



Creating Images is so 2010

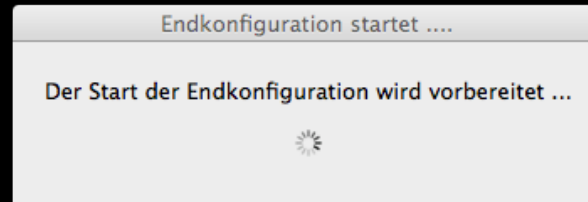
Harald Monihart, Tech Lead DevOps

Los Angeles, 03.11.2011

Facts about our enterprise environment

- leading **integrated multimedia company in Europe**
- offering a large number of print and digital media
- **daily productions** for more than 65 years
- Apple's biggest enterprise customer in Europe
- continuously **roll-outs to Mac OS X**


How did we set up machines?




How did we set up machines?

Endkonfiguration - [redacted]

Willkommen zur Endkonfiguration Ihres Macs



Inventarnummer und Imagekonfiguration

Inventarnummer: 

Die Inventarnummer ist eine sechsstellige Nummer, die sich auf einem silbernen Aufkleber entweder auf der Unterseite oder der Rückseite Ihres Computers befindet.

Bitte achten Sie darauf, dass Sie nicht die Inventarnummer des Monitors, sondern die Inventarnummers des Computers angeben.

Imagekonfiguration:

Mit der Imagekonfiguration wird definiert, welche Softwarepakete im ersten Schritt, noch vor der Zuweisung der Konfiguration und der Active Directory Anbindung, installiert werden.

Neustart nach Endkonfiguration

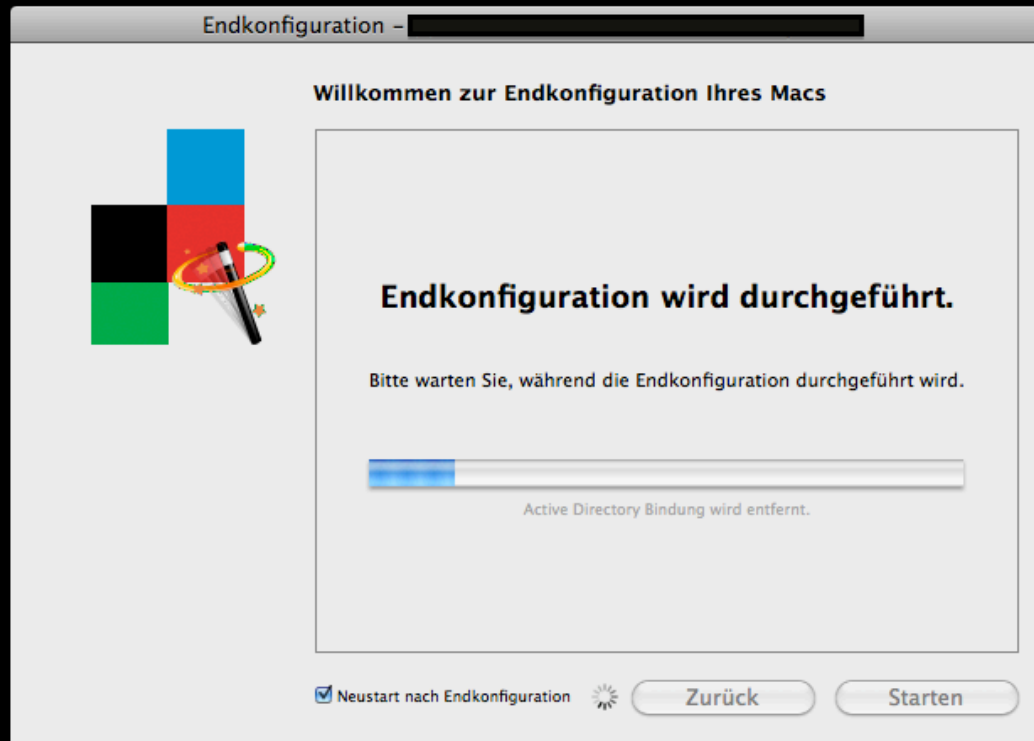
How did we set up machines?



