

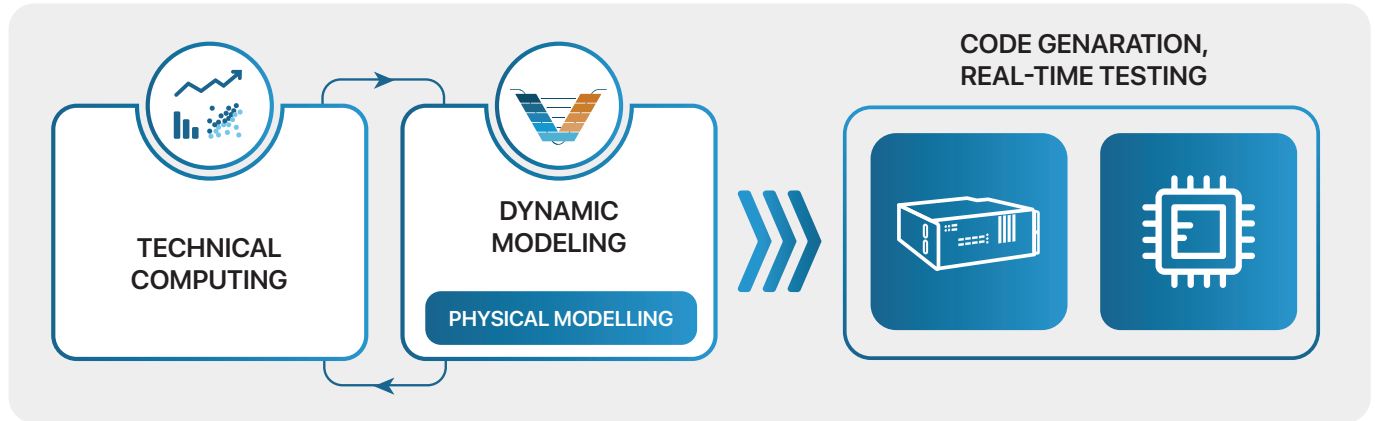






Integrated engineering platform

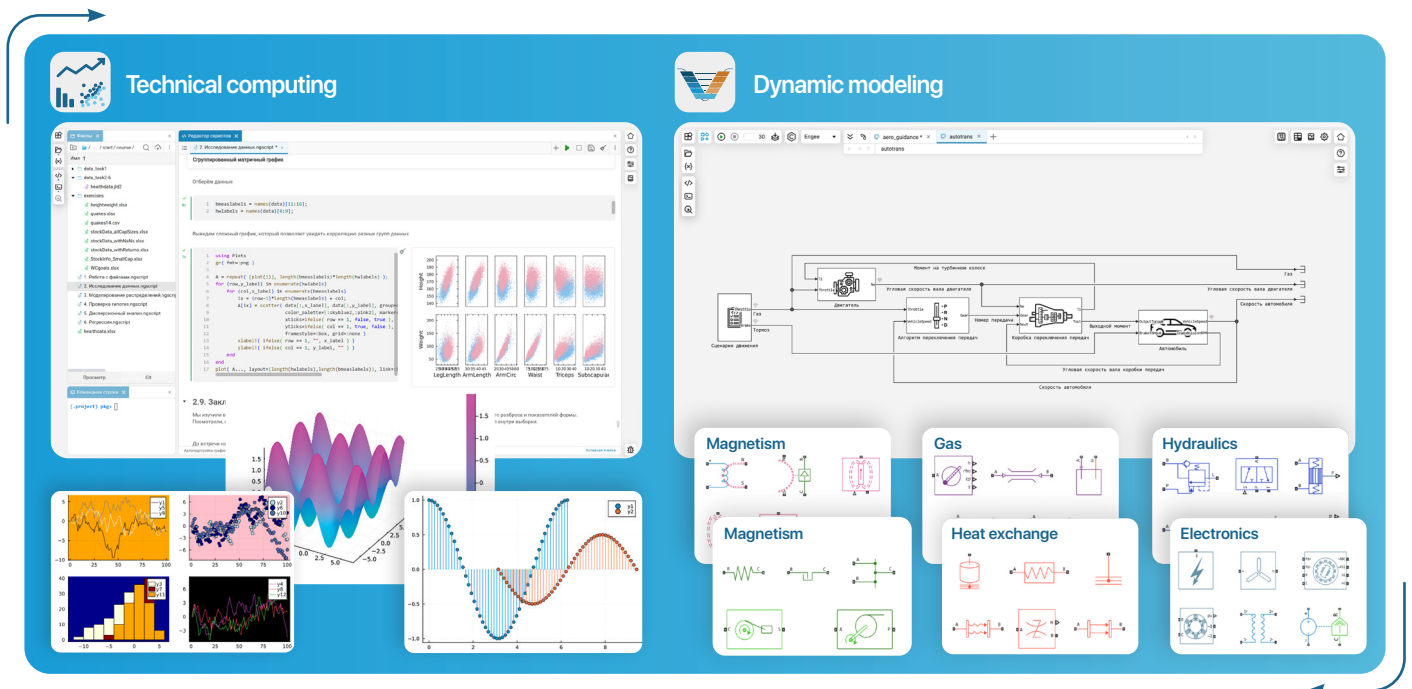
for research, simulation, verification and test of technical systems using math and model-based design.











