Deploy Anywhere
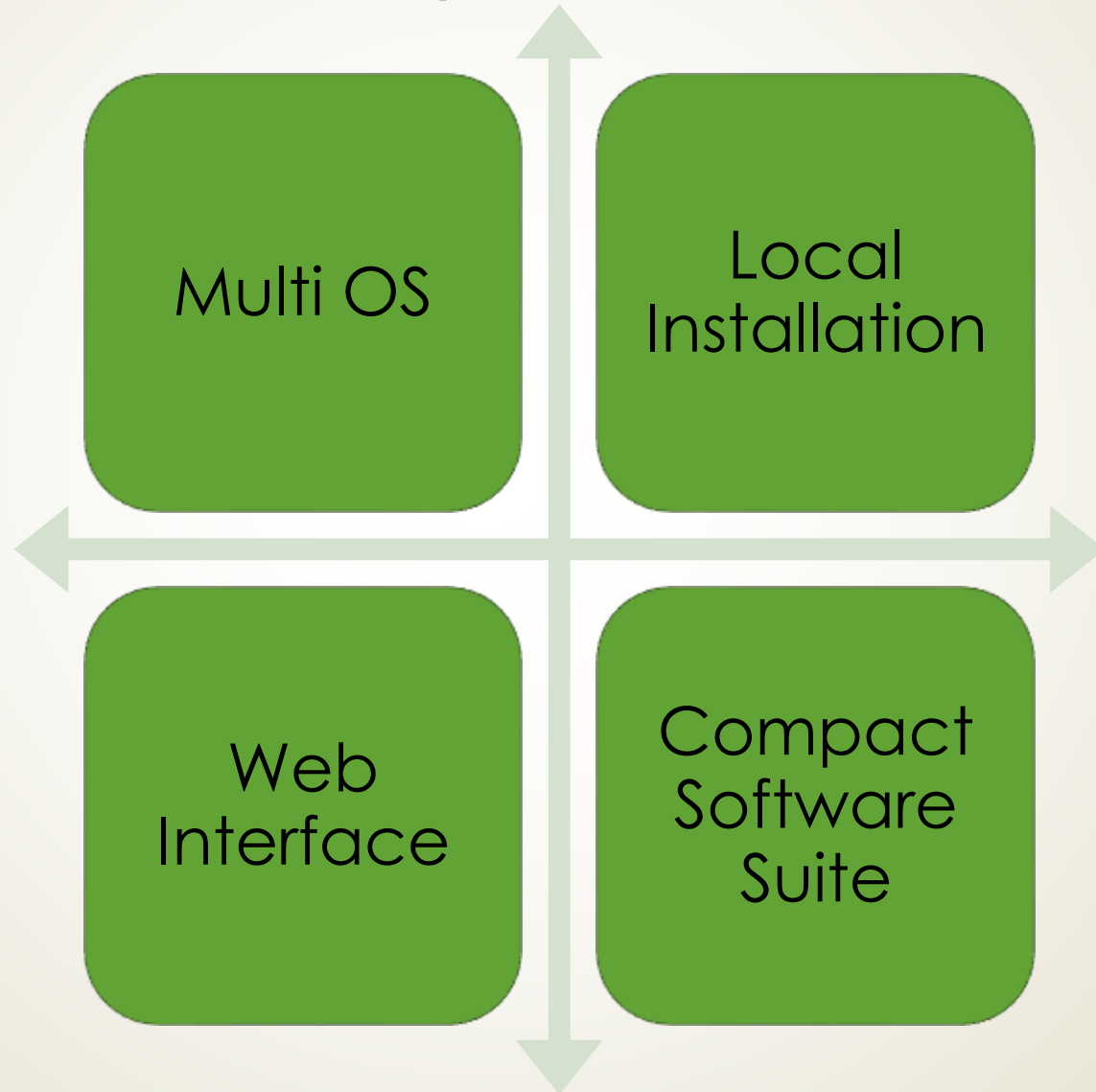# Packaging a customer ready application