

Version 14.0 continues to expand the scope and breadth of our computational coverage while streamlining and polishing existing areas.

Apply a list of functions to an expression with **Comap** and **ComapApply**

DigitSum computes the sum of the individual digits in an integer

UnitConvert is now faster

Create intermediate tests inside **TestCreate** using **IntermediateTest**

Compute numerical vector line integrals, vector surface integrals or complex contour integrals using **NLineIntegrate**, **NSurfaceIntegrate** and **NContourIntegrate**, respectively

UnilateralConvolve performs unilateral (AKA causal, one-sided) convolutions

TruncateSum makes it easy to work with infinite sum representations produced by **DSolve** and other functions

Convert expressions to and from finite field versions with **ToFiniteField** and **FromFiniteField**

Convert to and from finite field index representation with **FiniteFieldIndex** and **FromFiniteFieldIndex**

Several new structured matrix types added: **SymmetricMatrix**, **HermitianMatrix**, **OrthogonalMatrix** and **UnitaryMatrix**

TextSummarize automatically produces different types of summarization of text data

Multiple new visualization functions added for plotting all pairwise 2D projections of data: **PairwiseListPlot**, **PairwiseDensityHistogram**, **PairwiseSmoothDensityHistogram**, **PairwiseQuantilePlot** and **PairwiseProbabilityPlot**

SolarEclipse has been overhauled; support was added for more than seventy thousand eclipses and 50 new properties

Functions for computing the date of a new moon, a full moon or any moon phase added: **NewMoon**, **FullMoon** and **MoonPhaseDate**

Create a graph represented as a layered plot with **LayeredGraph** and **LayeredGraph3D**

Specify named texture mappings for graphics with **TextureMapping**

ImageSegmentationComponents segments an image into components

ImageSegmentationFilter filters an image for the foreground components

Create a tour around 3D graphics with **Tour3DVideo**

Several new PDE modeling functions added: **SchrodingerPDEComponent**, **FluidFlowPDEComponent**, **ElectrostaticPDEComponent** and more

Create detailed simulation results for discrete, continuous or mixed control systems with **InputOutputResponse**

Plot outcome uncertainties from uncertain parameters, initial values and inputs in a control system model with **SystemModelUncertaintyPlot**

Support added for importing **DOCX**, **MOBI**, **RData** and **RDS** formats

Support for subtitle import and export added to the **MP4**, **QuickTime** and **Matroska** formats

New data structures added: **RedBlackTree** and **StringVector**

Spline-related graphics primitives **BezierCurve**, **BSplineCurve** and **BSplineSurface** are now also valid geometric regions for computational geometric operations, such as **ArcLength** and **RegionMeasure**