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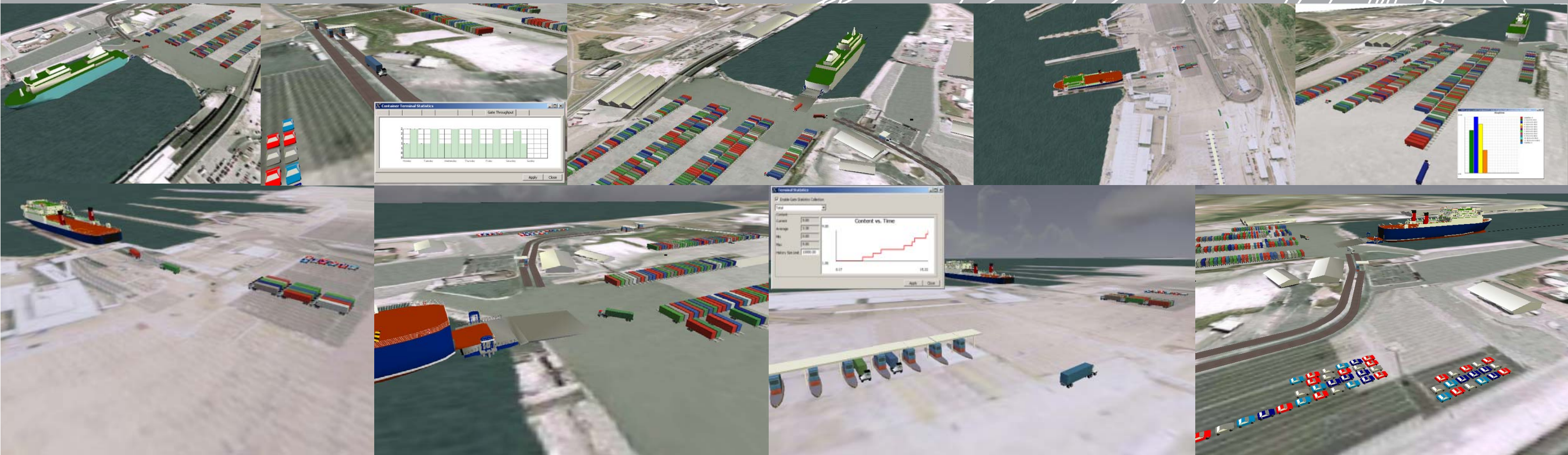
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a way to explore with out disruptions

Simulation is the optimum way to explore issues without disrupting your business.

Within the simulation environment it is possible to explore overall terminal throughput capacities, optimisation and intensification of operations (ie achieving more from the assets or space), and operations sensitivity and stability analyses. Other typical topics to investigate through modelling include how to achieve higher quality of services and efficiency through capital / operational expenditure, reduction in energy consumption, and return on investment of a range of “green” measures.

The power of simulation is that it allows clients to make better-informed decisions through being able to explore a range of options, from, say, low cost operational changes (“soft” options) through to high investments in capital works (“hard” options) with the opportunity to provide a business implementation route map linking these options.

Royal Haskoning have a suite of tools that are capable of providing both rapid but realistic initial assessments and in-depth operational analyses.

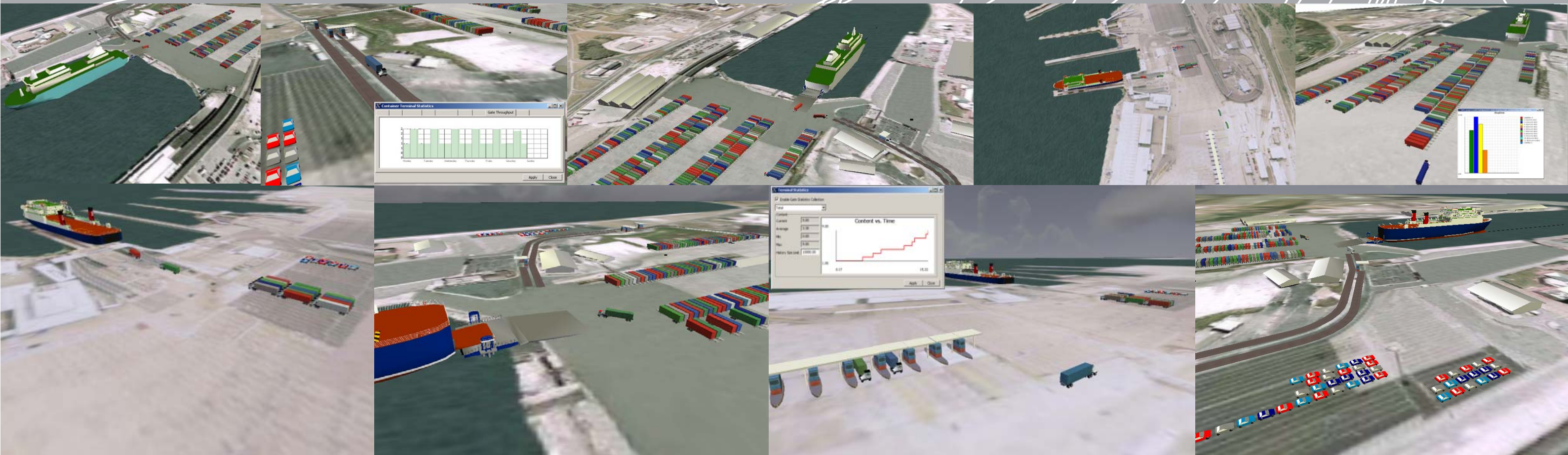
better management of existing assets

Logistics involves the physical handling of cargoes over time. Our simulation models are time based and can take into account all the resources and constraints involved, as well as the way in which these features interact with each other as time passes. Simulation can also build in the randomness of the real world so that, for example, trucks do not always arrive regularly every 10 minutes at the terminal gate. This means that the models closely match reality, so when changes are made to the models, the resulting impacts are demonstrated.

Through simulation, many scenarios (including “off the wall” suggestions) can be tested swiftly in a no-risk, unbreakable environment. This means that simulation can used to test new ideas and interactions, not just to validate previous thinking.

Our simulations are animated in 3D and this enables the terminal operation to be visualised in real-time along with the results. This means the effects of different layouts and operating strategies can be observed, in particular, the occurrence of traffic “bottlenecks”, over- and under-utilised resources, changes in equipment and labour productivities, and variations in power consumption.

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