for Windows, Mac and Linux
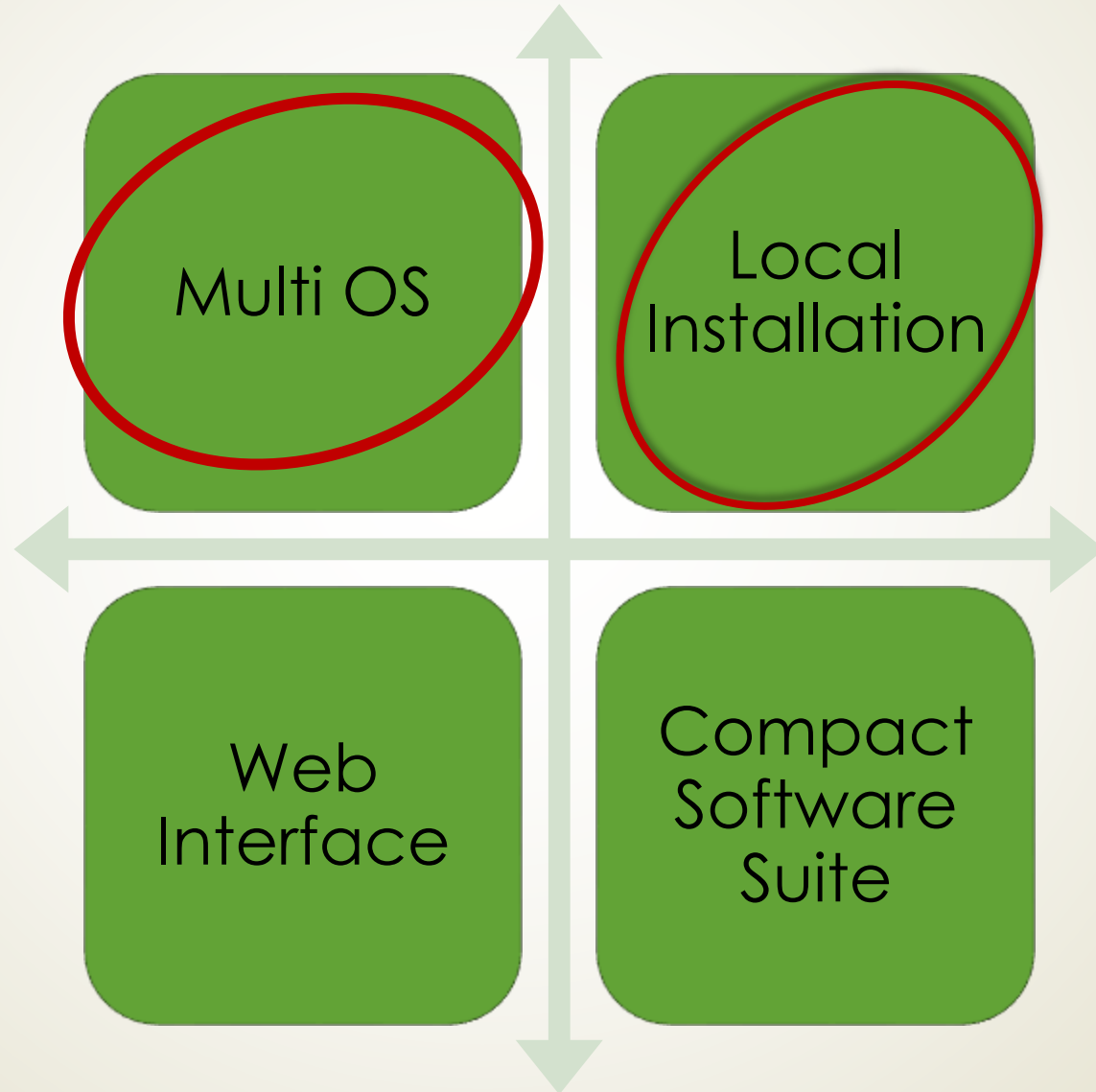
Maximiliano Tabacman

