

XLStruct: A tool for Building Structured Error-Resistant Spreadsheets

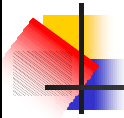


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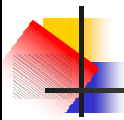
Introduction

- Spreadsheets are extremely useful but also very susceptible to error
- This is because of the way that they are built
- XLStruct provides an alternative method of building spreadsheets leading to structured and error resistant spreadsheets



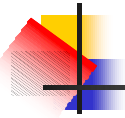
Replacing Excel Functions

- Relative references, SUM() and 'Copy and Paste'
 - Most widely used functions which also account for many errors
- XLStruct replaces these with:
 - Localised references
 - SumNamed() function
 - Clone operation



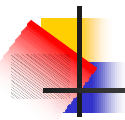
Localised referencing

- XLStruct uses a hierarchical structure of regions and containers for all cells in the spreadsheet
 - Region: A rectangular block of cells or even a single cell.
 - A container is a region of more than one cell.
- Regions may have the same name
 - XLStruct does not uniquely identify the region from the name.
 - It rather identifies the type of data.



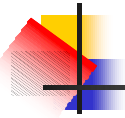
Localised references

- Formula can reference other cells by it's XLStruct name.
 - Some cells may have the same name
 - XLStruct selects the cell with the same locality as the cell containing the formula
 - Searches local containers and regions until a match is found. (Modellers should avoid building spreadsheets with non unique references)



SumNamed() function

- Use two arguments
 - Pattern for matching names
 - Container name
- For example
 - SumNamed("BBB","AAA")
 - Sums all cells called BBB in container named AAA.



Clone operation

- Regions may be cloned
 - The original is called the **Progenitor**
 - The cells of the progenitor may be assigned as propagateable or non-propagateable
- Non propagateable cells have freedom from the progenitor
- Propagateable cells are synchronised with the progenitor.



Thank you

- www.xlstruct.com/xlstruct.htm provides a working demonstration.

- Questions should be directed to Garyarakaki@yahoo.com