Integrated engineering platform for research, simulation, verification and test of technical systems using math and model-based design.



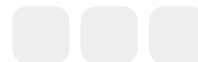
-  Integrated environment for technical computing and dynamic modeling using block diagrams.
-  Used for mathematics, machine learning, AI, control design, digital signal processing, physical modeling, embedded systems development.
-  Detailed documentation and professional support. Ready-made examples and training courses.
-  Cloud-based client-server architecture allows quick deployment in a critical IT infrastructure, organize a unified data repository and effective project management.



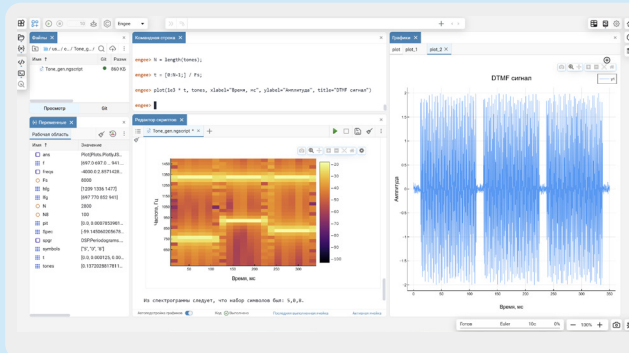
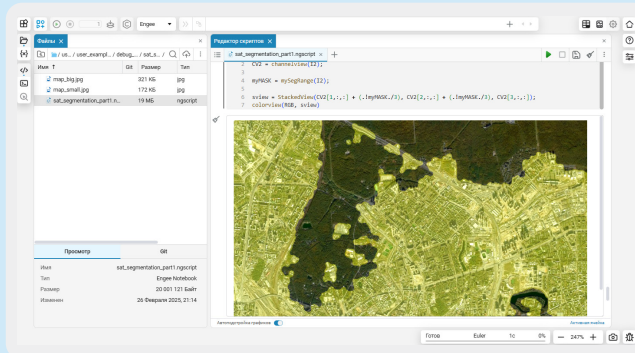
Applications and Industries

-  Control systems
-  Engineering research and data analysis, AI
-  Aerospace
-  Automotive and transportation industry
-  Defence and UAV
-  Energy production
-  DSP systems and Radars
-  Wireless communications

