

# CFX/CFD-Post R18: active session for on-the-fly results during a solve

Clinton Smith, PhD. CFD Team Lead Engineer

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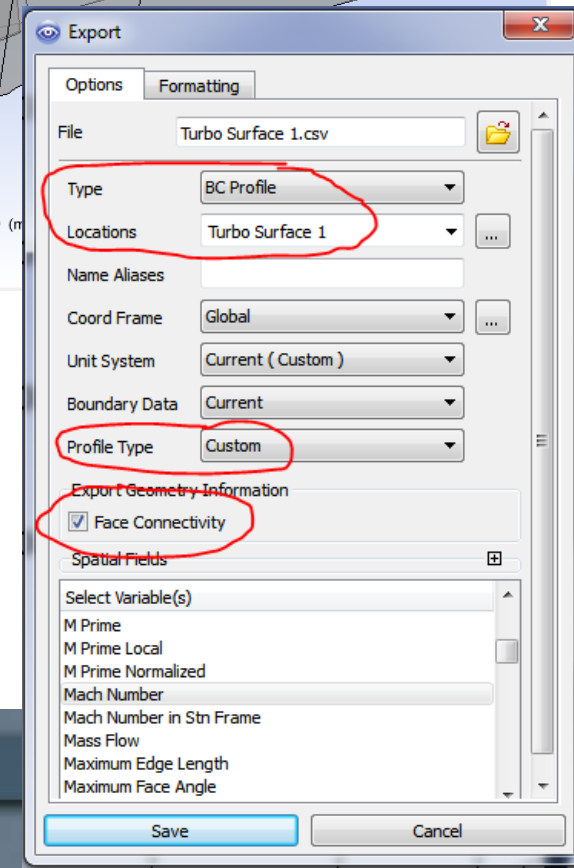
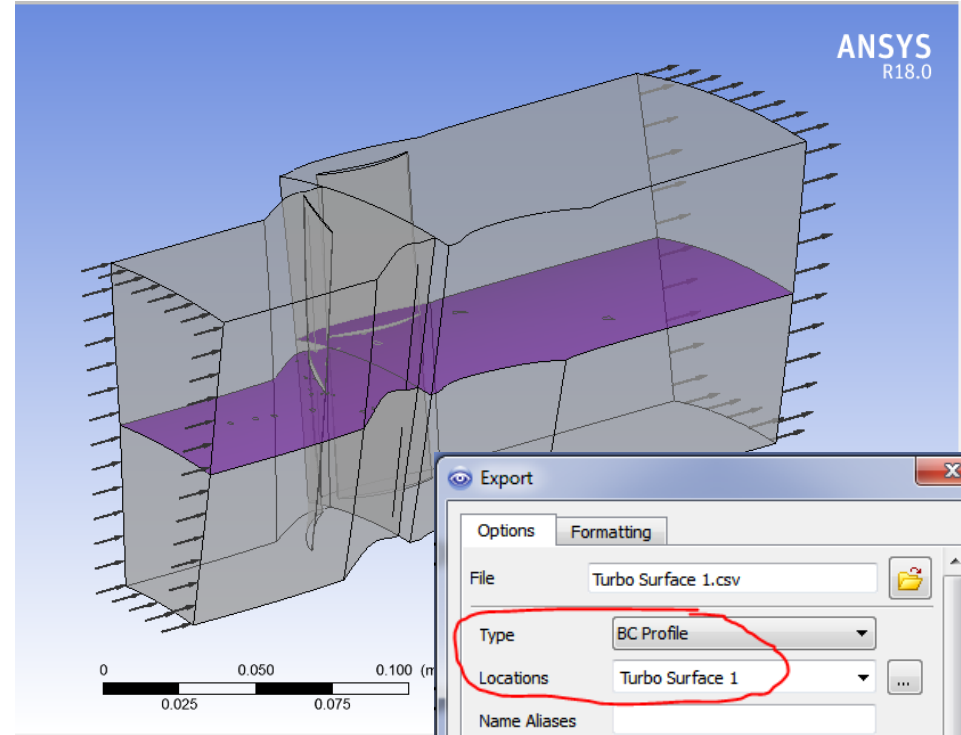


# Scope

- Run CFX while actively monitoring results (contours, vectors, visualizations)
- Visualization of 2D or 3D results for Steady State or Transient
- Demonstrate the process
  - Uses the WS04\_Axial Fan tutorial from CFX training
  - Create .csv Files in CFD-Post
  - Import .csv Files into CFX-Pre as User Surface(s)
  - Define Monitor Surfaces in CFX-Pre
  - Start CFX Solver Manager
  - Attach CFD-Post to the active Solver session
  - Visualize Results

