

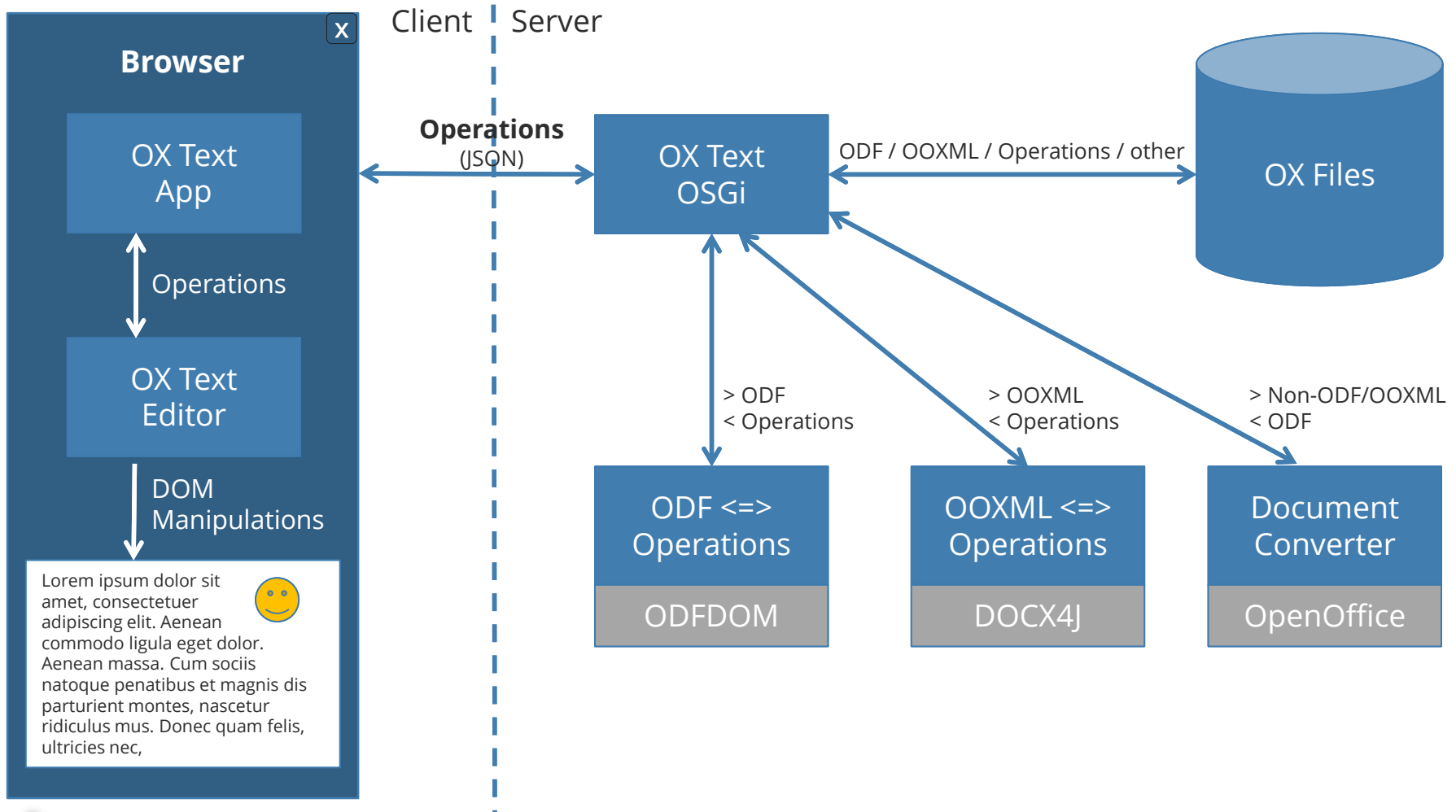
OX Documents Explained

From a technical point of view

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FOSDEM 2014

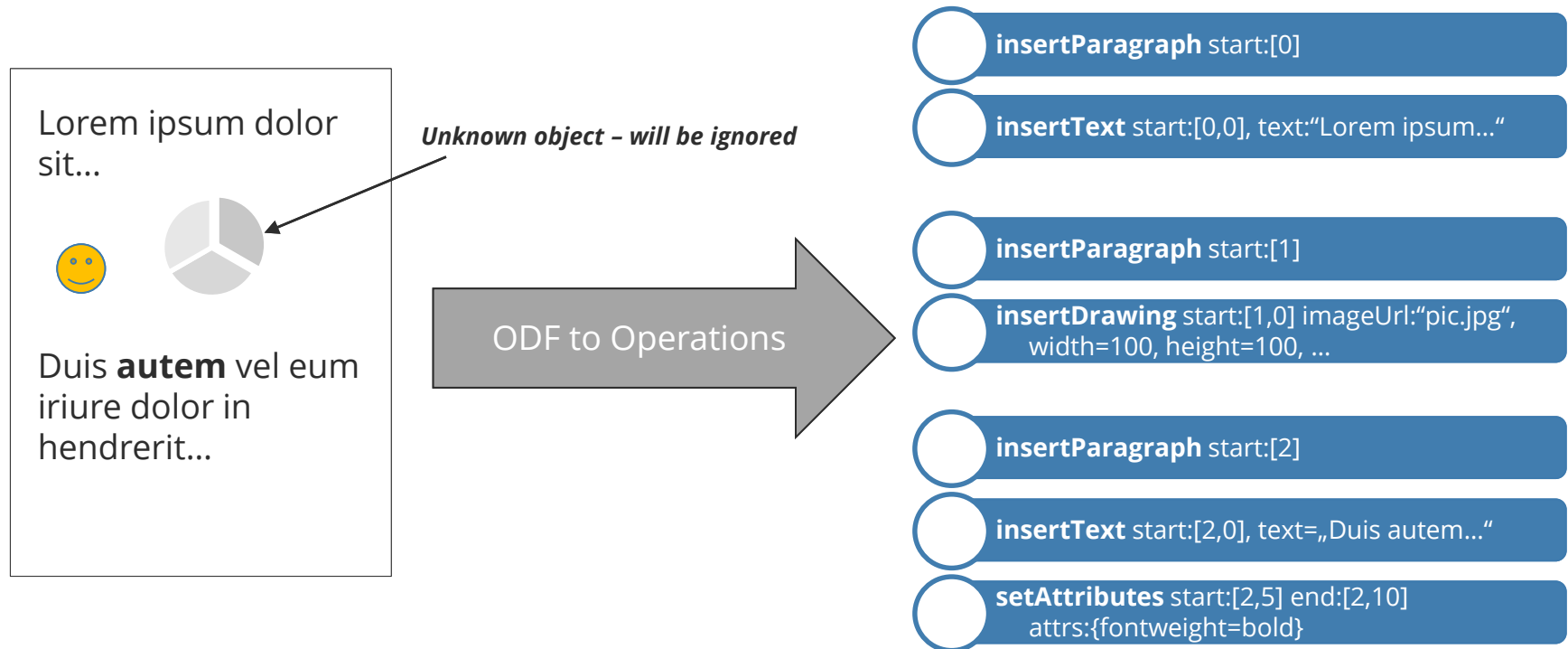
Architecture Overview