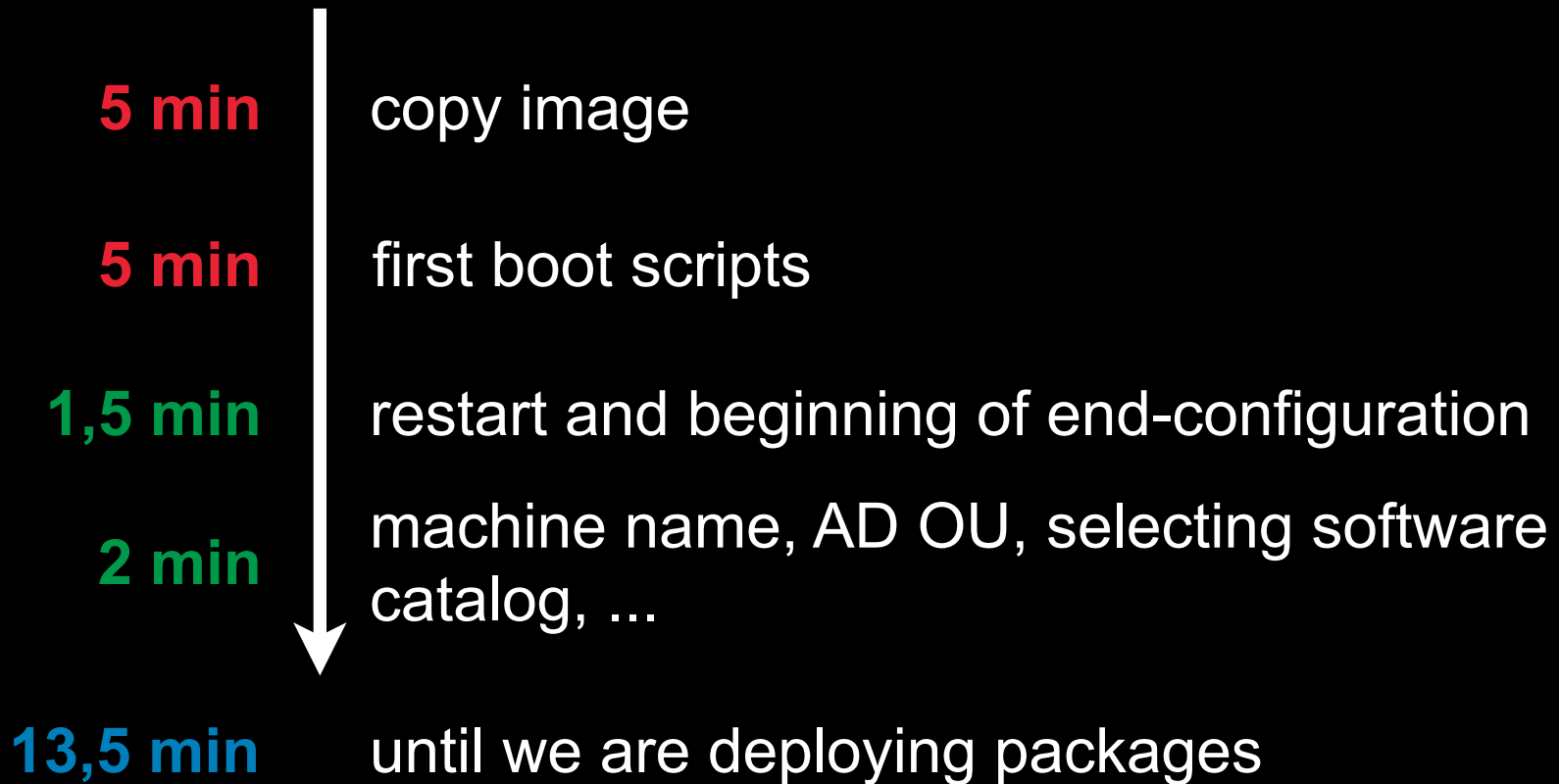
How did we set up machines?



How did we set up machines?



How did we set up machines?



How did we set up machines?

copy image

restart and beginning of end-configuration

machine name, AD OU, selecting software
catalog, ...