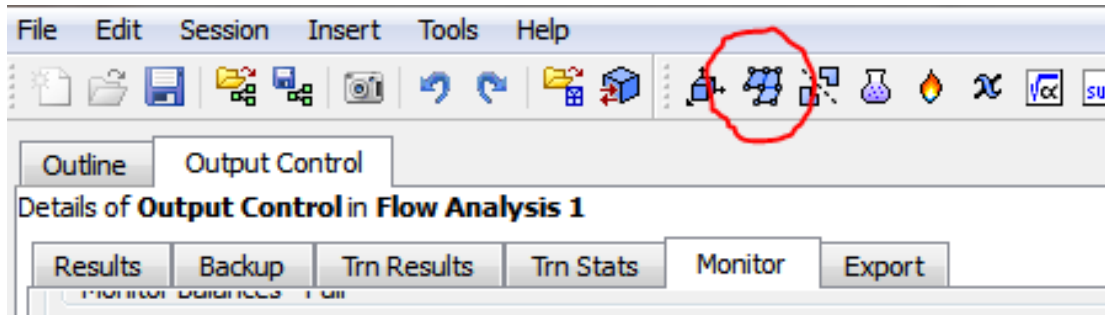
# Create .csv Files in CFD-Post

1. (read in your .res or .def file into CFD-Post). In CFD-Post, Select the surfaces on which you want to visualize data during your solution
2. Export these surface(s) as .csv files with the following settings (File – Export – Export)
  - these .csv files have to be exported as Type - BC Profile
  - the Face Connectivity has to be checked ON
  - Profile Type set to Custom

