How to use CMAS

2024-06-18
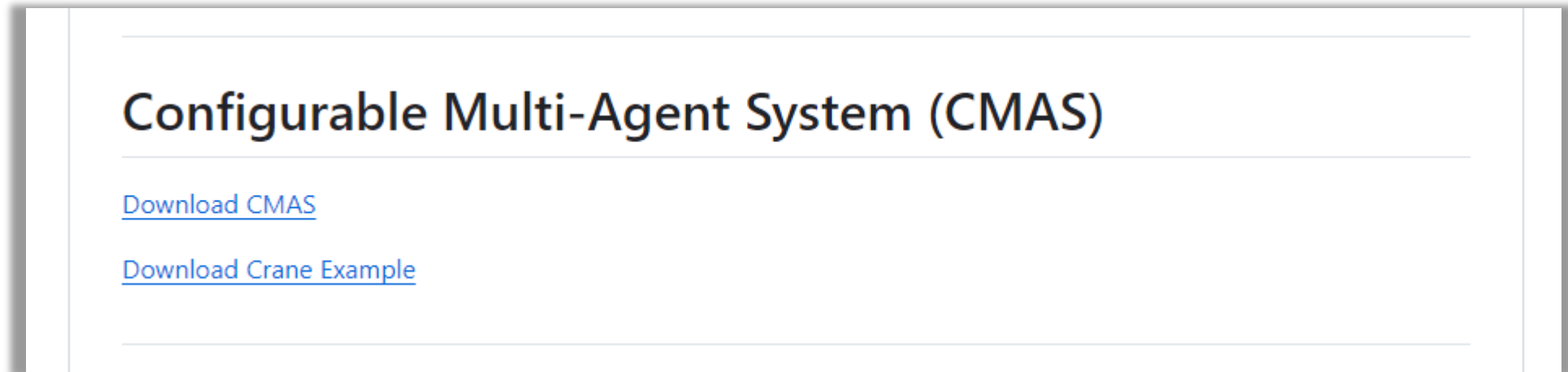
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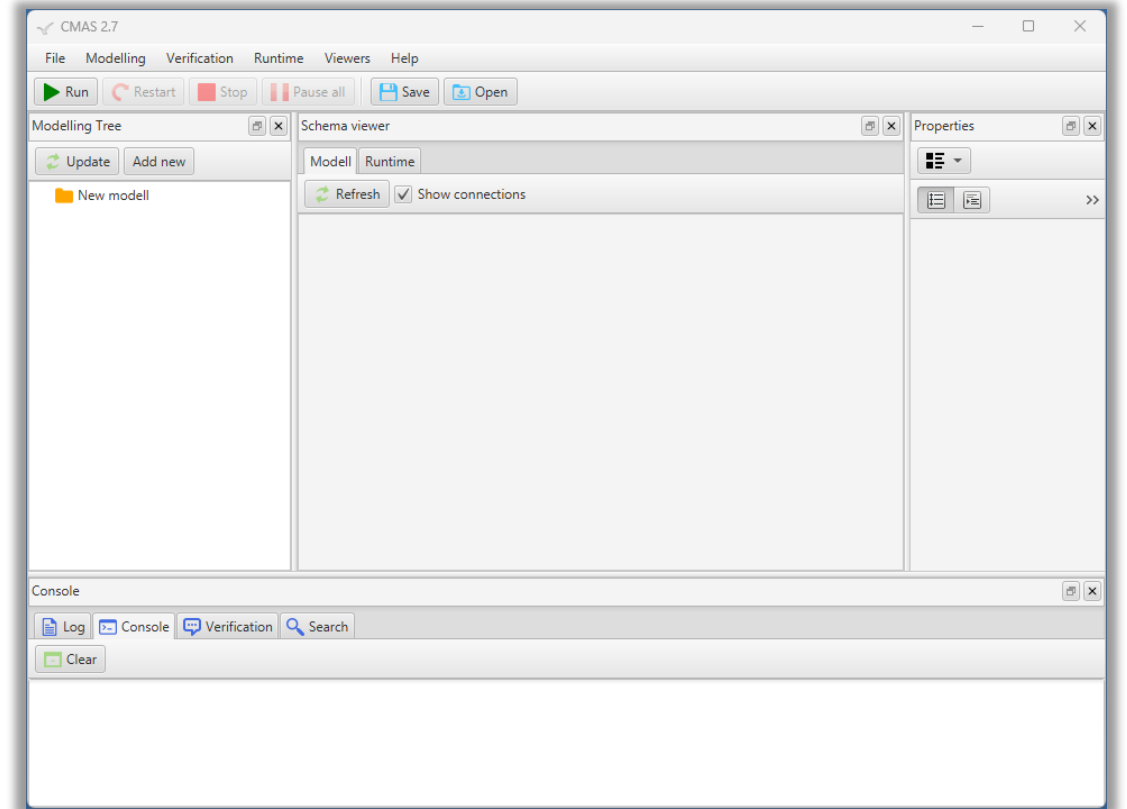
Download CMAS

