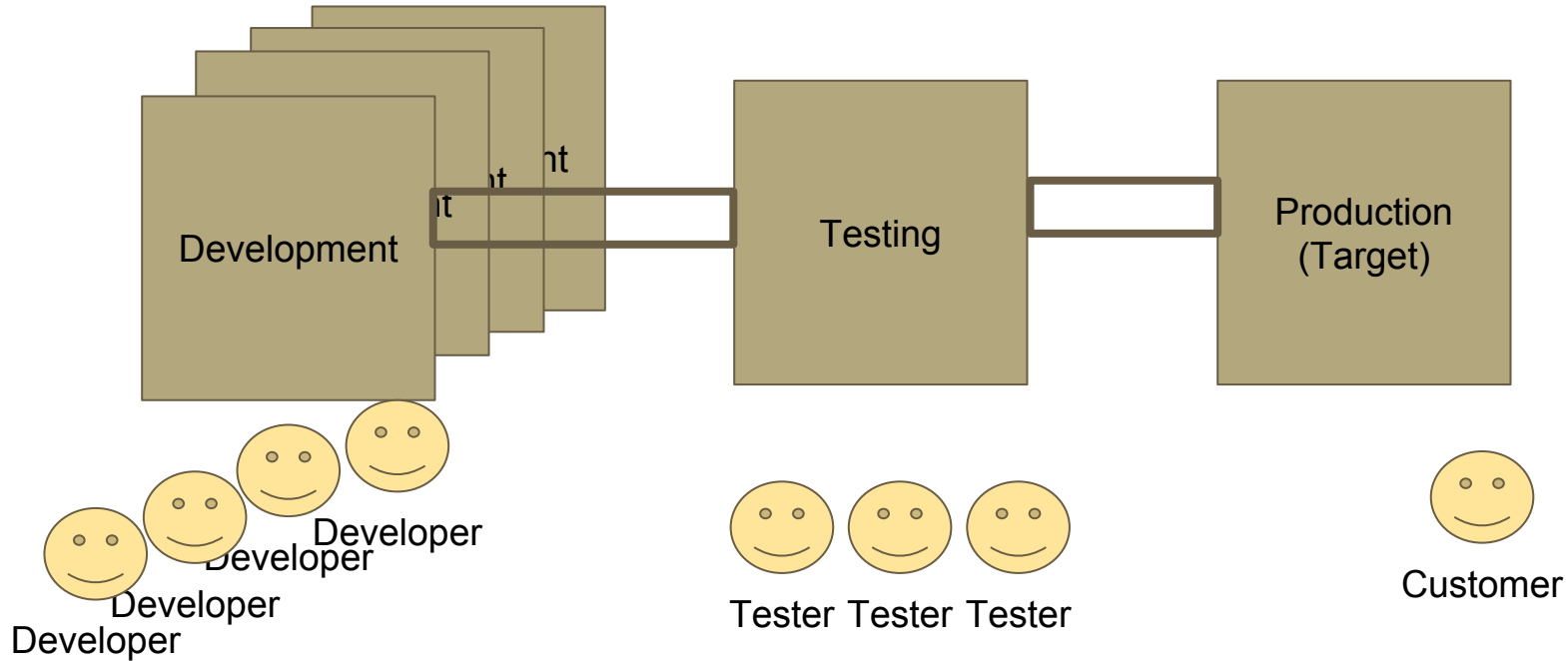

Closing Procedures

Test & Review
Delivery & Acceptance
Lessons Learned

Final Delivery

Two small horizontal bars, one on the left and one on the right, positioned below the main title.

Deploy on Target System



Final Deliverables

- Tangible or intangible object produced by the **project**
- *Recall that there are several throughout the project*
- Intended to be delivered to a customer
- Customer may be internal or external

Typical Software Project Deliverables

- SRS
 - Functional
 - Non-functional
- Designs / Models
 - UML
 - UI
 - UX
- Tests
 - Use case
 - Test results
 - Unit test coverage
- Working software (most critical)

Deliverable (cont 2)

- System Manual
 - deployment requirements & instructions
 - Used libraries & software
 - How to acquire - versions
 - All dependent artifacts must be legal!
- Address different platforms (Linux, Windows, OS X, ...)

