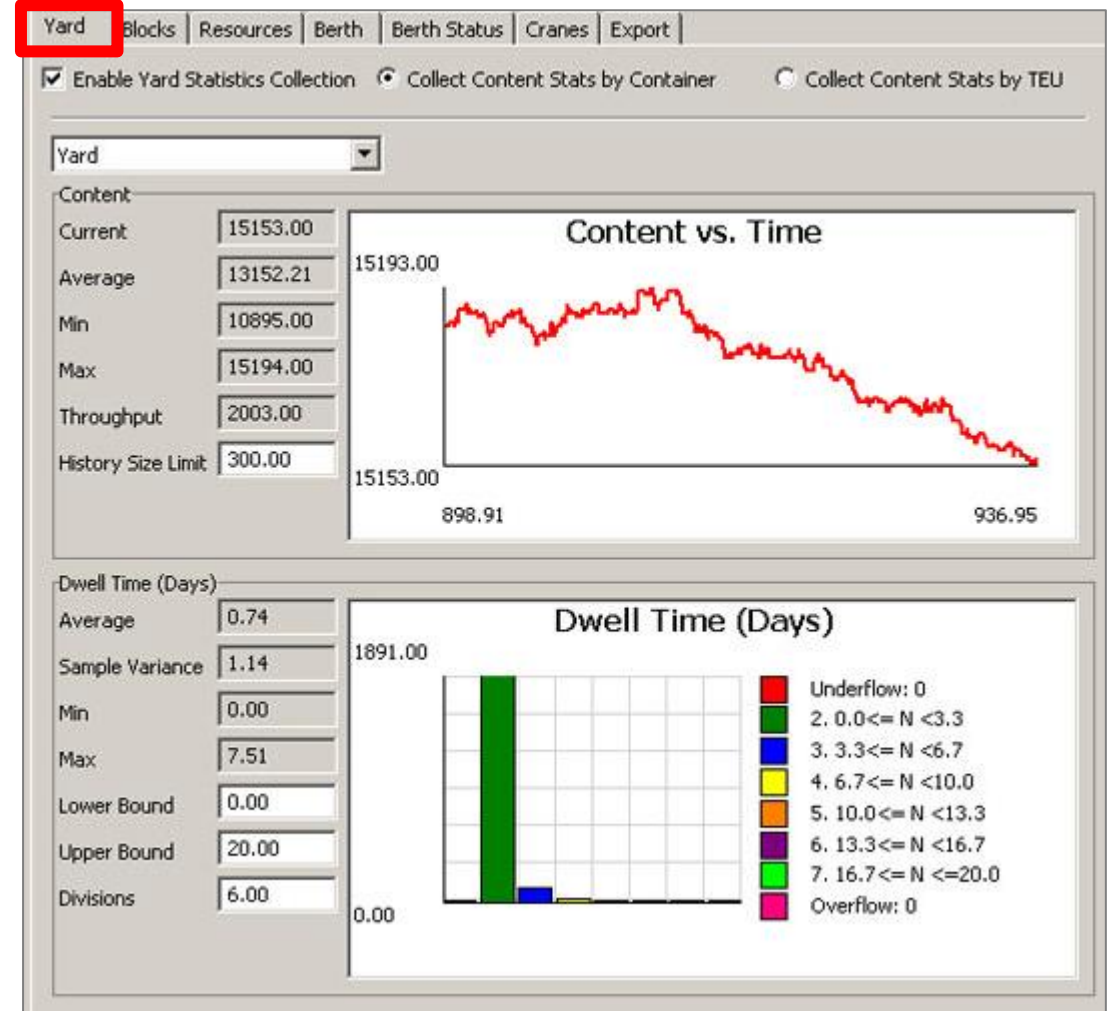


Yard Area Operations

Yard stacking strategies

Yard layout and dispatching

Yard crane allocation



Analyze and Plan ..

