



## DIGITAL SOLUTIONS

# SYNERGI GAS UNSTEADY STATE

Course code: SY-28

Duration: 3 days

Prerequisite:

Completion of SY-25 Synergi Gas standard course or 1+ years of Synergi Gas modelling experience.

This course assumes you are competent in the use of the latest version of the product.

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### DESCRIPTION

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This course will instruct you on how to set up, run, and analyze simulation using the Unsteady State Module (USM) of the Synergi Gas application. Basic knowledge of Synergi Gas steady state is assumed, but no prior experience with transient modelling is expected. Some time is devoted to the principles of unsteady state analyses, to help differentiate between USM's two different analysis modes. This course includes a combination of lecture and hands-on workshops.

Topics covered include:

- Steady vs. unsteady analysis
- Fast transient
- Slow transient
- Chart viewer
- Facility behaviour in USM
- User defined variables
- Reporting
- Modeling line breaks, and operating scripts

The majority of the afternoon on the third day is spent on operating scripts. You will take away a helpful binder full of the lecture slides and workshops to refer to at a later date.

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### LEARNING OBJECTIVES

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To learn basics of compressible fluid transient analysis theory, and how the Unsteady State module fits in. The module has two different modes for transient analysis, and this course covers how to set up each, when to choose one vs. the other, and working with results. Also, scripting capabilities and how to write an operating script for use during a transient analysis.

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### TARGET GROUP

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Existing Synergi Gas users who need to run offline transient analyses.