So much to say

Multi OS

Local Installation

Web Interface

Compact Software Suite

So little time

What we need

Disclaimer

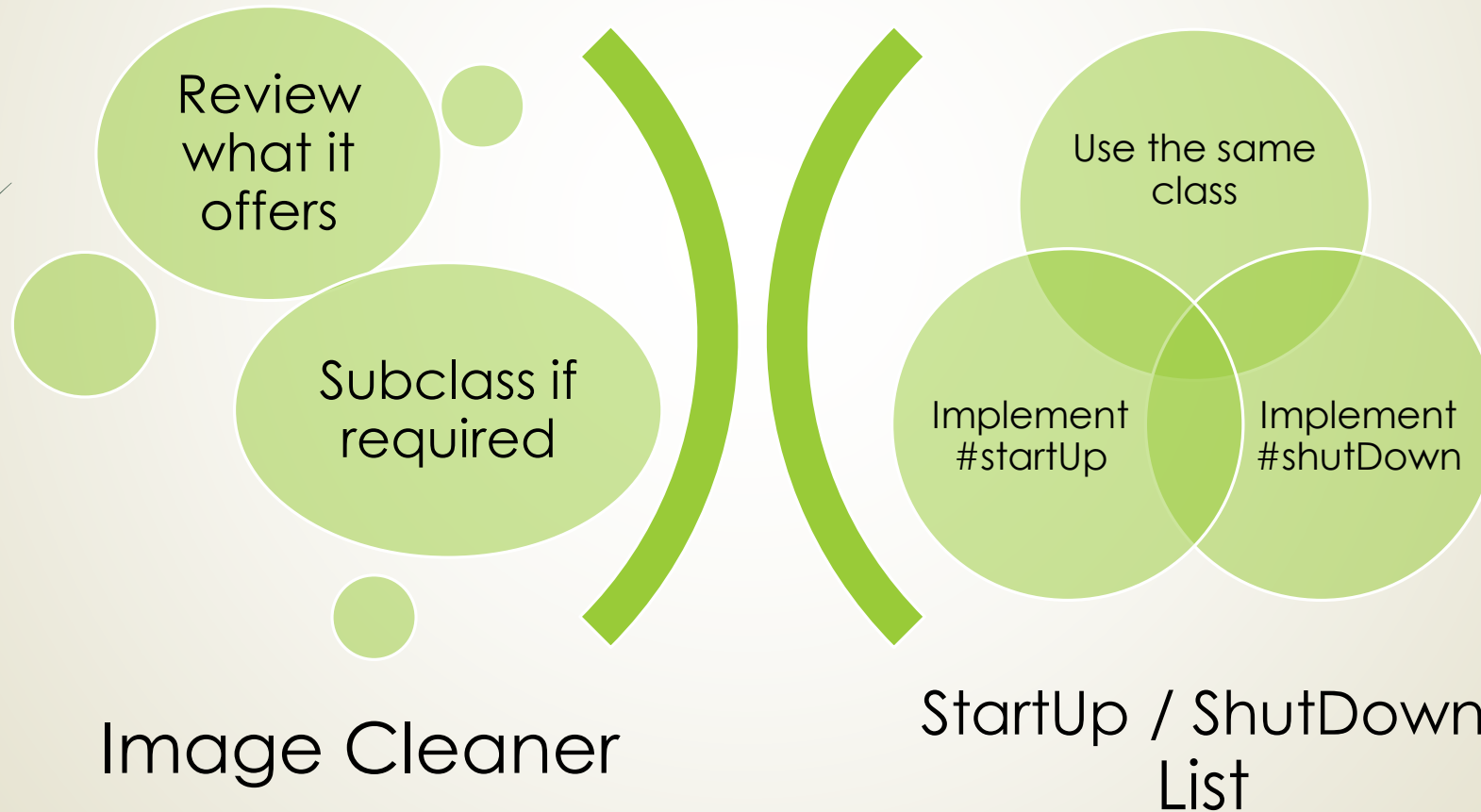## Work Started in Pharo 3
- There may be better ways in Pharo 4 & 5

Other Smalltalk environments
- Provide deployment tools

Take these ideas!
- And improve on them adding your own!