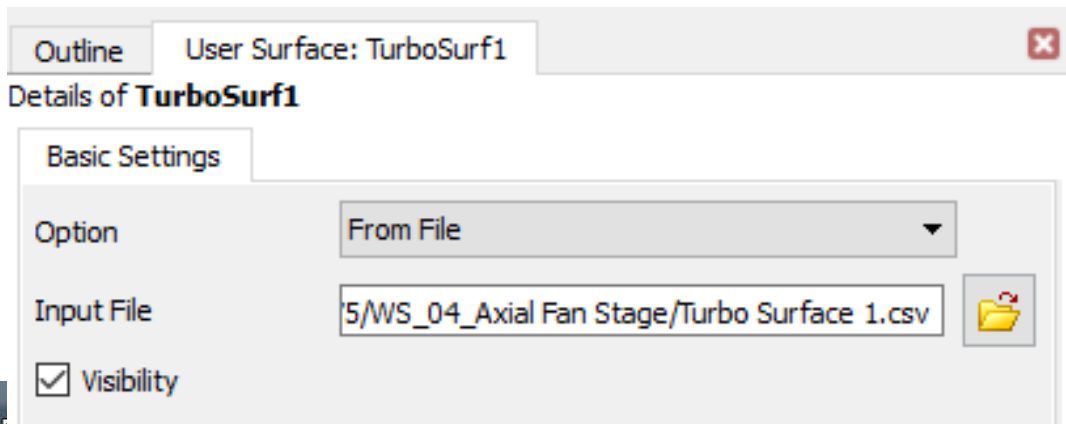


# Import .csv Files into CFX-Pre as User Surface(s)

3. In CFX-Pre, select the User Surface button

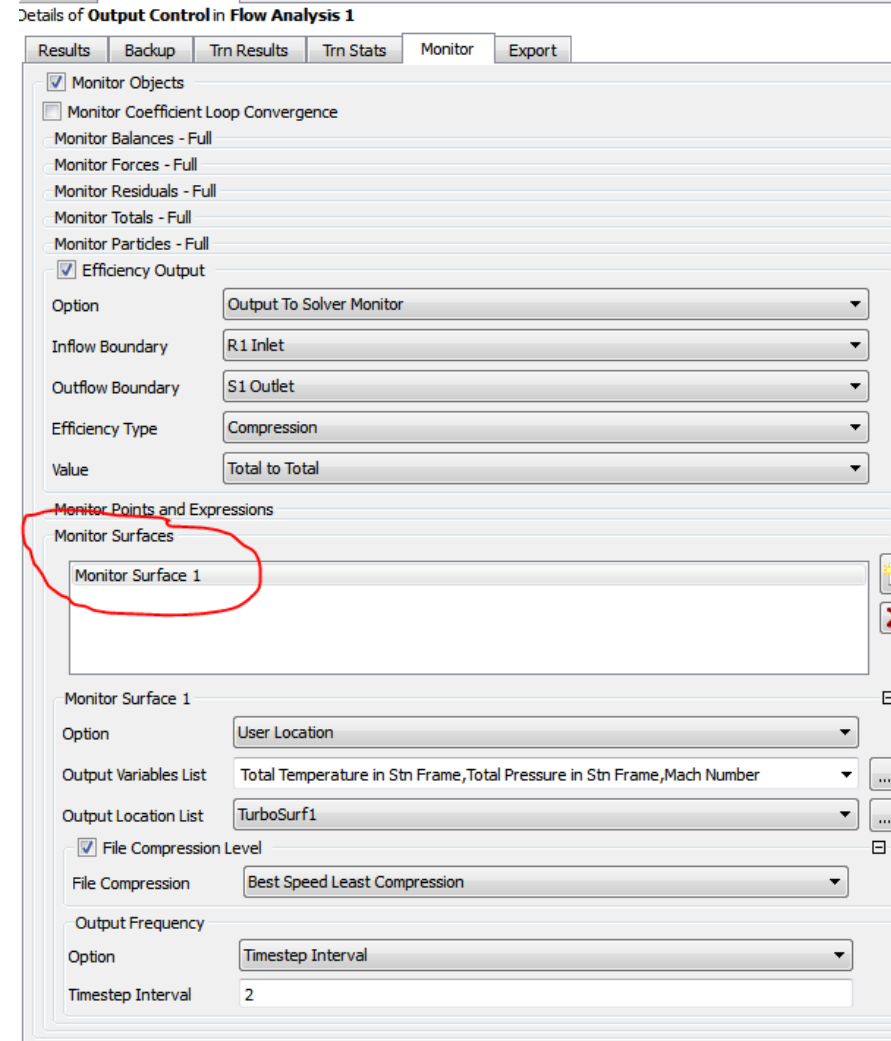


4. Next, locate the .csv file you wrote out from CFD-Post in step 3 and click OK.



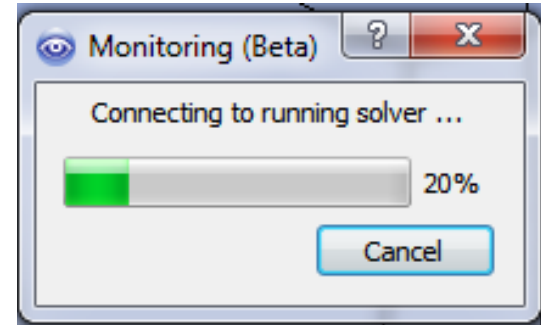
# Define Monitor Surfaces in CFX-Pre

5. (Make sure you've setup CFX-Pre to solve in Transient mode). Go to Output Control – Monitor and go to the Monitor Surfaces section
6. Create a Monitor Surface object to correspond to as many User Surfaces as you've setup
7. Select the User Surface of interest and define the Output Frequency
8. Now, you're ready to save the .def file and start the CFX - Solver

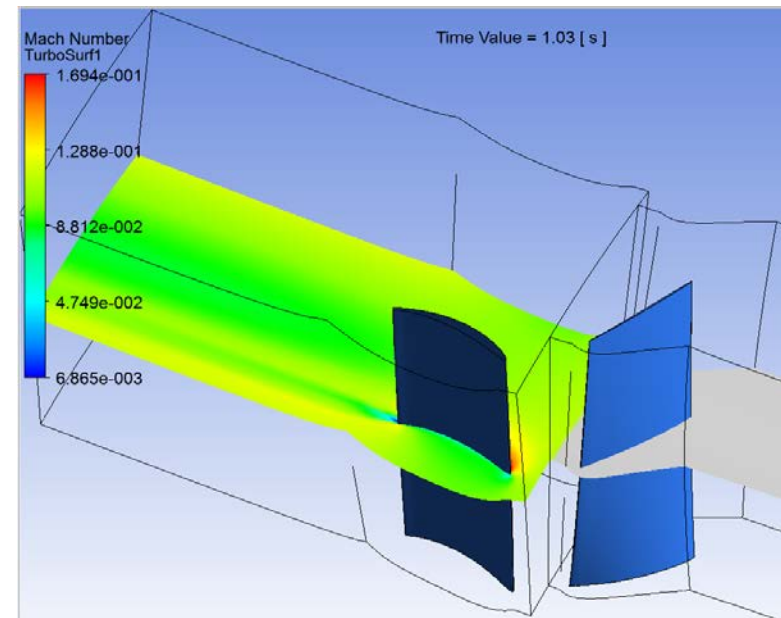


# Attach CFD-Post to the active Solver session

9. In CFD-Post, select Monitor – Monitor Run in Progress and pick the \_00X.dir where the active CFX solve is referencing during the solution.

