

# File Formats

## What's the problem?

(To which crowd-sourcing is the answer!)

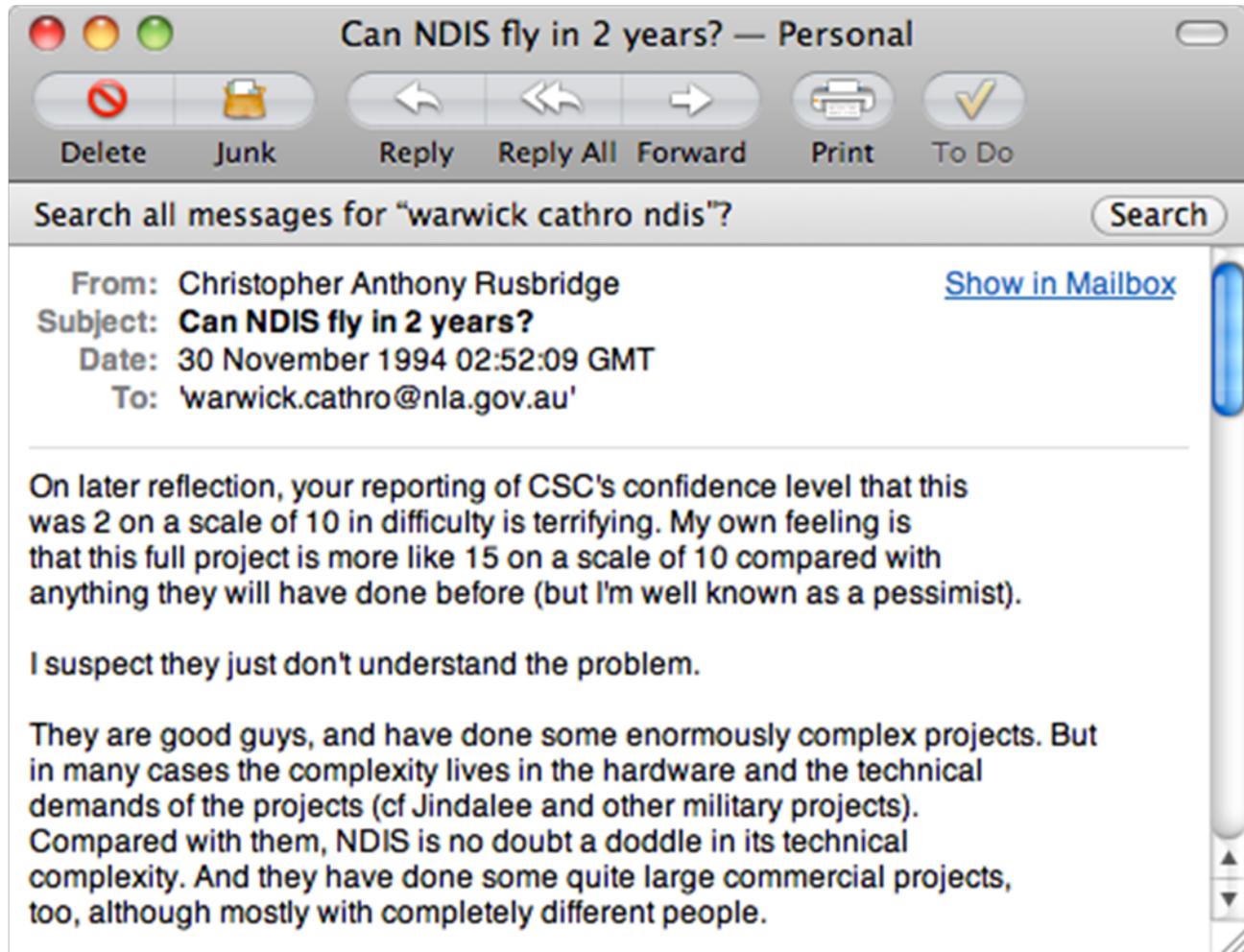
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- Jason Scott and “Just Solve the Problem!”
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- Open Letter to Microsoft
- Take-home message...