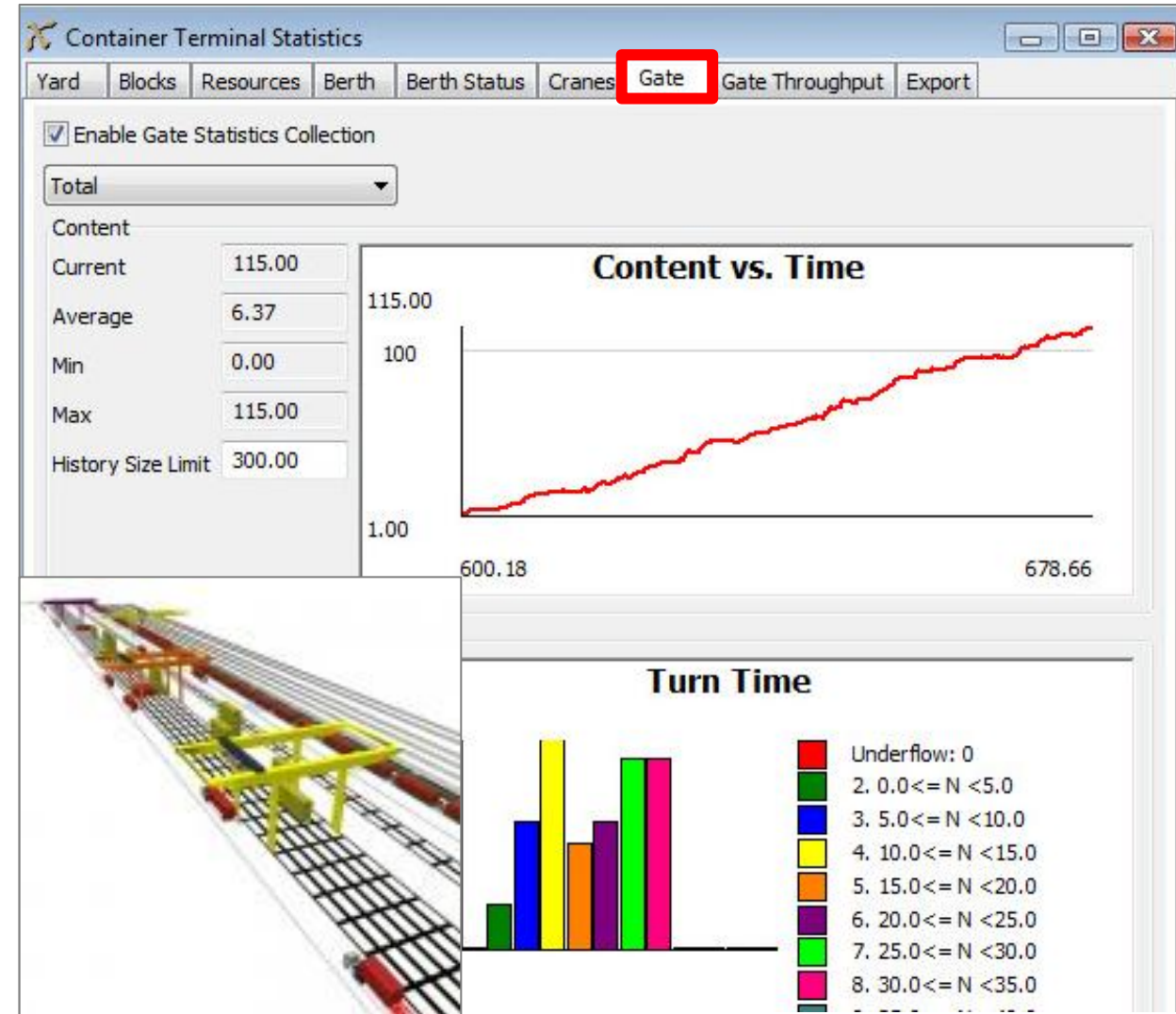
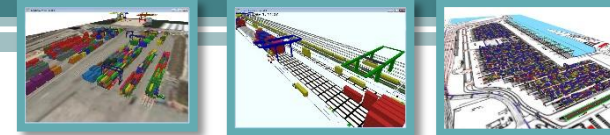
Gate Area

