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# Enhancement Details: Mathcad Prime 1.0

## View by Product

- [Mathcad Prime \(38\)](#)

## View by Functional Area

- [Mathcad Prime \(38\)](#)

## View by Process

# Enhancement Details

## Mathcad Prime

### 2D Plots

Mathcad Prime has new 2D plots.

### Box Plots

You can display data sets as box plots.

### Convolution Operators

The linear and the circular convolution operators are specific implementations of the convolve function.

### Design of Experiment Functions

A new set of 27 functions that accept units is available for Design of Experiments (DOE).

### Effects Plots

You can display factor effects in effects plots.

### Enhancements for Editing Headers and Footers

The layout and content within headers and footers is improved.

### Enhancements for Editing Vectors, Matrices, and Tables

The editing of vectors, matrices, and tables is improved.

### Enhancements for Viewing Large Matrices

The display and navigation of large matrices is improved.

### Equation Editor Enhancements

The equation editor is improved.

### Extension Packs Merged into Mathcad

The functions from the Data Analysis, Image Processing, and Signal Processing Extension Packs are now available in Mathcad.

### File Access Functions

New functions are available for reading and writing files.

### Help Center Enhancements

The Mathcad Help Center includes bookmarking and examples you can copy to the Mathcad Prime worksheets. Three new tutorials: Getting Started, Solving, and Programming get you up to speed quickly. A new Migration Guide explains how to convert older Mathcad worksheets to Mathcad Prime. More detailed tooltips are on each button on the ribbon.

### [Importing Data from Excel](#)

You can import data from Excel 2007 or earlier by directly copying cells or by using the READEXCEL function with previewer.

### [Including Other Worksheets](#)

The definitions in included worksheets can be cached.

### [Inserting Vectors, Matrices, and Tables](#)

Insert vectors, matrices, and tables from the Ribbon.

### [Labels](#)

Use labels for distinguishing between different math elements

### [Literal Subscript Enhancement](#)

Literal subscripts are improved.

### [Migration Guide](#)

A Migration Guide explains how to convert earlier worksheets into Mathcad Prime 1.0.

### [New Fourier Functions](#)

Two new Fourier functions, dft and idft use a new faster algorithm and are more flexible.

### [New Programming Operators](#)

There are additional programming operators and programs are easier to edit. You can enter Programming operators by typing the name of the operator.

### [New User Interface](#)

Mathcad commands are organized into a Ribbon interface with tabs. Frequently used commands can be added to the Quick Access Toolbar.

### [Operators Are Combined](#)

Previously you had to insert separate operators for different types of root, summation, and product. These operators are combined into the new Square Root and Nth Root Operator, Summation Operator, Product Operator, and Derivative Operator.

### [Page View and Draft View](#)

You can choose how to view your worksheet.

### Polar Operator

Use the polar operator for entering complex numbers in polar form.

### Pro/ENGINEER Integration

You can designate variables in Mathcad as Pro/ENGINEER input and output parameters.

### ProductPoint Integration

You can manage your Mathcad worksheets in Windchill ProductPoint.

### Row Operator

Use the row operator for extracting a row from a matrix.

### Saving Worksheets in XPS and Printing Worksheets to PDF

You can export Mathcad files to new formats.

### Scaling Operator

You can insert a scaling operator for implied multiplication.

### Separate Regions Both Vertically and Horizontally

You can separate overlapping regions either vertically or horizontally.

### Signal and Image Processing Functions

The performance for a number of computational signal and image functions is improved.

### Solve Block Enhancements

Solve blocks appear as a boxed construct you can move as a unit around the page.

### Tables

Use tables for defining vectors of data.

### Text Blocks

You can enter text as paragraphs that push down other regions.

### Unit Enhancements

Mixed, dynamic units are available throughout Mathcad, in tables, matrices, most functions, and plots.

### Windchill Workgroup Manager Integration

You can connect Mathcad with Windchill to provide the data management and life cycle

management capabilities offered by Windchill.

### Worksheet Grid

Mathcad worksheets can be displayed with or without gridlines. You can choose either a standard or a fine grid.