- Go to the GitHub page for CMAS:
  - https://github.com/UniversityWest-IndustrialAutomation/CMAS

- You will find the following two links for downloading CMAS and an example project

Configurable Multi-Agent System (CMAS)

Download CMAS
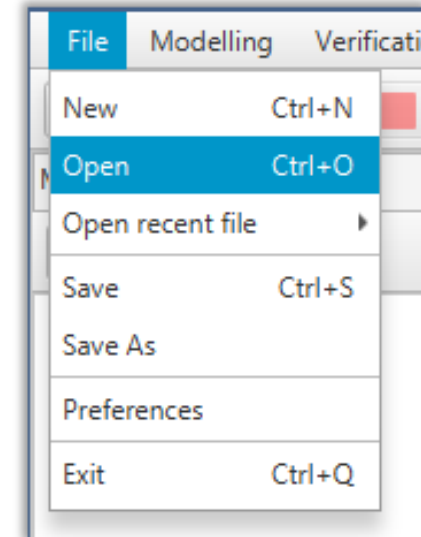
Download Crane Example

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Installing CMAS

- Unzip CMAS at any location on your computer

- Run the *CMAS.bat* to start the agent system

- Run the *Simulation.bat* to start the simulation for an example of a Plug & Produce manufacturing system

- This simulation can be controlled from the CMAS system
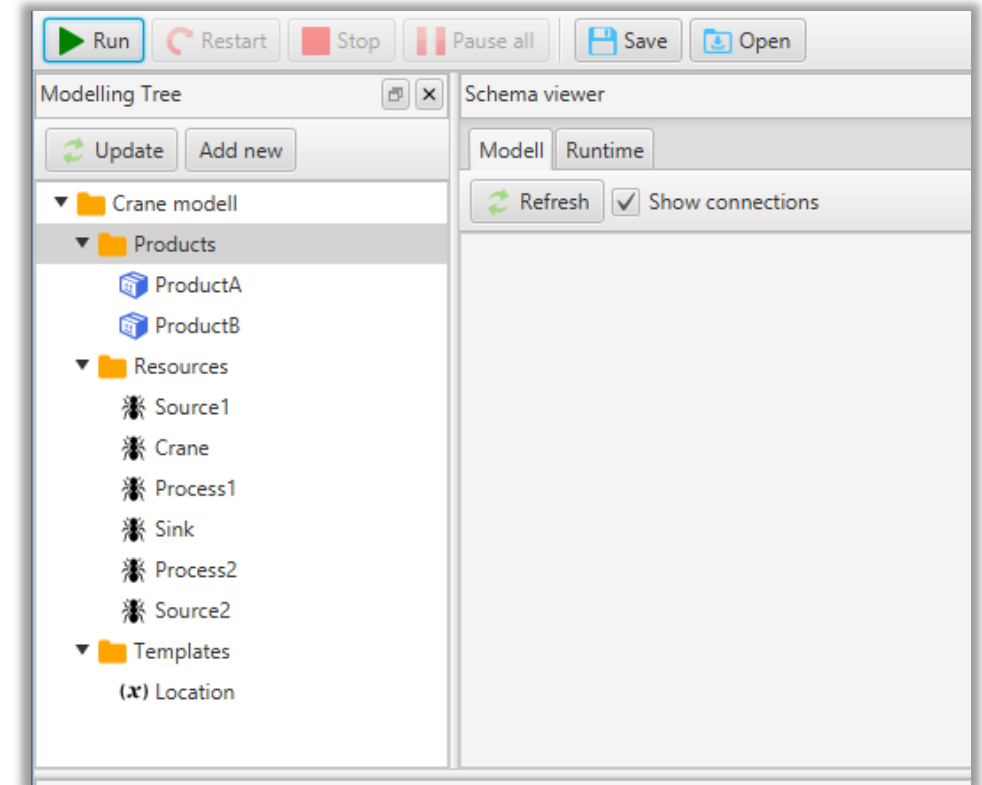
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Open example project

