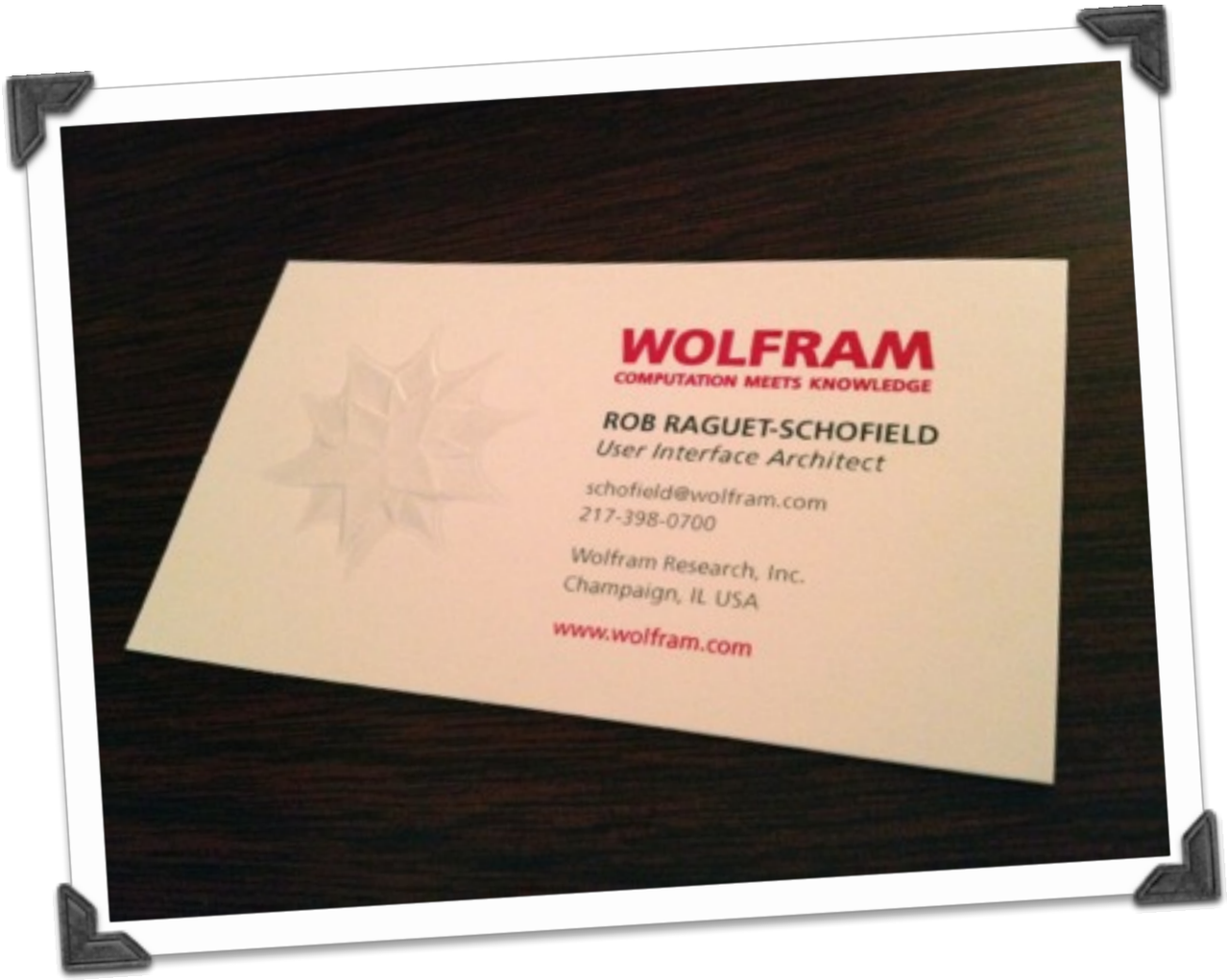
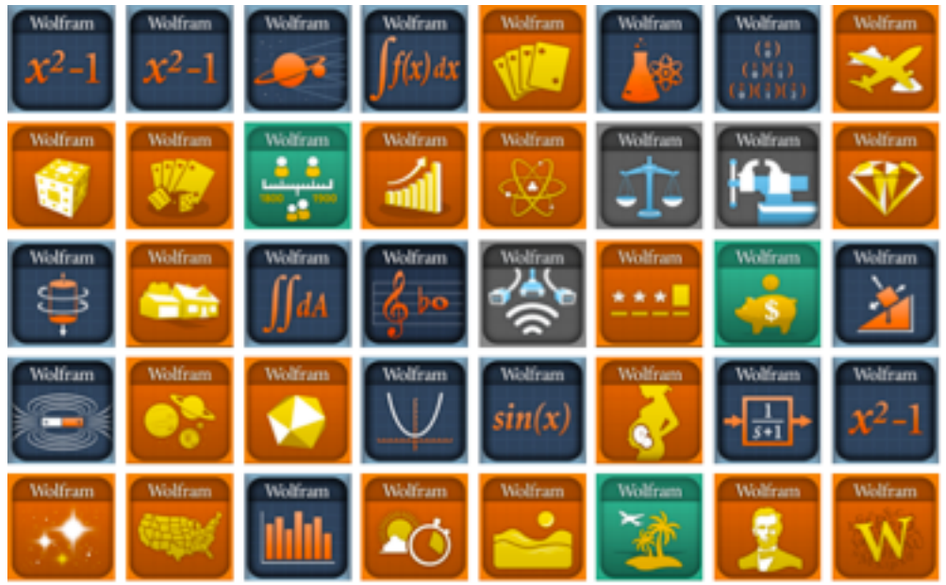
Mobile CDF Deployment



