CIGNEX

Making Open Source Work™

Open Source Best Practices

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October 26, 2006

About Me

- Co-founder & CTO of CIGNEX
  - 45+ Employees
  - 50+ Zope, CMF and Plone Solutions
- Funded Plone Sprints & Conferences
  - PlonePAS, CMFMember Sprint
  - Castle Sprint in Austria
  - CMF 2.0 Goldegg Redzone Sprint
  - Packaging Sprint in Santa Clara, CA

Plonelive and Goldegg

- Co-author of Plonelive Book
- Distributed 700+ Books for FREE to Plone Community Developers

- Funded Goldegg One Initiative
- Features helped CMF 2.0 and Plone 2.5

Agenda

- Things enterprises should know, when adopting Open Source Technologies

- **21 Golden Rules** for a Successful Open Source Project Implementation

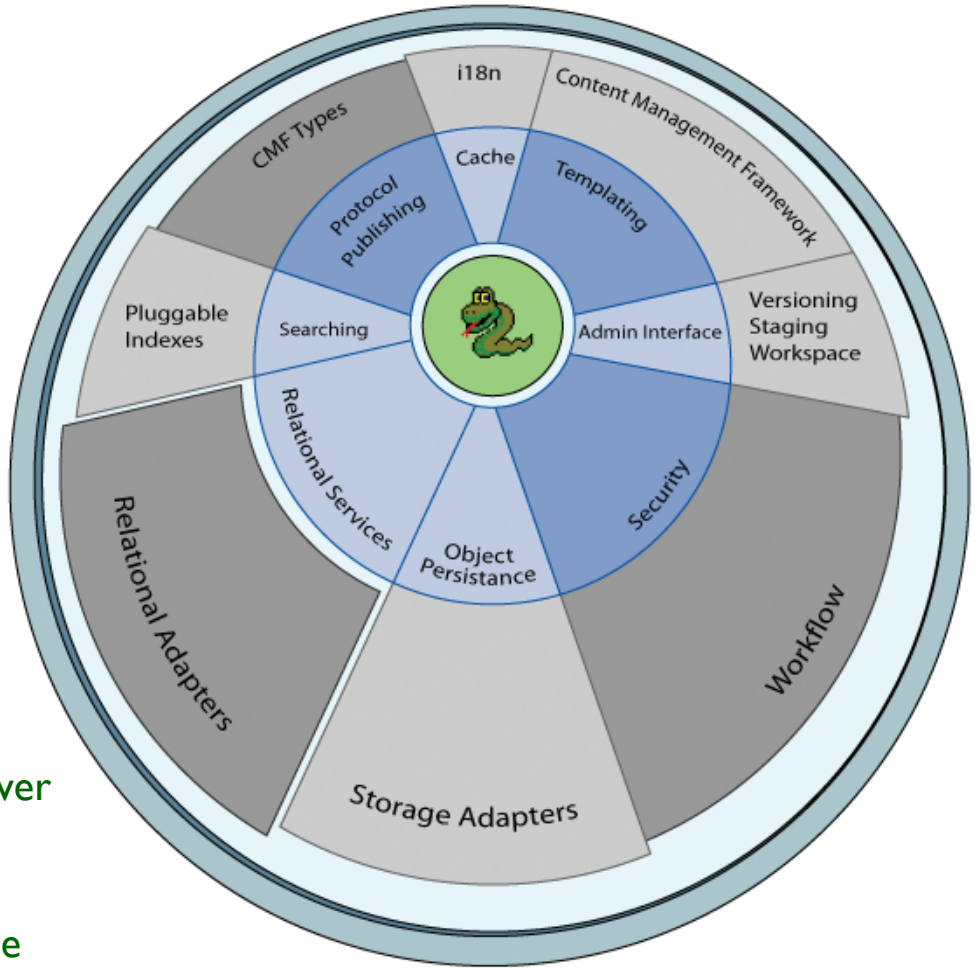
PLONE Projects – Best Practices

PLONE
User Interface

PLUG-INS
Components

ZOPE
Application Server

PYTHON
Language



Plone

- Web Server
- Application Server
- CMS
- Search Engine
- Object Database
- Interoperable

400,000+ Downloads

60+ Languages

Customers:

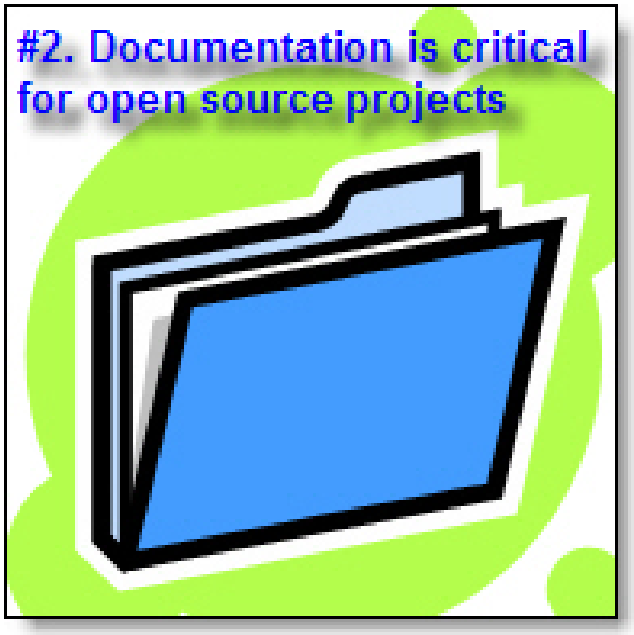
- **Motorola**
- **US Dept of Energy**
- **NASA**
- **US NAVY**
- **Epson**
- **eBay**
- **Continental Airlines**
- **Nokia**
- **Disney**

#1. Understand Business Users & Requirements

- Get the BIG PICTURE First
- Who are going to use the system?
- Why?
- What do they expect?

- IT IS ALL ABOUT EXPECTATIONS MANAGEMENT

#2. Documentation is Critical for Open Source Projects



- Sourceforge 117,000 Projects
- 80% NO documentation
- 80% Useless

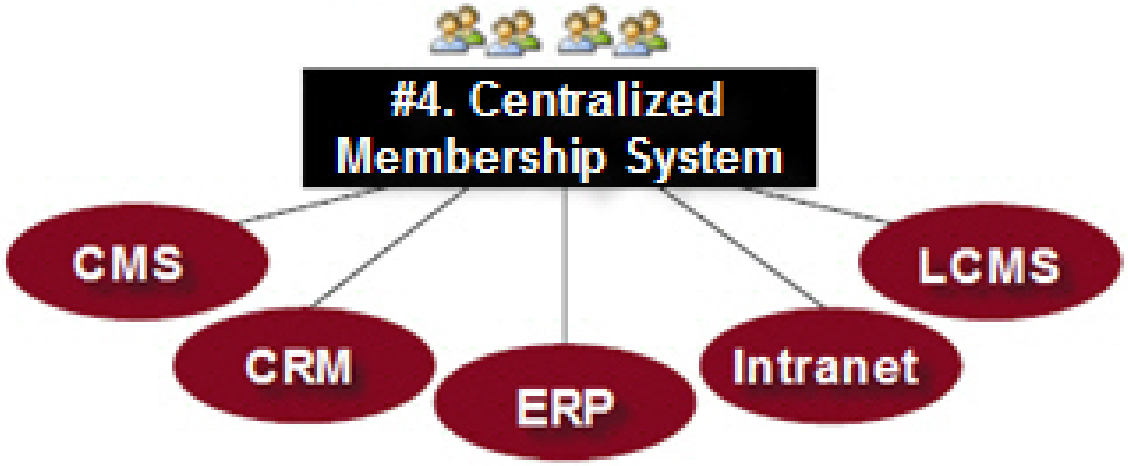
- MANDATORY DOCUMENTS
  - Requirements
  - Acceptance Criteria
  - Detailed Design
  - System Installation
  - Maintenance & Upgrade

#3. Use Storyboards for better understanding

"Tell me and I will forget,
Show me and I might remember,
Involve me & I will understand."

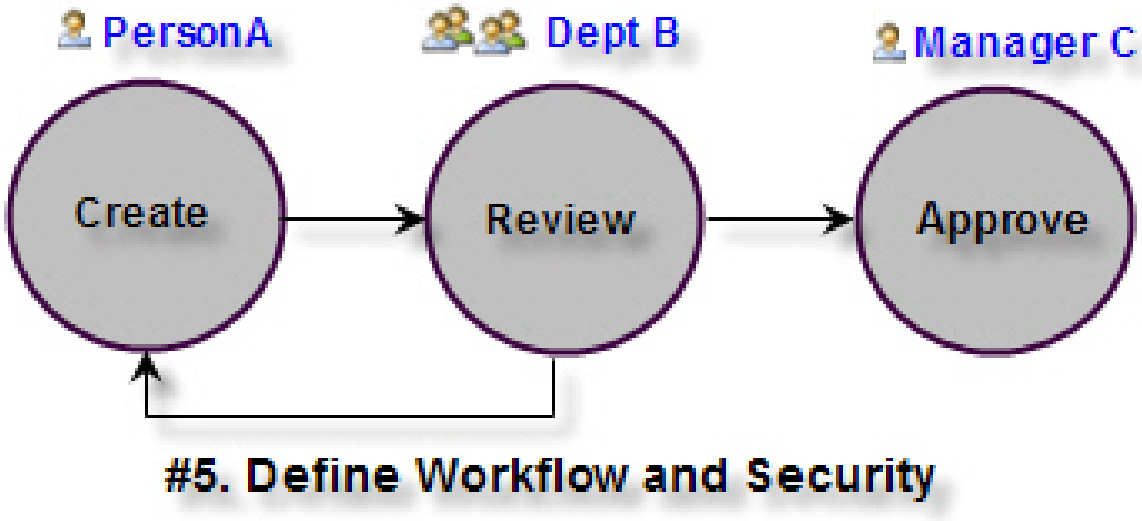
- Ben Franklin

#4. Always use Centralized Membership System



- Centralized Control
- Centralized Identity Management
- One Copy of data to manage
- One Person / Department In-charge