### XMCD, MCD Converter

A XMCD, MCD converter converts all earlier Mathcad worksheets into Mathcad Prime 1.0.

# Enhancement Details

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# Enhancement Details

## 2D Plots

Mathcad Prime has new 2D plots.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	Select options on the Plots tab and edit placeholders in the plot itself.
Processes and Initiatives	

### Benefits and Description

New 2D plots include: line, column, bar, stem and error traces. You can create box plots, effects plots, pareto plots and polar plots. Waterfall plots and plotting matrices are also available. The new 2D plots have an improved professional look and Plot commands are available on a single Ribbon tab. You can drag the axes; an axis snaps to any of the tick marks from the opposite axis. You can set the interval between tick mark values directly on the plot and add an unlimited number of line markers for each axis. Contour plots include a z-axis color bar, and can be used to plot many functions not previously available for plotting.

# Enhancement Details

## Box Plots

You can display data sets as box plots.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Plots tab, in the Traces group, open the Change Type list and then select Box Plot Trace.
Processes and Initiatives	

### Benefits and Description

Box plots are useful for viewing some statistics and the outliers of data sets. They display data in vertical columns. Sequential data values that belong to different categories are plotted along the horizontal axis at equally spaced intervals. The height of the columns is determined by the number of elements in each category. For histograms, the location of the columns is determined by the x values and their height is determined by the y values.

# Enhancement Details

## Convolution Operators

The linear and the circular convolution operators are specific implementations of the convolve function.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Math tab, in the Operators and Symbols group, open the Operators list.
Processes and Initiatives	

### Benefits and Description

You can use the linear and the circular convolution operators in signal processing when you convolve two vectors or matrices. The type of correlation describes how the matrix boundaries are handled:

- Linear Convolution (or Zero Padding)--Pixels beyond the matrix boundary are treated as zeros.
- Circular Convolution (or Periodic Wrapping)--Pixels beyond the matrix boundary are treated as a periodic continuation of the matrix.

# Enhancement Details

## Design of Experiment Functions

A new set of 27 functions that accept units is available for Design of Experiments (DOE).

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Functions tab, in the Functions group, open the Design of Experiments list.
Processes and Initiatives	

### Benefits and Description

With the Design of Experiments functions, you can process experimental data for plotting box plots, effects plots, and Pareto plots. You can construct design matrices, perform ANOVA and use DOE plots for screening factors, develop statistical models, and perform Monte Carlo simulations. The new functions include: anova, block, boxbehnken, boxplot, boxwilson, doelabel, effects, foldover, fractalias, fractfact, fractresol, fractruns, fullfact, LogNormal, montcarlo, mtaguchi, Normal, pareto, plackettburman, polyfit, polyfitc, polyfitstat, quickscreen, randomize, taguchi, Uniform, and Weibull.

# Enhancement Details

## Effects Plots

You can display factor effects in effects plots.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Plots tab, in the Traces group, open the Change Type list and then select Effects Plot Trace.
Processes and Initiatives	

### Benefits and Description

Effects plots are useful for viewing the factor effects in a design experiment. They display the average positive and negative response for each factor.

# Enhancement Details

## Enhancements for Editing Headers and Footers

The layout and content within headers and footers is improved.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Document tab, select options in the Headers and Footers group.
Processes and Initiatives	

### Benefits and Description

You can easily access the headers and footers from your worksheet. You can copy and paste regions to and from the headers, footers, and the worksheet. You can edit, format, and control the location of these regions in the headers and footers. Math regions in headers and footers are disabled and, therefore, do not recalculate or show results. Images are visible directly in headers and footers, and page numbers, dates, and file names can be entered and seen directly, without requiring a separate preview.

# Enhancement Details

## Enhancements for Editing Vectors, Matrices, and Tables

The editing of vectors, matrices, and tables is improved.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Data/Matrix tab, select options in the Rows and Columns group.
Processes and Initiatives	

### Benefits and Description

You can easily insert or delete rows and columns in vectors, matrices, and tables as you edit them by choosing options in the Ribbon.

