
OSCARonDebian: Contributions from the Google Summer of Code 2005 program

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Introduction

- SoC 2005 allows us to have a pretty good OoD version
- But
 - trunk has changed a lot and OoD is based on OSCAR 4.0
 - difficult to follow OSCAR developments based on RPMs
- So the SoC effort cannot be directly integrated into OSCAR, but gave us a good idea of tasks to do

OoD Issues

- Port to Debian, what are the issues?
 - different binary package format
 - different tools to manage these packages
 - notion of package repository
 - packages/services/file location are different
- What OSCAR parts have to be modified?
 - management of binary packages
 - prereqs
 - all Debian packages

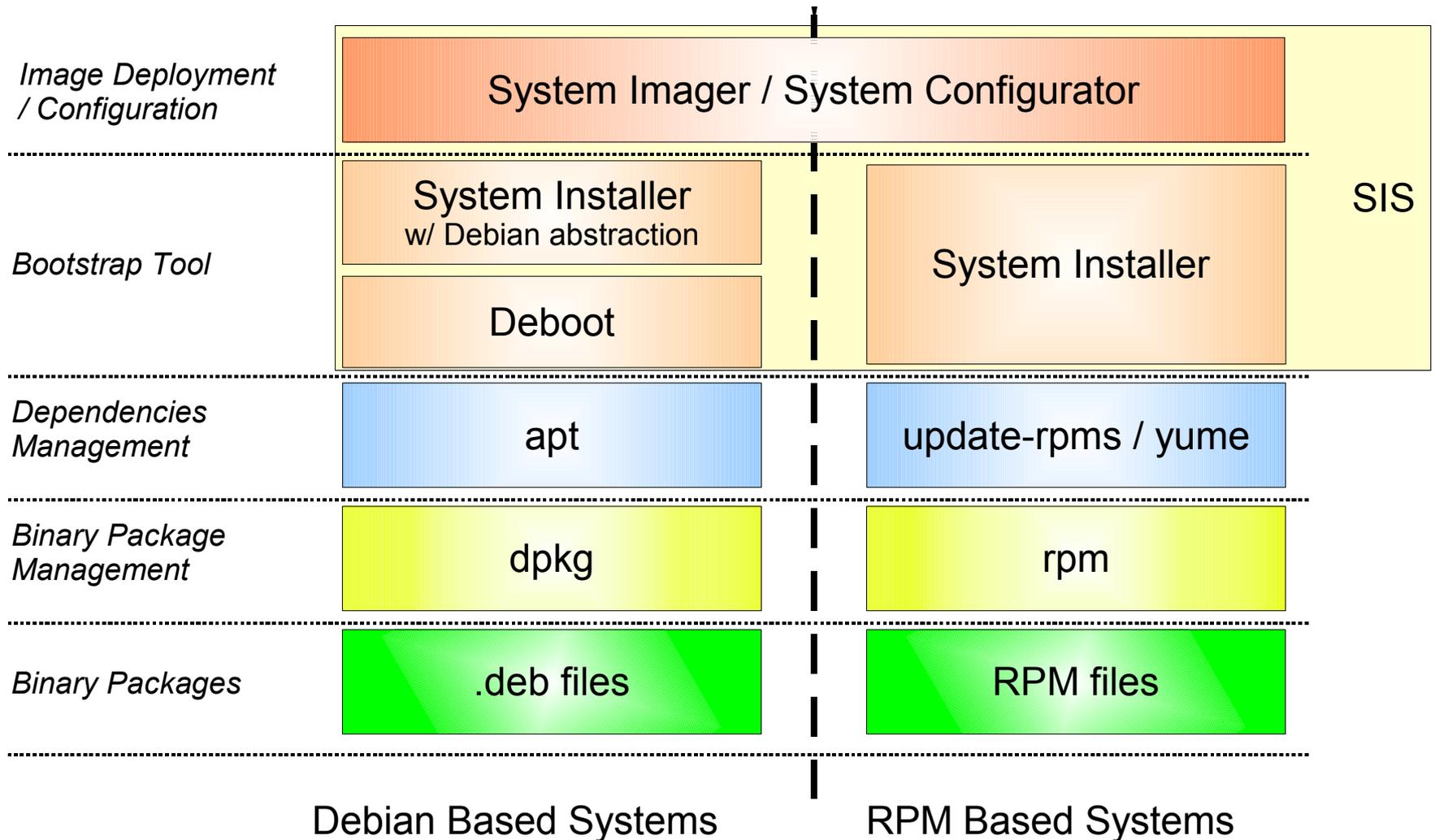
Binary Package Management

- What's different from an RPM Linux distribution?
 - notion of online repository (based on *apt*): installation of a very basic system + online repository
 - different set of tools, difficult to match them to RPM tools: *dpkg*, *dselect*, *apt*
 - automatic management of dependencies
 - Debian users most of the time do not have the full CD set (14 CDs)

Binary Package Management (2)

- What are our solutions?
 - extend packman/depman in order to be able to use *apt*
 - transparent solution, extending Packman
 - PM_Detect framework (abstraction on top of Packman/Depman)
 - possible to use an online repository for the creation of an image
 - add mechanisms to set up a local repository for Debian packages for OPKG
 - Sanity_Check framework
 - PM_Detect framework

Binary Package Management (3)



Binary Package Management (4)

- For OSCAR packages
 - use of existing OSCAR packages
 - official Debian packages
 - from the DCC project (e.g. Torque)
 - creation of Debian packages
 - audit/update post/pre-installation scripts