#5. Define Workflow & Security upfront



- Requirements are incomplete without Workflow and Security
- IT'S ALL ABOUT CONTROL

#6. Don't get into hourly rates trap

- "*Management is efficiency in climbing the ladder of success; Leadership determines whether the ladder is leaning against the right wall.*" – Stephen Covey

- IT IS ALL ABOUT EXPERTISE

#7. Choose Right Open Source Products

- When selecting a product, there is no "one-size-fits-all" solution, because no two organizations have the same requirements.
- Evaluate
- IT IS ALL ABOUT RIGHT FIT & COMPATIBILITY

#8. Understand the Licensing Model

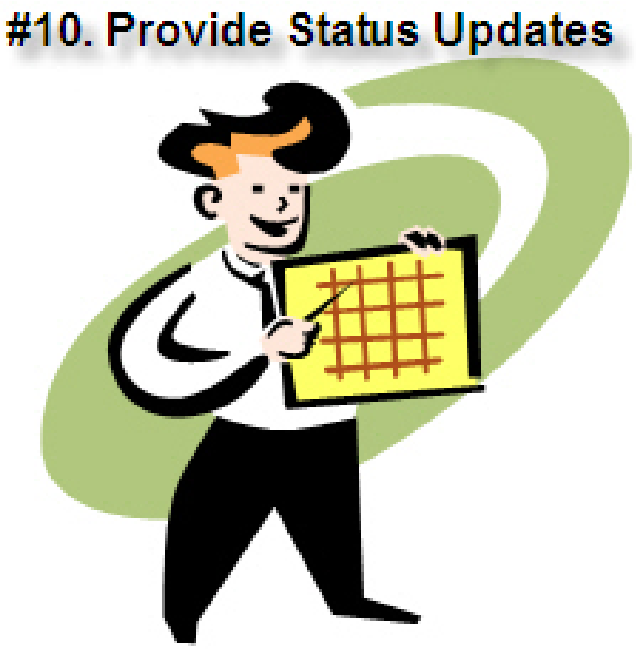
- How do you want to use the product/project?
- Internal/Distribute?
- *GPL - you have to release any changes you make to the code base back to the community if you are redistributing the product.*

- IT IS ALL PROTECTING YOURSELF FROM LEGAL ISSUES

#9. Choose Hardware & OS upfront

- Shall we wait till Production timeframe? Scream NO…
- High-Availability
- Performance
- Dev->Staging->Production
- IT IS ALL ABOUT SAVING TIME AND MONEY

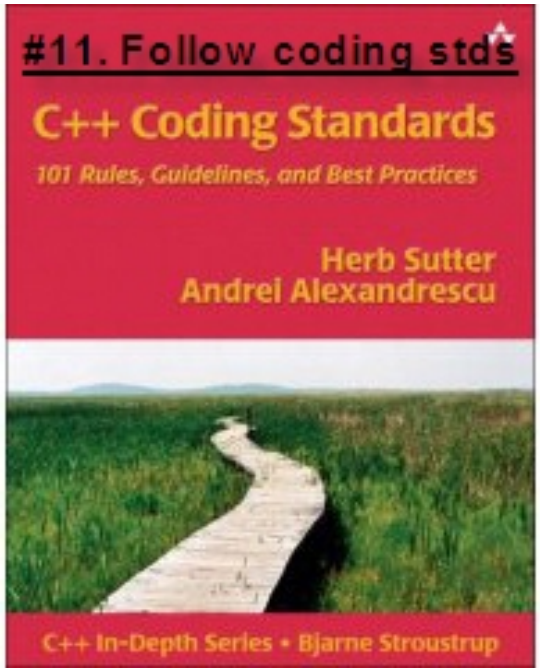
#10. Provide Project Status Updates Regularly



- All the parties involved in the project should be on the same page
- Understand issues upfront
- Get Help Required to Mitigate Risks

