1. Concept Arrangement Patterns

1.1. Concept arrangement patterns

Remember that a concept arrangement pattern explains how some set of Concepts is represented within a [Line Items]. The following is a summary of the identified financial reporting related concept arrangement patterns[1].

1.1.1. Set (or Hierarchy)

A **set** (or hierarchy) concept arrangement pattern denotes a hierarchy of concepts with no numeric relations. If no numeric relations exist, then the concept arrangement pattern of the report fragment is a set (hierarchy). Basically, anything can be represented as a hierarchy. It is the addition of additional relations, typically mathematical computations, which turns a hierarchy into some other concept arrangement pattern.

A set (hierarchy) can be detected because there are no XBRL calculation relations or XBRL Formulas related to mathematical computations.

Component: (Network and Table)			
Network	1001 - Document - **Document and Entity Information**		
Table	Statement [Table]		
Reporting Entity [Axis]	0000789019 http://www.sec.gov/CIK		
Legal Entity [Axis]	Entity [Domain]		
	Period [Axis]		
Statement [Line Items]	2016-07-25	2015-07-01/2016-06-30	2015-12-31
Document Type		10-K	
Amendment Flag		false	
Document Period End Date		2016-06-30	
Document Fiscal Year Focus		2016	
Document Fiscal Period Focus		FY	
Trading Symbol		MSFT	
Entity Registrant Name		MICROSOFT CORPORATION	
Entity Central Index Key		0000789019	
Current Fiscal Year End Date		--06-30	
Entity Well-known Seasoned Issuer		Yes	
Entity Current Reporting Status		Yes	
Entity Voluntary Filers		No	
Entity Filer Category		Large Accelerated Filer	
Entity Common Stock, Par Value Per Share		0	
Entity Common Stock, Shares Outstanding	7,792,515,573		
Entity Public Float			424,500,000,000
I.R.S. Employer Identification No.		911144442	

1.1.2. Roll up

A **roll up** concept arrangement pattern represents a total, or roll up, and some set of other Concepts that aggregate to that total. This concept arrangement pattern is

[1] Concept Arrangement Pattern Examples, http://xbrlsite.azurewebsites.net/DigitalFinancialReporting/ConceptArrangementPatterns/2017-05-07/

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commonly referred to a "roll up", or the equation A + B + *n* = Total. All concepts involved in this concept arrangement pattern have the same set of characteristics and all must be numeric and of the same period type.

Component: (Network and Table)	
Network	1073 - Disclosure - **Components of Inventories (Detail)**
Table	Inventory, Current [Table]

Reporting Entity [Axis]	0000789019 http://www.sec.gov/CIK	
Legal Entity [Axis]	Entity [Domain]	
	Period [Axis]	
Inventory [Line Items]	2016-06-30	2015-06-30
Raw materials	612,000,000	1,100,000,000
Work in process	158,000,000	202,000,000
Finished goods	1,481,000,000	1,600,000,000
Total	2,251,000,000	2,902,000,000

A roll up concept arrangement pattern is detected by the existence of XBRL calculation relations.

1.1.3.Roll forward

A **roll forward** concept arrangement pattern reconciles the balance of a concept between two points in time. This concept arrangement pattern is commonly referred to a "roll forward" or "movement analysis" or the equation: beginning balance + additions – subtractions = ending balance. In this equation the Period [Axis] is as of two different points in time and the changes (additions/subtractions) occur during the period between those two points in time.

Component: (Network and Table)	
Network	1116 - Disclosure - **Stock Plan Activity (Detail)**
Table	Schedule of Share-based Compensation Arrangements by Share-based Payment Award [Table]

Reporting Entity [Axis]	0000789019 http://www.sec.gov/CIK	
Award Type [Axis]	Stock Awards	
Legal Entity [Axis]	Entity [Domain]	
	Period [Axis]	
Shares	2015-07-01/2016-06-30	
Shares		
Nonvested balance, beginning of year	216,000,000	
Granted	83,000,000	
Vested	(85,000,000)	
Forfeited	(20,000,000)	
Nonvested balance, end of year	194,000,000	

A roll forward can be detected because (a) it always has in instant as the first and last concept in the presentation relations, (b) the first instant has a periodStart label role, (c) the second instant concept is the same as the first and has the periodEnd

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label, and (d) XBRL Formulas exist the represent the roll forward mathematical relation.