Test Deliverables

- Test Plan
- Testing Strategy
- Test cases
- Test Scripts
- Test Data
- Test Traceability Matrix
- Test Results/reports
- Test summary report
- Defect Report
- Release notes

Test Traceability Matrix

Traces requirements to tests (all have ids)

Req ID	Requirement	System Tests	Unit Tests
1.1	User shall be able to signup with OpenID	ST-1.2, 3.2, ST-4.4	UT-1.1.1, UT-1.1.2
	...		
3.2	The user shall be able to see weekly activity	ST-3.2.1, ST-4.2.1, ST-3.4	UT-5.2,...
	...		

System Requirements

- O/S
- Hardware
- Software dependencies
 - libraries
 - programs

IntelliJ IDEA IDE

System requirements (Linux)

- GNOME or KDE desktop
- 2 GB RAM minimum, 4 GB RAM recommended
- 1.5 GB hard disk space + at least 1 GB for caches
- 1024x768 minimum screen resolution

<https://www.jetbrains.com/idea/download/#section=linux>

Install: One of the many Linux options for Wesnoth

Ubuntu

[Click here](#) to install the latest version of the `wesnoth` packaged for your release. Alternatively, search for "wesnoth" in the *Ubuntu Software Center* or use following command:

```
sudo apt-get install wesnoth
```

Available Versions

Different releases of Ubuntu provide different versions of Wesnoth in their repositories. Often, this version will be older than the most current Wesnoth.

Release	Packaged Version
15.10 (Wily)	1.12.4
15.04 (Vivid) / 14.04 LTS (Trusty)	1.10.7
12.04 LTS (Precise)	1.10.2

Repos with newer versions

Ex: Rascal Meta-programming Language

Rascal needs a JDK because it uses the Java compiler, so please download a JDK8, not just a JRE.

You may have to edit the Eclipse init file so that Eclipse can find your Java installation and Eclipse can allocate enough resources. If you are running MacOSX you have to start Eclipse once first, quit, and then edit the ini file.

For generating parsers, Rascal uses quite a bit of memory. Please use `-vmargs -Xmx1G -Xss32m`

Deliverables (cont.)- Release Notes

- Version
- What is new -- new features
- Fixed bugs
- Known Bugs
- Successful software has numerous releases.
- Helps retain users

Known Bugs

Document all known bugs found in testing

I.e. [curl Known Bugs](#)

1.2 Disabling HTTP Pipelining

Disabling HTTP Pipelining when there are ongoing transfers can lead to heap corruption and crash.

<https://curl.haxx.se/bug/view.cgi?id=1411>

Release Notes Example

Release notes for:

[The Battle for Wesnoth 1.8 Release notes](#)

[Google Firebase Release Notes](#)

Deliverables - User Manual

- Instructions about how to use the system
- Functionality
- Online Help
- With particular actions

User Manual Examples

(English)

- Languages
- Table of Content
- Functionality
- Screenshots
- FAQ
- Tips & Tricks
- Other resources



Open Office Extension

Navigation

- Main Page
- Recent changes
- Download AOO
- Documentation
- User Forum
- Extensions
- Templates
- Wiki Help

Print/export

- Create a book
- Download as PDF
- Printable version

Tools

- What links here
- Related changes
- Special pages
- Permanent link
- Page information

Python

(Redirected from [Extensions development python](#))



Contents [hide]

- 1 Python and OpenOffice
 - 1.1 Where is the IDE ?
 - 1.2 Tips & Tricks
 - 1.2.1 Debug output
- 2 Python specific information for Extension creation
- 3 Hacking Around
- 4 Python rules OpenOffice (by B. Bois)

Python and OpenOffice

Apache OpenOffice 4 ships with the Python scripting language, version 2.7. OpenOffice.org 3.1 and above: version 2.3.4. This Python distribution via OpenOffice comes with the [Uno](#) module, which connects the [UN](#) directly to the OpenOffice PATH. And as one would expect with any distribution of Python, AOO-Python can

If you already have a separate Python installation, you can import the uno module (the Python-UNO bridge)

If you already have a different version of Python installed on Windows, you can also access the [UNO API](#) u Python can talk to COM. Note that while the UNO API is uniform, the implementation by the two bridges is

Where is the IDE ?

OpenOffice's IDE doesn't support Python, so development has to be done from another editor that does. A Unix/Linux text editor configured in a way that acts like an IDE. Windows users can use [Gvim](#) and [MacVi](#)

Tips & Tricks

Here is some useful information about using python in AOO.