- ONE BEST PRACTISE YOU MUST FOLLOW

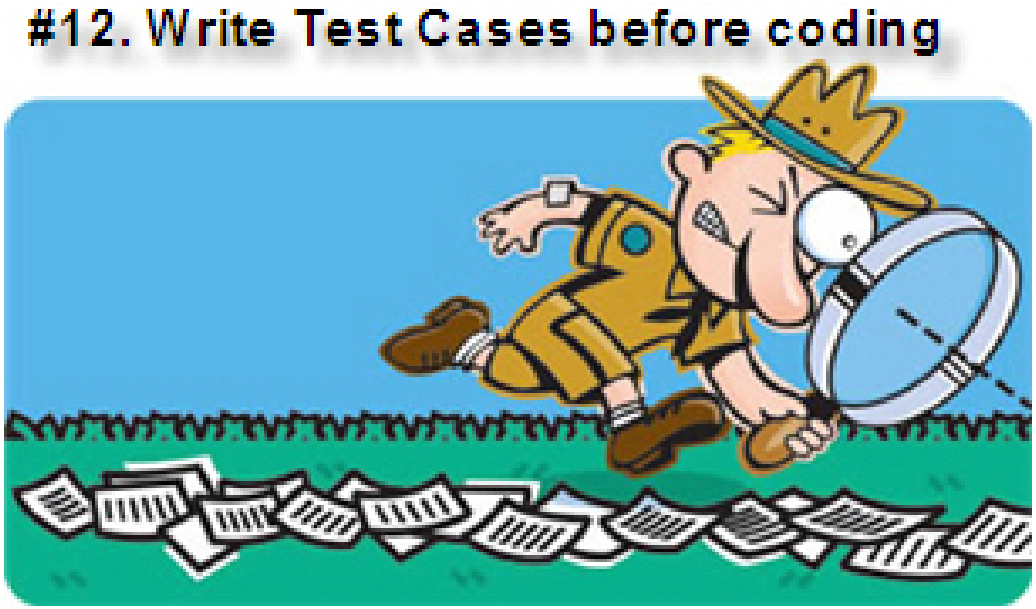
#11. Follow Coding Standards



- Python Scripts
- Page Templates
- SQL Methods
- File System Products

- SAVE $ IN LONG TERM MAINTENANCE

#12. Write Test Case before coding



- Set the expectations right with the developers
- Clear … Technical understanding of the system

#13. Always use File System based Development

- File System based development with VERSION CONTROL (SVN)
- Easy to debug
- Easy to upgrade
- Easy to maintain
- Easy to control
- Easy to REUSE

#14. Leverage Community for testing

- Release First Version 1.0 to community with adequate documentation and sample application code
- Release 1.1 will be a stable release with all BUG Fixes
- Get as much HELP as required from community in the early stages of the project
- TEST on various Operating Systems, Data bases, Browsers, Hardware etc.

#15. Define Production update process

- Development Process
- Development -> Test -> Staging -> Production

- Content Management: Acquire, Store, Manage, Deliver

#16. Define Maintenance & Upgrade Process

- Log File Analysis
- Log Rotation
- Packing ZODB
- Identify Broken Links
- Fix “Page Not Found” errors

- Product Upgrades
- Security Patches

#17. Conduct Post Deployment Performance Tuning

- No matter how extensively you test the system…. Most of the systems fail in the actual production environment due to various reasons

- Understand Load / Concurrent users
- Get real performance numbers
- Test Integrations
- Tune the system

#18. Empower End Users with Training

- Content Managers Training
- Administrators Training
- Developer Training

- MAKE SURE THE SYSTEM IS BEING USED

#19. Provide Project End Documentation

- User Manual
- Installation Documents
- Backup/Restore Procedures
- Upgrade Procedures

#20. Leverage Community Support

- Open Source Products have more SUPPORT options than commercial products

- In-house Support
- Support from Vendors
- Support from Community

#21. Contribute Back to the Community

- SELFISH MOTIVATION – You will get hundreds and thousands of people maintaining it for you
- You give 10% and Get 100% back; Leverage the enhancements made by community
- CONTRIBUTE TO COMMUNITY AND YOU FEEL GOOD ABOUT IT

Summary of 21 GOLDEN RULES

1. Understand Business Users & Requirements
2. Documentation is critical for Open Source Project

3. Use Storyboards to get better understanding
4. Always use Centralized Membership System
5. Define Workflow & Security … before development

6. Don't get into hourly rates trap
7. Evaluate and Choose Stable Open Source Products

8. Understand the Licensing Model
9. Choose Hardware and OS upfront
10. Provide project status updates regularly to all parties

Summary of 21 GOLDEN RULES

1. Follow Coding Standards
2. Write Test Cases first before coding
3. Always use file system based development with Version Control
4. Leverage Community Resources for Testing
5. Define the Production update Process
6. Maintenance and upgrade Procedures are a must
7. Conduct Post Deployment Performance Tuning
8. Empower End Users with Training
9. Provide Project End Documentation
10. Leverage Open Source Community Support
11. Contribute back to the community

Questions

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