# Enhancement Details

## Enhancements for Viewing Large Matrices

The display and navigation of large matrices is improved.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	To control the matrix display, click the three dots to the bottom right of the matrix; the matrix navigator opens. To display indices above and on the left edge of a matrix, on the Formatting tab, in the Matrices and Tables group, click Show Indices.
Processes and Initiatives	

### Benefits and Description

When you evaluate a large matrix, only part of the matrix is displayed. You can resize the displayed submatrix by dragging its bottom or right borders in the worksheet or in the matrix navigator. You can also drag a box in the matrix navigator to pan over different sections of the large matrix. You can set whether you view the row and column indices of the displayed elements as you continue to work in your worksheet.

# Enhancement Details

## Equation Editor Enhancements

The equation editor is improved.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	
Processes and Initiatives	

### Benefits and Description

You can easily enter and edit equations with the new equation editor. The equation editor respects the order of operations and precedence, showing you the operands of each operator as you select them. You can replace operators directly by overtyping them with another operator.

# Enhancement Details

## Extension Packs Merged into Mathcad

The functions from the Data Analysis, Image Processing, and Signal Processing Extension Packs are now available in Mathcad.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Functions tab, in the Functions group, open the All Functions list.
Processes and Initiatives	

### Benefits and Description

You do not need a special license to use the functions from the Extension Packs. These functions are consolidated so that the functions from one Extension Pack complement the functions from the other Extension Packs.

# Enhancement Details

## File Access Functions

New functions are available for reading and writing files.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	
Processes and Initiatives	

### Benefits and Description

You can import data from or export data to CSV, XLS, and XLSX (Excel) files.

There are new file import and export functions: READCSV and WRITECSV; READEXCEL and WRITEEXCEL, READTEXT and WRITETEXT.

Use the READEXCEL function to preview and select data to bring in from Excel. Then, edit the function directly to use it as a batch processor for importing from Excel.

# Enhancement Details

## Help Center Enhancements

The Mathcad Help Center includes bookmarking and examples you can copy to the Mathcad Prime worksheets. Three new tutorials: Getting Started, Solving, and Programming get you up to speed quickly. A new Migration Guide explains how to convert older Mathcad worksheets to Mathcad Prime. More detailed tooltips are on each button on the ribbon.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	For context-sensitive help, place the pointer over a Ribbon item or a function in your worksheet and press F1. Alternatively, click Help on the Getting Started tab or click the Help icon next to the Getting Started tab.
Processes and Initiatives	

### Benefits and Description

All Help topics, examples, and tutorials appear in a single searchable table of contents. You can perform the following actions from Help Center:

- Click to copy math expressions from a Help example to your Mathcad worksheet.
- Customize Help Center.
- Add comments to topics.
- Bookmark topics for easy retrieval.
- Use the advanced search option to target all the headers or just the primary, secondary, or tertiary headers.
- Use English operators (AND, OR, NOT), wildcard characters (\*, ?), nested searches, or phrases.

# Enhancement Details

## Importing Data from Excel

You can import data from Excel 2007 or earlier by directly copying cells or by using the READEXCEL function with previewer.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	Click the Input/Output tab and then click READEXCEL.
Processes and Initiatives	

### Benefits and Description

Two new features are available for importing data from Excel 2007 into your worksheet:

- Copy cells directly from an Excel file and you can paste them in your worksheet. The data is inserted into a table with each data column becoming a separate vector of data.
- Use the READEXCEL function with its previewer to zoom and select the Excel cells that you want to insert. After insertion, the READEXCEL function line in Mathcad can be edited to batch process a number of Excel worksheets.

# Enhancement Details

## Including Other Worksheets

The definitions in included worksheets can be cached.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Input/Output tab in the Mathcad Worksheets group click Include Worksheet and Cache Worksheet.
Processes and Initiatives	

### Benefits and Description

Definitions in included worksheets can be cached. Therefore, if you transfer the main worksheet to another user or location, the worksheet works even if the referenced worksheet is no longer available.