Debug output

know where to start, especially when you have a lot of data creating PivotTables, which are a great way to summarize

MS Excel Pivot Table

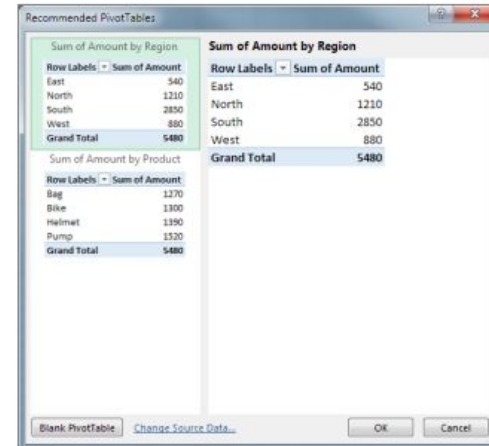
Notice:

- Step by step instruction
 - Clear navigation
 - Click **Insert** >
- ## Recommended PivotTables.
- Highlight important part

1. Make sure your data has column headings or table format.
2. Click any cell in the range of cells or table.
3. Click **Insert** > **Recommended PivotTables**.



4. In the **Recommended PivotTables** dialog box, click the one that shows the data the way you want.



5. Click **OK**.

FAQ (Wesnoth)

I'm bored; how do I speed the game up?

There are several preferences you can change to shorten the time that the AI takes to make its moves. "Accelerated Speed" will make units move and fight faster. "Skip AI Moves" will not show the AI's units moving from hex to hex. Finally, you can turn off all combat animations via the "Show Combat" option on the Advanced tab.

Ethics

— Own solutions
Licences

...

Professional Code of Conduct

- Informed considered solutions
- Best effort to meet needs of stakeholders
- Adhere to professional standards
- Documentation
- Relevant coding standards
- Best practices

Produced Material

- Produce your own solutions!
- All software and supporting material
- Adhere to Terms of Conditions of external software
- Check licenses external code you use
- Your rights in using and delivering
- Implication to customer - if any
- What is your license???

Rights to using other material



Copyright - full rights to the owner of the work



Copyleft - work can be copied, modified, shared with other users. Possibly even commercial.

Creative Commons - authors, artists, educators, ...



Many types of licences -FOSS

Need to carefully. You must inspect!!

FOSS (Free and Open Source Software)

Open Source Initiative

Free Software Foundation

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Apache License (Apache Software Foundation)

Common Public License (IBM)

GNU General Public License (Free Software Foundation)

CopyLeft

program (or other work) is free

All modified and extended versions of the program must be free!

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Danger: Someone may convert it to proprietary SW

Take PD SW, modify, release as copyrighted :(

Why Copyleft?

Anyone who redistributes the software (with or without changes) must pass along the freedom to further copy and change it.

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Incentive for programmers to add to free software
It is illegal to distribute the improved version except as free software

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Elements can be combined to build other licenses

- **by**, attribution - do what you want, as long you refer to original author
- **nc**, noncommercial - do what you want for **non** commercial purposes
- **nd**, no derivatives - do whatever you want, but can't derive works from it
- **sa**, share alike - the derived work must be distributed with the same license as the original



File:Naked mole rat.jpg. (2018, January 7).
Wikimedia Commons, the free media repository. Retrieved 23:35, May 6, 2018
from
https://commons.wikimedia.org/w/index.php?title=File:Naked_mole_rat.jpg&oldid=277479052.
(Note: license is cc-by-2.0)

Copyleft software?

Apache Spark - distributed big data processing

D3 - visualization

Git - version management

Mattermost -- team chat

R - statistical computing and graphics

Vagrant - launching & configuring virtual machine

Lessons Learned

Lessons Learned

- Lessons learned from this project
- Personal
- Team
- Technology
- Tools
- Customer
- Application area

How and When?

- End of project
- All relevant people should be there
- Supportive and open environment
- Brainstorming techniques can help

Lessons Learned Main Questions

- What went well
- What did not go so well
- What could have we avoided?
- How could we do things better next time?

Actual Questions

Questions specialized to particular team project

Should be **clear** and **concise**, ex:

What are the top three problems you encountered?

Not complex, i.e. avoid these type:

What are the most dramatic changes you believe will assure that the top three problems you had.

Engagement

- Try to balance conversation
- Set expectations
- People will not always agree
- Identify
- General themes
- Recurring patterns

Summarize

- Spend some time reflecting
- Pay attention to
- Recurring themes
- Areas of agreement
- Areas of disagreement
- Proposed actions for improvement

Outcome

- Makes sense if there is a buy-in
- Should be useful in moving forward
- Actionable items
- People feel included and valued

Review and Final Words

Let's go over what we learned this semester.

Much constraint balancing

Let's recall together...