Prereqs

- Problem
 - based on RPMs: creation of Debian packages
 - scripts based on rpm commands and RPMs based Linux distribution
- Solution
 - creation of an abstraction layer (integrated into the PM_Detect framework)
 - similar to generic-script
 - ease the port to new Linux distributions

OSCAR Packages

- OSCAR Packages has been ported to Debian
 - using official Debian packages
 - or creating new Debian packages
- Version different from the OSCAR trunk
- Maybe reused in the current effort
- Time consuming
 - focus on the core integration into trunk, no on OSCAR packages

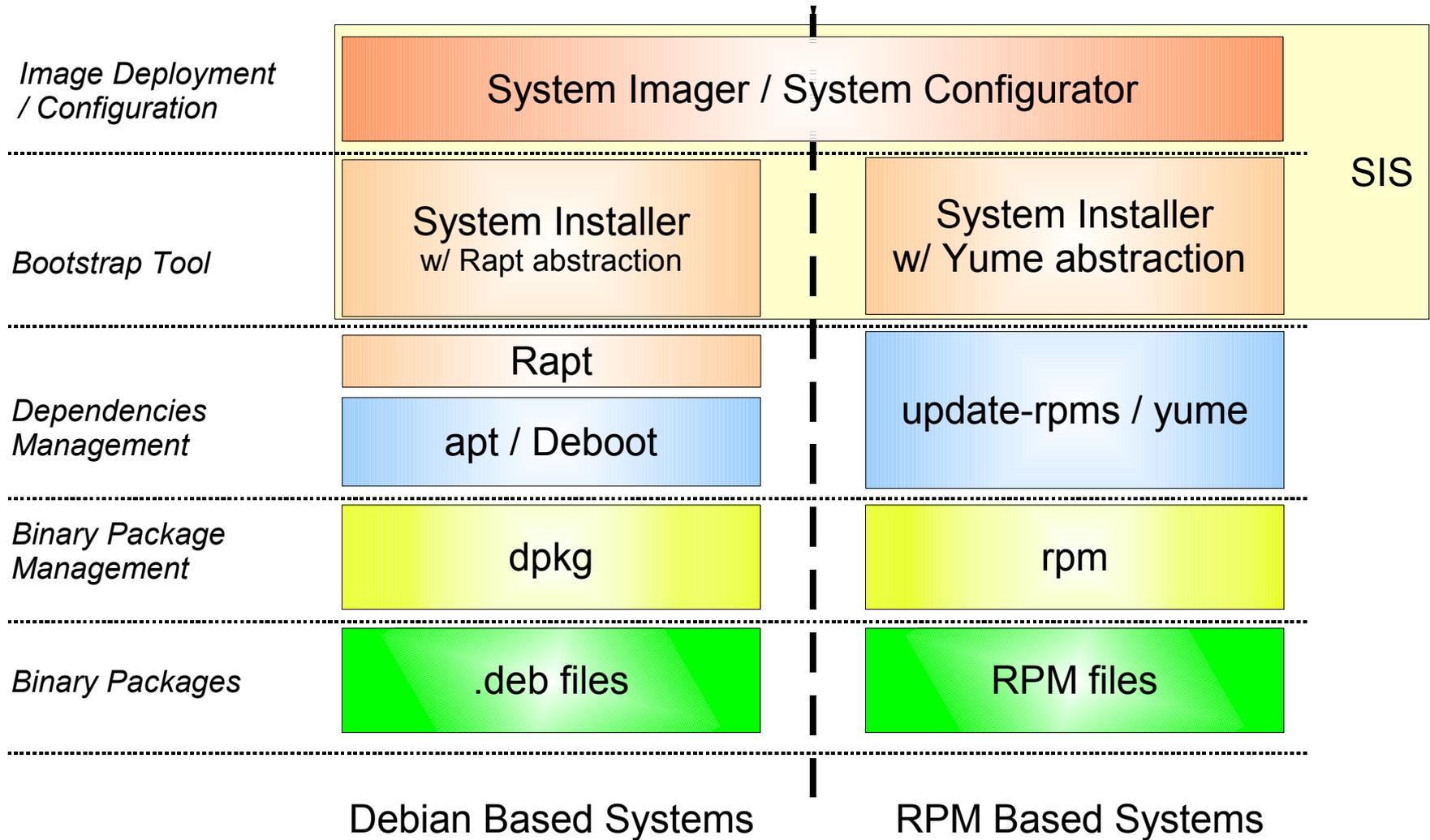
OoD – Current Efforts

- Current developments based on the OSCAR trunk
 - direct integration
 - needs less contributors
- Current issues
 - lack of documentation (even if it is not any more so true)
 - lack of man power: focus only on the core

OoD – Current Efforts (2)

- Good points
 - Erich did a great job with *Rapt*
 - yume-like interface
 - will ease the SIS port to Debian
 - Erich did a great job with prereqs
 - generic management, ease the port to Debian
 - the documentation (for developers) get better and better
 - Trac Wiki

Rapt



SoC 2005 - Summary

	SoC 2005	OSCAR trunk
Prereqs	PM framework	generic-script
Package management	PM framework	rapt / smart-packman
OSCAR packages	Debian port	Not planed / recycle
Sanity check	Sanit_check framework	?

- What did we learn?
 - we can do it... but not that way!
 - not enough man power to not work using trunk
 - port of OSCAR package is time consuming