How did we set up machines?



why are we copying something that is already on the machine?

restart and beginning of end-configuration

machine name, AD OU, selecting software catalog, ...

How did we set up machines?



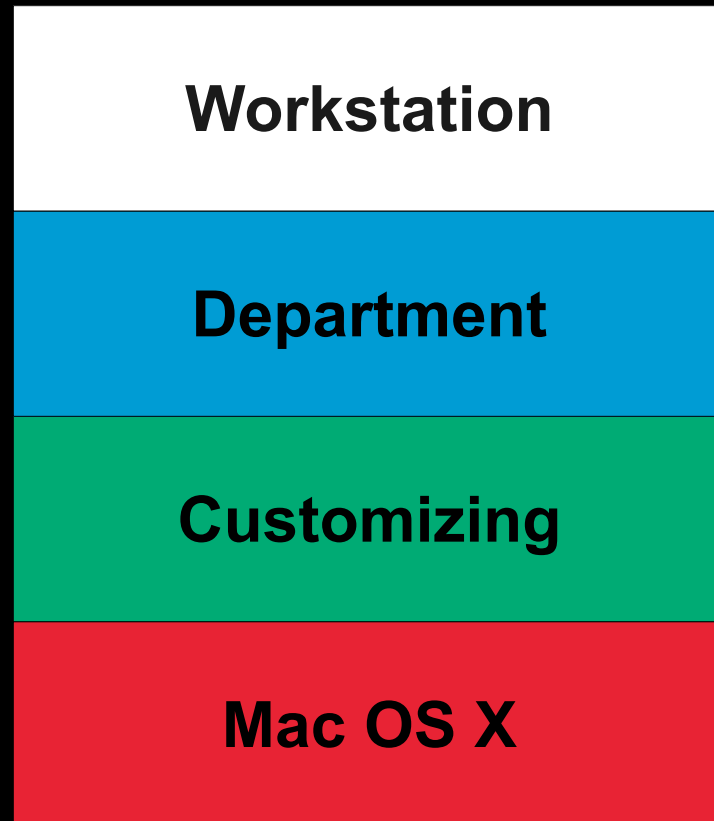
ge
why are we copying something that is already on the machine?



re and beginning of end-configuration
name, AD OU, selecting software
C ...

why is there manual input required?

Typical content of a machine



Typical content of a machine

> 80 images

Installer that Apple provides



Keep images in sync



(c) wikimedia.org

Images in enterprise

- a lot of **possible images**
- a lot of continuously **manual work** (adding and clearing machine specific images)
- a lot of **data to keep in sync**
- a medium that is capable of booting the machine

A new way to setup machines in an enterprise environment

- take a machine as it **ships from Apple**
- shift everything towards our **backend systems**
- provide a **better experience** for the technicians

A new way to setup machines in an enterprise environment

- take a machine as it **ships from Apple**
- shift everything towards our **backend systems**
- provide a **better experience** for the technicians
... or an end-user



03.11.2011

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axel springer 



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Shift towards backend systems

- Macs **get inventoried** when they arrive
- we already have the **most important information**:
 - inventory number
 - **MAC-address**
 - AD OU / reference machine

Shift towards backend systems

- logic on the client needs to be minimalistic
 - **pull data** from backend systems
 - **execute packages/scripts/...** (backend maintained)
 - **report back**
 - make sure assistant does not come up again

Installation process in detail

- **Setup Assistant pulls information** from Asset-Inventory (SPIDER) and Client-Management System (Casper)
- **apply minimum security**
 - management account with random password
 - Anti-Virus with latest definitions
- **corporate setup**
 - language, time-server, AD-binding, HT4100, ...