1.1.4.Roll forward info

A **roll forward info** concept arrangement pattern looks like a roll forward, but is not really a roll forward. While a roll forward reconciles the balance of a concept between two points in time; the roll forward info is really just a hierarchy which shows a beginning and ending balance. A roll forward info concept arrangement pattern is generally shown with a roll forward.

Component: (Network and Table)	
Network	1116 - Disclosure - **Stock Plan Activity (Detail)**
Table	Schedule of Share-based Compensation Arrangements by Share-based Payment Award [Table]

Reporting Entity [Axis]	0000789019 http://www.sec.gov/CIK
Award Type [Axis]	Stock Awards
Legal Entity [Axis]	Entity [Domain]

Weighted Average Grant-Date Fair Value	Period [Axis]: 2015-07-01/2016-06-30
Weighted Average Grant-Date Fair Value	
Nonvested balance, beginning of year	32.72
Granted	41.51
Vested	30.98
Forfeited	35.93
Nonvested balance, end of year	36.92

A roll forward info pattern can be detected because (a) the first concept has a periodStart label, (b) the last concept in the presentation relations has a periodEnd label.

1.1.5.Adjustment

An **adjustment** concept arrangement pattern reconciles an originally stated balance to a restated balance, the adjustment being the total change, between two different report dates. An adjustment is similar to a roll forward in that it is a reconciliation, however rather than the period [Axis] changing; it is the *Report Date [Axis]* which changes: originally reported balance + adjustment = restated balance.

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Component: (Network and Table)	
Network	50000 - Document - **Prior Period Adjustments**
Table	Prior Period Adjustments [Table]

Reporting Entity [Axis]	SAMP http://www.SampleCompany.com	
Legal Entity [Axis]	Consolidated Entity [Member]	
		Period [Axis]
Prior Period Adjustments [Line Items]	Report Date [Axis]	2009-12-31
Prior Period Adjustments to Retained Earnings [Adjustment]		
Retained Earnings (Accumulated Losses), Origionally Stated	Reported March 21, 2010 [Member]	4,000
Prior Period Adjustments, Period Increase (Decrease), Total [Roll Up]		
Changes in Accounting Policy	Reported March 18, 2011 [Member]	3,000
Correction of an Error	Reported March 18, 2011 [Member]	(1,000)
Prior Period Adjustments, Period Increase (Decrease), Total	Reported March 18, 2011 [Member]	2,000
Retained Earnings (Accumulated Losses), Restated	Reported March 18, 2011 [Member]	6,000

An adjustment always has a Report Date [Axis] that is generally specific to the profile of the XBRL instance, the first concept in the presentation relations is an instant and uses the origionallyStated label role appropriate for the profile, the last concept in the presentation relations is an instant and uses the restated label role (which is published by XBRL International). Concepts for Report Creation Date [Axis]: us-gaap:CreationDateAxis, ifrs-full:CreationDateAxis, frm:ReportDateAxis.

1.1.6. Variance

A **variance** concept arrangement pattern reconciles some reporting scenario with another reporting scenario, the variance between reporting scenarios being the variance or changes. For example, an analysis which reconciles the concept sales for the reporting scenarios of actual and budgeted is a variance. The equation is: actual – budget = variance. Note that the actual member is represented as the dimension default because the actual would tie to the income statement.

Component: (Network and Table)	
Network	60000 - Document - **Variance Analysis**
Table	Variance Analysis [Table]

Reporting Entity [Axis]	SAMP http://www.SampleCompany.com		
Legal Entity [Axis]	Consolidated Entity [Member]		
	Period [Axis]	Reporting Scenario [Axis]	
	2010-01-01/2010-12-31		
Variance Analysis [Line Items]	Actual [Member]	Budgeted [Member]	Variance [Member]
Variance Analysis [Hierarchy]			
Sales	6,000	5,000	1,000
Cost of Goods Sold	4,000	3,000	1,000
Contribution Margin	1,000	2,000	(1,000)
Distribution Costs	1,000	1,000	0

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A variance can be a specialization of other concept arrangement patterns such as a [Hierarchy] as shown above, a [Roll Up] if the [Line Items] rolled up, or even a [Roll Forward].

A variance can always be discovered because it uses the Reporting Scenario [Axis] that is related to the reporting profile. Concepts for Reporting Scenario [Axis]:us-gaap:StatementScenarioAxis, frm:ReportingScenarioAxis. (Seems missing from IFRS).

