HAIKU OPERATING SYSTEM

Introduction to Haiku
An Open Source Desktop OS

Niels Sascha Reedijk - 14-10-2007

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- About the Speaker

- The Haiku Brand

- Insight in Haiku: the Technology

About the Speaker

- Professional
  - Mathematics teacher
  - Media & Culture Student: majoring in film
- Open Source
  - KDE Translation team (to Dutch)
  - Several Haiku odds and ends
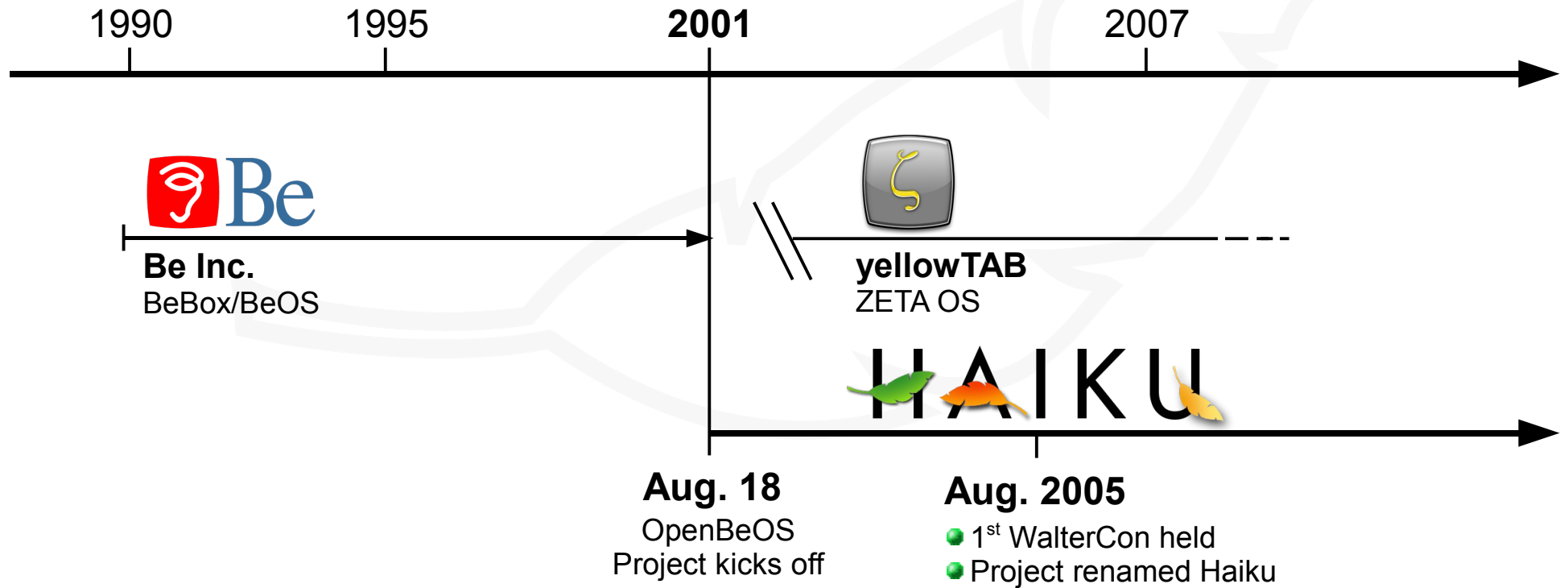 - Current occupation: The Haiku Book

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Inspired by the BeOS.   **www.haiku-os.org**

Haiku Historic Timeline

1990   1995   **2001**   2007

Be Inc.
BeBox/BeOS

yellowTAB
ZETA OS

HAIKU

Aug. 18
OpenBeOS
Project kicks off

Aug. 2005
● 1st WalterCon held
● Project renamed Haiku

Pillars of the Haiku Brand

1. The Product

2. The Philosophy

3. The Community

The Haiku Brand: The Product (I)