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# Enhancement Details

## Inserting Vectors, Matrices, and Tables

Insert vectors, matrices, and tables from the Ribbon.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Matrices/Table tab, click Insert Matrix or Insert Table to quickly insert a matrix or table up to 12 x 12 cells.
Processes and Initiatives	

### Benefits and Description

You can set the size of a vector, matrix, or table before inserting it in your worksheet.

# Enhancement Details

## Labels

Use labels for distinguishing between different math elements

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	To select a label for a math element, on the Math tab, click Labels. To format the labels, on the Formatting tab, select options in the Labels Style group.
Processes and Initiatives	

### Benefits and Description

You can assign labels to math elements for differentiating, for example, between the letter m used for the unit meter and the variable m. You can format a label style and change its appearance throughout your worksheet. For example, you can set all units to blue and all variables to black italic.

# Enhancement Details

## Literal Subscript Enhancement

Literal subscripts are improved.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Math tab, in the Operators and Symbols group, click the Subscript button to toggle the subscript of a character.
Processes and Initiatives	

### Benefits and Description

The use of literal subscripts is now more flexible. You can insert a subscript in the middle of a variable's name such as H<sub>2</sub>O.

# Enhancement Details

## Migration Guide

A Migration Guide explains how to convert earlier worksheets into Mathcad Prime 1.0.

### Product Information

<b>Product</b>	Mathcad Prime
<b>PTC Support Release</b>	1.0
<b>Product Functional Area</b>	Mathcad
<b>User Interface Location</b>	On the Getting Started tab in the Get Help in Mathcad Prime 1.0 group, click Migration Guide.
<b>Processes and Initiatives</b>	

### Benefits and Description

The Migration Guide explains differences between Mathcad Prime 1.0 and earlier releases. It leads you through the conversion steps, and explains the types of annotations you might see. It provides some tips on fixing any issues

# Enhancement Details

## New Fourier Functions

Two new Fourier functions, dft and idft use a new faster algorithm and are more flexible.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Functions tab click All Functions and then click Fourier Transform.
Processes and Initiatives	

### Benefits and Description

The new functions dft and idft offer significant performance improvement over existing Fourier functions particularly for larger data sets and cases where the size is a not a multiple of 2.

# Enhancement Details

## New Programming Operators

There are additional programming operators and programs are easier to edit. You can enter Programming operators by typing the name of the operator.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Math tab in the Operators and Symbols group click Programming.
Processes and Initiatives	

### Benefits and Description

Programs are restructured to make them easier to edit. You can enter all programming operators by typing the name of the operator, followed by Ctrl+J, which turns the name into the operator. You no longer need to remember the keyboard shortcuts for an operator.

New operators are added for "if else-if else" and "if also-if else" for clarity since the older "if otherwise" was often confusing. The "on error" operator is changed to "try on-error" for more legibility

# Enhancement Details

## New User Interface

Mathcad commands are organized into a Ribbon interface with tabs. Frequently used commands can be added to the Quick Access Toolbar.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Document tab, in the Page Group, click Show Grid.
Processes and Initiatives	

### Benefits and Description

The Ribbon is an area above your worksheet that hosts a set of tabs. Each tab contains groups of related toolbars and commands. You can access all the features and functionalities of Mathcad from the Ribbon. For example, you can insert operators or format plots by clicking commands on the Ribbon. The Ribbon can be minimized to enlarge the displayed area of your worksheet.

The Quick Access Toolbar enables you to access your most popular commands without having to navigate through the Ribbon tabs. You can customize the Quick Access Toolbar by adding or removing commands from it. You can position the Quick Access Toolbar above or below the Ribbon.

# Enhancement Details

## Operators Are Combined

Previously you had to insert separate operators for different types of root, summation, and product. These operators are combined into the new Square Root and Nth Root Operator, Summation Operator, Product Operator, and Derivative Operator.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Math tab, in the Operators and Symbols group, open the Operators list.
Processes and Initiatives	

### Benefits and Description

You can use a single operator for multiple purposes. For example, you do not need to determine whether you are summing the elements of a vector, a range variable, or a local range variable before you insert the summation operator. Instead, you insert the operator and then you fill one, two, or three of the placeholders depending on what you are summing. For example, having one operator makes it easier to switch between different forms of a Product operator, rather than having to delete and retype it.