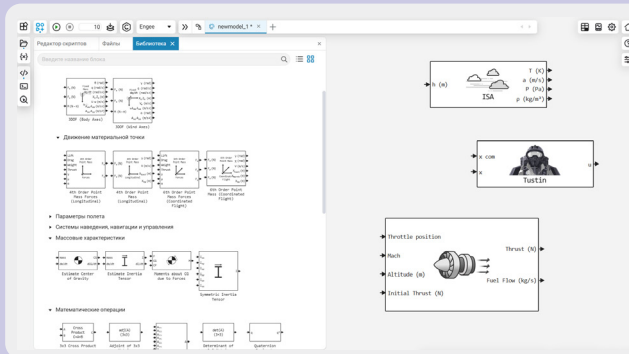
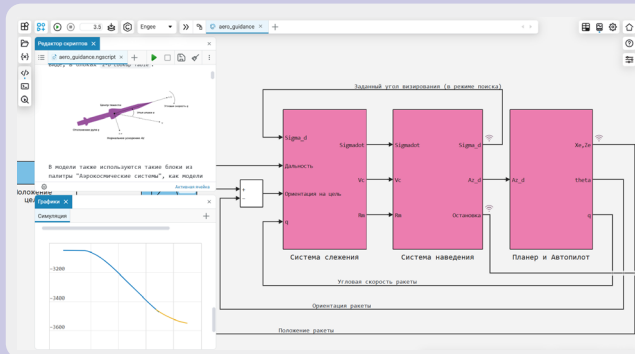
Modern and user-friendly UI



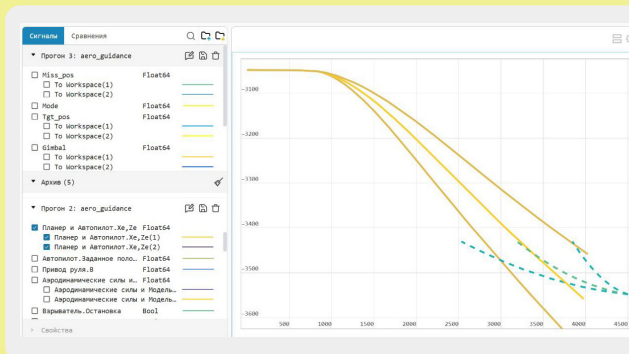
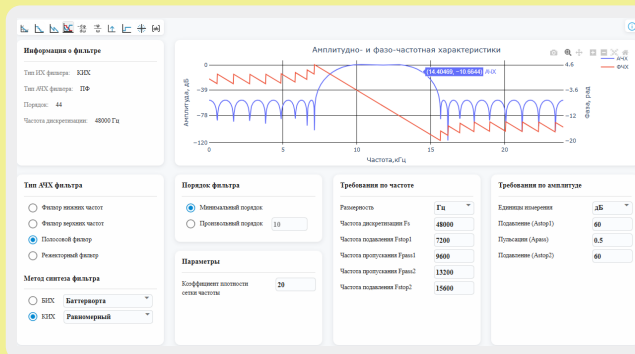
Interactive computing and development environment



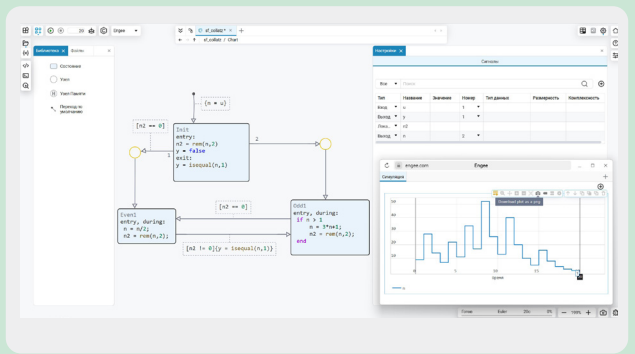
Dynamic modeling



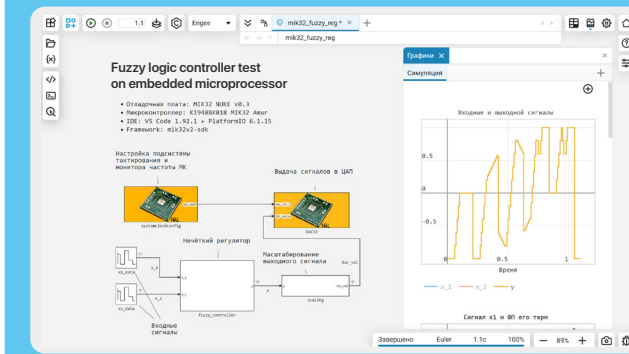
Technical Apps



State machines



Embedded code generator



Technical computing with Engee



Multi-language IDE for development of engineering scripts, codes, programs and applications. Designed to be convenient for solving various technical tasks.