- Download the *crane-example.zip*

- Unzip at any location on your computer

- Open example project:

  - From the CMAS software go to the top menu bar

  - Select: *File > Open*

  - Locate the *Crane example.cmas* and open it
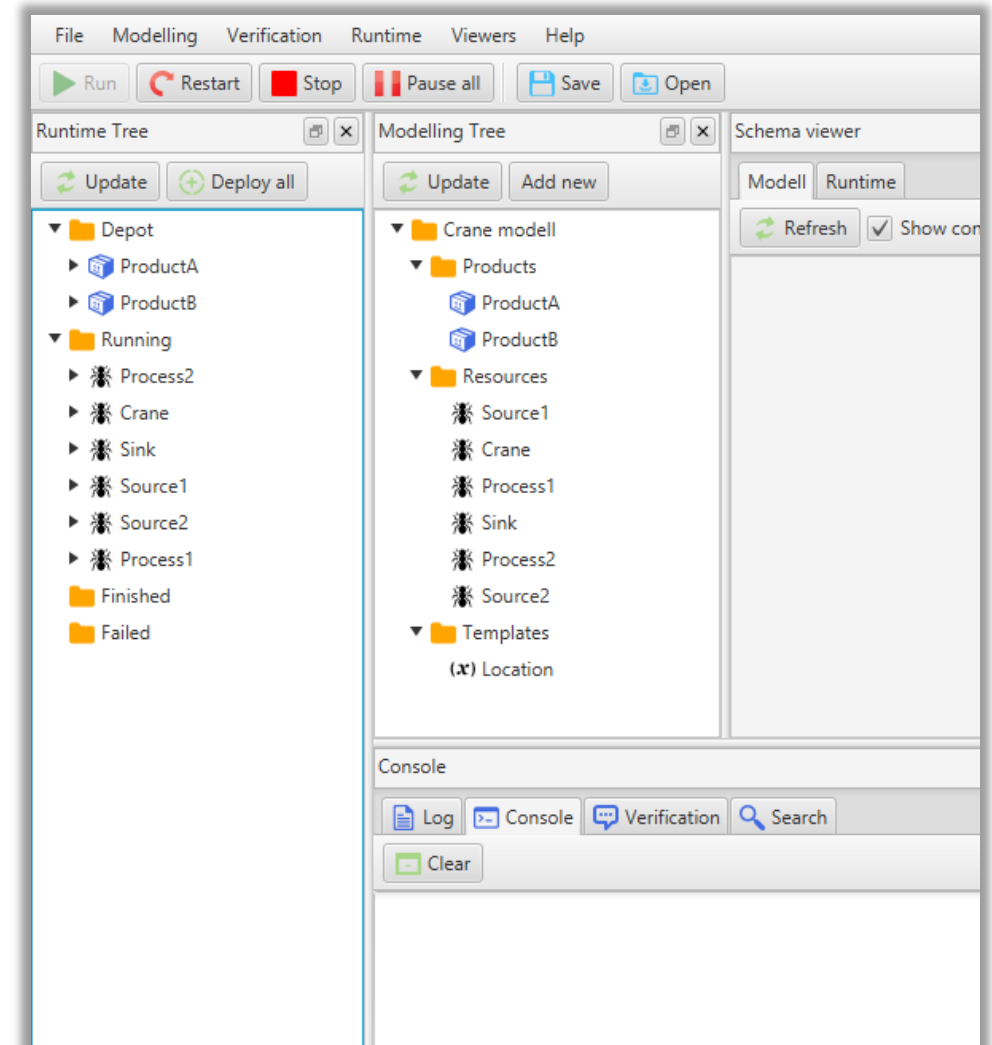
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Modelling Tree