Wolfram Mobile Apps



Mobile CDF Deployment

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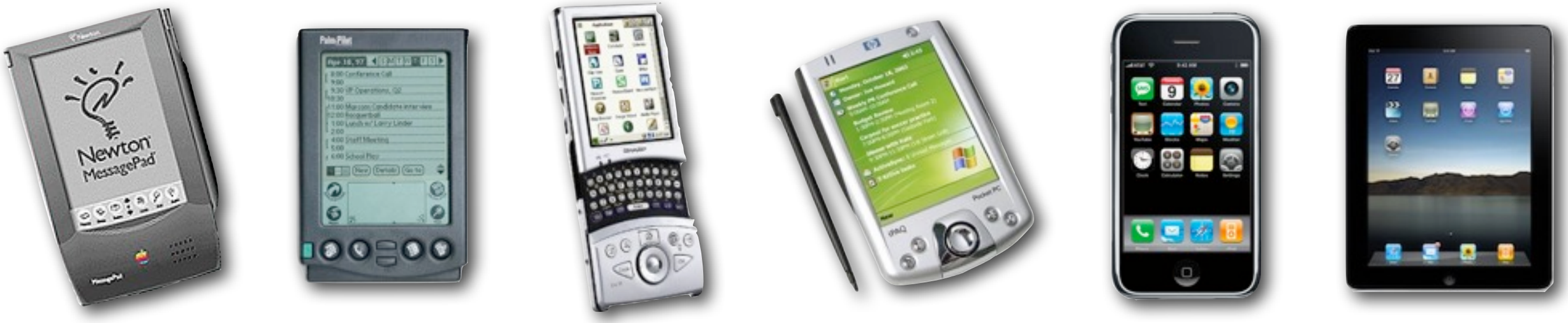
Mobile *Mathematica* Deployment

Mobile Software Platforms



Less Capable

More Capable

User's Perspective

	Desktop	Mobile
Applications	Windowed	Immersive
Pointer	Mouse (indirect manipulation)	Touch (direct manipulation)
Text entry	Keyboard (fast)	Keyboard (slow) Voice*
Screen size	Large	Small
Multitasking	Full	Limited

Developer's Perspective

	Desktop	Mobile
Languages/ Frameworks	High level	High level
CPU	Fast	Slow
Memory	Paged, swappable VM 64-bit	Unpaged VM 32-bit
Multitasking	Full	Limited
Processes	Multiple with IPC	Single

How does it work?

- Same *Mathematica* Kernel
  - Changes required for single-process model
- New User Interface
  - Desktop *Mathematica* FrontEnd really wants a machine with a large screen, lots of memory, and a fast CPU
  - Shiny new platforms bring opportunities to do things a little differently

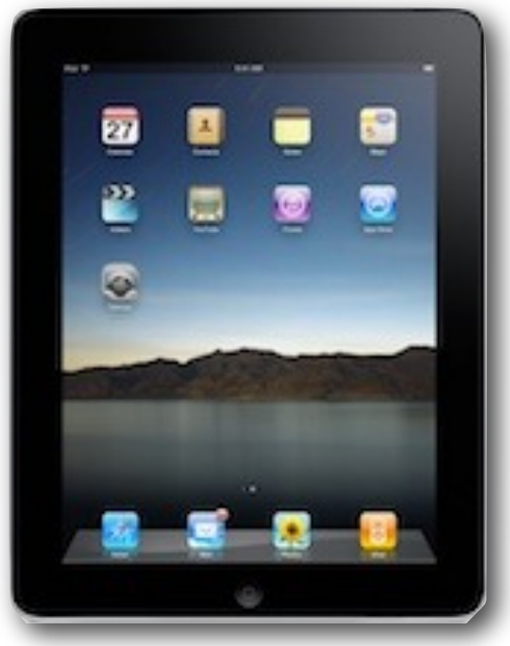
Features

- Standard Notebook/CDF files
- Typesetting
- 2D & 3D Graphics with some interactivity
- Manipulate, Dynamic, Multi-touch Controls
- Multithreaded to keep UI responsive
- Utilize Automatic option values to provide optimized interface

Limitations ☹

- Very, very, very limited memory
- Slow CPU
- No background processing
- Kernel crash takes down UI (& vice versa)
- Small custom controls harder to use

Platforms



Sooner

Later

CDF workshop following this session