











Mathcad "The Next Generation"

April 2010 Dirk Jordan



Agenda

Mathcad 15.0 highlights

Mathcad Prime 1.0 Preview

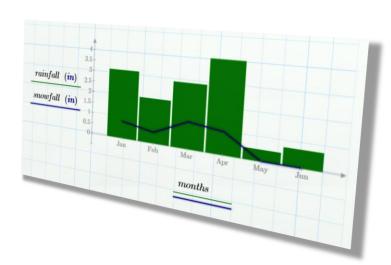
Why We Re-Designed Mathcad

New architecture & user model

Specific highlights of the Preview release

Plans for full release of Mathcad Prime 1.0

Summary / Q&A





Mathcad 15.0 highlights

June, 2010

Next release of traditional Mathcad until full release of Mathcad Prime 1.0 is available and has addressed major functional gaps

Capabilities being planned / considered

Windows 7 support

Microsoft Excel 2007 support

Introduce design of experiments (DoE) functions

Improved integration to KnovelMath (<u>www.knovel.com</u>)

Quickly access and reference technical and engineering standards

Introductory True# (<u>www.truenum.com</u>) integration

Enables traceability for significant numeric constants or requirements

Browser launch on startup (partner awareness and user control)

Consolidated installation and licensing, including academic indication

Symbolic bug fixes, and addressed performance / memory leak issues



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Mathcad 15.0 highlights

Mathcad Prime 1.0 Preview

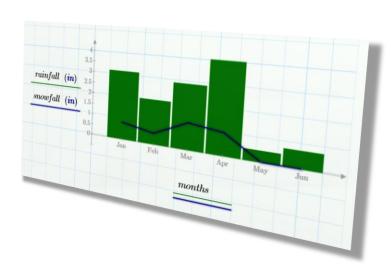
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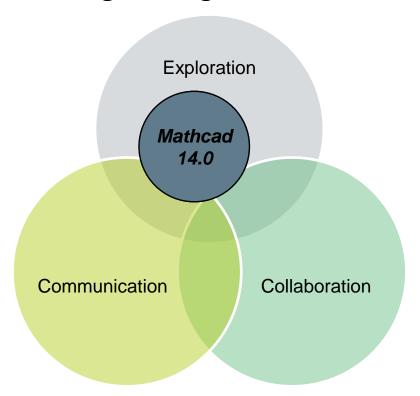
Summary / Q&A





Why We Re-Designed Mathcad

Balancing the <u>exploration</u>, <u>communication</u>, and <u>collaboration</u> of engineering calculations



Mathcad Prime 1.0 is designed to achieve this balance, in order to achieve efficiency across the extended enterprise



Why We Re-Designed Mathcad

Improved architecture and user interface:

New design, look-and-feel

Improved usability and "learnability"

New functionality – now and in the future!

In response to the needs of the market:

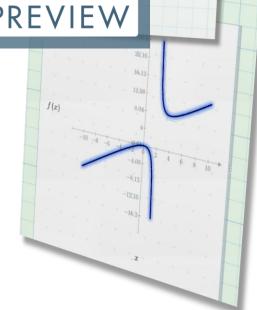
Proble Vathcad Prims 1.0 PREVIEW

Mathcad was too desktop-focused on math exploration, without sufficient balance of communication and collaboration capabilities.

Result

Highly-skilled engineers were spending too much of their time creating and formatting documents

Solution...