# Enhancement Details

## Page View and Draft View

You can choose how to view your worksheet.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Document tab, in the View group, click Page or Draft.
Processes and Initiatives	

### Benefits and Description

You can work in either Draft View or Page View. Page View serves as Print Preview; the worksheet appears with margins, headers and footers, and page breaks. In Draft View the worksheet appears without margins, headers and footers, and page breaks. In Draft View, the page extends as far to the right as required, so you can work with large equations, programs, and plots in full display. Only what is inside Page View prints.

# Enhancement Details

## Polar Operator

Use the polar operator for entering complex numbers in polar form.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Math tab, in the Operators and Symbols group, open the Operators list.
Processes and Initiatives	

### Benefits and Description

You can define complex numbers when you know their magnitude and their angle. You can enter the angle in radians or in degrees.

# Enhancement Details

## Pro/ENGINEER Integration

You can designate variables in Mathcad as Pro/ENGINEER input and output parameters.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Integrations tab, select options from the Pro/ENGINEER group.
Processes and Initiatives	

### Benefits and Description

You can use Mathcad to perform calculations for your Pro/ENGINEER model designs. Define the data coming from Pro/ENGINEER as input regions, and define the data going to Pro/ENGINEER as output regions. You can view a table of all inputs and outputs in your Mathcad worksheet, rename them as aliases, and easily edit them.

# Enhancement Details

## ProductPoint Integration

You can manage your Mathcad worksheets in Windchill ProductPoint.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	
Processes and Initiatives	

### Benefits and Description

Use the Social product development capabilities offered by this Microsoft SharePoint-based solution for developing your worksheets. Version your data over network drive-based storage systems and FTP sites to enable effective concurrent engineering.

# Enhancement Details

## Row Operator

Use the row operator for extracting a row from a matrix.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Math tab, in the Operators and Symbols group, open the Operators list.
Processes and Initiatives	

### Benefits and Description

The row operator complements the column operator to give you more flexibility for extracting data from matrices.

# Enhancement Details

## Saving Worksheets in XPS and Printing Worksheets to PDF

You can export Mathcad files to new formats.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	From the Application button, select Save As or Print.
Processes and Initiatives	

### Benefits and Description

You can save a Mathcad Prime 1.0 Preview worksheet in XPS (XML Paper Specification) or print it to PDF (Portable Data Format). Both options are available through the Application button.

XPS is a choice under Save As. Printing includes PDF as an option.

# Enhancement Details

## Scaling Operator

You can insert a scaling operator for implied multiplication.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Math tab, in the Operators and Symbols group, open the Operators list.
Processes and Initiatives	

### Benefits and Description

The new scaling operator gives you greater control over implied multiplication. Mathcad automatically inserts a scaling operator in math expressions when necessary. For example, the scaling operator is inserted between results and their units or between a number and a variable name for implied multiplication.

# Enhancement Details

## Separate Regions Both Vertically and Horizontally

You can separate overlapping regions either vertically or horizontally.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Document tab in the Spacing group, click Separate Regions and then click Vertical or Horizontal.
Processes and Initiatives	

### Benefits and Description

You can separate overlapping regions either vertically or horizontally.

# Enhancement Details

## Signal and Image Processing Functions

The performance for a number of computational signal and image functions is improved.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Functions tab, click All Functions, and then click Signal Processing or Image Processing.
Processes and Initiatives	

### Benefits and Description

The performance for the following signal processing and image processing functions is improved. You will notice the most benefit when processing large data sets.