Engee is an out-of-the-box environment in your browser that requires no installation or setup.



DATA ANALYSIS

Explore, model and analyze data



VISUALIZATION

Visualize and explore results



PROGRAMMING

Create scripts, functions and classes



MODEL INTEGRATION

Seamless workflow for automation and tests

Engee technical computing features



Live interactive scripts



Visualization and scientific graphics



Multi language support: Julia, Python, MATLAB, Fortran, C/C++



Dozens of preinstalled libraries



High operating speed



Low-code apps for engineers



Unique system objects and proprietary function libraries for specialized tasks

The screenshot shows the Engee IDE interface with several components labeled:

- File browser:** Located on the left, showing a file tree with folders like 'boundary_value_problem_shot_put1', 'calculate_tangent_to_plane_surface', etc.
- Command line interface:** Located at the top center, showing a terminal window with the command 'surface(rand(20,20), c=:Blues)' and the output 'engge> surface(rand(20,20), c=:Blues)'.
- Variables:** Located on the top right, showing a table of variables with columns 'Имя', 'Значение', and 'Класс'. Variables include 'ans', 'b', 'bvp', 'COLORS_NUM...', 'd', 'g', 'g.n', 'nдр', 'plt_record', 'plt_trajectories', 'scatter_v_0', 'sol', and 'tspan'.
- Git support:** Located at the bottom left, showing a 'Просмотр' (View) window with fields for 'Удаленный репозиторий' (Remote repository) and 'Комментарий' (Comment), and buttons for 'Add all', 'Commit', 'Push', and 'Fetch'.
- Live scripts:** Located at the bottom center, showing a script editor with a code snippet for calculating trajectories and a plot titled 'Shot put trajectories'.
- Plots:** Located on the bottom right, showing a 3D plot titled 'plot' with a color bar.



Engage is a foundation for model-based design of complex technical systems. It enables engineers to use familiar graphical block diagrams to simulate before hardware implementation, and to deploy algorithms without hand coding.

The environment provides a functional and modern model editor, efficient debugging tools, and rich library of engineers-useful blocks for wide range of technical applications.

Engage provides efficient tools for multi-level modeling of systems with complex architecture, automatic generation of production-ready code, continuous testing and verification of embedded systems.

MULTIDOMAIN SYSTEMS

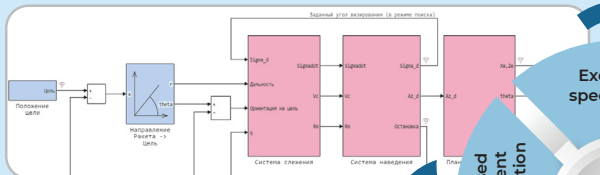
Mathematical core of our own design allows combining hybrid system models (discrete and continuous), multirate systems (subsystems with different sampling times), causal (algorithms and environment), physical models, user blocks and libraries



CONTINUOUS MODELS

Creation and debugging of control systems of any complexity in continuous time using system models:

- Block Libraries for Aerospace systems and automatic control system
- System dynamics
- Environment models
- Simulink models conversion

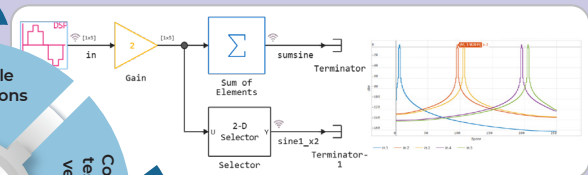


DISCRETE MODELS



Fundamental capabilities for development of digital systems: vectorization, creation of mixed-signal models, models with different sampling rates:

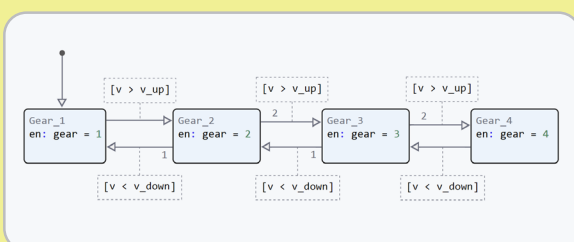
- Digital control •
- Libraries for DSP, Communications, Radar •
- RF components •
- LTE, 5G •