New Architecture and User Model Mathcad Prims 1.0 PREVIEW

Create design documents

... AND

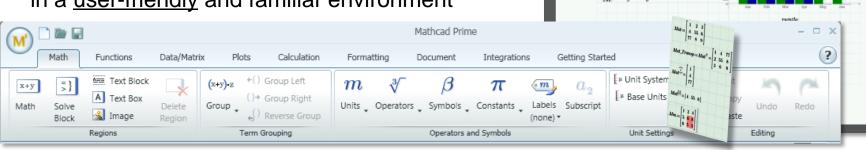
focus on the engineering

Document-centered calculation environment

- Create complex, highly professional engineering design documents <u>quickly</u> and <u>easily</u>, including:
 - Live, readable math
 - Text, images
 - Plots, matrices, tables

Approachable user interface

 Explore complex engineering problems in a <u>user-friendly</u> and familiar environment





New Architecture and User Model Mathcad Prims 1.0 PREVIEW

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focus on the engineering

Document-centered calculation environment

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Approachable user interface

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Advanced engineering math exploration

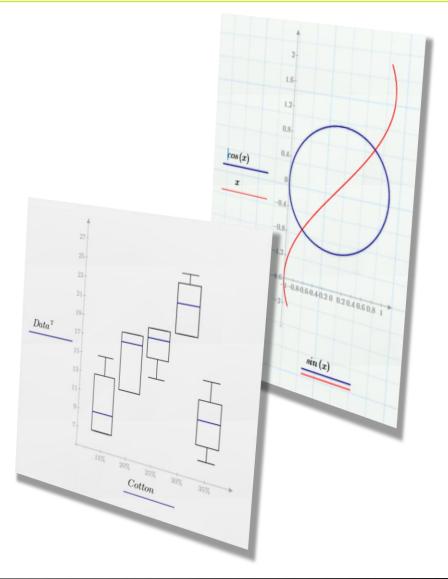
 Display, manipulate, analyze and plot your data using full Engineering Unit support. Access over 600 functions.



Specific Highlights of... Mathcad Prime 1.0 Preview

Primary capabilities

- Task-based, "Fluent UI"
- Engineering notebook feel
- Dynamic unit checking (DUC)
- New, intuitive equation editor
- Improved error messaging & tracing
- "Document First" native layout
- Snap-to grid region positioning
- Improved, interactive 2D plots
- Design of Experiments support
- Improved solving: solve blocks!





Specific Highlights of... Mathcad Prime 1.0 Preview

Primary capabilities, cont.

Created by:

Jan 14, 2009

New built-in headers and footers

More intuitive matrix operations

Solving customer challenges:

Capturing IP from aging engineering workforce

Learnability / usability → rapid return on investment

Spend less time documenting & more time engineering

Reuse & leverage content throughout organization

-Simplified licensing!

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Specific Highlights of... Mathcad Prime 1.0 Preview

Primary capabilities, cont.



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0	.2
0	.04
0	.1
.2	.03
1.5	.15
5	0
	(in) 0 0 0 .2 1.5

- New built-in headers and footers
- More intuitive matrix operations
- Publish as XPS or PDF
- New spec table capabilities
- Mixed units in matrices
- Professional document plotting
- Improved Pro/ENGINEER integration
- Continued integration with Windchill
- Continued integration with ProductPoint
- Simplified licensing!



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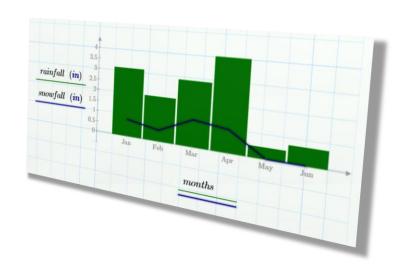
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Plans for full release of Mathcad Prime 1.0

Address more complex functional gaps while maintaining the usability paradigms established in Mathcad Prime 1.0 Preview

Feature list being considered:

More intuitive programming workflows & UI

Updated symbolics

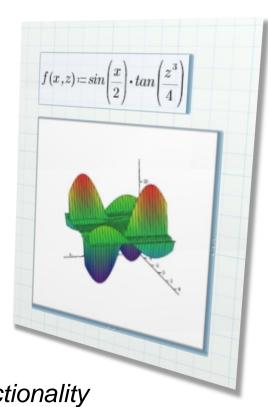
3D plot support

Right-hand margin support

File reference support and enhanced controls

Improved backwards compatibility

Enhancements to Mathcad Prime 1.0 Preview functionality



DTG (C











Thank You