- ccepstrum
- cepstrum
- chirpz
- dht
- idht
- hilbert
- interpolate
- coherence
- cspectrum
- pspectrum
- snr
- costr
- sintr
- icostr
- isintr
- twodconvol
  
- convol
- correl
- covar

- deconvol
- deconvolve
- music
- grpdelay
  
- funcdeconv
- funconv
- matconv
- matdeconv
- gaussconv
- gaussdeconv

# Enhancement Details

## Solve Block Enhancements

Solve blocks appear as a boxed construct you can move as a unit around the page.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Math tab, in the Regions group, click Solve Block.
Processes and Initiatives	

### Benefits and Description

Solve blocks are now contained within regions with borders for clearly setting apart the solve blocks from the rest of the worksheet. When you move a solve block region in your worksheet, all of its math regions move with it. When you add space inside a solve block region, the regions below it are pushed down.

Mathcad recognizes the solve block guess values, constraints, and solver. Labels for these elements are displayed to the left of the solve block.

Guess values within a solve block are locally defined. They are not recognized outside of the solve block region.

# Enhancement Details

## Tables

Use tables for defining vectors of data.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Matrices/Table tab, click Insert Table.
Processes and Initiatives	

### Benefits and Description

Tables are useful for defining data sets. You can have mixed units in tables. You can extract the columns from a table by evaluating the name for a column. A table has several components:

- One column per data set
- A header row for defining each data set
- Unit placeholders in the second row for defining the unit of each data set

# Enhancement Details

## Text Blocks

You can enter text as paragraphs that push down other regions.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Math or Document tab, in the Regions group, click Text Block.
Processes and Initiatives	

### Benefits and Description

Text blocks are useful for inserting long paragraphs of content on the page. A text block extends across the full page width. As you add or remove lines of text in a text block, the regions below it are pushed down or move back up.

# Enhancement Details

## Unit Enhancements

Mixed, dynamic units are available throughout Mathcad, in tables, matrices, most functions, and plots.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	
Processes and Initiatives	

### Benefits and Description

Units are now available throughout most functionality in Mathcad. Most built-in functions accept arguments with units. Each element in a vector, matrix, or table can have different units.

The unit functionality is now dynamic instead of static. For example, units are checked when you evaluate a function and not when you define a function.

You can edit units directly in your results. Mathcad recalculates the results to match the new units. Mathcad also balances the units when needed. You can use this functionality to scale results, for example, by a factor of pi. In plots, you can edit the units and the scaling factor for each of your traces.

# Enhancement Details

## Windchill Workgroup Manager Integration

You can connect Mathcad with Windchill to provide the data management and life cycle management capabilities offered by Windchill.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	
Processes and Initiatives	

### Benefits and Description

You can work with Windchill PDMLink, Pro/INTRALINK, and ProjectLink, directly from Mathcad. For example, you can check in and check out files to Windchill, and you can open and save your Windchill files from Mathcad.

# Enhancement Details

## Worksheet Grid

Mathcad worksheets can be displayed with or without gridlines. You can choose either a standard or a fine grid.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Documentation tab, in the Page Group, click Show Grid.
Processes and Initiatives	

### Benefits and Description

The new gridlines make it easy to align regions on your worksheet. When you insert a region or move a region to a different location in the worksheet, the region always snaps to the closest gridline even when you do not display the grid. Use the gridlines for ensuring that the calculation order of your math regions is correct.

# Enhancement Details

## XMCD, MCD Converter

A XMCD, MCD converter converts all earlier Mathcad worksheets into Mathcad Prime 1.0.

### Product Information

Product	Mathcad Prime
PTC Support Release	1.0
Product Functional Area	Mathcad
User Interface Location	On the Input/Output tab in the Mathcad Worksheets group click XMCD, MCD Converter.
Processes and Initiatives	

### Benefits and Description

The XMCD, MCD Converter allows you to browse and upload multiple worksheets from previous versions of Mathcad, then select them for conversion. The converter shows progress on the conversions, and which worksheets are queued for conversion. It also identifies the version number of each worksheet. A log is prepared for each conversion, showing any issues.

The converted worksheets are placed in the same folder as the original worksheets, which are untouched. When the converted worksheets are opened, any issues are annotated. Features that are unsupported in Mathcad Prime 1.0 appear as images, so no content is lost.