

# Packaging VirtualBox machines as Debian packages

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# Why virtual machines?

- Many windows applications do not have suitable alternatives on Linux.
  - AutoCAD, special applications for municipalities, etc.
- Some of them do not work with WINE or in terminal servers.
- Last resort: Virtualized installations of Windows.



# Current situation



- Images are created by the administrators of each department by hand.
- Deployment happens manually (e.g. scp)
- Updates overwrites user's preferences

Obviously not great:

We need a distribution system.

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# Our requirements



We expect from the new system:

- It should integrate into the current software deployment (FAI, apt).
- The images must not be put on the Debian repository.
- The images must not land in the users directories, and must be shared among the users.
- The images must be updateable.
- When updating the images, user settings ought to be preserved.

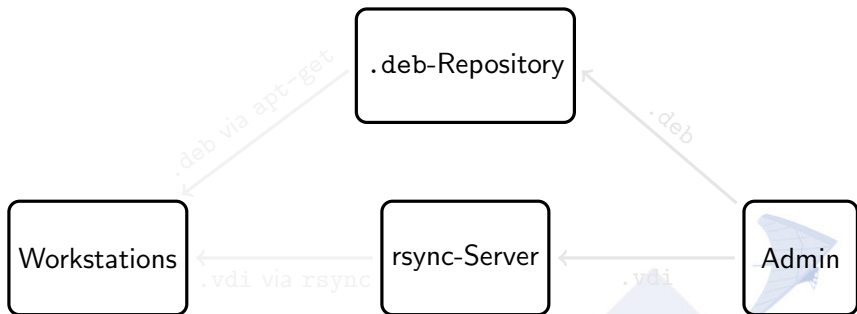


# vbox-sync: Distributing

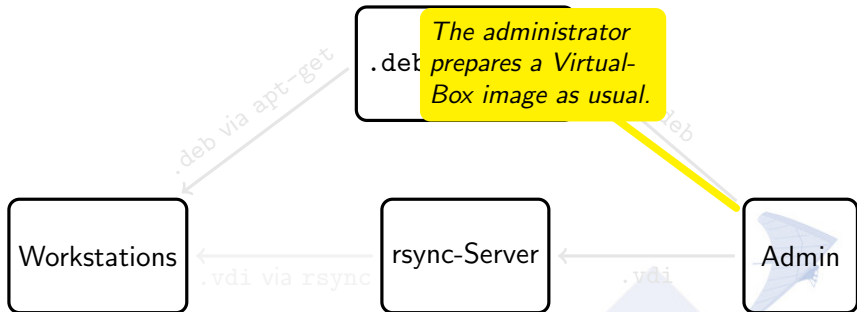
- VirtualBox images are stored on an rsync server.
- For each version of any given image, there exists a Debian package that is distributed the usual way.
  - This package pulls resp. updates the image from the rsync server during its installation.
  - Upgrading only slightly changed images is sped up.
  - The image is stored in a system directory, not writable for the user.



# Das VirtualBox-Verteilungssystem

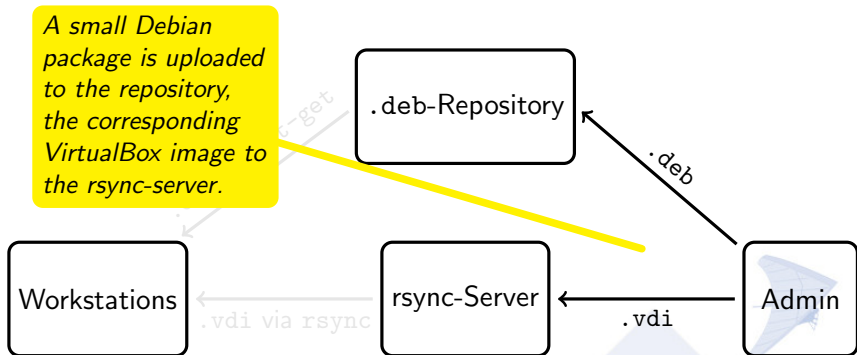


# Das VirtualBox-Verteilungssystem

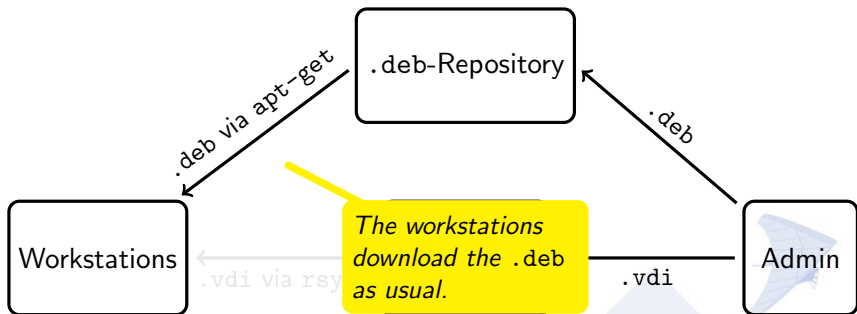




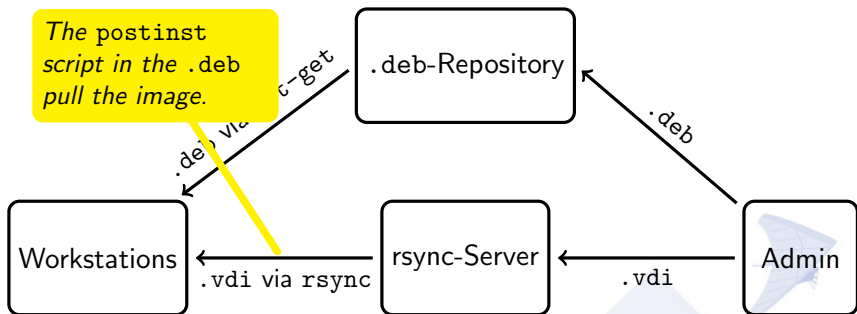
# Das VirtualBox-Verteilungssystem



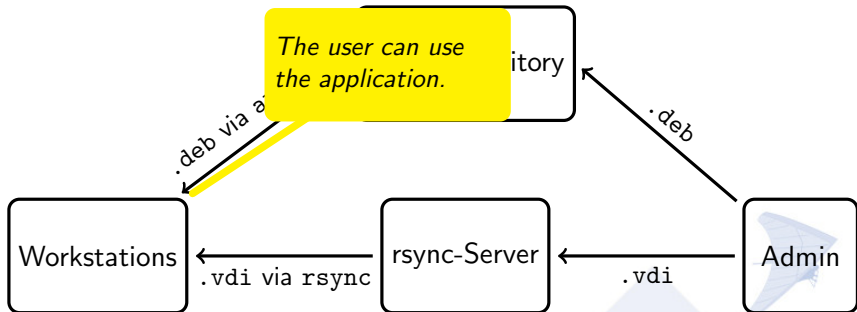
# Das VirtualBox-Verteilungssystem



# Das VirtualBox-Verteilungssystem



# Das VirtualBox-Verteilungssystem



# vbox-sync: The configuration

- The system images (C:\) are read-only for the user  
⇒ all changes to the system are discarded after use
- The user profiles (Desktop, preferences, My Documents) are not on C:\, but on D:\.
- This (small) “partition” is automatically created in the users home directory.
- Changes to this partition are preserved between sessions and also across upgrades of the system images.



# Demonstration

A simple GUI is being programmed that will allow the department's administrator to easily upgrade the image and create the required Debian package, without deep knowledge of the Debian packaging system.

Thank you for listening

### Source code

<http://gitorious.org/vbox-sync>  
(and on OSOR eventually)

This system was programmed by  
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