ODF Advocacy Project

Document Management for Transparent Interoperability

Italo Vignoli



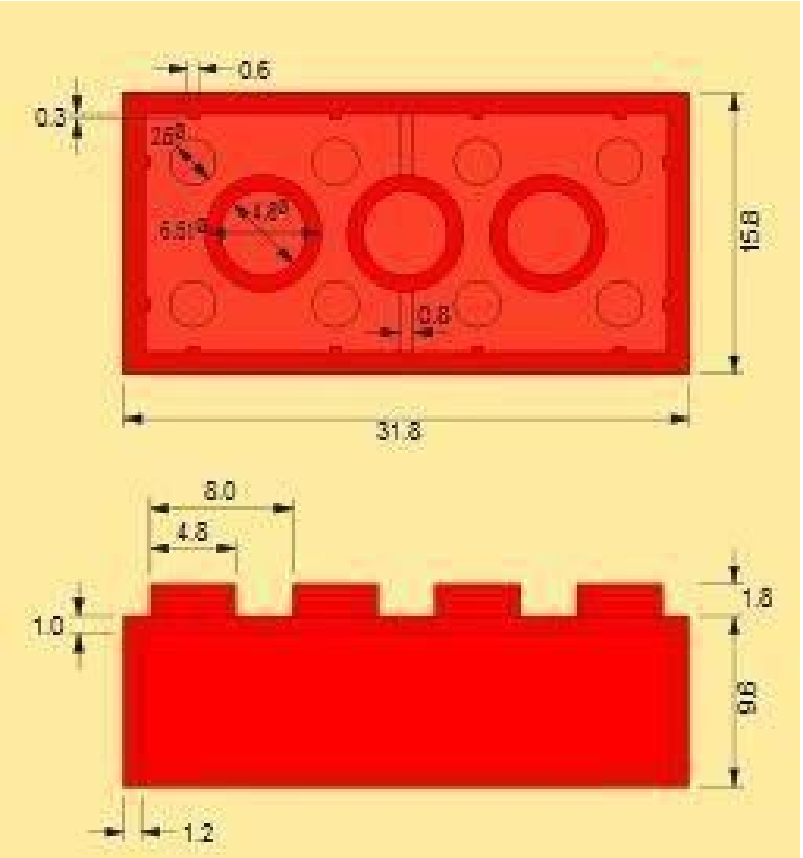
Interoperability without Standards



Definition of Interoperability

Interoperability is the ability of information and communication technology (ICT) systems, as well as of the business processes they support, to exchange data and enable the sharing of information and knowledge.