STATE MACHINES

The best tool for visual control logic design using state diagrams. Graphical representation of system states and describing the logic of transitions between them:

- Control logic
- Failure handling
- System modes

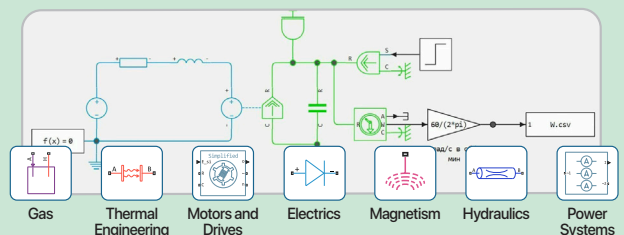


PHYSICAL MODELS



Rich libraries of acausal physics models for various areas of engineering:

- Electronics and Energy •
- Mechanics •
- Hydraulics •
- Electrical Machines •
- Import of FMI components •
- Custom user physical blocks •

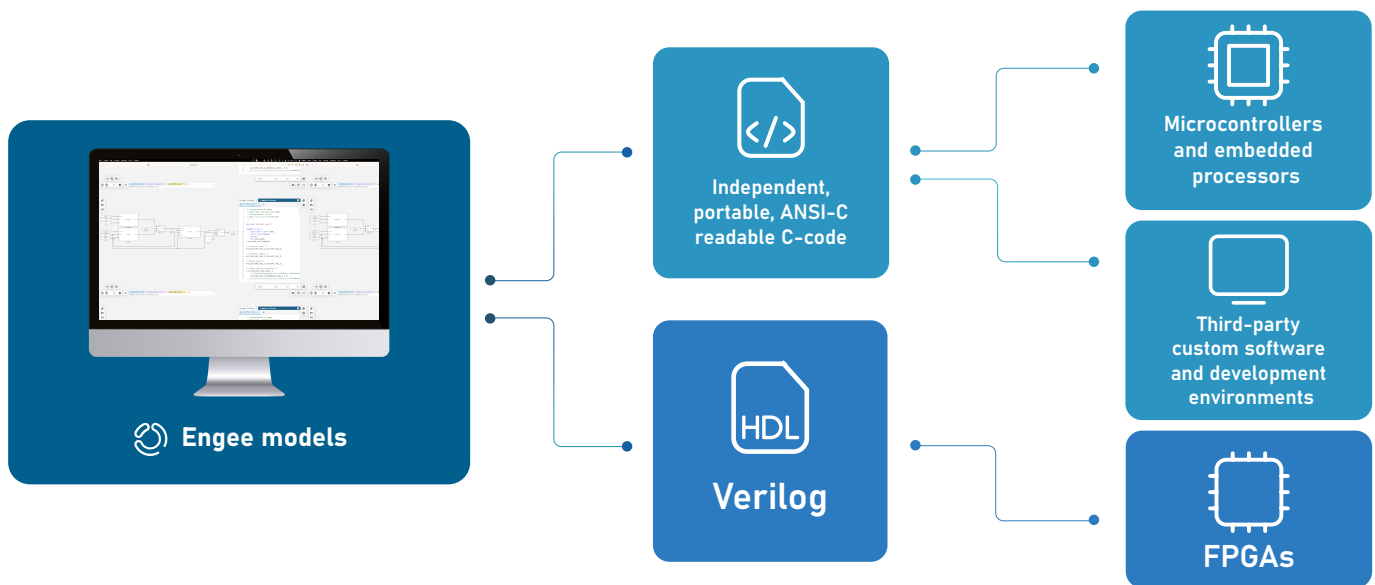


Embedded code generation

The Engee code generator creates fast, compact, human-readable, portable, independent from Engee, traceable to model C-code suitable for industrial use:

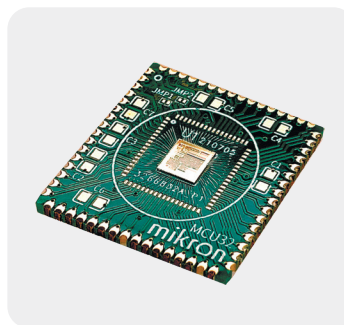
Apply the generated code in an external IDE to create an executable object file for embedded floating-point or fixed-point processors.