Operations Processing

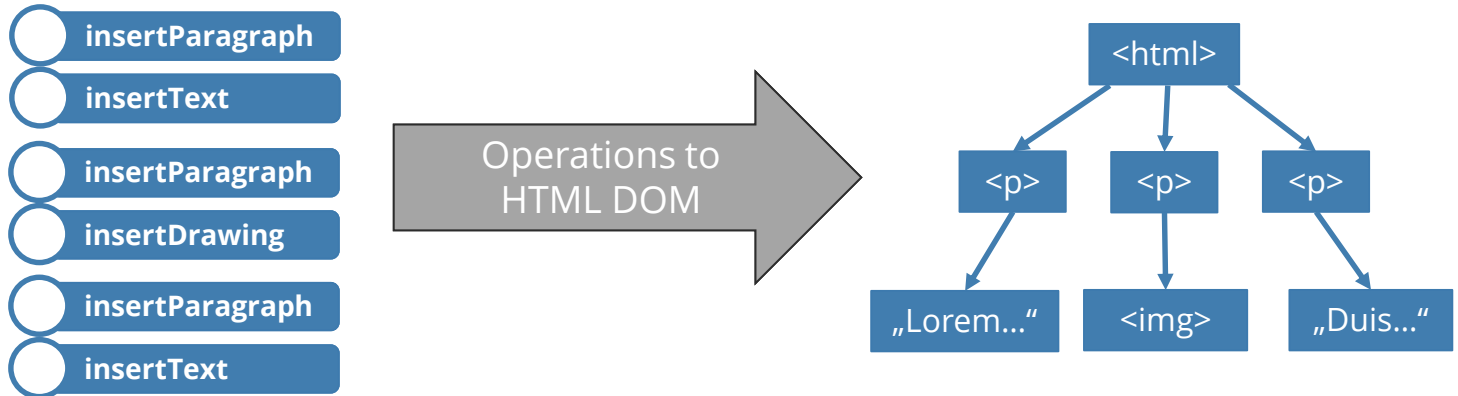
Step 1 – Decomposing the document (on server)

Operations describe how to manipulate the document – including how to build it up from scratch

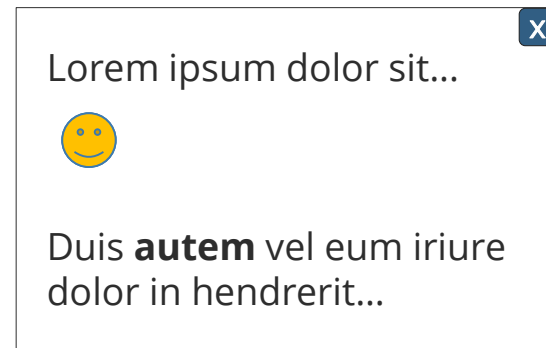