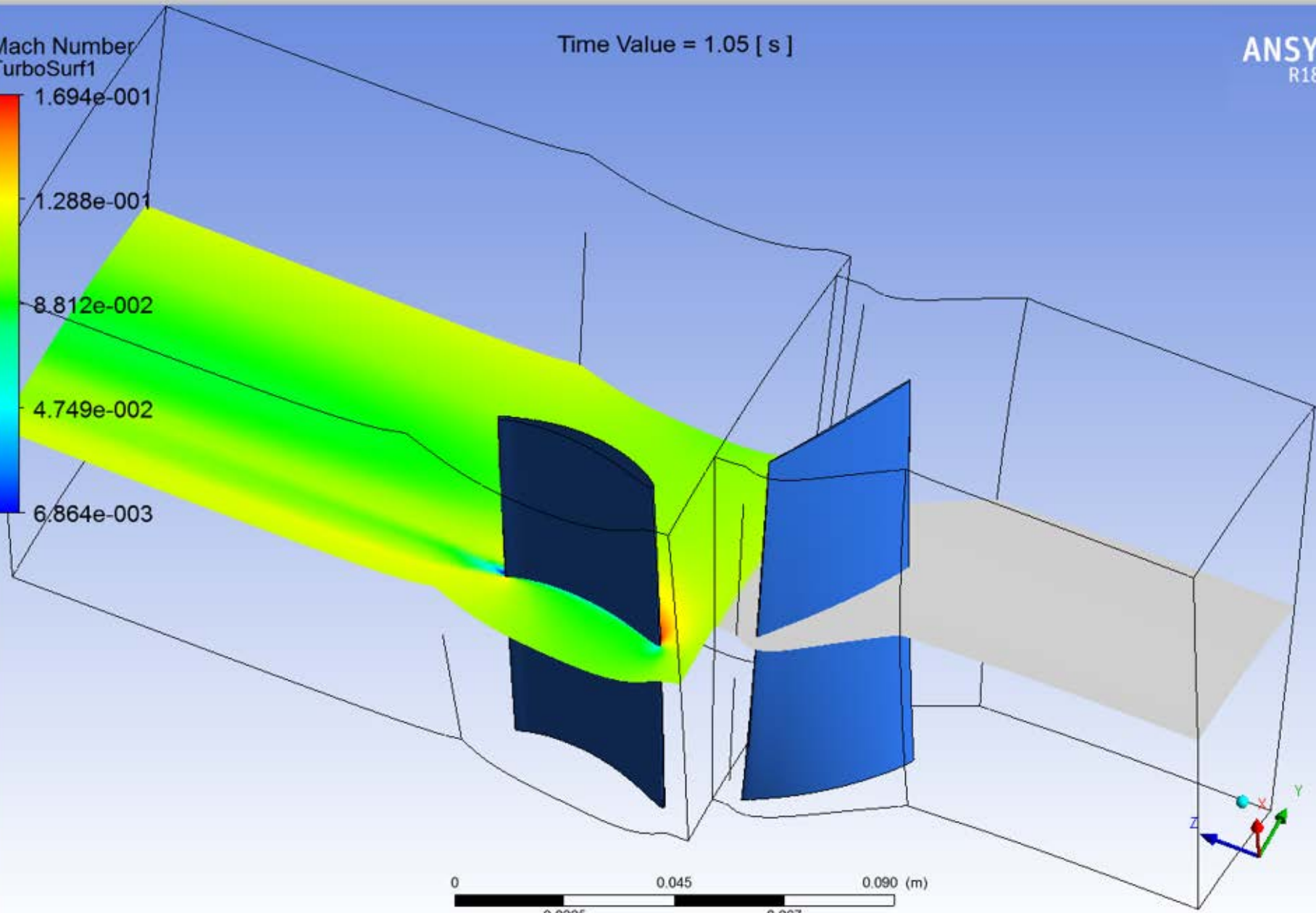
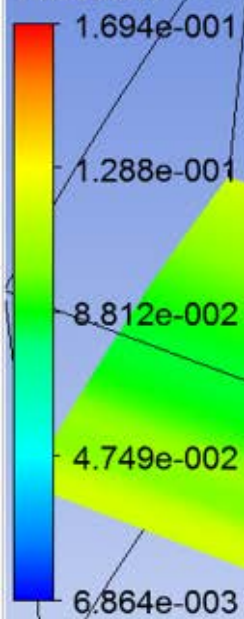