Deployment Tools Included

Review what it offers

Subclass if required

Image Cleaner

Use the same class

Implement #startUp

Implement #shutDown
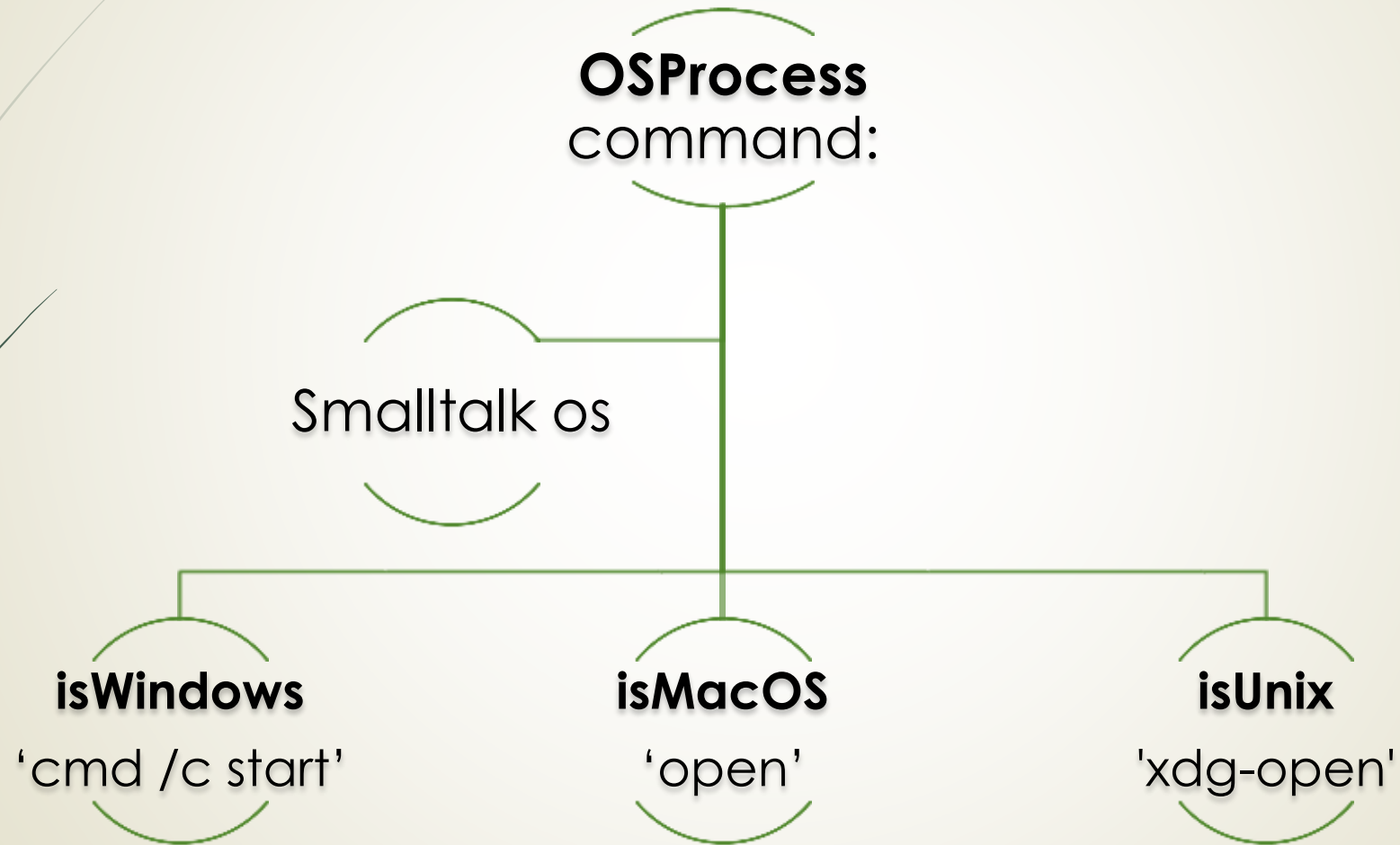
StartUp / ShutDown List

Deployment Process Tips

Reify a Deployment Process

Disable development components

Redirect logging

When in doubt, compile an empty method

Execute Anywhere

OSProcess
command:

Smalltalk os

isWindows
'cmd /c start'

isMacOS
'open'

isUnix
'xdg-open'

