## [Tables](Tables.docx)

A [table](table.docx) helps organize and provide structure to lists of information in a worksheet. [Tables](Tables.docx) have clearly labeled columns, rows, and data regions. [Tables](Tables.docx) make it easier for [users](users.docx) to sort, analyze, [format](format.docx), manage, add, and delete information.

If a region of data is designated as a Table, then special behaviors can be applied which help the user perform useful actions. For example, if the user types additional data in the [row](row.docx) adjacent to the bottom of the [table](table.docx), the [table](table.docx) can expand and automatically add that data to the data region of the table. Similarly, adding a column is as easy as typing a new column heading to the right or left of the current column headings. Filter and sort abilities can automatically be surfaced to the user via the drop down arrows. Special calculated columns can be created which summarize or calculate data in the table. These columns have the ability to expand and shrink according to size of the [table](table.docx), and maintain proper [formula](formula.docx) referencing.

[Tables](Tables.docx) can be created from data already present in the [worksheet](worksheet.docx), from an external data [query](query.docx), or from mapping a collection of repeating XML elements to a [worksheet](worksheet.docx) range.

The [sheet](sheet.docx) XML stores the numeric and textual data. The [table](table.docx) XML records the various attributes for the particular [table](table.docx) object.

[Example:

<[table](table.docx) xmlns=http://schemas.openxmlformats.org/spreadsheetml/2006/5/[main](main.docx)
 id="1" name="MarginTable" displayName="MarginTable" ref="D3:G6"
 totalsRowShown="0">

 <[autoFilter](autoFilter.docx) ref="D3:G6"/>
 <[tableColumns](tableColumns.docx) count="4">
 <[tableColumn](tableColumn.docx) id="1" name="Product"/>
 <[tableColumn](tableColumn.docx) id="2" name="Wholesale"/>
 <[tableColumn](tableColumn.docx) id="3" name="Retail"/>
 <[tableColumn](tableColumn.docx) id="4" name="Margin" dataDxfId="0">
 <[calculatedColumnFormula](calculatedColumnFormula.docx) [d](d.docx)="1">[Retail]-
 [Wholesale]</[calculatedColumnFormula](calculatedColumnFormula.docx)>
 </[tableColumn](tableColumn.docx)>
 </[tableColumns](tableColumns.docx)>

 <[tableStyleInfo](tableStyleInfo.docx) name="TableStyleMedium9" showFirstColumn="0"
 showLastColumn="0" showRowStripes="1" showColumnStripes="0"/>
</[table](table.docx)>

end example]

The above xml example shows a [table](table.docx) that spans cells D3 through G6, and has four columns: Product, Wholesale, Retail, and Margin. Margin is a column where each [cell](cell.docx) has its values calculated based on the [formula](formula.docx) (Retail - Wholesale), where those values are taken from the cells in the [table](table.docx) columns on the corresponding row. The [table](table.docx) has a style applied, "TableStyleMedium9", but the styles formatting isn't applied to the first column and the column striping isn't shown. Note that all the data and text values are stored in the [sheet](sheet.docx) xml; the [table](table.docx) xml just stores the properties that are specific to this [table](table.docx), and it is referenced by the sheet.