Gate logistics and capacity

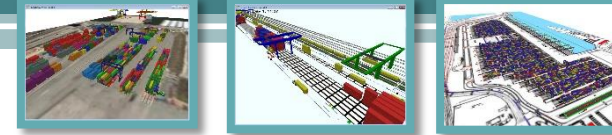
Rail Area

Rail logistics and capacity

Rail scheduling



Analyze and Plan ..



| Yard | Blocks | Resources | Berth | Berth Status | Cranes | Export |
|----------|-----------|---------------------|------------|------------------|----------------|--------|
| | % Working | % Waiting for Truck | Throughput | Gross Moves/Hour | Net Moves/Hour | |
| Crane 1 | 96.1 | 11.3 | 528 | 27.4 | 28.5 | |
| Crane 2 | 96.1 | 7.8 | 558 | 28.9 | 30.1 | |
| Crane 3 | 96.1 | 13.1 | 526 | 27.3 | 28.4 | |
| Crane 4 | 96.1 | 13.3 | 502 | 26.0 | 27.1 | |
| Crane 5 | 96.1 | 14.2 | 502 | 26.0 | 27.1 | |
| Crane 6 | 6.6 | 0.1 | 42 | 2.2 | 32.8 | |
| Crane 7 | 6.6 | 0.1 | 37 | 1.9 | 28.9 | |
| Crane 8 | 6.6 | 0.1 | 39 | 2.0 | 30.5 | |
| Crane 9 | 6.6 | 0.1 | 42 | 2.2 | 32.8 | |
| Crane 10 | 6.6 | 0.1 | 39 | 2.0 | 30.5 | |
| Crane 11 | 87.6 | 1.0 | 551 | 28.6 | 32.6 | |
| Crane 12 | 87.6 | 0.2 | 553 | 28.7 | 32.7 | |
| Crane 13 | 87.6 | 0.0 | 542 | 28.1 | 32.1 | |
| Crane 14 | 87.6 | 0.0 | 551 | 28.6 | 32.6 | |
| Crane 15 | 87.6 | 0.1 | 561 | 29.1 | 33.2 | |