January 2013

*Chris Rusbridge*



ImpactStory: create collection

2011 August « ... x Let's Just Solve... x PRONOM | Sear... x ImpactStory: cr... x id ORCID x +

impactstory.org/create

Most Visited Latest Headlines Import to Mende... save on delicious tra TrainLine Bookmarks

# ImpactStory.

embed create follow about hi, c.rusbr

## create collection

### 1: Add articles

**ORCID failure: ID not found.**

Import from Google Scholar (help)

**Article IDs**  
Paste DOIs or PubMed IDs (limit 100)

### 2: Add other products

Import from GitHub

**Added 25 Slideshare decks.**

**Other product IDs**  
Paste DOIs or URLs (limit 100)

### 3: Make r

**Register (op**  
lets you save and fir

**Email**

**Password**

**Collection name**

- In short
  - Bit of a nerd
  - Bit OCD
  - Interested in the past
  - Interested in “contributing”
- I’m not alone!

# File format problem?

- What can I do if (when) this file doesn't open?
- (Big archives have other problems at scale that are not my topic here!)

# File format solutions?

- Lists of FFs with useful information
- FF specifications (and variants)
- Tools to identify FFs
- Tools to process **old** FFs in **current** environments
- Tools to migrate FFs to current environments
- Tools to emulate **old** environments so we can process **old** FFs

# Crowd-sourcing?

- “Experts” only have some of the expertise
  - And they’re short of time
  - And have other priorities
  - And they often want to charge you for stuff
- Many people have small amounts of particular expertise- in depth!
- Many people want to contribute
- (And of course a few want to destroy...
  - But they will anyway)
- Put all this together?

# Crowd-sourcing PRONOM

- “**The** online registry of technical information. PRONOM is a resource for anyone requiring impartial and definitive information about the file formats...”
- XLSX
  - Fmt/214
  - “outline record only”
  - “developed by- none”
  - “**If you are able to help by supplying any additional information concerning this entry, please return to the main PRONOM page and select ‘Add an Entry’.**”
- 2 August 2011 sent in suggestion
  - “get back to you in 10 days...”
- 25 January 2013 pretty much unchanged!

## Summary

**Name** Microsoft Excel for Windows

**Version** 2007 onwards

**Other names**

**Identifiers** PUID: fmt/214

**Family**

**Classification** Spreadsheet

**Disclosure**

**Description** This is an outline record only, and requires further details, research or authentication to provide information that will enable users to further understand the format and to assess digital preservation risks associated with it if appropriate. If you are able to help by supplying any additional information concerning this entry, please return to the main PRONOM page and select 'Add an Entry'.

**Orientation** Text

**Byte order**

**Related file formats** None.

**Technical Environment**

**Released**

**Supported until**

**Format Risk**

**Developed by** None.

**Supported by** None.

**Source**  [Digital Preservation Department / The National Archives](#)

**Source date** 28 Oct 2009

# Apologies to TNA...

- PRONOM is a Good Thing
- TNA has its own priorities (signatures)
- My beef is with the unfulfilled crowd-sourcing offer, rather than PRONOM!
- PRONOM could be (or could have been) a Truly Great Thing!

# “Just Solve the File Format Problem”

- Jason Scott July 2012 blog post
- November 2012 to be the first “Just Solve” month
- File Formats to be the first Just Solve problem

QuickTime™ and a  
decompressor  
are needed to see this picture.

‘Everyone knows this problem. It’s why old novelists cry they can’t pull their first novel out of Wordperfect. It’s why someone who used U-matic tapes to record the first meetings of a famous protest group goes “oh well”. It’s why, in all things, someone looks at anything older than five years, and goes “bye”, figuring there’s nothing they can do.

‘And I’ve had to listen to the mewings about this problem for at least 20 years now, in various forms. A lot. And then the person lights up about maybe solving this problem, and then dims and says “well, we can’t really solve the problem”. Because they know – it’d take an army of people to do it.

‘Let’s make that goddamned army.’ Jason Scott

I’d like to be in that goddamned army!