Integrate generated code with manually written code (existing or processor-specific) for user applications or other engineering software.



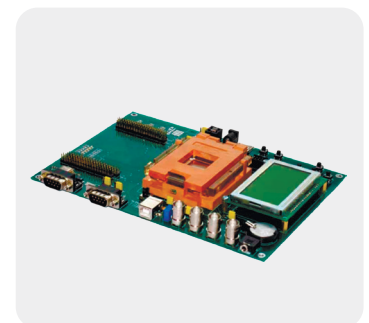
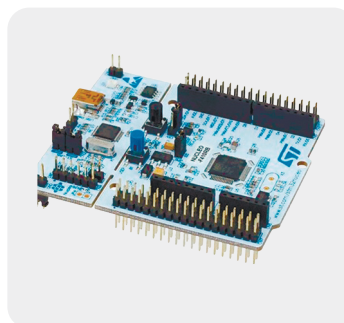
Microprocessors support:

- ARM
- Texas Instruments
- Baikal
- Elbrus
- Elvis
- Mikron
- Milandr
- FPGA



Development boards support:

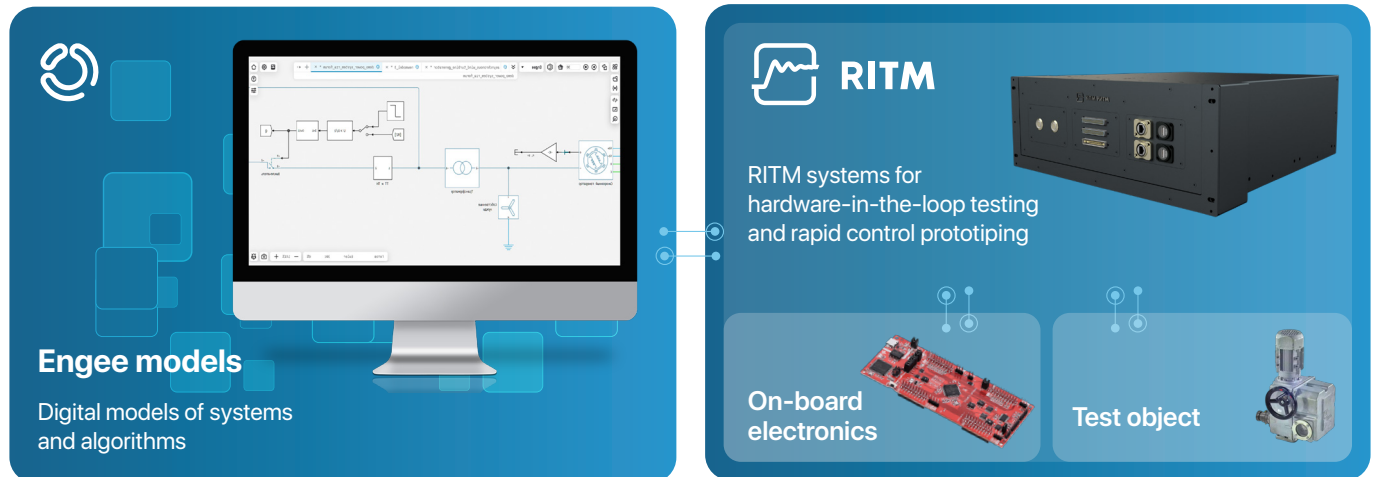
- Arduino
- Raspberry Pi
- STM32
- MIK32
- Custom



