What is ODF-Next?

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What I'll cover

- Where we've been
- Where we are today
- Trends and opportunities
- ODF-Next Proposals

A brief history lesson

Time

Disclaimer

- I'm going to cover a number of possible future directions for ODF, based on ODF TC member proposals, public comments and my own thinking.
- However, none of this is a committed plan of the OASIS ODF TC. We're still busy working on ODF 1.2 and still need to have detailed discussions of ODF-Next.

Let's start from the beginning...

Aramaic tax receipt from 355 BC

On the 16th of Tammuz, year 4 of King Artaxerxes, Halfat brought:

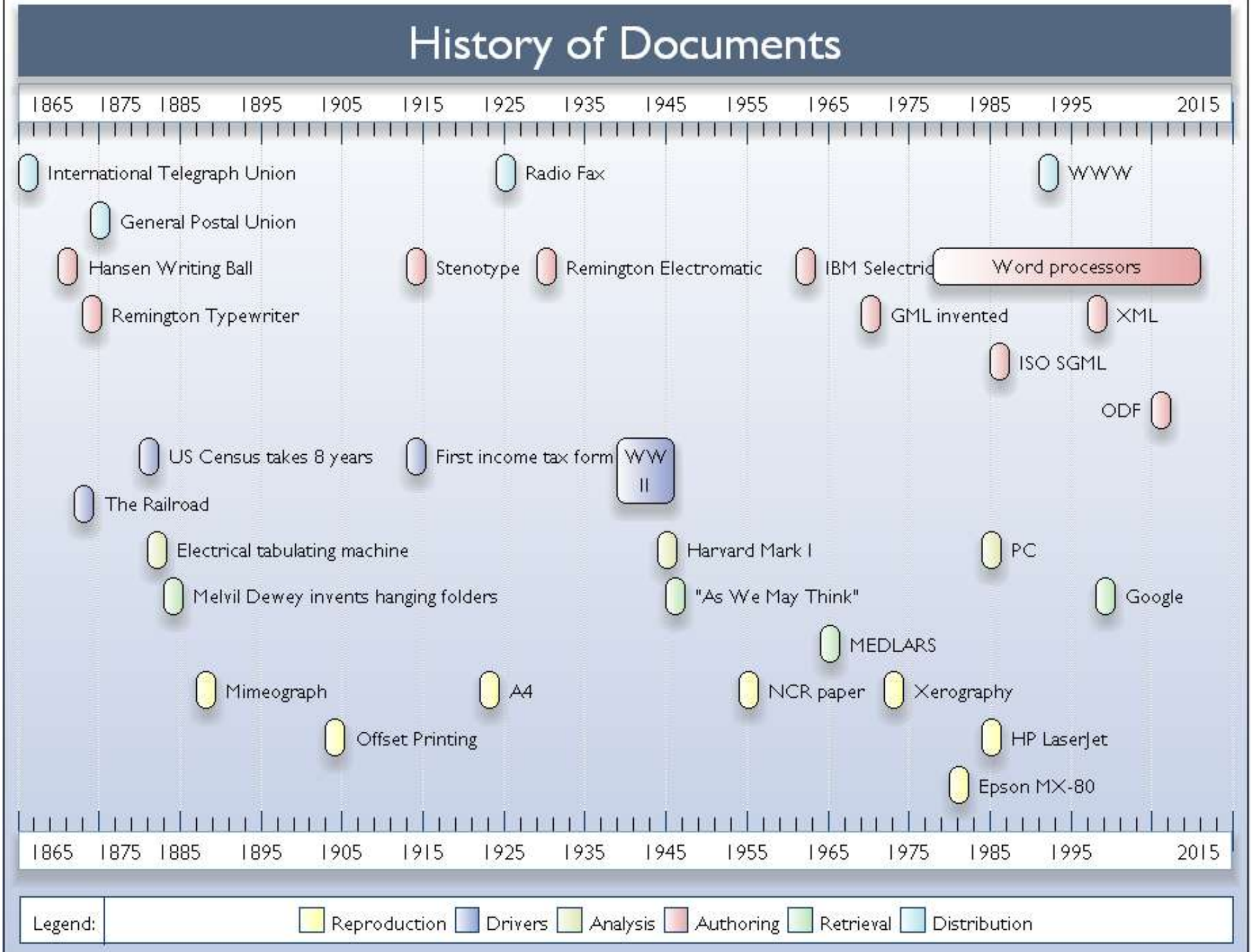
barley: 1 kor, 12 seah, 3 qab
wheat: 1 kor, 5 seah, 4 qab

All sales are final. No returns.