Multi OS Development

Case sensitivity

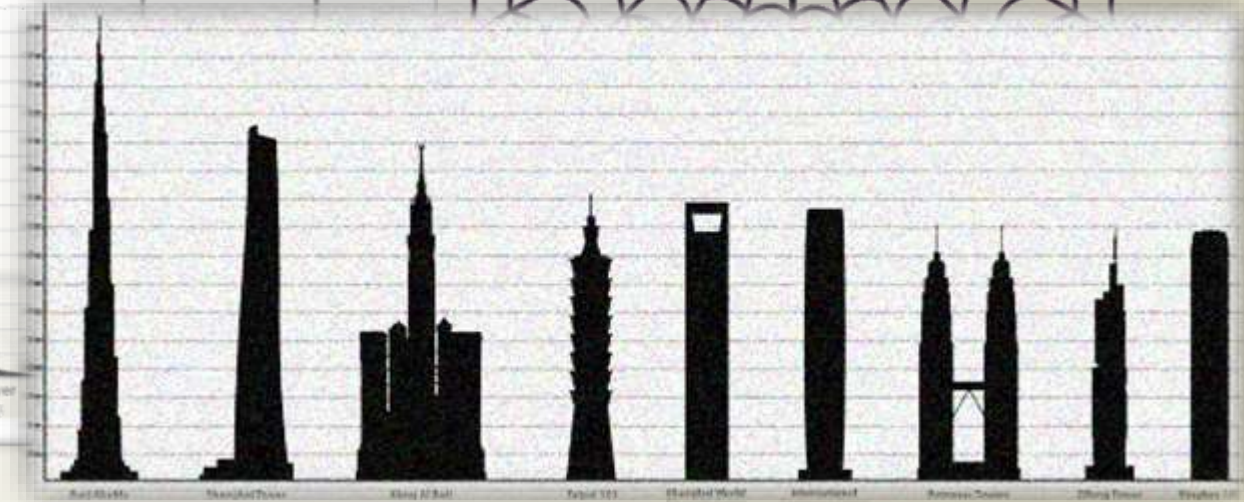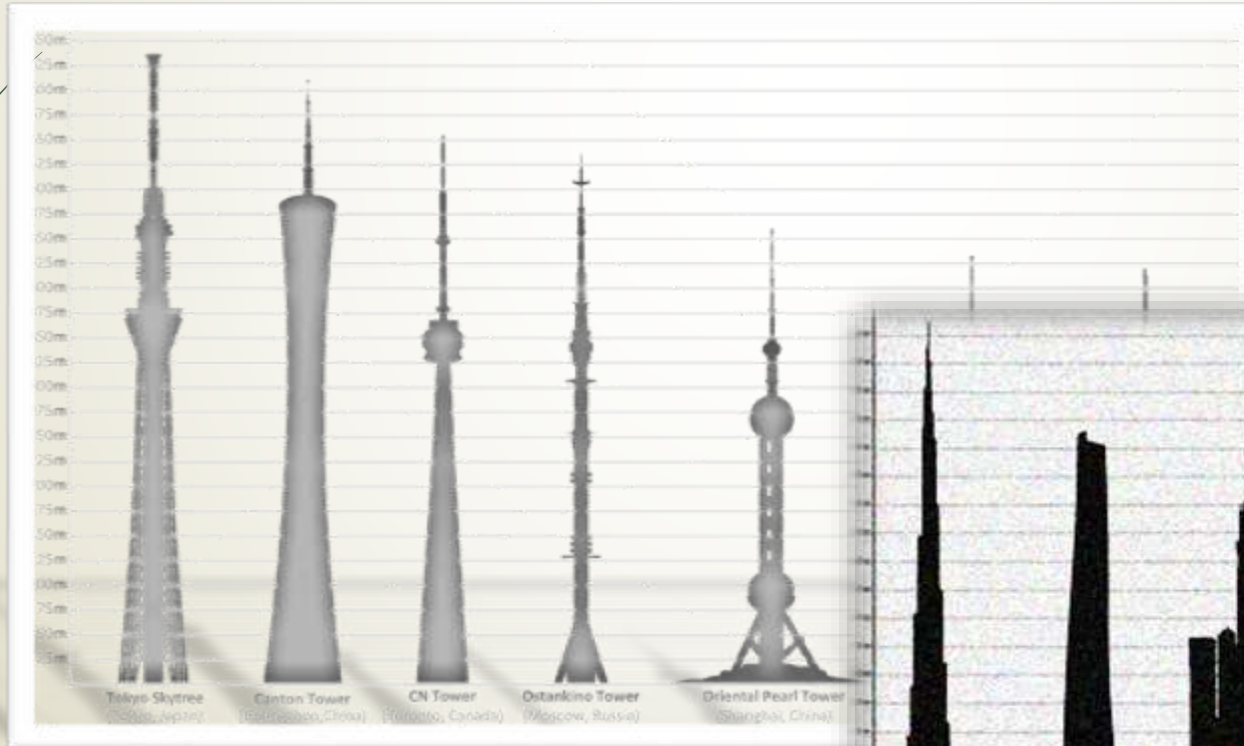- Only irrelevant in Windows

