WOLFRAM MATHEMATICA

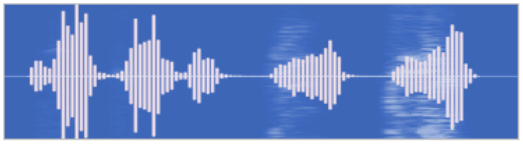
The world's definitive system for modern technical computing

For Modern Technical Computing, There's No Other Choice

With energetic development and consistent vision for three decades, Mathematica stands alone in a huge range of dimensions, unique in its support for today's technical computing environments and workflows.

A Vast System, All Integrated

Mathematica has over 6,000 built-in functions covering all areas of technical computing—all carefully integrated so they work perfectly together, and all included in the fully integrated Mathematica system.



Not Just Numbers, Not Just Math—But Everything

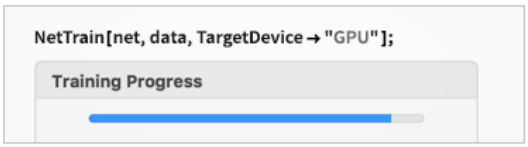
Building on three decades of development, Mathematica excels across all areas of technical computing—including neural networks, machine learning, image processing, geometry, data science, visualizations and much more.

Unimaginable Algorithm Power

Mathematica builds in unprecedentedly powerful algorithms across all areas—many of them created at Wolfram using unique development methodologies and the unique capabilities of the Wolfram Language.

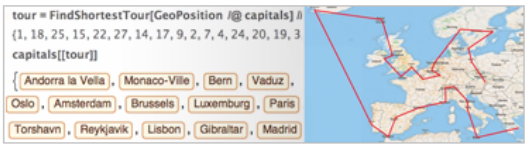
Higher Level Than Ever Before

Superfunctions, meta-algorithms... Mathematica provides a progressively higher-level environment in which as much as possible is automated—so you can work as efficiently as possible.



Everything Is Industrial Strength

Mathematica is built to provide industrial-strength capabilities—with robust, efficient algorithms across all areas, capable of handling large-scale problems, with parallelism, GPU computing and more.



Powerful Ease of Use

Mathematica draws on its algorithmic power—as well as the careful design of the Wolfram Language—to create a system that's uniquely easy to use, with predictive suggestions, natural language input and more.

Documents as well as Code

Mathematica uses the Wolfram Notebook Interface, which allows you to organize everything you do in rich documents that include text, runnable code, dynamic graphics, user interfaces and more.

The Code Makes Sense

With its intuitive English-like function names and coherent design, the Wolfram Language is uniquely easy to read, write and learn.

Make Your Results Look Their Best

With sophisticated computational aesthetics and award-winning design, Mathematica presents your results beautifully—instantly creating top-of-the-line interactive visualizations and publication-quality documents.

Instant Real-World Data

Mathematica has access to the vast Wolfram Knowledgebase, which includes up-to-the-minute real-world data across thousands of domains.

Seamless Cloud Integration

Mathematica is now seamlessly integrated with the cloud—allowing sharing, cloud computing and more in a unique and powerful hybrid cloud/desktop environment.

Connected to Everything

Mathematica is built to be connected to everything: file formats (180+), other languages, Wolfram Data Drop, APIs, databases, programs, the Internet of Things, devices—and even distributed instances of itself.

150,000+ Examples

Get started with almost any project with help from 150,000+ examples in the Documentation Center, over 10,000 open-code Demonstrations in the Wolfram Demonstrations Project—and a host of other resources.

Coverage

Mathematica is based on the breakthrough Wolfram Language.

Full Wolfram Language Documentation & Reference »

- Symbolic Language
- Numerics
- Mathematical Computation
- Algebraic Manipulation
- Number Theory
- Visualization & Graphics
- Data Manipulation & Analysis
- Machine Learning
- Strings & Text
- Graphs & Networks
- Images
- Geometry
- Sound & Video
- Knowledge Representation & Natural Language
- Time-Related Computation
- Geographic Data & Computation
- Scientific and Medical Data & Computation
- Engineering Data & Computation
- Financial Data & Computation
- Social, Cultural & Linguistic Data
- Notebook Documents & Presentations
- User Interface Construction
- System Operation & Setup
- External Interfaces & Connections
- Cloud & Deployment

Core Technologies

Wolfram Language

The unique knowledge-based symbolic language that grew out of Mathematica, and now powers the Mathematica system.

Wolfram Algorithmbase

The world's largest integrated web of algorithms, providing broad and deep built-in capabilities for Mathematica.

Wolfram Notebook Interface

The uniquely flexible document-based interface that lets you mix executable code, richly formatted text, dynamic graphics and interactive interfaces in Mathematica.

Natural Language Understanding

Introduced in Wolfram|Alpha and now fully integrated into the Wolfram technology stack, NLU is a key enabler in a wide range of Wolfram products and services.

Wolfram Cloud

The infrastructure technology that lets you run Mathematica Online with just a web browser.

Wolfram Knowledgebase

The uniquely broad, continuously updated knowledgebase that powers Wolfram|Alpha and supplies computable real-world data for use in Wolfram products.

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