Historic document cost drivers:

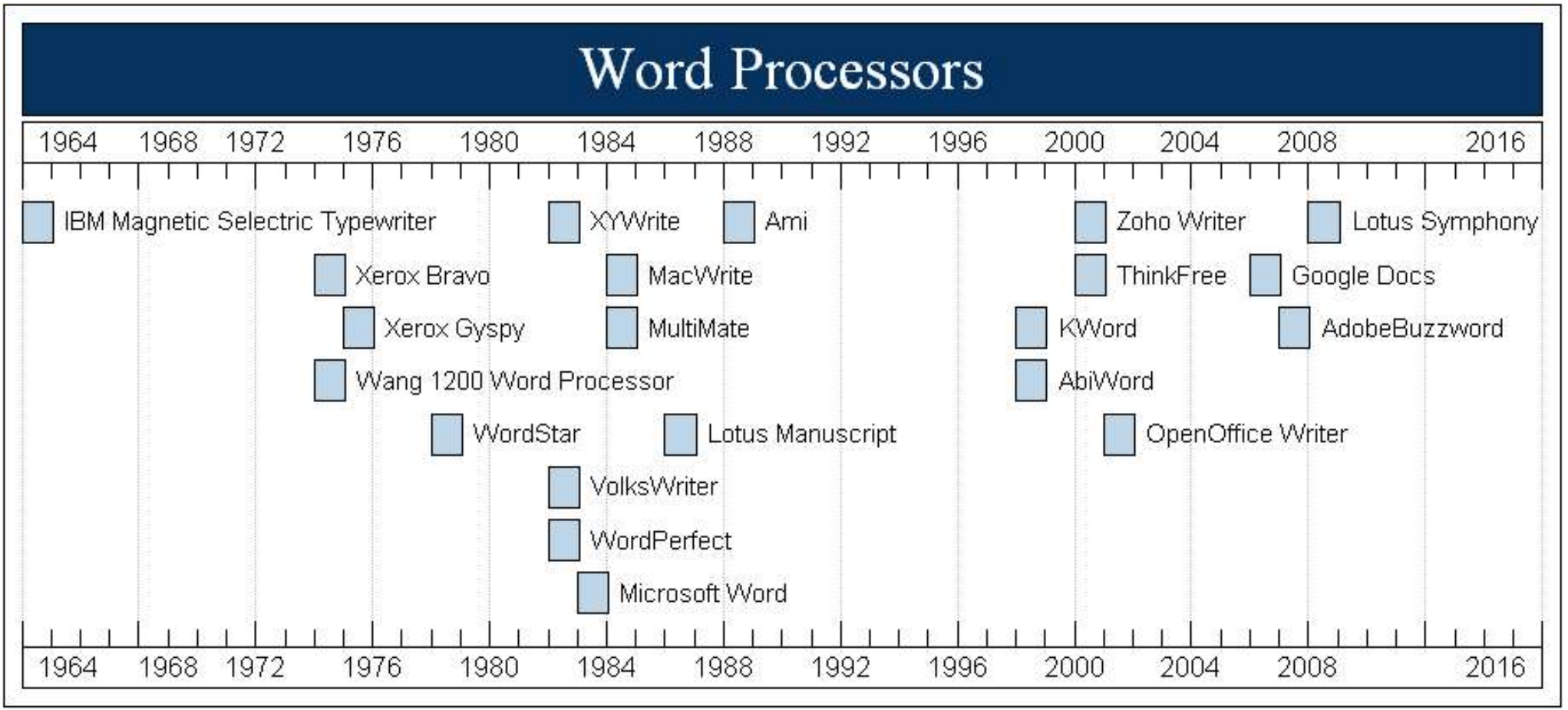
- **Production: how we author documents**
- **Distribution: how we get them from A to B**
- **Data entry: how others fill in the blanks**
- **Submission: how they return the data to us**
- **Reproduction: how we make copies**
- **Retrieval: how we find documents again**
- **Processing: how we sort and tabulate all that stuff**