Installation process in detail

- **install all available updates** for that machines
- **restart**
- **automatically test** machine setup
 - reading AD information
 - interaction with SMB-shares (keytab)
 - definition date of Anti-Virus
 - network/proxy configuration

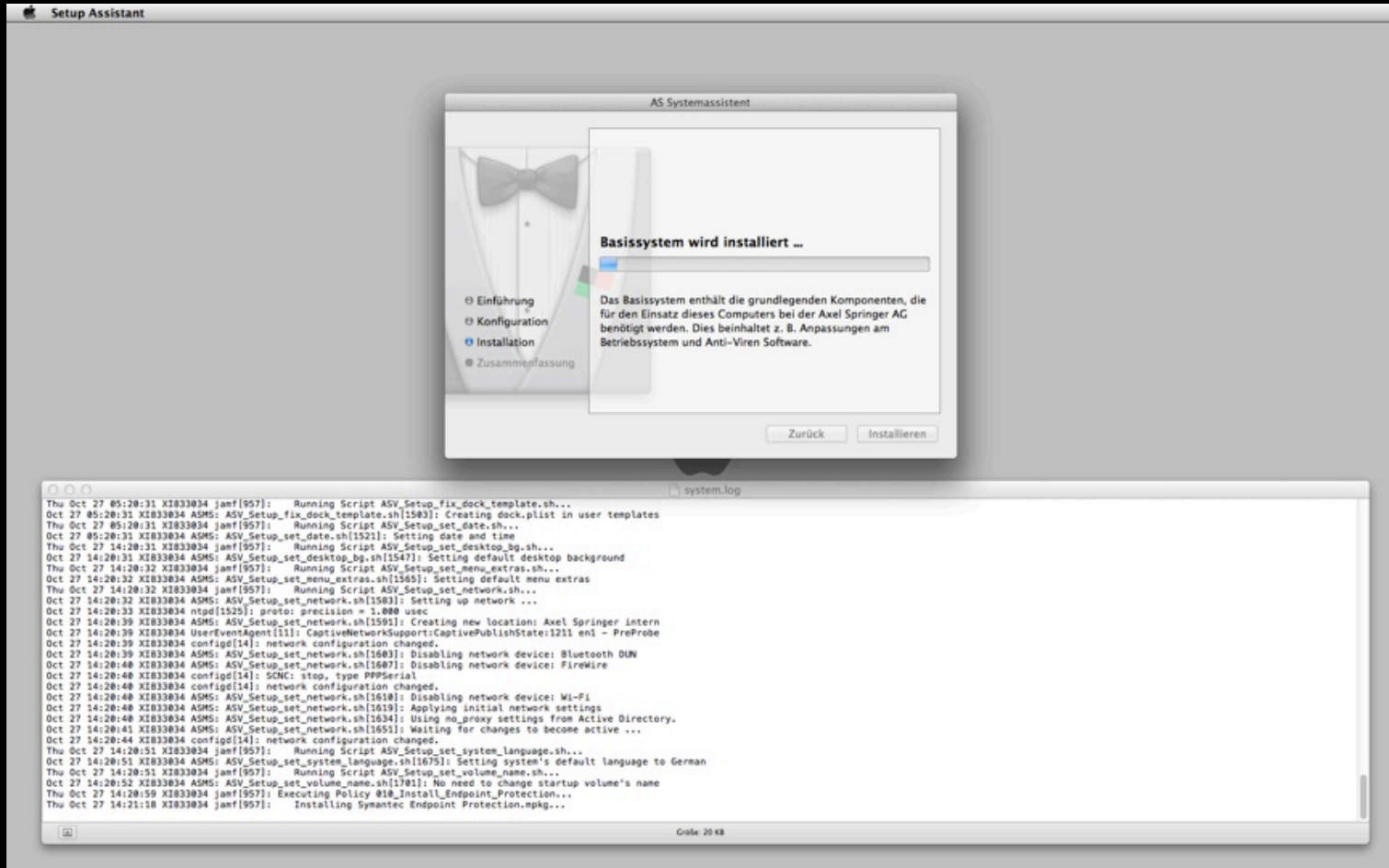
Installation process in detail

- **install additional software titles** as they are listed in inventory
- optional **provide a detailed (combined) log** to the technician
- indicate a **successful or failed installation**
- report full installation log back to the client-management system
- prepare system for end-user