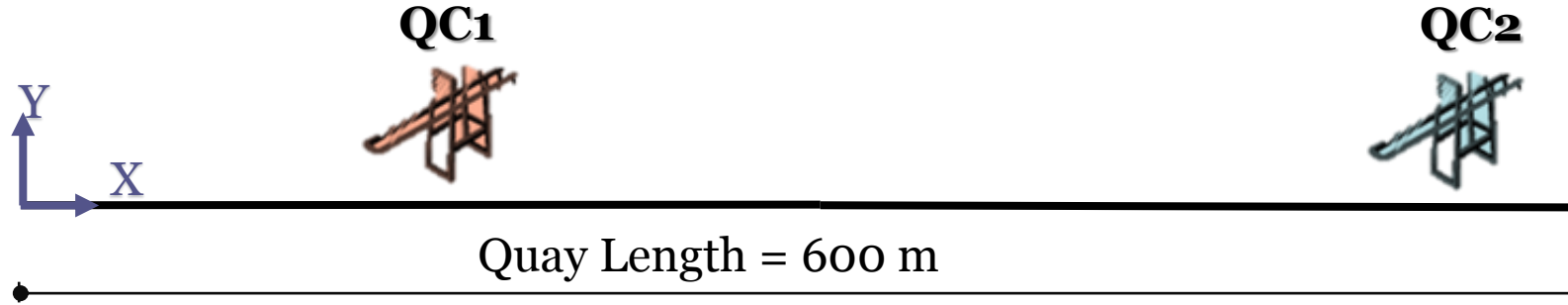
Berth Area Operations

Quay crane allocation

Ship scheduling

Berth assignments

Model Description



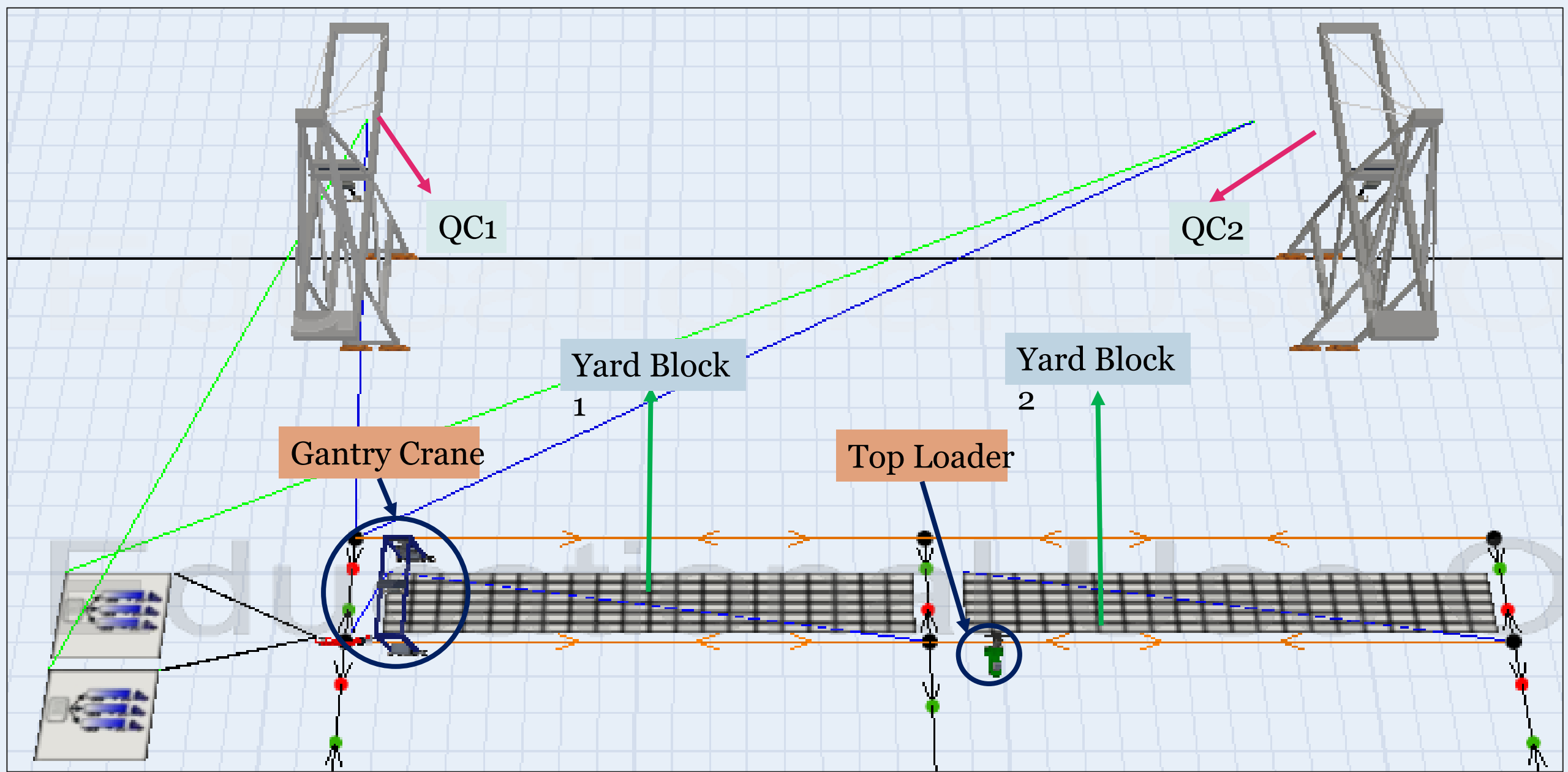
Export Containers

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Import Containers

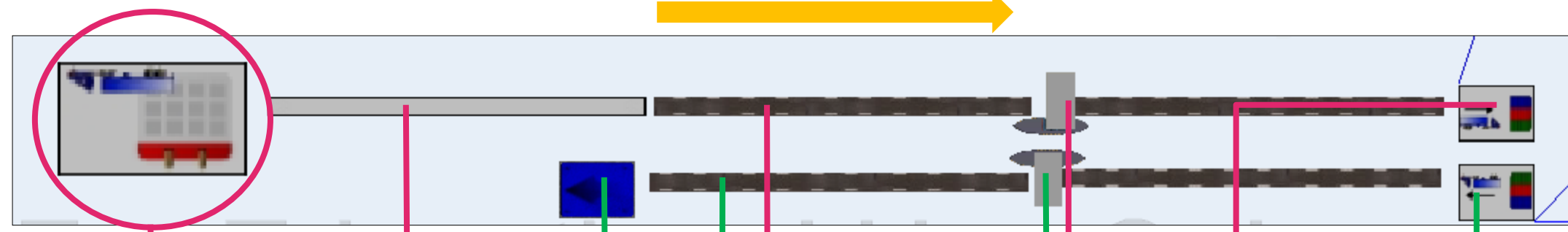
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|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

| Container Type* | Default Size* | Default From/To* | Dwell Time (Days)* |
|-----------------|---------------|------------------|--------------------|
| Export | 40 ft | Yard | 1 |
| Import | 40 ft | Yard | 1 |