Path Separator

- FileSystem disk delimiter

Line End Convention
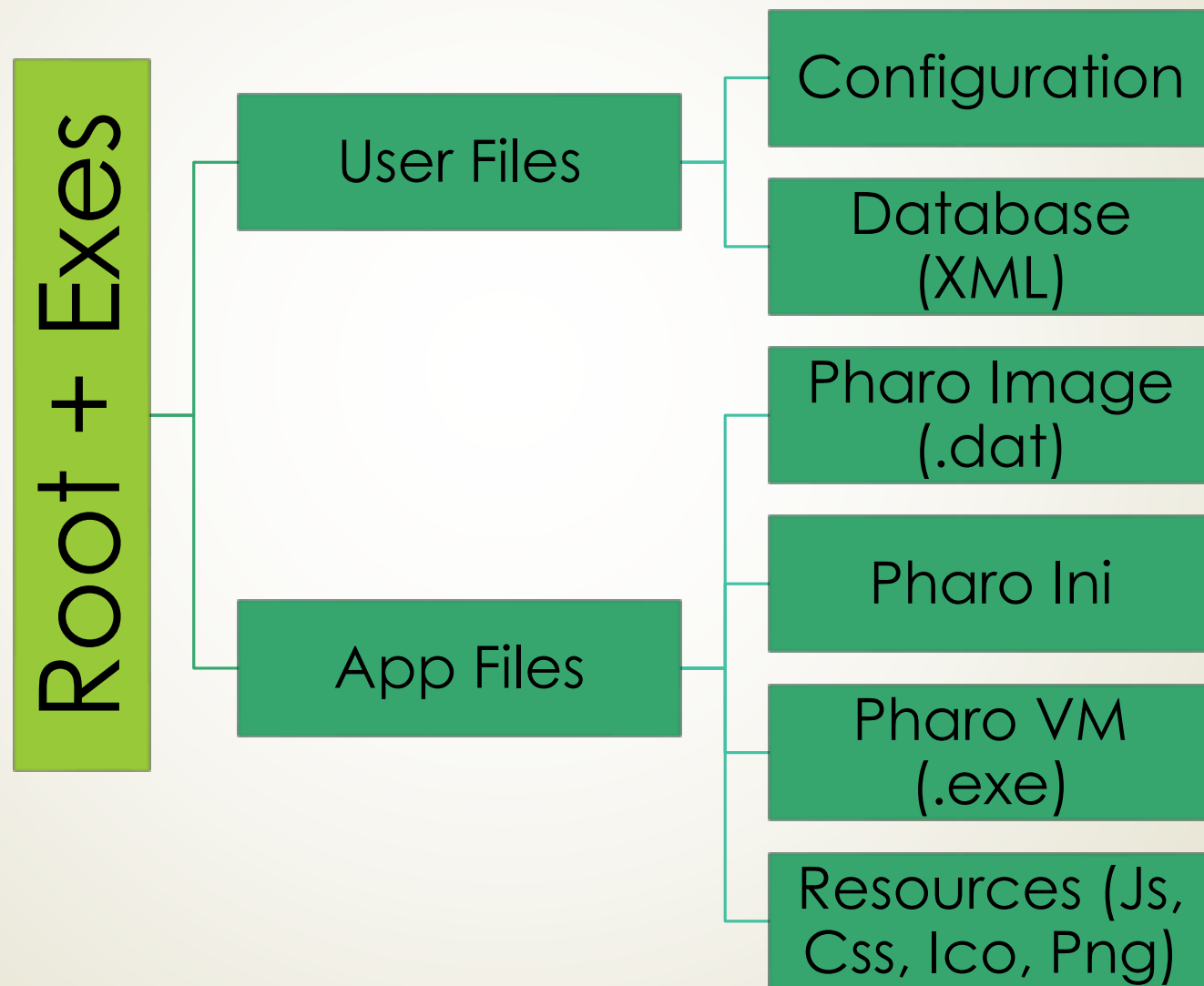
- stream lineEndConvention: stream class lineEndDefault

Directory structure

Windows

Root + Exes

User Files
- Configuration
- Database (XML)

App Files
- Pharo Image (.dat)
- Pharo Ini
- Pharo VM (.exe)
- Resources (Js, Css, Ico, Png)

Pharo Files in Windows

Path	Avoid invalid characters
	Watch out for /[User Name]
File Names	AppName.exe
	AppName.dat
	AppName.ini
AppName.ini	RunSingleApp=1
	ImageFile="AppName.dat"
	WindowTitle="Application Title"
	QuitDialogLabel="Closing Application"
	QuitDialogMessage="Do you want to close the application?"

