#### The Distributed Proofreaders Project

A fascinating story entwining language, THE religion, art and literature. Hundreds of the planet's greatest proofreaders find CODE themselves working to unravel a series of new processes in an Reloaded effort to preserve the history of the world. Read Between the Lines Encounter the Mystery ... Twice, Please Preserve the History.

#### The Distributed Proofreaders Project

#### Juliet Sutherland www.pgdp.net



#### What We Do

- Convert public domain content from printed formats into digital text editions.
- Distribute the work across many volunteers at both the page and project level

DP Celebrates the Birthday of the Immortal Bard, William Shakespeare Not marble nor the gilded monuments Of princes shall outlive this powerful rime.

## **Distributed Proofreaders Is**

- Completely volunteer
  - Worldwide participation
- Independent of commercial, corporate or academic affiliation
- Cooperatively and ideologically allied with Project Gutenberg
- Unhindered by any editorial or censoring policy
- Unrestricted by the limits of a fixed location



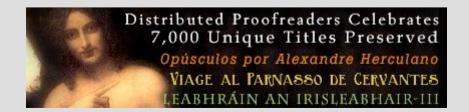
# Why?

- Accurate, versatile text editions are in great demand
  - Can copy and paste
  - Can be used by vision-impaired people
  - Down-sizes well for use on small viewers like PDAs
  - Allows for the potentially rich uses of structured text
- We preserve material for posterity and make it freely available in the present



# The DP Community

- Mostly from English speaking countries
- Graduate students to retirees
- 400-500 individuals login per 24 hours
- ~1000 individuals login per week
- Active forums and chat room
- As international as we can make it on a site that only uses English
- About 20% of our production is LOTE

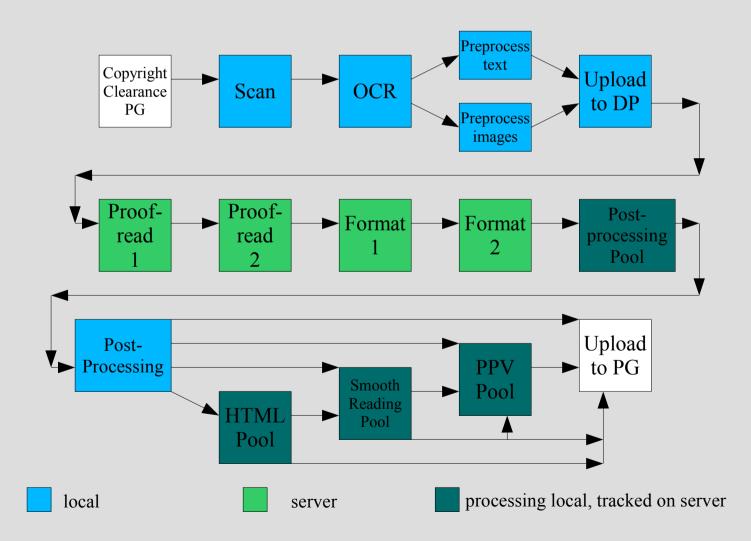


#### Numbers

- Unique titles produced: 7100+
- Projects in process: 3600+
- Pages proofed 2/24/03 to 5/31/05: 5 million
- Pages proofed since 6/3/05: ~6K/day
- Accounts ever: ~33,500
- Languages in progress: ~15
- Languages ever: ~40
- Forum posts/day: ~135



#### **Current DP Process**



#### Scans

- Mostly provided by volunteers using flatbed, inexpensive scanners
- Some are sourced from various image archives including: MBP, LoC, Gallica, Canadiana, Toronto collection, MoA, and many others
- Some from 2 high-speed, sheet-fed scanners
  - Books scanned this way are destroyed in the process

DP Honors Charles Darwin - February 12 from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.

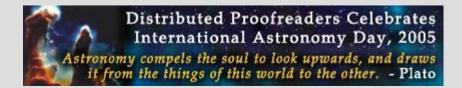
#### OCR

- Done locally, volunteers provide their own software
- Most use ABBYY Finereader Pro 5.0-7.0
- Some use other products
- OCR Pool for those without access to OCR software



## **Preprocessing Text**

- Fix the most common OCR problems
  - Spaced punctuation
  - 1-I-i, O-0 confusion
  - Common scannos: tbe, '11
- Extract some formatting information
- Volunteer developed guiprep is our primary tool
- Some volunteers use other ad hoc scripts and programs



## **Preprocessing Images**

- Downsize for proofing if necessary
  - B&W, 300 dpi, 1000 pixels wide
- We try to keep the scans to ~50K/page, and definitely under 100K
- This step is optional



DP Celebrates the Birthday of Queen Victoria With Works From the Age When we build, Which Bears Her Name let us think that we build for ever. - Ruskin

# **Proofing Rounds**

- Make the text, at the character level, match the scanned image
- Find and correct
  - Scannos
  - Stealth scannos: arid/and, he/be
- Spell check
- DP Custom Mono font