Truck Direction
from Civilian Road to Terminal



Gate Planner

Gate Queue

Gate Sink

Road

Truck Direction
from Terminal to Civilian

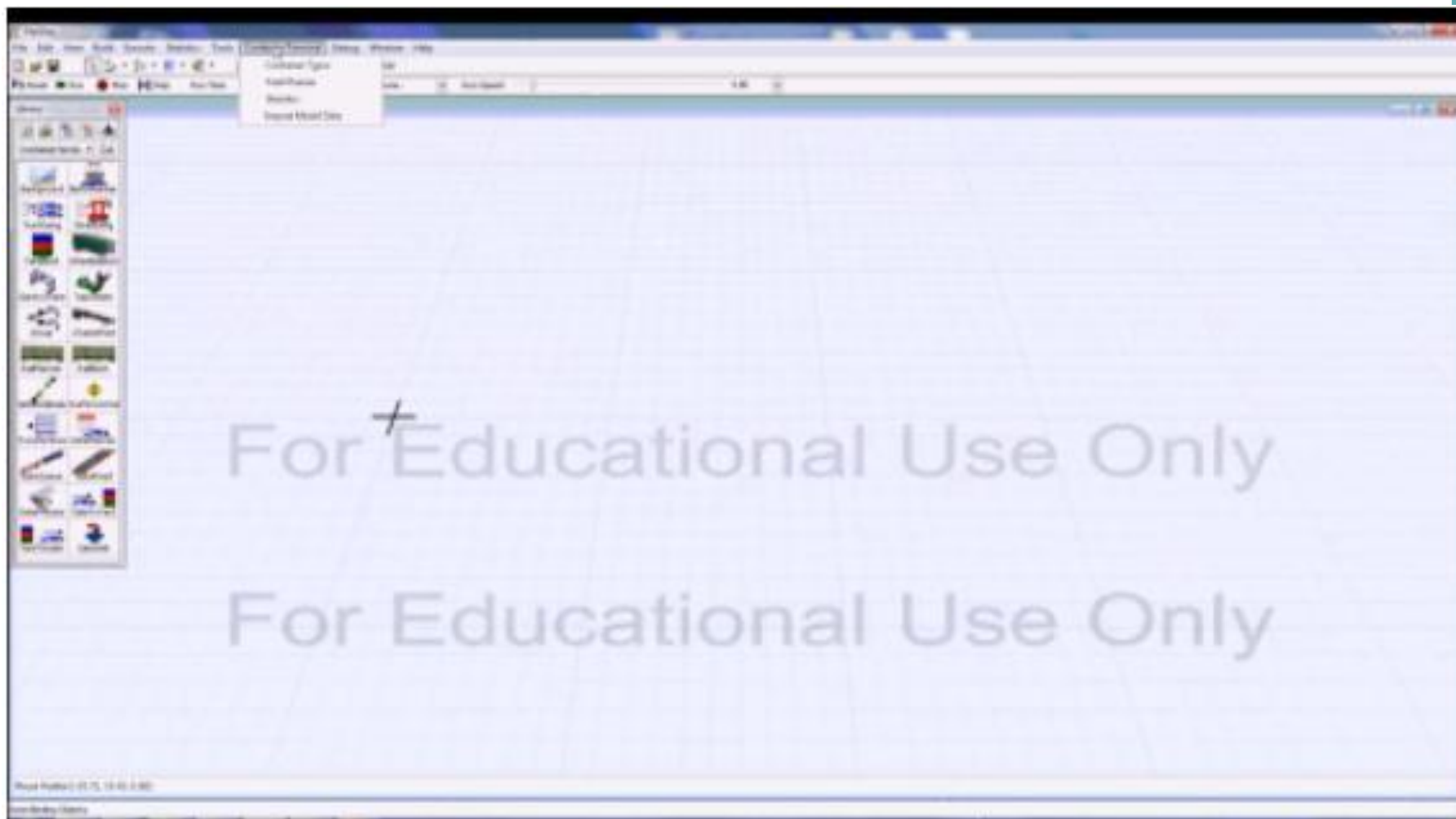


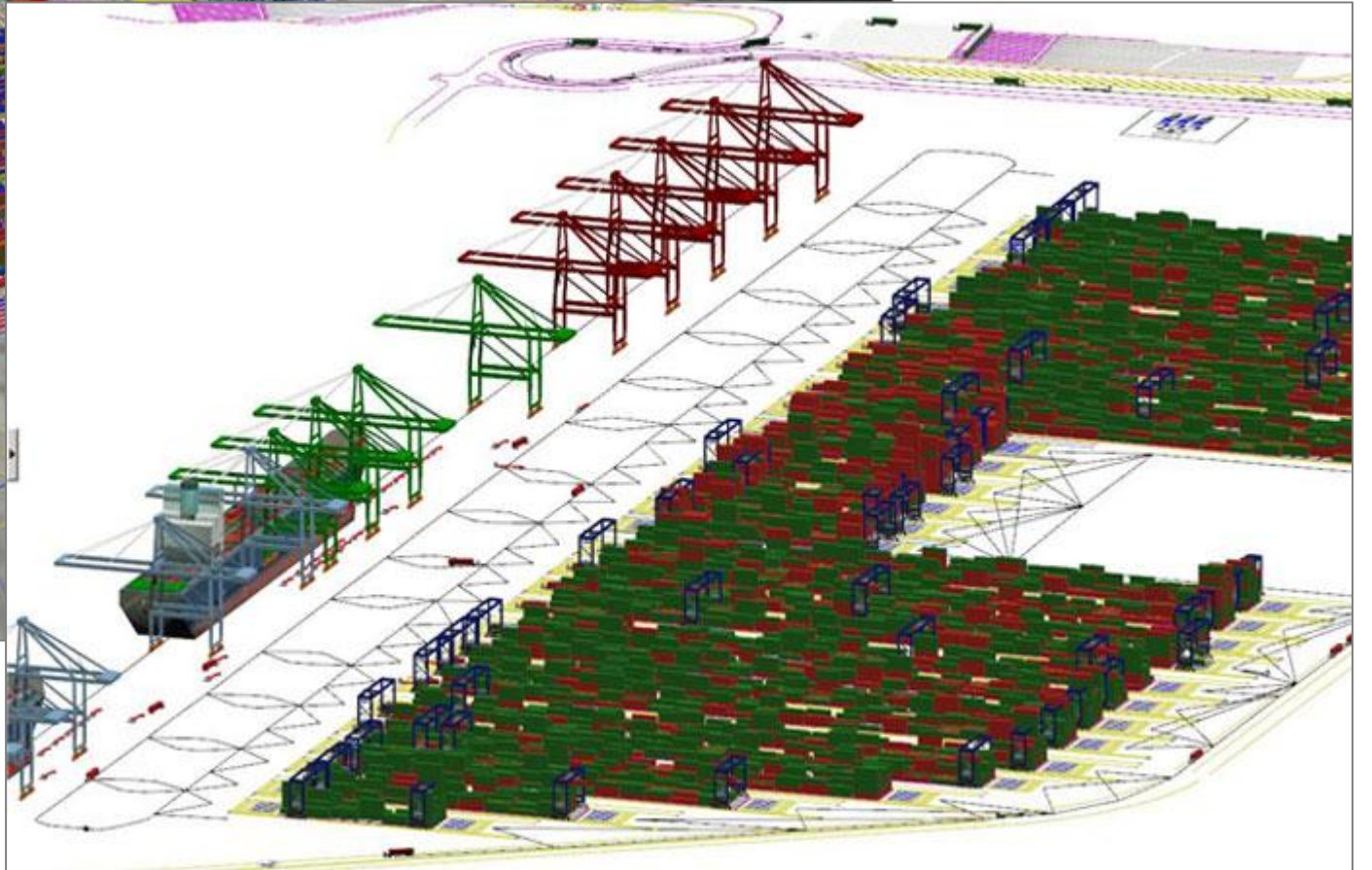