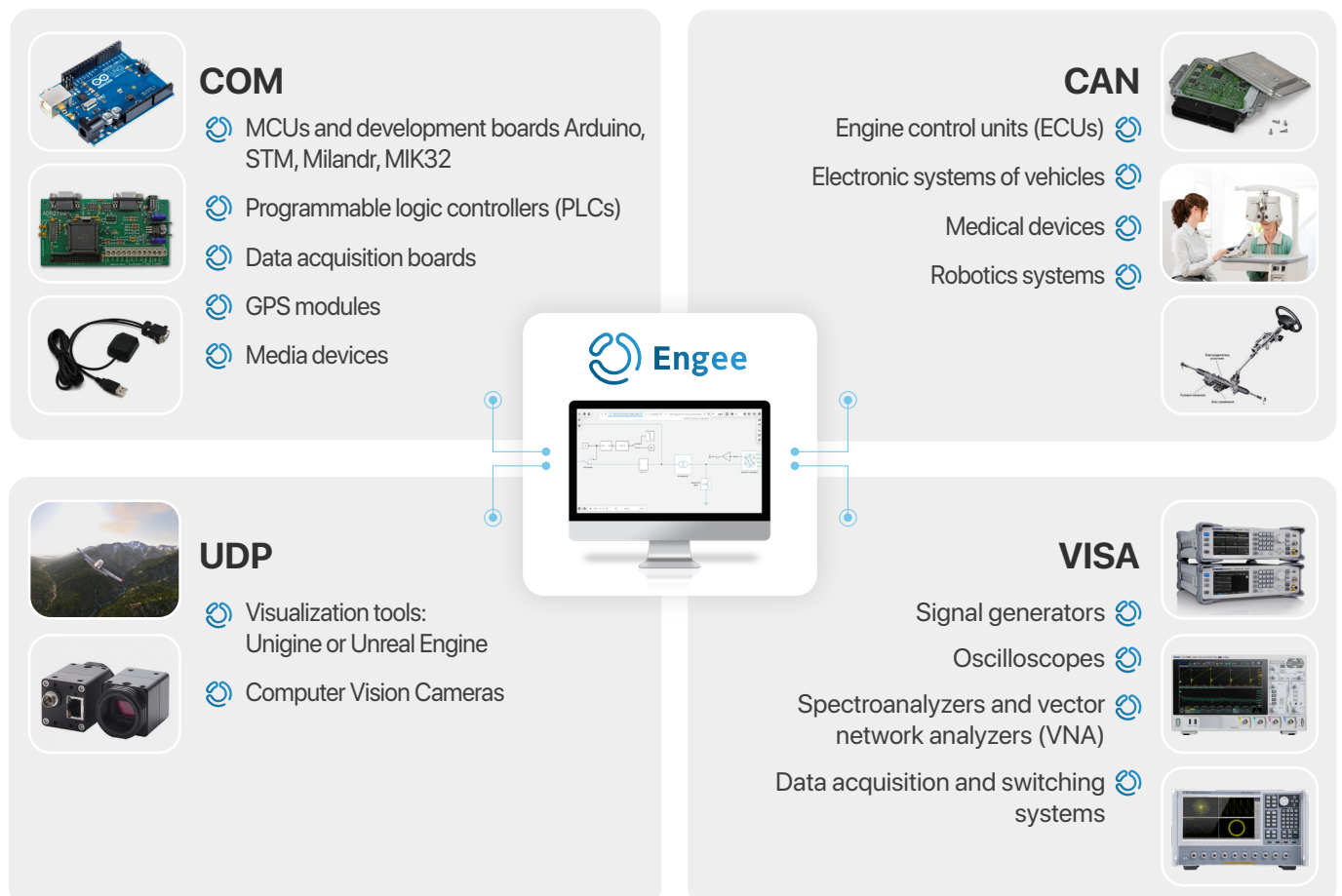
Real-time simulation and testing

Seamless integration with RITM real-time target computers allows to create, control, and instrument real-time applications from Engsee models and run them on RITM.

RITM systems support connection of external devices via various digital and analog interfaces, multi-channel data capture and are ideal for rapidly prototyping control designs and thoroughly testing embedded controllers with digital twins.



Engsee third-party devices and software support





Join our Telegram-channel



start.enggee.com