European Interoperability Framework, IDABC



Benefits of Interoperability

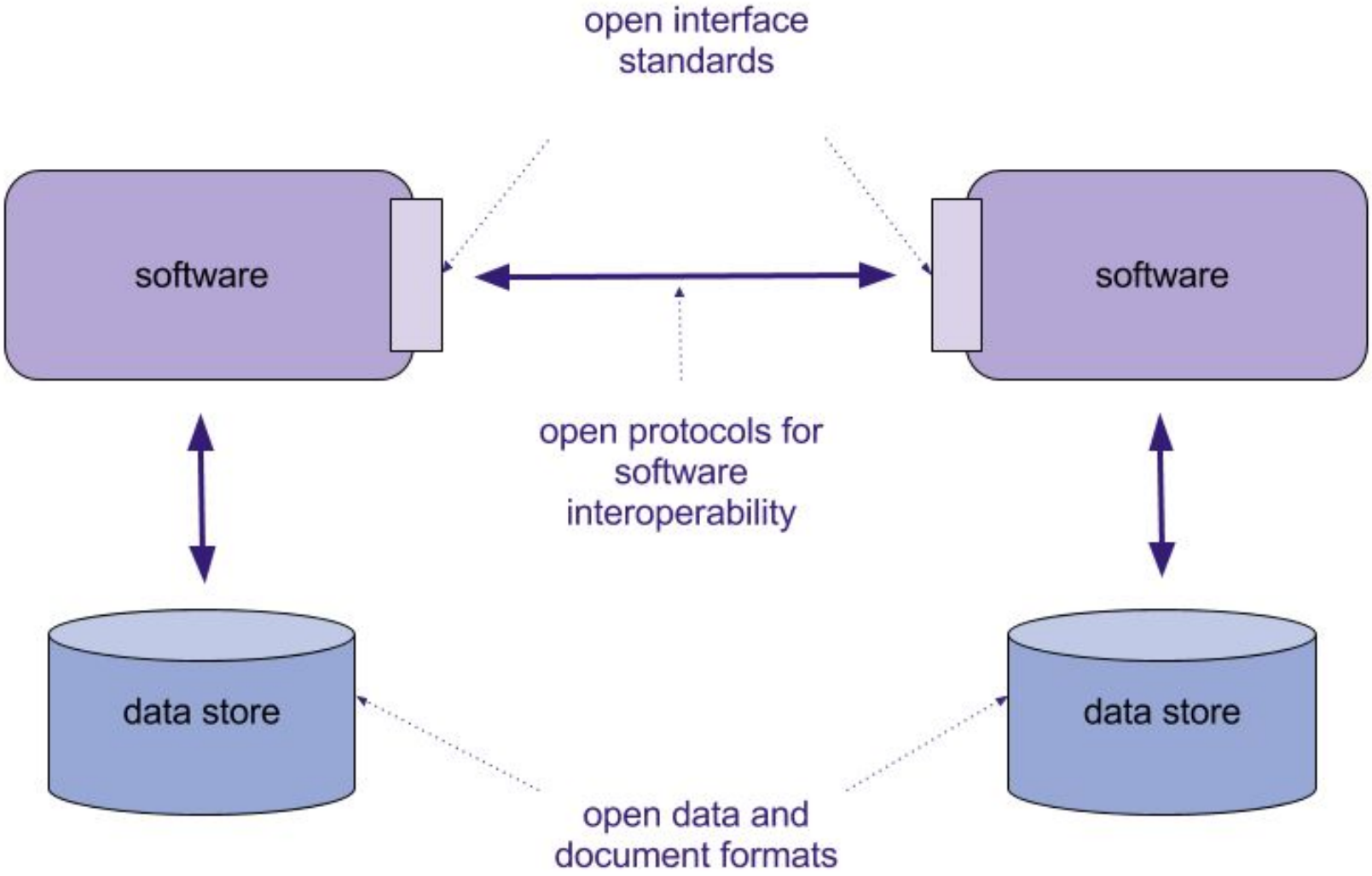
- Users have a much greater choice of products
- Manufacturers can benefit from the economies of scale of a wider market
- Interoperability is therefore a crucial factor for the success of modern technologies
- Market demand has ensured that interoperability holds a prominent position in standardization

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Standards for Interoperability

- A key reason for the development of ICT standards is to facilitate interoperability between products in a multi-vendor, multi-network and multi-application environment
- In addition, standards must be designed and tested to ensure that products and services complying with them do indeed achieve interoperability

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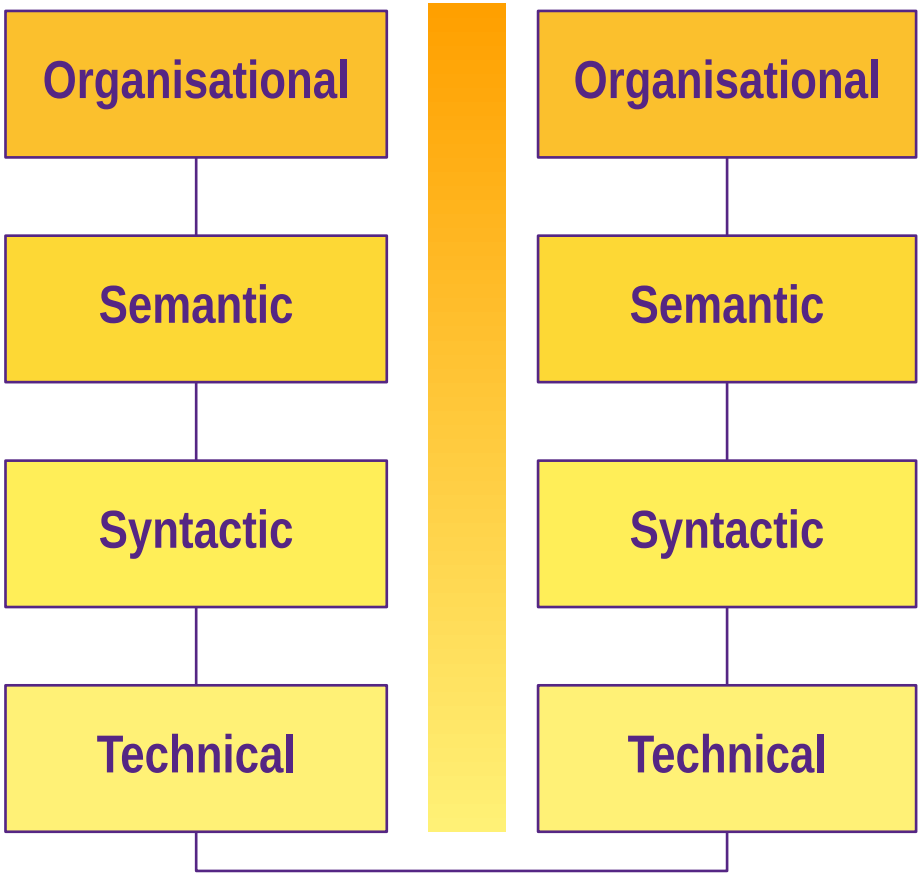