- Clean and responsive user interface

- Small memory footprint

- Visual consistency

- Usuability

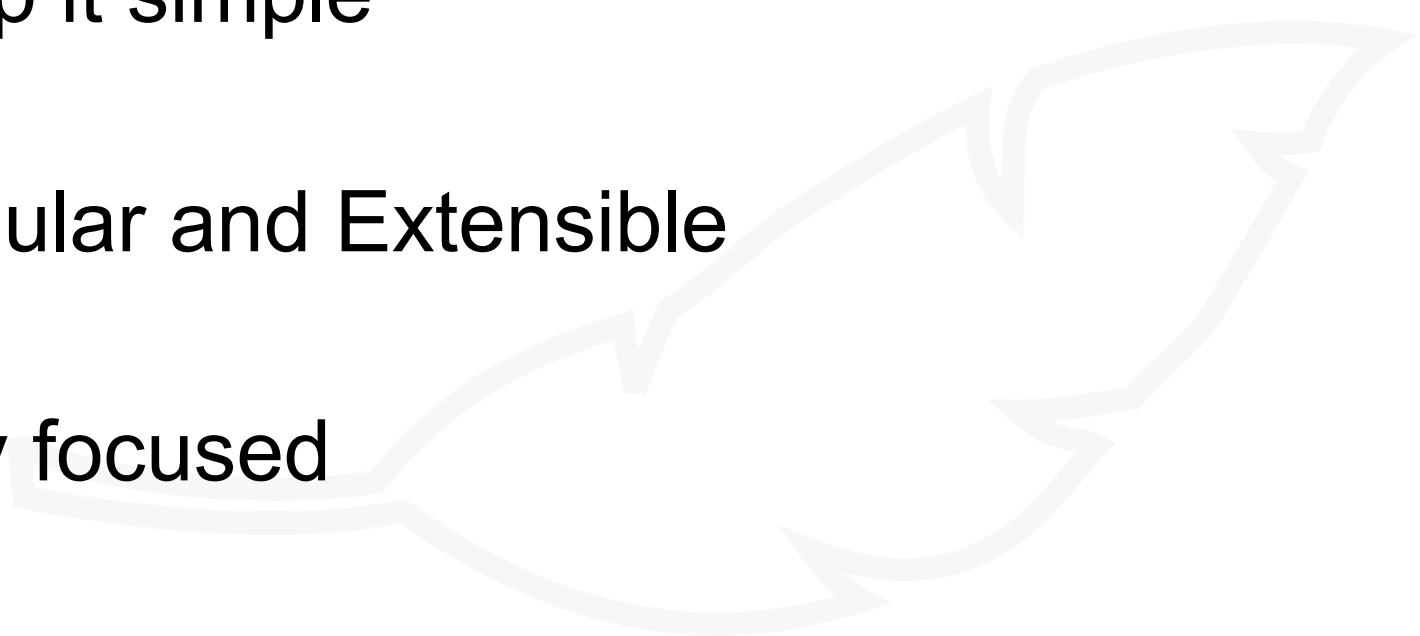- Extendibility

The Haiku Brand: The Product (II)

- Easy and effective multi-threading

- Clean and integrated API

- Usable tools: Translation Kit

- Partial POSIX compliance

- Extendibility

The Haiku Brand: The Philosophy

- Keep it simple

- Modular and Extensible

- Stay focused

The Haiku Brand: The Community

- The philosophy

- Mixed crowd

- Open and supportive

- But: a small crowd

HAIKU OPERATING SYSTEM

Demonstration

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Inspired by the BeOS. **www.haiku-os.org**

Technology Overview

- Modular Kernel

- Support for multi-threading from the ground up
    - Ports
    - Semaphores
    - Areas (shared memory)

- Server-architecture

- C++ API in Kits

Technology in Perspective

1. Multi-threading

2. (open)BFS

3. Add-Ons

Multi-threading

- Basic kernel services: ports, semaphores and areas

- Messages

  - Identifier (or 'what' code)

  - Data members

  - Metadata

- The Application Kit:

  - BLooper

  - BHandler

OpenBFS (I)

- 64-bit

- Journaled

- Built for large files (multimedia)

- Extended attributes (or: meta-data)

- Typed
  - Int, float, ...
  - String, mime-type
  - Icon

OpenBFS (II): Queries

- Formula based queries

- Live updated by the file system

- Used by Applications

- Search for contacts:

  – ((META:email=="*bea*@paleis.nl"))

  – ((IM:status=="Online"))

- Mail Files
  ((MAIL:status=="New"))

OpenBFS (III)

Demonstration

Add-ons (I)

- Dynamically loadable code

- Kernel add-ons

  – Drivers

  – Bus managers

  – Network stack

- Graphics add-ons

- Input add-ons

  – Methods

  – Devices

- ...

Add-ons (II): Replicants

- Replicants are Add-Ons

- In essence: Serialized apps inside apps

- Feature of the messaging architecture

- Task separation

Add-Ons (III): Replicants

Demonstration

Conclusion

- Honestly ...

- Haiku Brand

- Haiku Technology

Many thanks!

- The Haiku Developers, for (hopefully) getting me a stable build

- T-DOSE: Jean-Paul Saman & Jeroen Baten, and all the volunteers

- Jorge G. Mare for the flyer and the pointers (www.myhaiku.org)

That's it! Any questions?

?

For more information...

Haiku website
www.haiku-os.org

IRC channel
#haiku@irc.freenode.net

•**Mailing lists**
- General: www.freelists.org/list/openbeos
- Development: www.freelists.org/list/haiku-development