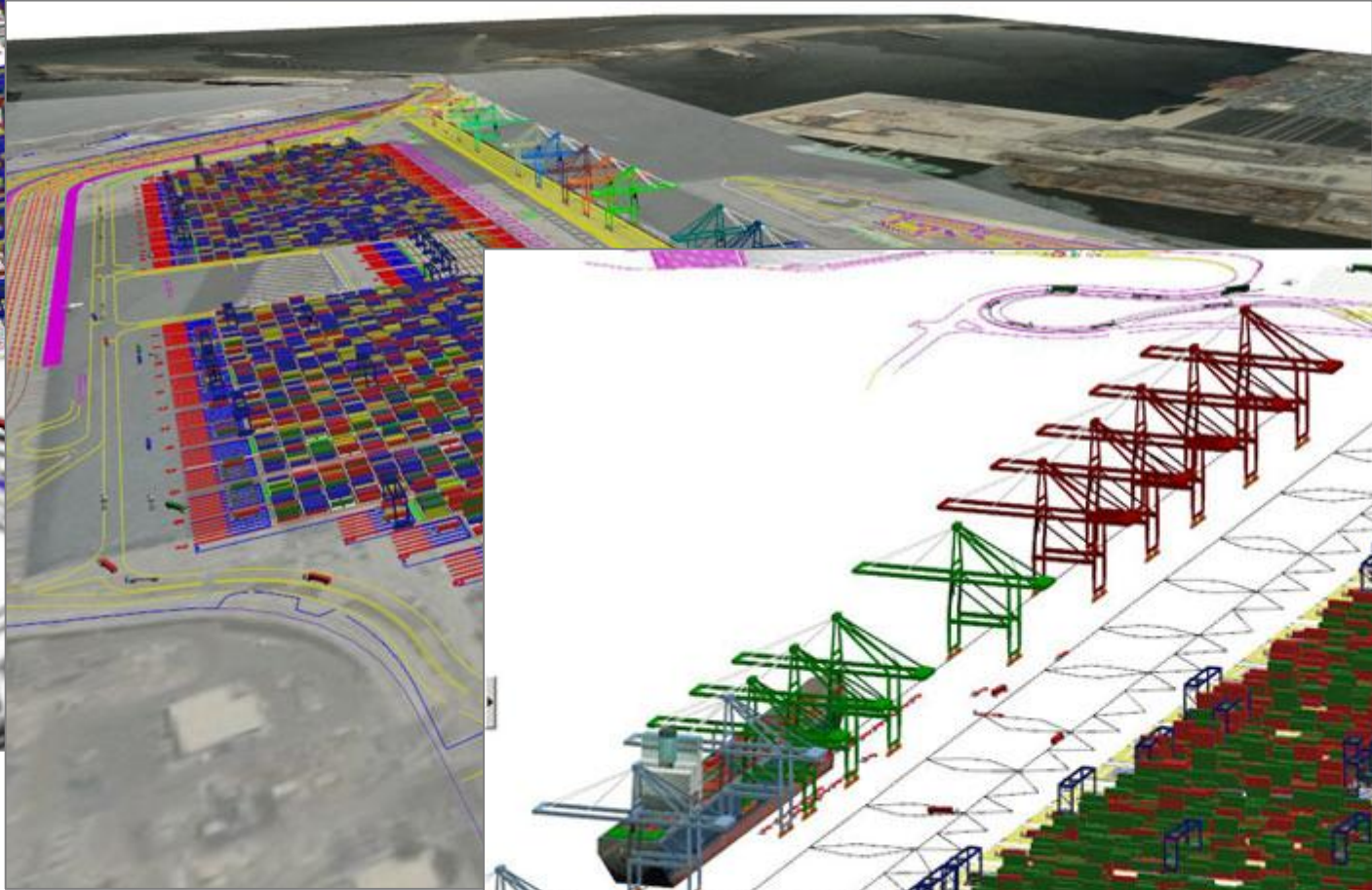
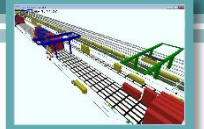
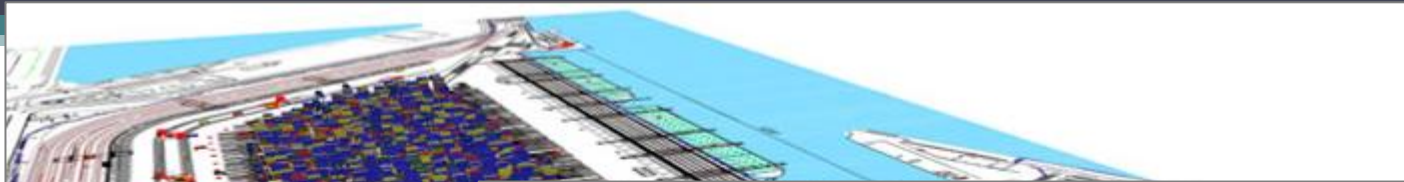
Gate Process