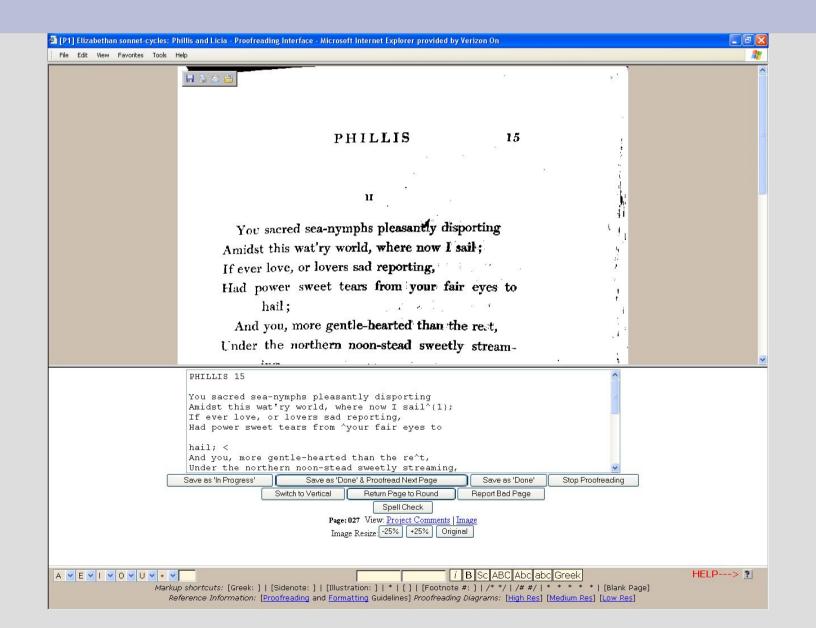


## **Formatting Rounds**

- Add markup as necessary
  - Chapters, sections, etc
  - Italics, bold, small caps
  - Poetry, block quotes, tables
  - LaTeX for math
- Home grown markup "tags"
  - Italics: <i></i>
  - Block quotes: /# #/
  - Footnotes: [Footnote 1: text.]



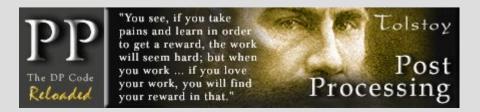
#### **Horizontal User Interface**



#### **Vertical User Interface**

## **Post-processing**

- Text files are concatenated and zipped
- Image files are zipped
- Project checked out by a volunteer
- Work done locally
- Final product either
  - To DP for further processing
  - Directly to PG



## **Post-Processing-cont.**

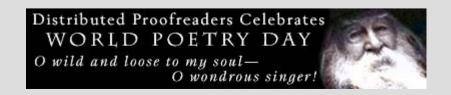
- Global spell check
- Global scanno/stealth scanno check
- Consistent formatting
- Remove page separators
- Generate HTML, other formats if required: UTF-8, pdf, etc.



Remember March, the Ides of March remember. Did not great Julius bleed for justice' sake? What villain touched his body, that did stab And not for justice? —Brutus DP Remembers and Preserves

## **Post-processing Tools**

- Can be done with text editor, spell checker, and image viewer/processor, gutcheck
- Specialized tools make the job quicker
  - Guiguts (perl)
  - Gut-axe, Gut-hammer, etc (Basic)
  - pg2html



## **Smooth Reading**

- Completed projects are made available in a pool for specified periods of time
- Volunteers read for pleasure, noting anything unusual or jarring
- Text or html version
- Anyone can download, DP account required to upload
- A final relaxed read through is effective at catching odd errors



## **Post-Processing Verification**

- Mentoring process for new post-processors
- Quality check
- Direct posting allowed to PG
- Role granted based on consensus of existing PPVers.



## **Server Software**

- Linux
- Apache
- php
- MySQL
- phpMyAdmin
- phpBB
- CVS
- Sourceforge



#### **Server Details**

- Production Server
  - Hosted at The Planet in Houston
  - Dual CPU
  - Mirrored 80G disk
- Test Server
  - Provided and hosted by The Internet Archive



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## Distributed Proofreaders Europe

- Hosted by Project Rastko in Belgrade, Serbia
- Started in January, 2004
- UTF-8 based: works with Cyrillic and non-Western alphabets
- More localized due to translation of site interface into many languages
- Public domain rules are life+50 years
- About 1/10<sup>th</sup> the size of PGDP
- www.dp.rastko.net



# **Project Gutenberg**

- PGDP's fiscal ally
- Provides copyright clearance services
- Provides archive and distribution of finished ebooks
- www.gutenberg.org



Distributed Proofreaders is Honored by the Selection of George Santayana's THE LIFE OF REASON as Project Gutenberg's 15,000th Title

#### **Other Archives**

- Gradually building relationships with other archives
  - Library of Congress
  - Posner Memorial Collection
  - The Internet Archive
  - Inquires from many others



# **Some Large Projects**

- Slave Narratives (30+ parts)
- History of the Philippines (22/50 vols so far)
- Copyright clearances
- Cornell Math Library
- Shakespeare in French
- Periodicals
  - Punch
  - Scientific American
  - As Farpas
  - De Aarde en haar volken

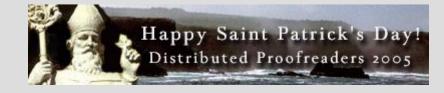


# Budget

- What budget?
- Dollars from PG: \$3-10K/year
  - Server, server hosting, high speed scanner setups and maintenance
- In kind donations: Internet Archive
- Volunteers: time, material, tools

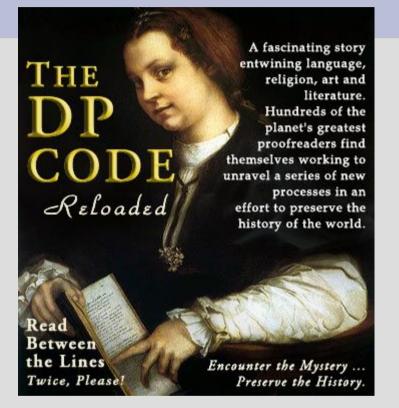
- Paid my own way here

 Could expand with a financial inflow but not hindered by a present hunger



#### **Coase's Penguins**

- Coase's Penguins, or Linux and the Nature of the Firm, by Yochai Benkler, 2002
  - Abstract at http://www.benkler.org/CoasesPenguin.html
- Commons based peer production
- Low barrier to entry, with room for growth
- Small & large chunks available
- Integration of chunks is key
- Issues with over-estimators



#### Banners by Thierry Alberto