

[Resolved Analytics](#) is a limited liability company incorporated in the State of North Carolina. We provide companies of all sizes support through the application of multi-physics simulation tools such as Computational Fluid Dynamics (CFD). Our mission is to lower the barriers between our customers and the insights that can be attained through digital prototyping.

How We're Different

Simulations, that's it.

Our focus is squarely on multi-physics simulations. That's how we maintain the high-end capabilities that you need.

One team: Client + Resolved Analytics.

Our clients know their processes and products better than we do. That's why we encourage a collaborative process focused on specific measures of success. The result is a combined team with less wasted effort.

Fewer people. More senior people.

Client engagements are led by our partners who each have over 14 years of experience and have led over 200 successful simulation projects.

Problems we solve.

We provide consulting and simulations to companies with little or no experience in simulation.

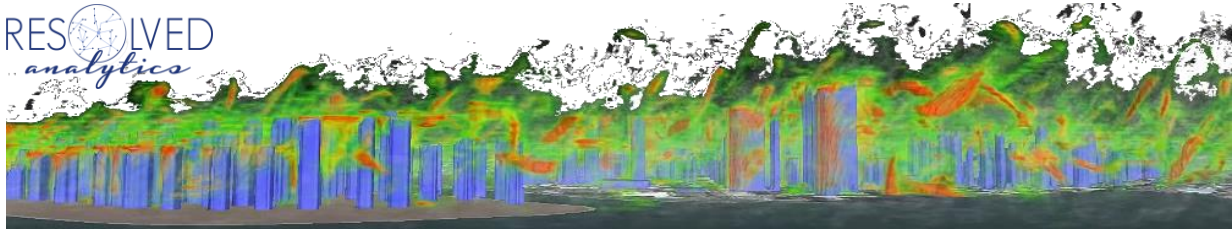
We help companies design better products or processes, typically by calling on multi-physics simulations to evaluate “what-if” scenarios, and sometimes including algorithmically driven optimization.

We reduce uncertainty by answering unresolved questions relating to physics that are out of reach of our customer's internal simulation capabilities, i.e., we tackle the really hard stuff.

Multiphysics Simulation Capabilities

The following is a partial list of our engineering simulation capabilities.

- [Computational Fluid Dynamics \(CFD\)](#)
- [Computational Solid Mechanics \(CSM\)](#)
- Electromagnetics
- Chemical reactions
- Conjugate heat transfer



- Acoustics
- Radiation
- Steady state and transient flows
- Compressible and incompressible flows
- Laminar and turbulent flows
- Subsonic and supersonic flows
- Multi-phase flows (spraying, boiling, freezing, melting, vaporization, and sublimation)
- Solids precipitation and settling
- Fluid-Structure Interaction (FSI)
- Dynamic body motion with 6 Degrees-of-Freedom (6-DOF)
- Free-surface flows
- Large-Eddy Simulation
- [Uncertainty Analysis](#)
- Stochastic and Ensemble Simulations
- [Optimization](#)
- Verification and Validation

Industries Served

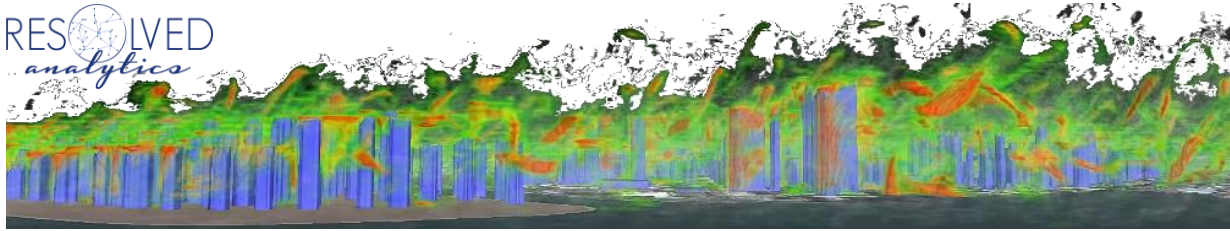
We primarily focus on the following industries, though our experience spans a wider range.