Gate to Yard

Yard to Gate

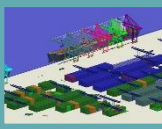
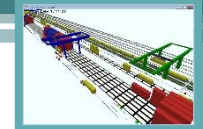
Demo Model

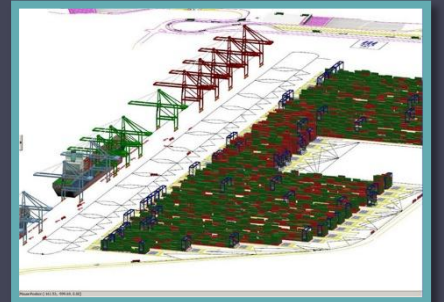
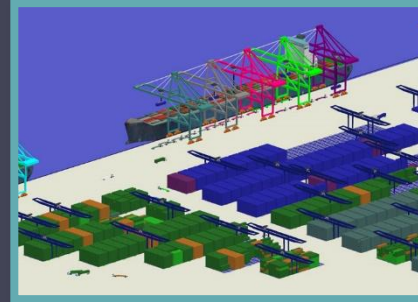
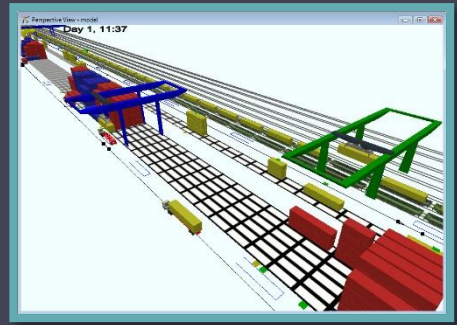




Conclusion

- **FleXsim CT** is a powerful and easy PC-based simulation software, it is designed especially for the simulation and analysis of container terminal operations.
- **FleXsim CT** has the capability of proper and visual analysis of different aspects of container terminals which enables the terminal operators and decision-makers to make informative decisions.
- **FleXsim CT** helps in simply maximizing the capacity, productivity, and efficiency of an existing or a proposed new operation.
- **FleXsim CT** allows modelers the flexibility of creating models to any level of detail and scope whether the intent is to analyze just a small portion of gate operation, or simulate the entire container terminal operation.





Thank You