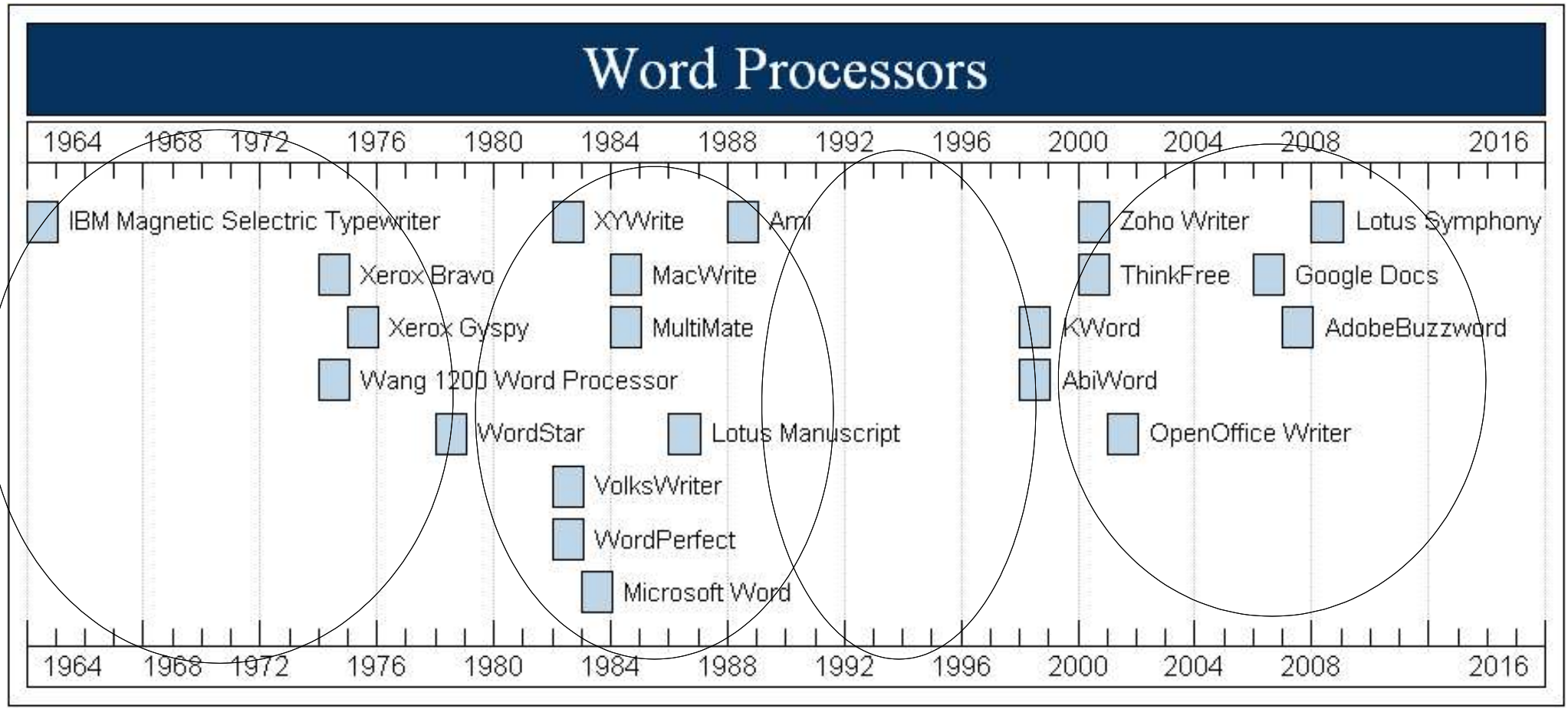
We can see how these have been addressed over time...


History of Documents
1865 1875 1885 1895 1905 1915 1925 1935 1945 1955 1965 1975 1985 1995 2015
International Telegraph Union
General Postal Union
Hansen Writing Ball
Remington Typewriter
Radio Fax
Stenotype
Remington Electromatic
IBM Selectric
Word processors
GML invented
XML
ISO SGML
ODF
WWW
US Census takes 8 years
First income tax form
WW II
The Railroad
Electrical tabulating machine
Melvil Dewey invents hanging folders
Harvard Mark I
"As We May Think"
MEDLARS
PC
Google
Mimeograph
A4
Offset Printing
NCR paper
Xerography
HP LaserJet
Epson MX-80
1865 1875 1885 1895 1905 1915 1925 1935 1945 1955 1965 1975 1985 1995 2015
Legend:
Reproduction
Drivers
Analysis
Authoring
Retrieval
Distribution

Where do we stand today?