Windows Icon

Linux

```
Root + Start Up Script
    ├── User Files
    │      ├── Configuration
    │      └── Database (XML)
    └── App Files
           ├── Pharo Image (.image)
           ├── Resources (Js, Css, Ico, Png)
           └── bin ── Pharo VM
```
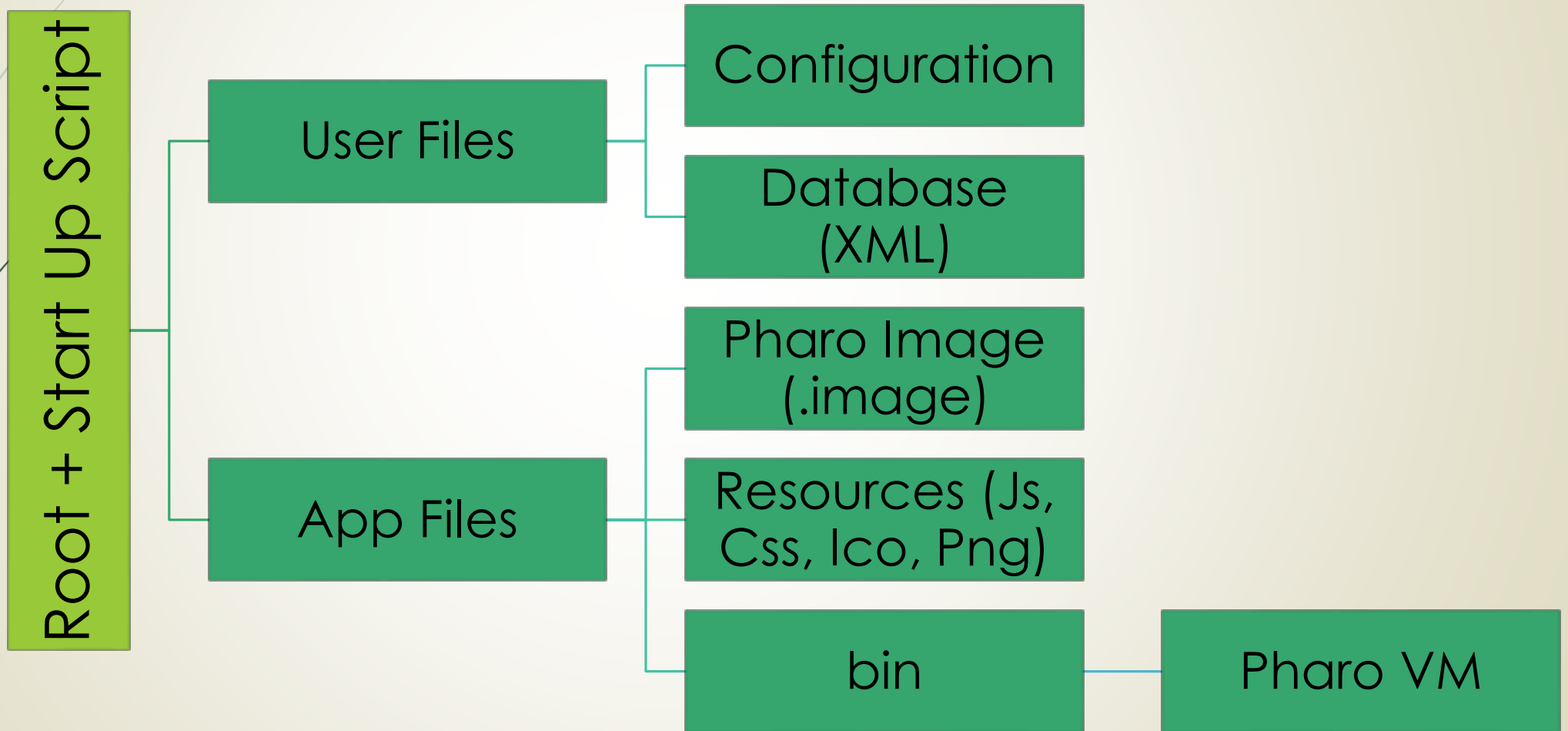
Pharo Files in Linux

File Names	AppName (Start Up Script)
	AppName (Renamed Pharo VM)
	AppName.image (Pharo Image)
	AppName.ini