Operations Processing

Step 2 – Apply operations to editor (on client)

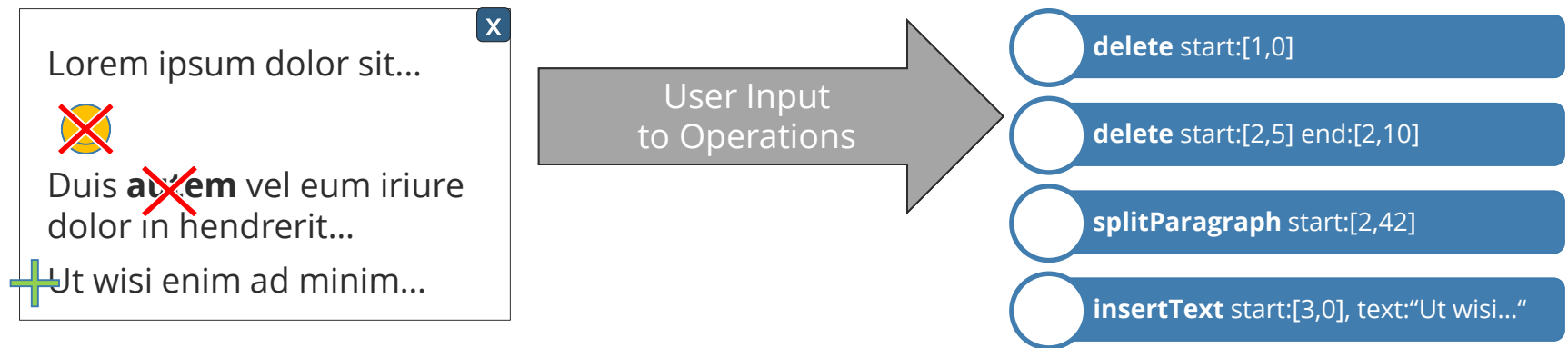


The browser will do the layout and the rendering



Operations Processing

Step 3 – Edit document in browser (on client)