- **Production** of ad-hoc documents is cheap and available everywhere, but the creation of structured documents requires higher level skills and is labor intensive. Not just a technical issue:
  - Requirements, perhaps internally developed, or statutory
  - Data model definition, perhaps to match corporate or industry schemas
  - Layout of form elements
  - Coding of application logic
  - Reviews: legal, department, accessibility, usability, test
  - Change management / archiving
- **Distribution** of documents is practically free with the Internet
- **Data entry** hasn't changed appreciably in 100 years. We type rather than write (sometimes).
- **Submission** is also nearly free on the internet, but often data is submitted on paper and then entered into computer
- **Reproduction** can be had for the price of storage
- **Retrieval** is much cheaper, no more endless corridors with shelves of paper
- **Processing**, where it can be automated is cheaper, but still many business processes are not automated or automated in unconnected applications


Word Processors
1964
1968
1972
1976
1980
1984
1988
1992
1996
2000
2004
2008
2016
IBM Magnetic Selectric Typewriter
XYWrite
Ami
Zoho Writer
Lotus Symphony
Xerox Bravo
MacWrite
ThinkFree
Google Docs
Xerox Gyspy
MultiMate
KWord
AdobeBuzzword
Wang 1200 Word Processor
AbiWord
WordStar
Lotus Manuscript
OpenOffice Writer
VolksWriter
WordPerfect
Microsoft Word



The Pioneers

The PC Revolution

The Microsoft Monopoly

Open Source Web Based

How are documents used today?

- Documents as the end product
  - White papers, sales presentations, most customer-facing publications.
- Documents as the medium by which we process ideas, model, analyze and collaborate.
  - A spreadsheet for a quick calculation or analysis, or a presentation to organize your thoughts, or a word processor to put you ideas in coherent form.
- Documents as applications
  - Enhanced with scripts, macros and add-ins/plug-ins to carry out a repetitive business task, such as expense reporting, job estimation or data entry.
- Documents as component of an integrated business task
  - Documents created or consumed by other processes

Trends

- The Semantic Web
- Web-based applications
- Migration of productivity to smart phones
- Cloud computing
- Right-sizing of productivity applications
  - Over-served users
  - Under-served users

Is it just convention?

- Why do we define the office suite as a word processor, spreadsheet and presentation?
- Who made this boxes? Are we happy being in boxes?
- Is this the only way? The best way?
- Or is it just purely conventional?

Or is WYSIWYG Dead?

"By the end of the 1990s, many documents would exist solely in computers and on the Internet, and that they would commonly be embedded with sounds, animations, and videos that would inhibit their transfer to paper format."

Age of Intelligent Machines (1989)
Ray Kurzweil

The Challenge

"How to evolve ODF in a way that makes it the preferred platform for innovation, while at the same time satisfying conventional functional needs in an interoperable way"

The Requirements SC

- Created in August 2008:
  - “[T]o gather requirements, to categorize these requirements by theme, to prioritize these requirements, and to submit a report to the ODF TC on a recommended set of work items for the next major version of ODF, which will have the working name of "ODF-Next"
- Call for Proposals issued February 2009
  - ~150 proposals received
- We will produce a report highlighting the recommended work items for ODF-Next.

Major Themes

- Accessibility
- Extensibility
- Versioning
- Change Tracking
- Interoperability
- Security
- Unified Computation
- Next Gen Spreadsheet
- New Paradigms
- SVG
- Non-functional specification improvements

Spreadsheet Unit Support

- Allow spreadsheet cells to have an associated dimension and unit
  - For example: 10 miles
- Automatically convert when used in formulas
  - 10 miles + 3 kilometers = 19.093 km
- Give an error when dimensions are mixed
  - 10 miles + 3 hours = ERR
  - But 10 miles / 3 hours = 3.33 miles/hour

Scalable Vector Graphics (SVG)

- Support SVG in all ODF documents and deprecate existing ODF drawing namespace.
  - Makes it easier to move documents between editors and the web easier, especially as SVG is part of HTML 5 and is widely supported.
  - Allows reuse of existing SVG clipart libraries
  - Leverages widespread skills and knowledge of SVG.

Interoperability

- Proposals from Microsoft to better represent MS Excel features in ODF.
- Proposal to compare ODF to HTML 5/CSS 2 and ensure that we are not missing any features they have.
- Standardize scripting in ODF, including bindings, object model, security model, etc.
- Support font embedding.

Miscellaneous Proposals

- Concentric gradient fills
- Draw layer in a chart (not just floating)
- Color space / color profile support
- Improved bibliographic citation support
- Performance enhancements
- Hidden draw objects

Internationalization

- Various proposals to better support Chinese document conventions
  - Diagonally split table headers
  - Allow borders around arbitrary text selections.
- Support “alternate glyphs” in fonts, for better support of minority languages.

Unified Computation

- Allow the analytic capabilities to be used anywhere, not only in spreadsheets.
- Calculations in tables in text documents
- Calculations involving fields
- Unify notation used for calculating formulas versus displaying formulas.

Next Steps

- Complete work on ODF 1.2
- Get consensus in TC on priorities for ODF-Next.
  - Small release, ODF 1.3?
  - Or Big release, ODF 2.0?
- Publish report on ODF-Next priorities
- Specification/Implementation

The End.

Thanks for your attention.