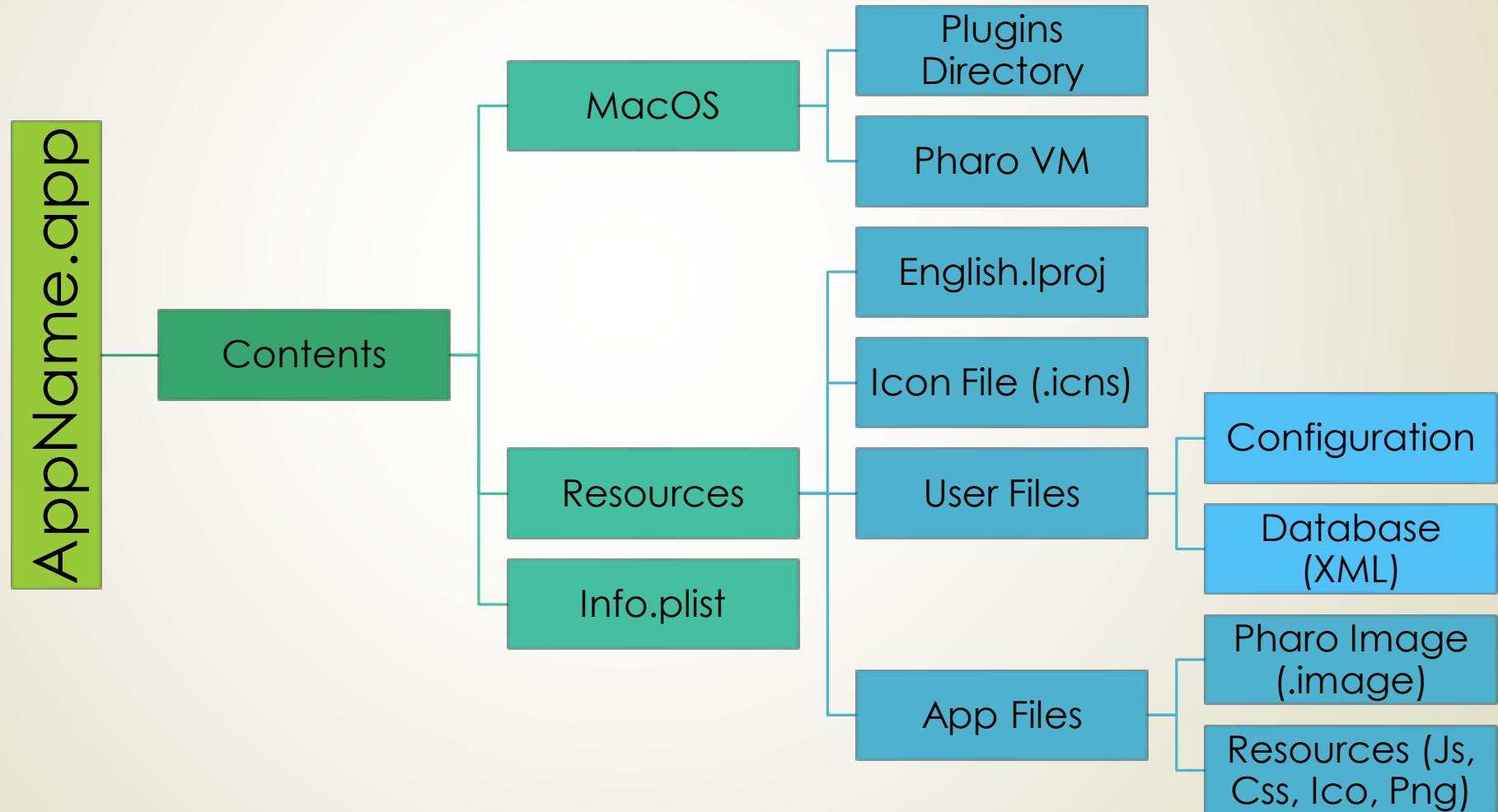| AppName	**Bash Script**
	-title "Your application" \
	Icon can be specified
	Start Up parameters can be specified

Mac OS

Pharo Files in Mac OS

File Names	
	AppName.app (Compressed Directory)
	AppName (Pharo VM)
	AppName.icns (Mac Icon Pack)
	AppName.image (Pharo Image)
	Info.plist

Info.plist	
	XML Configuration File
	Application name and title
	Pharo Image file name
	Icon File

Mac OS Customization

Application
- Directory.app

Automator
- Start Up Scripts

Icon Packs
- Open and edit

Pharo
- Mac OS Download
- Great teacher

Acknowledgments

Resource Hacker

Bruno Panelli
(Mac OS Expert)

Fuel   RenoirSt
OSProcess
XMLPullParser

Pharo   seaside

Thanks!

Answer questions from audience

Talk about stuff