

同时设计和记载计算如何促进卓越工程管理

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.....	6
Mathcad® —	8
Mathcad —	9
Mathcad —	11
PTC Mathcad —	12
.....	13

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(IP)

PC

Rolls-Royce 聚焦

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Excel

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- Alan Stevens

Rolls-Royce

Stevens
Engineering

PTC

Mathcad

Rolls-Royce
Mathcad

Math Tools for

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VisiCalc Lotus 1-2-3

PC

Microsoft Office

“ ”

电子表格：确凿的事实

- 20% 40% 1
- Coopers Lybrand 150 90%
2
- KPMG 22 91% 3
- Olson & Nilsen 21% 4
- 11.3% 5

1

2

* How to Make Spreadsheets Error-Proof*

3 KPMG

* Supporting the Decision Maker:A Guide to the Value of Business Modeling*

4

* Analysis of the Cognition Involved in Spreadsheet Interaction*

5

* Computerized Financial Planning:Discovering Cognitive Difficulties in

Knowledge Building*

" Rick Butler

40% 80%
"

Rick Butler

6 40% 80%

电子表格的问题

Raymond Panko " 7

Rick Butler

50% 34% 80% 8

1987 Davies Ikin 19 10

⁷ Raymond R. Panko " What We Know About Spreadsheet Errors" 2000

⁸ Rick Butler " The Subversive Spreadsheet"

白皮书

6 13

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电子表格：危险的建议

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⁹R.M. Barker P.M. Harris G.I. Parkin " Software Support for Metrology Best Practice Guide No. 7:Development and Testing of Spreadsheet Applications" 2004 3

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- IT

Bechtel 聚焦

“ 90 Bechtel Mathcad
 Intranet 70
 ” Bechtel
 Khaldoon Sakkal “ 40

” 10 Sakkal

¹⁰ CIO 2003 7

白皮书

8 13

Mathcad®

1a

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Mathcad

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Mathcad

Mathcad

1b Mathcad PTC

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Mathcad

$$((\pi * D1 * h) / 2) * (\text{SQRT}(1 + ((D1^2) / (4 * h^2)) + ((\pi * D1^2) / 4)))$$

Mathcad " "

2D 3D

Word

1a.

PDF HTML XML

XML

(CAD)

(PDM)

$$\frac{\pi \cdot D \cdot h}{2} \cdot \sqrt{1 + \frac{D^2}{4h^2} + \frac{\pi D^2}{4}}$$

1b. 1a

Mathcad

白皮书

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Mathcad

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Mathcad

Mathcad

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Microsoft Excel

Excel

Mathcad

Mathcad

Excel

Mathcad

Mathcad Quick Sheet

Mathcad

Mathcad

Mathcad

XML

XML

Mathcad

Mathcad

Excel

Mathcad

Mathcad

CAD

CAD

CAD

Mathcad

CAD

Mathcad

Pro/ENGINEER®

Pro/ENGINEER

Mathcad

Pro/ENGINEER

Mathcad

CAD

Pro/ENGINEER

Mathcad

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Mathcad XML

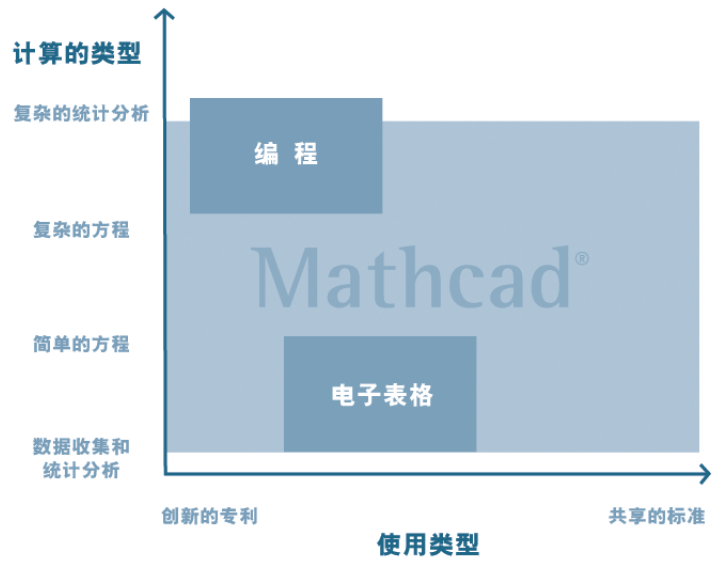


图 2.

白皮书

12

13

PTC Mathcad

Mathcad

Mathcad
Mathcad

" PTC Mathcad

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Mathcad

Mathcad

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Mathcad

Word

PDF

Web

Mathcad

Mathcad IT

Microsoft .NET Framework

XML

XML

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Mathcad

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