

CSET Tutorial

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CSET aims to be a community tool to harness the diversity in knowledge across the Momentum partnership and academia. It provides a home for further development and visibility of existing diagnostics, and we envisage it as the go-to place for researchers to develop and use process-oriented evaluation diagnostics for convective and turbulence-scale modelling systems.

CSET combines small functional units called operators into recipes to produce novel diagnostics and can run them over case studies or continuous trials to produce a collection of diagnostics displayed on an interactive web page. CSET operators can be generic, like filtering or subtracting, or specific, like calculating the size distribution of storms in a precipitation field. The operators are chained together in a recipe which specifies which operators will be run, in which order and with which parameters.

In this half-day tutorial attendees will learn how to use CSET, covering:

Using the GUI to configure CSET, load data, and enable different pre-made diagnostics.

Run the CSET Cylc 8 workflow and inspect its progress.

Navigating the website of visualised output.

Customising a recipe and learn how operators can be flexibly composed together.

No prior experience with CSET or other evaluation tools is required, though basic familiarity with running programs on the command line is assumed.

After the workshop, attendees should be able to use CSET at their home institutions for basic evaluation tasks and see how it can be extended with custom recipes for more complex and domain specific evaluation.