# Powerpoint 4.0 adventure

- Wanted more presentations on Slideshare
- Some would not open... older PPT 4 files
- Tried various approaches
- Blog and tweet feedback
- Iterating towards various solutions
  - First actual solution from Dave Clipsham!!! (not scaleable for me)
- Arrived at workable solution (for me): Zamzar
  - Initially promising, not quite there
  - Asked if they could do it... they said yes!!
  - Free for small quantities, subscription for premium service

# Obsolete MS file formats

- Annoyed!
- MS does have specs of obsolete office formats
  - Only back to Office 97
  - Surely they can do better?
  - ...and JUST Solve month coming up...
- Open Letter to Microsoft (Tony Hey) blogged
  - Over 100 commented in support
  - >600 peak views a day (normally ~10)
- Positive response from MS

# Response from MS

“Chris

I have a reply from Jim Thatcher in the Office team:

- 1) We do not currently have specifications for these older file formats.
- 2) It is likely that those employees who had significant knowledge of these formats are no longer with Microsoft.
- 3) We can look into creating new licensing options including virtual machine images of older operating systems and old Office software images licensed for the sole purpose of rendering and/or converting legacy files.
- 4) One approach we could consider is for Microsoft to participate in a “crowd source” project working with archivists to create a public spec of these old file formats.

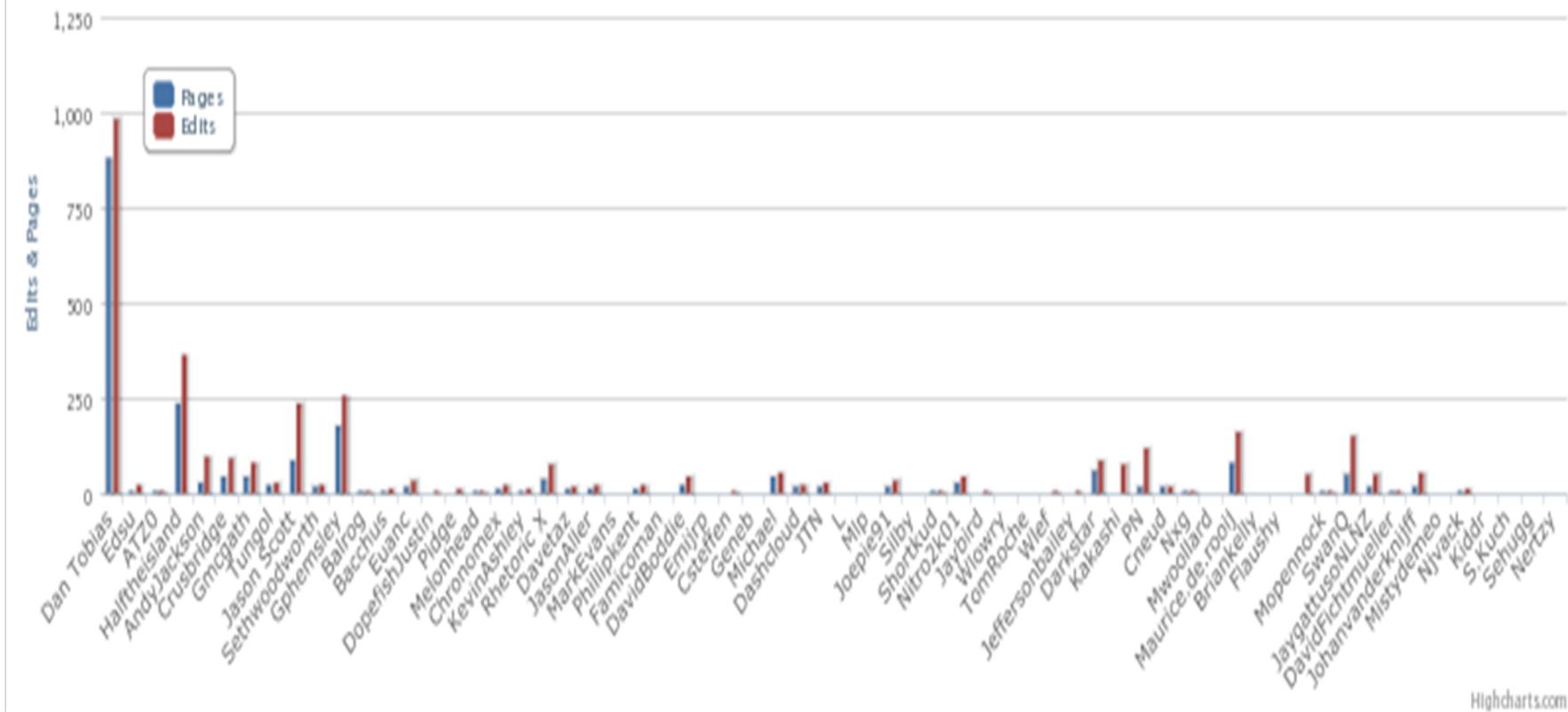
I think it would be sensible for you to talk directly with Jim – and Natasa in the UK – to see if there are some creative options that Microsoft could pursue with the archivist community.” Tony Hey