- [Architects & Engineers](#) (Power Generation, Oil & Gas, Water & Wastewater)
- [Industrial & Chemical Products and Processes](#)
- Aerospace and Automotive
- [Electronics](#)
- [Data Centers](#)
- [Marine and Naval Architecture](#)
- [Technology Startups](#)

More Information

For more information and to follow our progress in real-time, please find us on the web and social media at

- www.resolvedanalytics.com
- www.twitter.com/ResolvedHPC
- www.linkedin.com/company/Resolved-Analytics
- www.vimeo.com/resolvedanalytics



Partner C.V.s

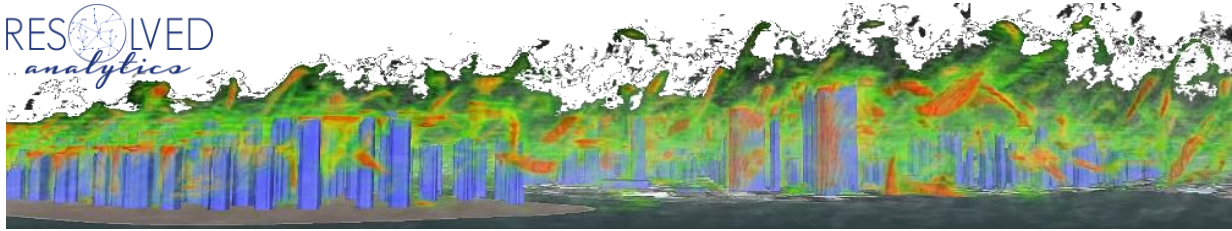
1.1 STEWART BIBLE

Stewart Bible is a co-founder and Managing Partner at Resolved Analytics. Stewart became involved with simulation while studying Mechanical Engineering at the University of Kentucky from 1996-2002, attaining both undergraduate and graduate degrees with a focus on applied mathematics and thermal-fluid science. Shortly thereafter, Stewart co-founded FlowTack, LLC, which he went on to lead for many years as Managing Partner. FlowTack, LLC specialized in fluid dynamics modeling and consulting with a focus on the power generation industry. FlowTack, LLC was acquired by Fuel Tech, Inc., a NASDAQ listed power generation equipment manufacturer, in October of 2008. Stewart held the position of Sr. Engineering Manager at Fuel Tech, Inc. from 2008 until 2014 and was responsible for process engineering and simulation on over \$100M of capital equipment projects. Stewart co-founded Resolved Analytics in 2014 with the aim of providing broader access to the insights available through simulation to customers of all sizes and industries.

In 2017, Stewart became the first ever recipient of [Siemens PLM Platinum Level STAR-CCM+ User Certification](#). The following is an excerpt from the Siemens press release on that accomplishment.

The STAR-CCM+ Certified User program consists of five levels from beginner through expert and are labeled Blue, Bronze, Silver, Gold and Platinum. Platinum level users of STAR-CCM+ software are considered experts in the computational simulation of advanced multiphysics simulations and, with more than a decade of experience in advanced engineering, Stewart is no exception. Some of his many hundreds of physics simulations have included particulate combustion, high-pressure flows, super and hypersonic nozzle flows, multi-species interactions, and porous media, to name a few. Additionally, he has used multiphysics simulation to conduct uncertainty and reliability analyses in complex energy transfer systems. Stewart's educational background, his experience, and his dedicated work ethic have placed him among the elite users of STAR-CCM+, the fastest growing computational fluid dynamics and multiphysics simulation tool available.

<https://mdx2.plm.automation.siemens.com/blog/aaron-bird/siemens-plm-software-awards-first-platinum-level-star-ccm-user>



1.2 CALEB TRIECE, PE

Caleb Triece is a co-founder and Managing Partner at Resolved Analytics. In addition to Resolved Analytics, Caleb is also a Sr. Engineer at Becton Dickinson (BD) in the Corporate CAE group. Prior to founding Resolved Analytics and joining BD, Mr. Triece was a Sr. Process Engineer at Fuel Tech, Inc., and before that was the first engineering employee of Flow Tack, LLC. Caleb holds a Bachelor's Degree in Chemical Engineering and a Master's Degree in Mechanical Engineering, both from North Carolina State University. In addition, Mr. Triece is an active Professional Engineer registered in the State of North Carolina. Caleb co-founded Resolved Analytics in 2014 with the aim of providing broader access to the insights available through simulation to customers of all sizes and industries. Mr. Triece has been the lead simulation engineer on over 200 unique simulation projects over a 14-year career in the field of simulation. Caleb's professional interests include aerodynamics, biomedical devices, chemically reacting flow, combustion, data analysis, optimization, machine learning, multiphase flows, discrete element particle modeling, uncertainty quantification and turbulence. Mr. Triece is a co-inventor of the Graduated Straightening Grid technology that has improved Selective Catalytic Reduction unit performance on over 5,000 MW of power generation assets (US Patent # 8141588 B2).