open interface
standards
software
software
open protocols for
software
interoperability
data store
data store
open data and
document formats

Role of Open Document Format

- Documents are one of the most important digital objects that move from: (1) user to organization, (2) organization to organization, and (3) organization to user
- To guarantee interoperability, production, update and reproduction of documents is extremely important
- Only by using a standard document format users and organizations can achieve interoperability
- Open Document Format is the only standard format providing all basic elements of interoperability

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Where Are We with Interoperability?



Business processes
Resistance to change

Semantic descriptions and ontologies
Technology scoundrels

Standard document and file formats
OK

Standard communication protocols
OK

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Standard Document Formats



What is a Standard?

- A document, established by consensus and approved by a neutral body, that provides rules, guidelines or descriptions for activities or their results, aimed at the achievement of the optimum degree of order in a given context, for common and repeated use
- Standards should be based on the consolidated results of science, technology and experience, and aimed at the promotion of optimum community benefits

ISO/IEC Guide 2:2004 "Standardization and Related Activities - General Vocabulary"

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The World Without Standards

- Products might not work as expected, and may be of inferior quality
- They may be incompatible with other equipment and they may not even connect with them
- In extreme cases, non-standardized products may be dangerous
- Customers would be restricted to one manufacturer or supplier
- Manufacturers would be obliged to invent their own solutions to even the simplest needs

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Importance of the HTML Standard

- It was the standardization of the HTML format that allowed the web to take off. And not just the fact that it's a standard, but the fact that it's open and royalty-free...
- Had HTML not been free and open, and a proprietary technology, the business of selling HTML and competing products would have been born...
- This means we need standards, because this avoids competition over technology, and fuels the value-added business built on the platform...

Tim Berners-Lee, CERN
world wide web inventor

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Document Standards

- Document standards are voluminous and intricate, because documents are complex and varied
- They are based on guidelines, supplemented by rules and options for special cases
- Guidelines are based on clearly articulated objectives and principles
- Document standards are the cornerstone of content interoperability



When the Decoder is Proprietary

- Your own ideas, encoded in a digital document, are at the mercy of the owner of the decoder
- You have lost your right to access and read your own documents in the future
- This possibility is dangerous for a digital society





Open Document Format

the true document standard which offers freedom of choice



Open Document Format

- **Independent** from a single product: anyone can write a software that handles an open format
- **Interoperable**: allows the transparent sharing of data between heterogeneous systems
- **Neutral**: it does not force the user to adopt – and often buy – a specific product, but leaves a wide choice based on features/quality vs price ratio
- **Perennial**: protects user developed contents from the “evolution” based obsolescence of technology

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Characteristics of an ODF File

- ZIP file (regardless of extension)
- Set of XML files describing the content of the file and the presentation (the platform displays what is described by the XML file)
- XML, a standard language, simplifies both the description and the access to the contents of the file
- Same set of XML files for all applications (text, spreadsheet, presentation, etc.)
- Binary files are used only for images and multimedia

Advanced Notes on Interoperability



Interoperability ?

- Although we live in a digital world, our mindset is still focused on the development of nice docs for printing
- We are not trained to the concept of interoperability
- We are not using standard formatting and fonts
- We are not taught to think in term of XML contents
- … but we complain if the doc is messed up

Using Default Fonts

Microsoft Aptos (Microsoft 365)

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Liberation Sans (LibreOffice)

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Using Replacement Fonts

Microsoft Aptos (Microsoft 365)

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Microsoft Aptos (LibreOffice)

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Open Source vs Microsoft Fonts

- Arial → Arimo
- Calibri → Carlito
- Cambria → Caladea
- Consolas → Inconsolata
- Courier New → Cousine
- Franklin Gothic → Libre Franklin
- Georgia → Neuton
- Gill Sans → Cabin
- Impact → Oswald
- Palatino → Crimson Text
- Perpetua → Lustria
- Times New Roman → Tinos
- Twentieth Century → Spartan
- Verdana → PT Sans