# Just Solve 3

- Approach: first of my options
  - List plus short description
- Built a wiki
  - Not wikipedia... interesting why
- Listed hundreds of FFs
- Many many FFs briefly described

## Just Solve Contributors

Source: [justsolve.archiveteam.org](http://justsolve.archiveteam.org)



Highcharts.com

# XLSX

Office Open XML Spreadsheet (.XLSX) is the default file format for documents used by Microsoft Excel as of Excel 2007. In prior versions, the default version was [XLS](#).

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- 2 Incompatibility with earlier versions
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- 4 References

## History

This (along with the other Office Open XML items [DOCX](#) and [PPTX](#)) was initially standardized as ECMA-376 in 2006. Three formats of this standard have been produced; the second version also corresponds to ISO/IEC 29500.

## Incompatibility with earlier versions

Attempting to open XLSX files with earlier versions of Excel (pre-2007) results in garbage instead of a proper spreadsheet. A [compatibility pack](#) supposedly adds the ability to load the newer format into the older versions, but this doesn't necessarily work well in all cases. This can be a problem when people insist on e-mailing you files in the newest proprietary Microsoft formats when, most of the time, whatever they're sending could have been done fine in an entirely nonproprietary keep-it-simple-stupid format such as [CSV](#) or [plain text](#). [Open Office](#) can open XLSX files, however.

## Format

Like the other "Open XML" formats, this file format actually consists of various files (mostly [XML](#)) compressed into a [ZIP](#) archive, with this fact obscured from the end user by the use of a different file extension.

## References

- [ECMA-376 specification](#)
- [ISO/IEC 29500 specification](#)
- [How to open new file formats in earlier versions of Microsoft Office](#)

### File Format

**Name** XLSX

- Electronic File Formats

### Ontology

- Document
  - XLSX

**Extension(s)** `.xlsx`

### Navigation

- Main page
- File formats
- Formats by extension
- Still more extensions
- Software
- Glossary
- Community portal
- Recent changes
- Random page

### Toolbox

- What links here
- Related changes
- Special pages
- Printable version
- Permanent link

# So what do I want?

- More people involved in crowd-sourcing file format information
  - Especially the Just Solve wiki
  - Stuff on wikipedia where we can
  - Adding to PRONOM would be Excellent
- Someone to take leadership of the Microsoft obsolete formats issue
  - Grant to add older formats to Open/Libre Office? People to crowd-source the MS formats issue
  - An organisation that can seek grants, deploy people part time in their own interests, etc
  - Reverse engineering, adding stuff to Open/Libre Office
- People to contribute file examples

# Resources

- My Pronom rant  
<http://unsustainableideas.wordpress.com/2011/08/05/so-what-was-that-twitter-rant-against-pronom-all-about/>
- Jason Scott's call <http://ascii.textfiles.com/archives/3645>
- Powerpoint 4 summary  
<http://unsustainableideas.wordpress.com/2012/10/15/ppt-4-adventure-learning/> and related posts
- Zamzar <http://www.zamzar.com/>
- Open Letter to MS  
<http://unsustainableideas.wordpress.com/2012/10/22/open-letter-ms-obsolete-formats/> and related posts

# Take home message

- YOU can make a difference to the world!

QuickTime™ and a  
decompressor  
are needed to see this picture.

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