#### **DyneTK**

# Developing Newton applications on Mac OS X MS-Window and Linux

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#### ... and Paul said ...

"Modernize the development tools"

## existing tools

- "gcc" tool chain
  - Incompatible in C++
  - No NewtonScript support
- Waba, NewtBasic, LittleLisp
  - Not Newton style, still not NewtonScript
- The original NTK
  - Does not run on OS X, MS-Windows, or Linux
  - We have no source code for NTK
  - But we have hundreds of functional NTK projects

### **Refreshing NTK**

#### How can we get NTK to run on modern systems with new features and with new target platforms?

### What is DyneTK

- DyneTK is a clean-room clone of NTK
  - No parts of the original NTK were used
  - All code is written by observing NTK
- Fully integrated developer environment
  - script editor, visual editor, GUI editor, compiler, debugger
- Platform independent
  - written in C++ with Newt/O and FLTK for all modern operating systems

## **DyneTK Goals**

- Fully compatible to existing projects
  - Load any existing project an go
- Open Source
  - We, the community, own DyneTK
- Open for improvements
  - Change whatever you never liked about NTK
- Open for new features
  - Easy to add features like named magic pointers
  - Flexible enough to add new compilers, etc.

## **DyneTK preview**

Here is DyneTK in action.

## **DyneTK today**

- DyneTK creates, loads, edits, compiles, packs, uploads, runs, and debugs NTK projects
- DyneTK source code compiles and runs on MS-Windows, Mac OS X, and Linux
- DyneTK is quite stable, but not ready for production
- DyneTK is available with full source code and instructions at Google Code as part of the "DyneE5" project

### DyneTK technologies

- DyneTK is based on standard C++
- The compiler and interpreter are based on NEWT/0 by Makoto Nukui and Paul Guyot
- The user interface is writing in FLTK, a great free cross platform GUI library
- DyneTK compiles using gcc or VisualC, Xcode support is easily possible

## The future of DyneTK

- Implement missing features
  - Proto Templates
  - Sound and Image support
  - Many, many little features and dialogs
- Stabilizing and QA
  - Verify with existing NTK projects
  - Fix bugs with the help of users
- Direct link to Einstein
- New target platforms

### Who can help

- Do you speak C++?
  - Be the QA department:
     Download and test the existing code.
  - Become a developer:
     Add new code, fix bugs.
- Do you speak NewtonScript?
  - Be a power user:
     Start testing DyneTK with existing NTK projects
  - Become a developer:
     Start to rewrite parts of DyneTK in NewtonScript

#### Thanks!

- DyneTK would not have been possible without the support of
  - Paul Guyot and Einstein
  - Makoto Nukui and NEWT/o
  - Simon Bell and his Newton code
  - The FLTK team

and of course

Apple's original wonderful Newton Team

## **End of presentation**

#### Questions?

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Source Code

Google Code, code.google.com, part of "DyneE5"

Links on Sourceforge "DyneE5"