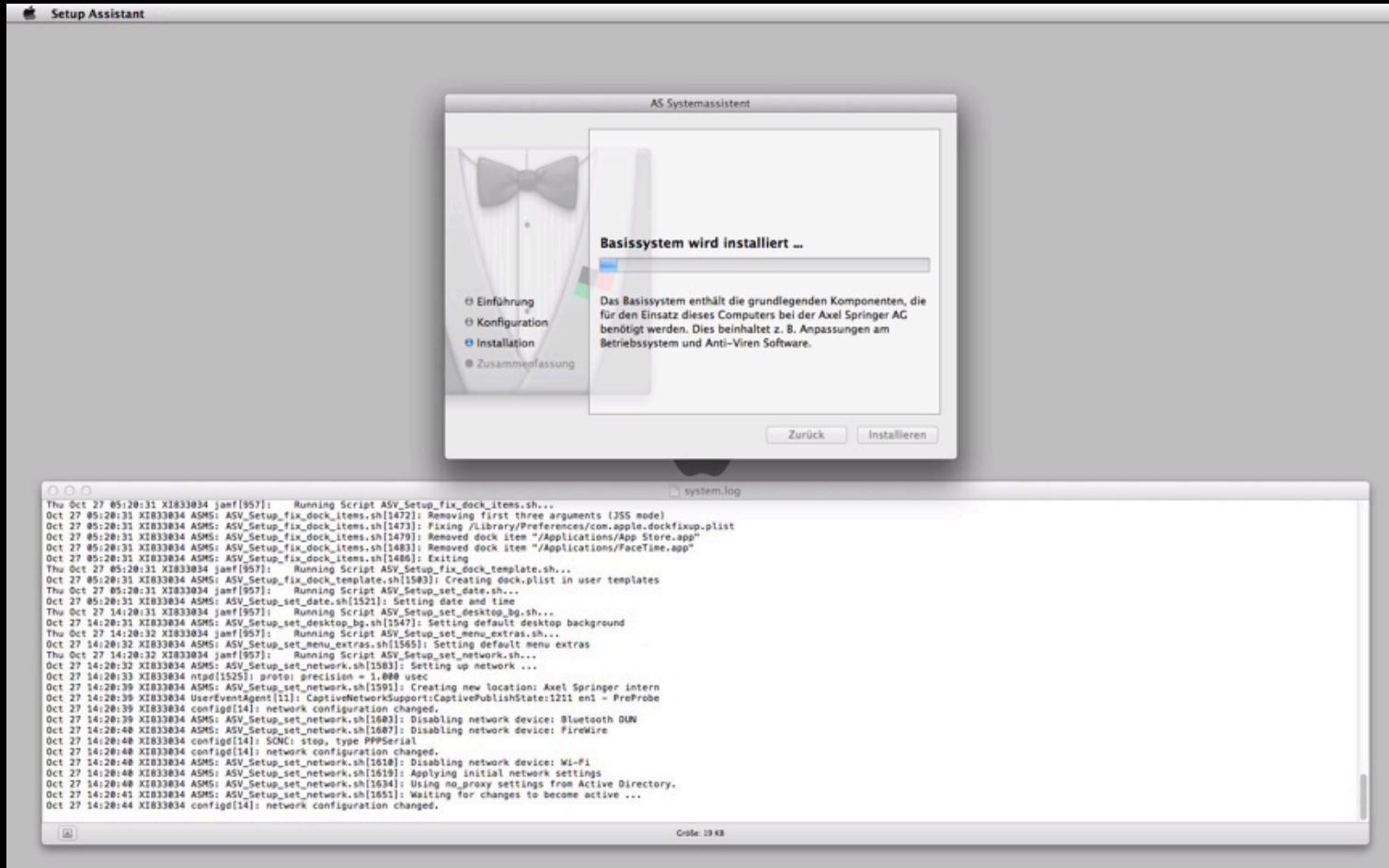
Deploying your own assistant

- Target Disk Mode
- USB Stick
 - minimal Linux:
 - mount HFS+ volume
 - untar Assistant
 - shutdown
- NetRestore - latest 10.7 from AppStore + Assistant