- You will see a *Modelling Tree* with all agents

- Here we can see two product agents: *ProductA* and *ProductB*

- There are six resource agents in the Model

- Each of these agents can also be seen in the simulation example

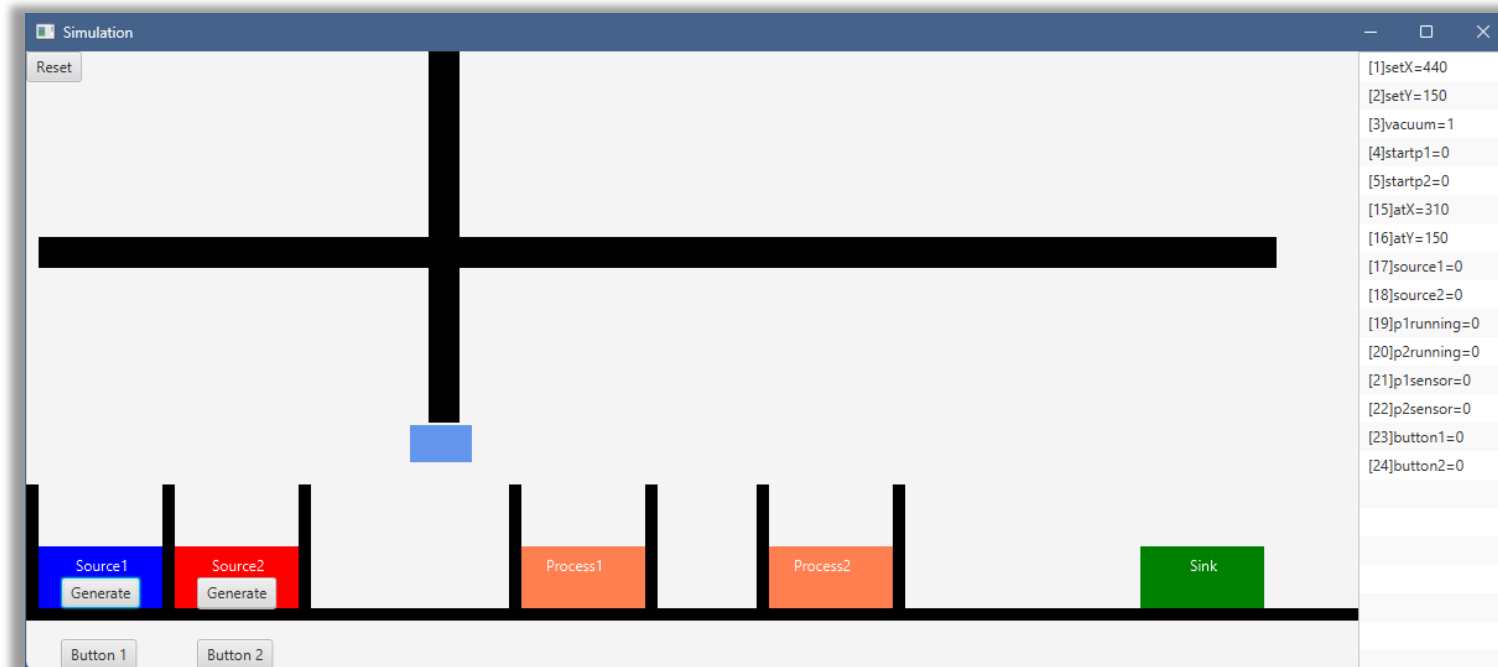Creating change together.

