

Why modeling? What is its importance

① Analyze the problem domain

- simplify reality
- capture requirements
- visualize the system in its entirety
- specify the structure/behaviour of the system

② Design the solution.

Principles of modeling

Choose your model well — The choice of model profoundly impacts the analysis of problem & the design sol.

Every model may be expressed at different level of precision: — The same model can be scaled up (or down) to different granularities.

1) The best model are connected to reality: simplify the model, but don't hide important details.

No single model is sufficient: — a set models is needed to solve any non-trivial system.