10. To see the active monitoring of the solution, you have to select Monitor - Start Auto Update

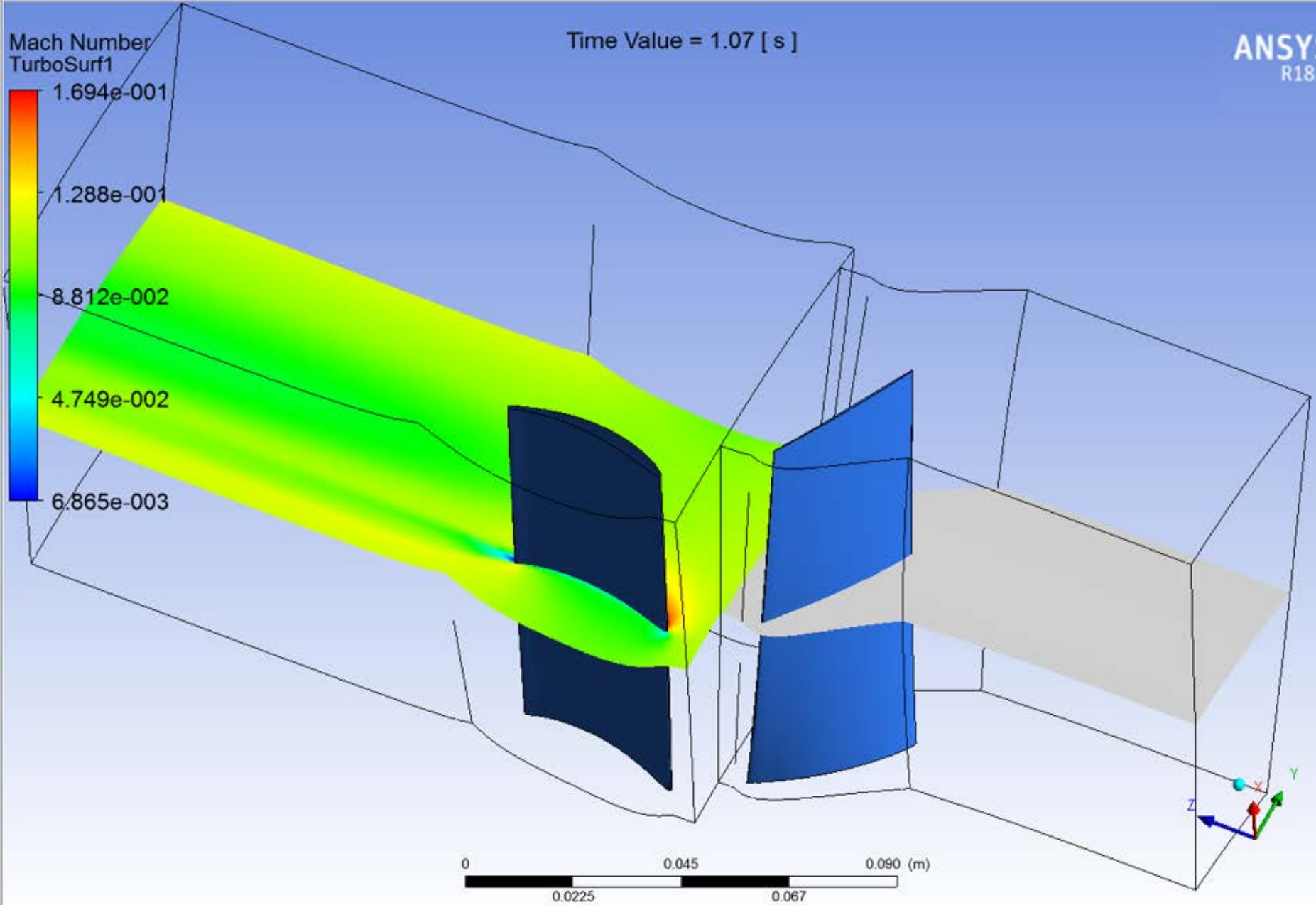


Time Value = 1.05 [ s ]

Mach Number  
TurboSurf1



Time Value = 1.07 [ s ]





# Summary

- Create .csv Files for Monitor surfaces in CFD-Post
  - Import .csv Files into CFX-Pre as User Surface(s)
  - Define Monitor Surfaces in CFX-Pre
  - Start CFX Solver Manager
  - Attach CFD-Post to the active Solver session
  - Visualize Results
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- Questions?
  - [Clinton.smith@padtinc.com](mailto:Clinton.smith@padtinc.com)
  - 480-813-4884