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Templates

- A template is a model document used to create other documents
- For example, a template for business reports can have a company logo on the first page
- Templates can contain any element of regular documents, such as text, graphics, a set of styles, and user-specific setup information such as measurement units, language, the default printer, and toolbar and menu customization
- All LibreOffice documents should be based on templates

Styles

- Set of formats that the user can apply to selected pages, text, frames, and other elements in the document to quickly change their appearance
- Styles are based on logical attributes, and shift the emphasis from what the element looks like to what the element is
- Styles help improve consistency in the document, and make major formatting changes easy
- Styles are used by LibreOffice for many processes, even if the user is not aware: for example, Writer relies on heading styles when it compiles a table



LibreOffice Styles (1)

- **Page styles** include margins, headers and footers, borders and backgrounds (in Calc, they also include the sequence for printing sheets)
- **Paragraph styles** define the layout of a paragraph, and include text alignment, tab stops, line spacing and borders
- **Character styles** affect selected text within a paragraph, such as the font and size of text, or bold and italic formats
- **Frame styles** are used to format graphic and text frames, including text wrap, borders, backgrounds, and columns

LibreOffice Styles (2)

- **List styles** allow you to select, format, and position numbers or bullets in lists
- **Cell styles** include fonts, alignment, borders, background, number formats (for example, currency, date, number), and cell protection
- **Graphics styles** in drawings and presentations include line, area, shadow, transparency, font, connectors, and other attributes
- **Presentation styles** include all attributes for font, indents, spacing, alignment, and tabs

Accessibility for Interoperability

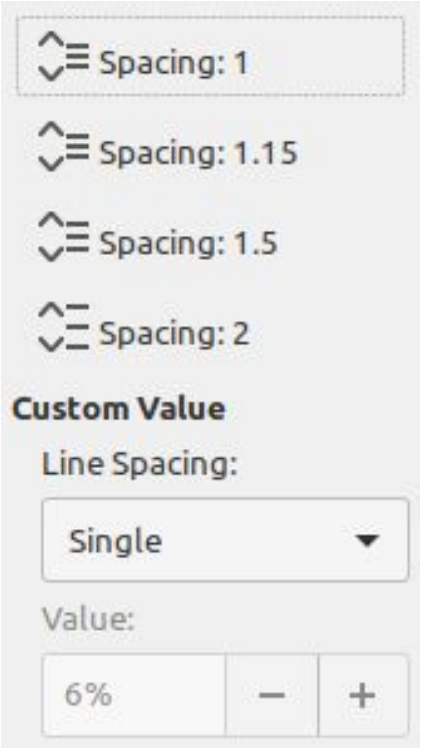
- Only one space between words
- Do not put a space BEFORE and AFTER punctuation marks
- Do not align list elements by using the space bar or the tab key
- Do not insert images without a caption or an alternate text
- Do not insert elements with flickering or intermittent effects, or moving text, or animated objects
- Do not write using only capital letters, and if possible use fonts optimized for readability (like Braille's Atkinson Hyperlegible)
- Do not write telephone and fax numbers in blocks

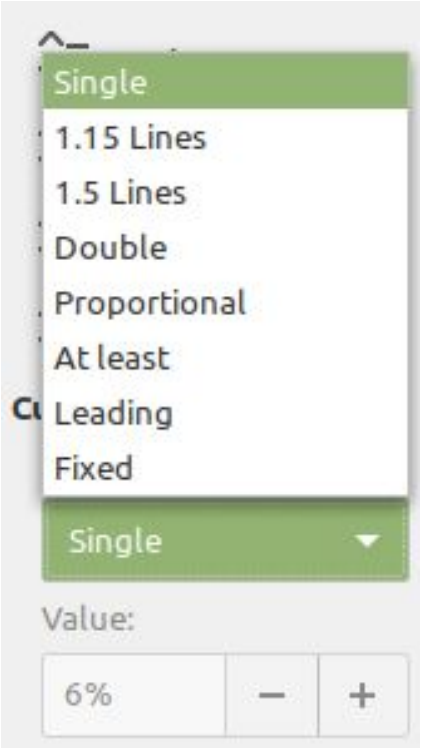
Most Common Spacing Errors

- Use Spacing features to set the distance between text lines and paragraphs (do not use the Enter key)
- Use Line Break (Shift + Enter) to start a new text line within the same paragraph/cell (do not use the Space bar or the Tab key)
- Use Character Spacing features to increase/decrease the space between characters (do not use the Space bar)

