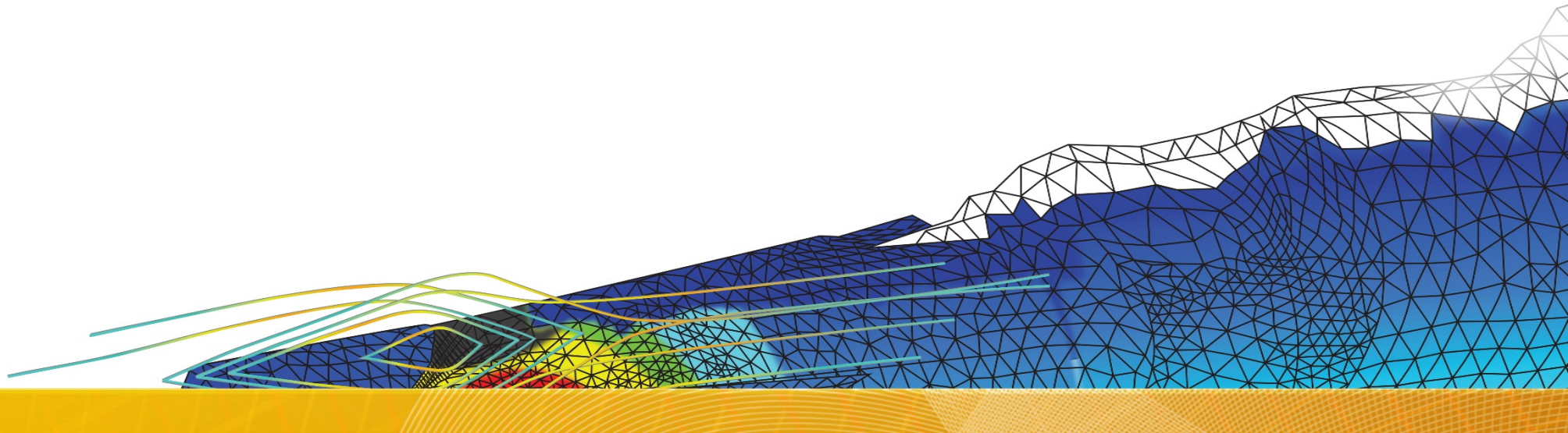




# SCADE FACE-AADL

October 19, 2018



# AADL FACE Annex

## FACE → AADL

- **TSS**

- Abstract → System; then SCADE Architect allows for object “turn into”  
(to eg implement fig 8 with concrete TSS Component)

- **Properties**

- AADL Timing\_properties::period, execution\_time, etc. (inheriting from project::time) : **aadlinteger**
  - Corresponding FACE properties: period, timeCapacity (on thread in UoP): **double**
    - ➔ rely on the AADL TimeUnit of property time to not cut the value  
(automated selection of TimeUnit to implement)
- FACE Time\_capacity has one value while AADL Compute\_execution\_time is a time\_range
  - ➔ twice the same value?
- On UoP connection: FACE property PERIOD → AADL property Communication\_properties:  
input\_rate/output\_rate
  - ➔ Computation 1/x; rounding ?

# AADL FACE Annex

**AADL → FACE**

- **FACE → AADL**
  - Useful to integrate FACE components in a larger AADL model
  - Useful to get a complete integration model for AADL analysis
- **AADL → FACE?**
  - **Objective to initialize FACE components in a top down system definition**  
See SAE paper “Z. Wang, J. Hugues, T. LeSergent”
  - **ThreadGroup interfaces defined with FeatureGroups (includes Features)**
    - Intuitive idea: FACE Views (includes ViewCharacteristics in FACE 2.1; xxxx in FACE 3.0)
  - **This intuitive mapping is very different**
    - from the mapping :
      - Views → data
      - Entities → data