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Runtime Tree

- Press the green *Run* button

- A *Runtime Tree* is opened where we can see that all resources are running

- The products are still in the *Depot* and will be deployed automatically when they are added to the simulation

- When a product agent is done with its manufacturing goals it jumps to *Finished*

- If an agent jumps to *Failed* it has some error that happened

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Plug & Produce Simulation

- In the simulation you can press *Generate* on *Source 1* or *Source 2*

- This adds that product to the *Running* state in the CMAS software

- In this example, only one product can be deployed at one time, so do not add more than one part at a time
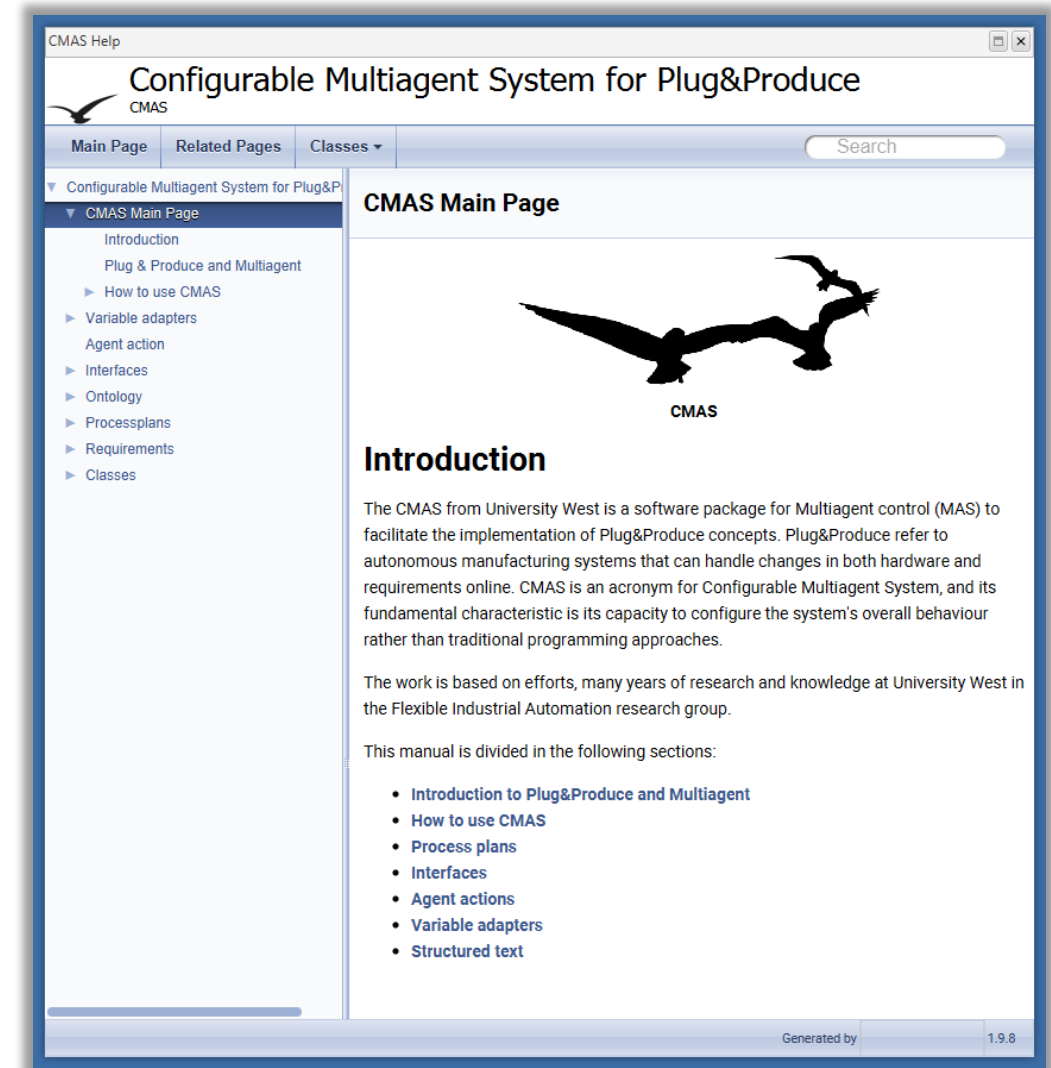
Documentation

- There is also comprehensive documentation built into the software

- Go to *Help > Help*

- This will open the documentation

- The chapter *How to use CMAS* gives a detailed introduction to how to use the software

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