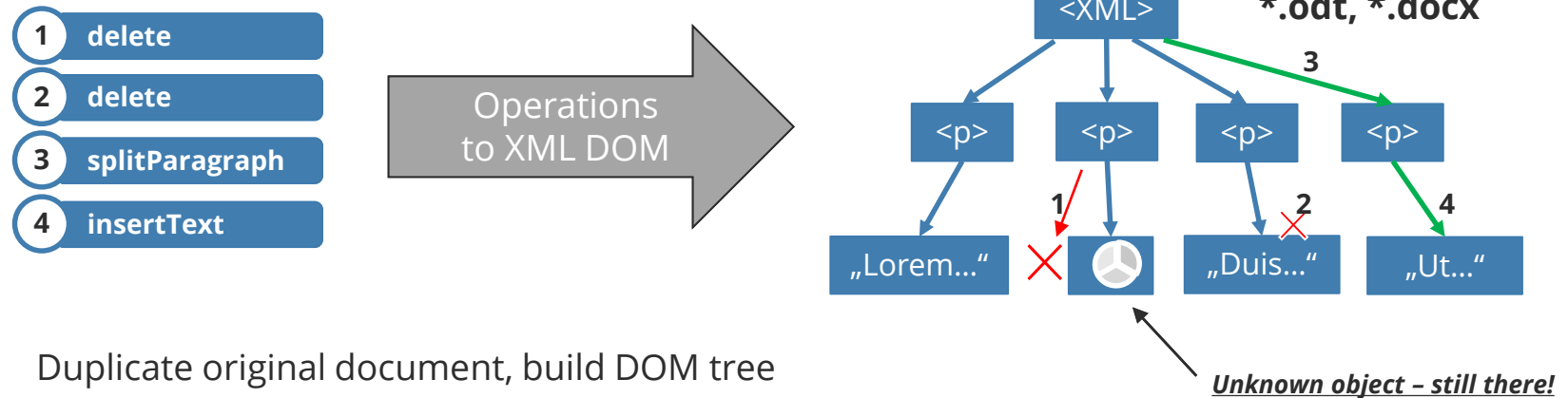


- Intercept all events – do not let the browser do any DOM manipulations
- Create operations for desired document manipulations
 - For mouse/keyboard input as well as for actions triggered in the user interface
- Apply these operations to HTML DOM (see step 2 on last slide)
 - The browser will display the updated document
- Send operations to the server - for persistence and for further distribution

Operations Processing

Step 4 – Apply operations to document (on server)

- This step is optional (for supporting legacy applications)
 - It would also be possible to just make the operations list persistent



- Duplicate original document, build DOM tree
- Use only the newly created operations to update the DOM tree
- **Do not touch any DOM nodes that you don't understand or don't care about, so the round-trip is nearly perfect!**

References

ODF Operation Standardization

- OASIS ODF Advanced Document Collaboration SC
https://www.oasis-open.org/committees/tc_home.php?wg_abbrev=office-collab
- Latest Draft of new ODF Change-Tracking
https://www.oasis-open.org/committees/document.php?document_id=51764&wg_abbrev=office-collab

OX References

- Original Presentation
<http://www.slideshare.net/Malte.Timmermann/ox-documents-explained>
- OX Office Sources
<http://git.open-xchange.com/>
- OX Office Installation Guide
http://oxpedia.org/wiki/index.php?title=AppSuite:Text_Installation_Guide
http://oxpedia.org/wiki/index.php?title=AppSuite:Main_Page_AppSuite#quickinstall

OX Documents Explained

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