Line & Character Spacing

Line





Character



Most Common Indent & List Errors

- To indent the first line of text use the menu entry or the ruler (do not use the Space bar or the Tab key)
- Do not overuse/abuse the first line indent which may represent an issue for visually impaired people
- Use the Tab key to align text, when a table would be redundant
- For Lists, always use the Format > Bullet & Numbering menu (do not use the Tab key or the Space bar, or creative solutions)
- Do not overuse/abuse the Bullet & Numbering feature

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Example of Creative List Management (1)

OK

- This is the first line
- This is the second line
- This is the third line

NOT OK

- This is the first line
- This is the second line
- This is the third line
- This is the fourth line
- This is the fifth line

Example of Creative List Management (2)

OK

- This is the first line
- This is the second line
- This is the third line

NOT OK

- This is the first line
- This is the second line
- This is the third line
- This is the fourth line
- This is the fifth line

OK¶

- This·is·the·first·line¶
- This·is·the·second·line¶
- This·is·the·third·line¶

NOT·OK¶

- →This·is·the·first·line¶
- ···This·is·the·second·line¶
- →This·is·the·third·line¶
- This·is·the·fourth·line¶
- This·is·the·fifth·line¶

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Example of Creative List Management (3)

OK

- This is the first line
- This is the second line
- This is the third line

NOT OK

- This is the first line
- This is the second line
- This is the third line
- This is the fourth line
- This is the fifth line

OK¶

- This·is·the·first·line¶
- This·is·the·second·line¶
- This·is·the·third·line¶

NOT·OK¶

- →This·is·the·first·line¶
- ···This·is·the·second·line¶
- →This·is·the·third·line¶
- This·is·the·fourth·line¶
- This·is·the·fifth·line¶

OK¶

- This·is·the·first·line¶
- This·is·the·second·line¶
- This·is·the·third·line¶

NOT·OK¶

- →This·is·the·first·line¶
- ···This·is·the·second·line¶
- →This·is·the·third·line¶
- iiiiThis·is·the·fourth·line¶
- mThis·is·the·fifth·line¶

Most Common Paragraph & Character Errors

- Do not use different Paragraph styles in the same document (apart, of course, for document elements such as Titles and Subtitles)
- Do not use more than two Font per document, one for Titles and Subtitles, and one for the Text
- Do not overuse/abuse CAPITALS and SMALL CAPITALS (which are available only with some Fonts)
- Avoid formatting excess by combining **bold**, *italic*, underline

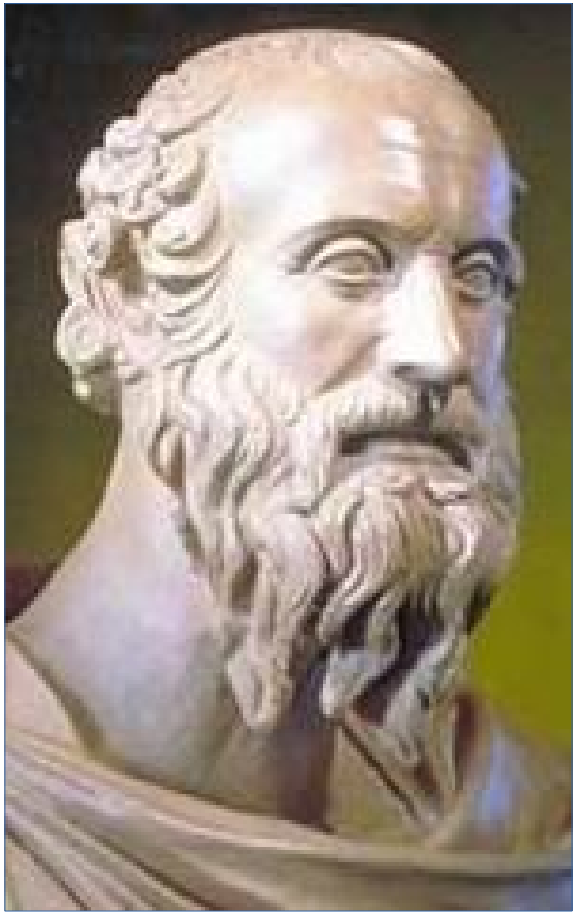
Most Common Alignment Errors

- Left aligned text is more readable than non-hyphenated justified text
- To center the text with respect to a prefixed distance, use the appropriate tabulator
- Do not use Tables to align Text (Tables help text comprehension if they are simple in structure and do not contain empty cells, i.e. if they are easy to understand when read by a screen reader)



Man is an animal with two legs and no feathers

Plato



Diogenes the Cynic



Plato's Man

Questions?

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