BSDCan 2012 – Tutorial Proposal

Maintaining your own PBI package repository

by

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Biography

Kris Moore is the founder and lead developer of the PC-BSD desktop operating system. He is the original creator and developer of the PBI package management format which is available on FreeBSD and PC-BSD systems. Kris currently resides in the Maryville Tennessee area (USA), with his wife and 4 kids, where he develops PC-BSD and enjoys gaming in his spare time.

Outline

Introduction
- The philosophy of the PBI format
- Use cases
- Improvements in the format for 9.0

Building
- Creating PBIs from the FreeBSD ports tree
- Building from static content

Distributing
- Creating a new repository (rpo)
- Setting up public / private repository
- Distributing packages to clients

Maintaining
- Running an automated build server
- Adding PBIs to repository indexes
- Add / Remove / Translating meta-data
- Dealing with binary diff updates

Advanced Topics
- Customizing your makes
- Using pbi modules to customize ports / PBIs

Time Frame

A half-day tutorial would suffice, between 2 and 2.5 hours.

Target Audience

System Administrators for medium / large businesses, ports maintainers, users of FreeBSD or PC-BSD who run packages on servers or desktops.

Summary

This tutorial would cover all the major aspects of using the new PBI build and distribution system. We will take a look at how to create and maintain a repository of software for either public or private use. In addition we will dig deeper into how to run a build system, building PBIs from FreeBSD ports, either manually or in a fully-automated manner. Advanced topics such as custom build options, installation scripts and more will also be presented.