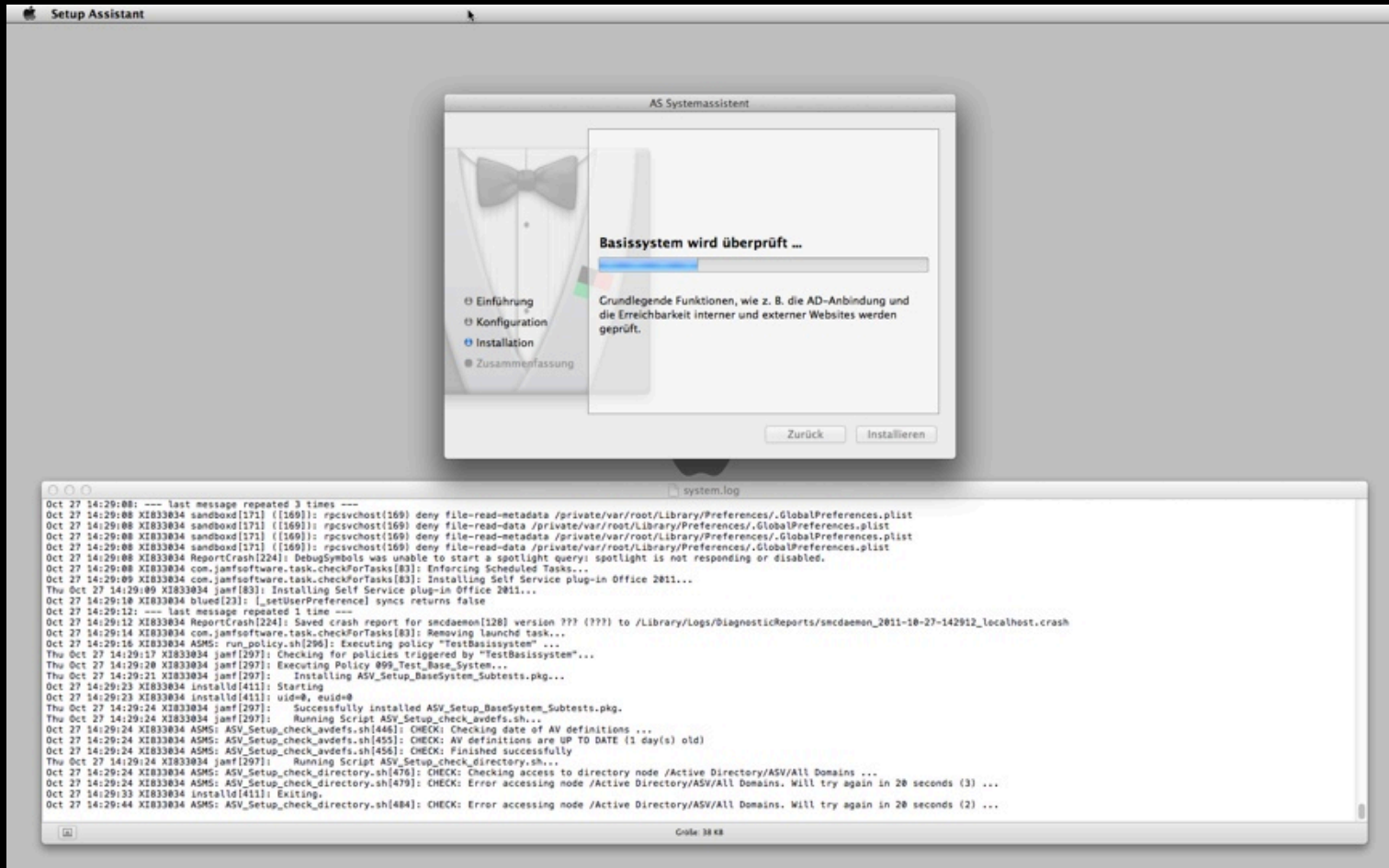
How do we setup machines?



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How do we setup machines?



Benefits

- no new image creation when **Apple releases new hardware**
- deploy a **tested standard configuration** within minutes
- quickly adapt to **changes**
- everything logged and protooled

Contact - MacDevOps.com

Marc Thielemann

marc@macdevops.com



Martin Neumann

martin@macdevops.com



Michael Rieder

michael@macdevops.com



Harald Monihart

harald@macdevops.com

