Getting started with text

txt.Split	Splits text: "A,B" => "A" and "B" (in separate cells)
txt.Join	Joins text: "A", "B" and "C" => "A,B,C"
txt.Reverse	Reverses a text input: "ABC" => "CBA"
txt.Format	Applies a pattern: txt.Format("Hi {0}", "Fred") => "Hi Fred"
regex.IsMatch	Tests text against a regex (returns TRUE or FALSE)

Getting started with tables

tbl.Create	Creates a table from data and (optionally) headers
tbl.SelectColumns	Selects only certain columns from a table
tbl.Sort	Sorts a table based on or more columns
tbl.Filter	Filters a table (on a row-by-row basis) based on a filter function
tbl.CalculateColumn	Extends the table, adding a new column (calculated row by row)
tbl.Group	Aggregates a table (similar to a SQL 'group by')
tbl.GetValue	Extract exactly one value from a table
tbl.GetValues	Get all values from a table (or those in a specific column) - can be used to return Schematiq data to Excel

Getting started with databases

db.Connect	Connect to a database
tbl.Connect	Connect to a table in the database
tbl.Group (etc)	Behaviour equivalent to in-memory tables
tbl.Download	Download a full table or query result into memory
db.Query	Execute custom SQL
db.Insert	Insert rows of a Schematiq table into a database table
db.ConnectCustom	Connect using a custom connection string

Getting started with databases (cont)

azTbl.ConnectCustom (etc)	Connect to Azure Table Storage

Supported data providers

mssql, 'sql server', etc	MS SQL Server
access, msaccess, accdb, mdb	MS Access
hana	SAP HANA
mysql	MySQL
oracle	Oracle
postgresql, postgres	PostgreSQL
snowflake	Snowflake
sqlite	SQLite
vertica	HP Vertica
az.~ and azTbl.~	Azure Table Storage

Azure Table Storage is a NoSQL service and is supported through a dedicated group of add-in functions. All other providers use SQL-based connectivity.

Advanced table functions

tbl.Pivot	Pivot a table (similar to an Excel pivot table)
tbl.Unpivot	Unpivot a table (broadly, the reverse of tbl.Pivot)
tbl.Pack	Group a table, creating a column of sub-tables
tbl.Unpack	Unpack a packed table (reverse of tbl.Pack)
tbl.Union	Combine two tables with the same columns
tbl.Join	Perform a SQL-like join (several variants possible)
tbl.Lookup	Search for value(s) and extract a value from that row
tbl.SelectRows	Select certain rows (numerically) from a table
tbl.UpdateColumns	Update many columns using a specified function

Trees and ranges

tree.Create	Create a tree from a suitable Excel range
tree.NodeCount	Returns the number of nodes in a tree
tree.Union	Combine two trees
tree.GetValues	Returns all values from a tree
tree.Add	Add a new node to a tree (by name/value)
tree.Remove	Remove a node from a tree (by name)
tree.Replace	Replace the value of a named node in a tree
rng.Create	Create a Schematiq range from an Excel range
rng.Sequence	Create a range of numbers of specific length and 'step'
rng.Subset	Extract a subset of a range
rng.TopTo-Bottom	Combine two ranges top to bottom
rng.LeftToRight	Combine two ranges left to right

Data processing (CSV, JSON, XML, HTML)

tbl.ExportDe-limited	Exports a table to CSV format
tbl.ImportDe-limited	Imports a table from CSV (or other delimited) format
tree.ExportJson	Exports a tree to JSON format
tree.ImportJson	Imports JSON into a tree
tbl.ExportJson	Exports a table to JSON format
tbl.ImportJson	Imports JSON into a table (JSONPath syntax available)
tree.ExportXml	Exports a tree to XML format
tree.ImportXml	Imports XML into a tree
tbl.ImportXml	Imports XML into a table (XPath syntax available)
tbl.ImportHtml	Imports HTML into a table (XPath syntax available)

Web functions

web.Get	Creates a simple GET request
web.Post	Creates a POST request
web.Response	Executes a web request
web.CustomRequest	Creates a configurable web request

File and folder operations

file.ListFiles	List all files in a folder (wildcards accepted)
file.ListFolders	List all subfolders in a folder (wildcards accepted)
file.Open	Opens a file for reading
file.Save	Saves a file in a format-specific manner
file.OpenText	Opens a file as text for reading
file.SaveText	Saves a file as text
sq.Save	Saves an object in a custom Schematiq format
sq.Load	Loads an object saved using sq.Save()

User-defined functions (UDFs)

fn.FromSnippet	Creates a UDF from a snippet, e.g. "(x, y) => x + (2 * y)"
fn.FromTe-mplate	Creates a UDF from a specified Excel range
xl.Load	Loads an Excel workbook into Schematiq memory
fn.FromWo-rkbook	Creates a UDF from an Excel workbook
fn.Call	Executes a UDF
fn.FixInput	Fixes the value of a single input to a UDF
fn.SetAsync	Makes a UDF synchronous or asynchronous

Date and time handling

dt.Offset	Offsets a date (e.g. by a day, business day, week, etc)
dt.Seq-uence	Generates a sequence of dates with required periodicity
dt.Seq-uenceB-etween	Generates a sequences between start/end dates or times
dt.Per-iodsBe-tween	Returns the number of periods in a given interval (e.g. hours in a given day - useful for handling daylight saving!)
dt.Cha-ngeTim-eZone	Changes a date-time from one IANA time zone to another

Use of dt.Offset	
D	Day
B	Business day
W	Week
M	Month
Q	Quarter
S	Commodities season (Apr-Sep, Oct-Mar)
Y	Year
H	Hour
'	Minute
"	Second
@	At exactly
+	Move forward
-	Move backwards
<	Move to previous
<=	Move to previous (unless currently at exact)
>	Move to next
>=	Move to next (unless currently at exact)

Operators can be combined, for example -B@18H30' means "the previous business day at 18:30". The same syntax can be used for sequences, for example dt.Sequence(TODAY(), 6, "2M") will generate a year's worth of 2-month intervals.

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