1.1.7.Complex computation

A **complex computation** concept arrangement pattern can be thought of as a hierarchy plus a set of commutations between different concepts within that hierarchy which are challenging to model as the parent/child relations of a graph. The type of computations can vary significantly, thus the challenging in modelling. For example, the computation of earnings per share is a complex computation.

Component: (Network and Table)		
Network	70000 - Document - **Earnings Per Share Components**	
Table	Earnings Per Share Components [Table]	
Reporting Entity [Axis]	SAMP http://www.SampleCompany.com	
Legal Entity [Axis]	Consolidated Entity [Member]	
	Period [Axis]	
Earnings Per Share Components [Line Items]	2010-01-01/2010-12-31	2009-01-01/2009-12-31
Earnings Per Share Components [Hierarchy]		
Net Income (Loss)	10,000,000	20,000,000
Weighted Average Common Shares	100,000,000	100,000,000
Earnings Per Share	0.10	0.20

A complex computation pattern can be identified because (a) there are numeric relations and those relations do not follow any of the other mathematical patterns, (b) there is an XBRL formula that represents a mathematical relation other than one of the other mathematical computation patterns.

1.1.8.Text block

A **text block** concept arrangement pattern is an concept arrangement pattern which contains, by definition, only one concept and that concept expresses what amounts to a narrative or prose as escaped HTML within that one concept. For example, the narrative associated with a set of accounting policies expressed as a list or a table presentation format is a text block. As there is only one concept, there can be no relations within the concept arrangement pattern.

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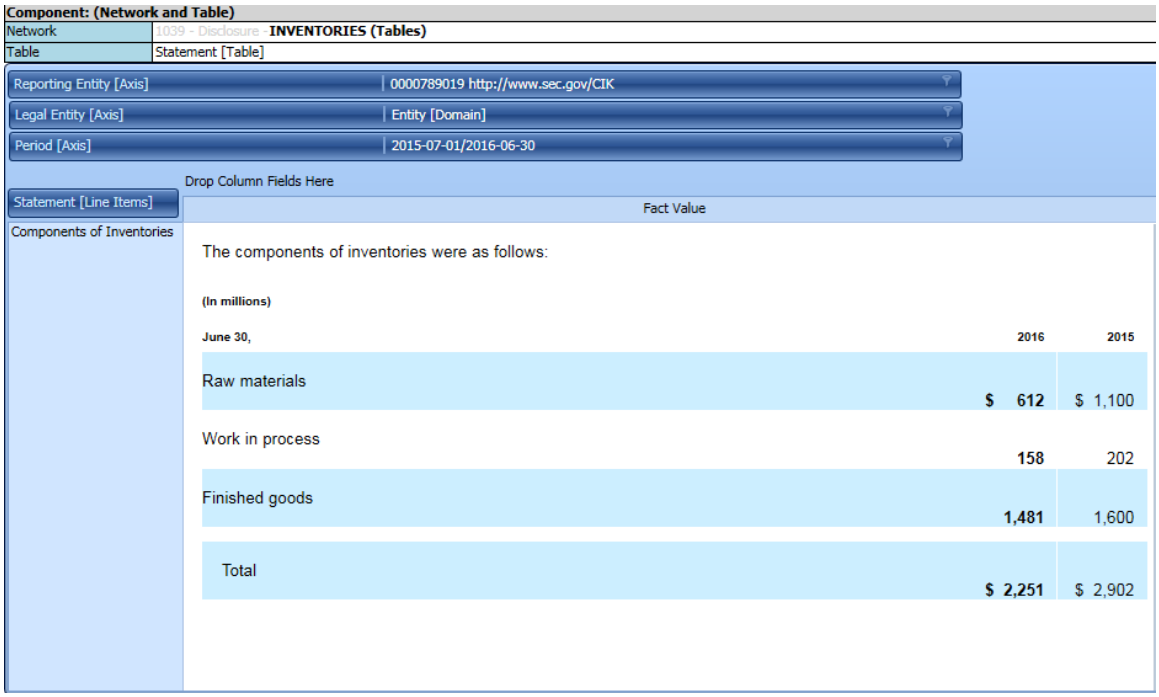

Component: (Network and Table)

Network	1039 - Disclosure - **INVENTORIES (Tables)**
Table	Statement [Table]

Reporting Entity [Axis]	0000789019 http://www.sec.gov/CIK
Legal Entity [Axis]	Entity [Domain]
Period [Axis]	2015-07-01/2016-06-30

Drop Column Fields Here

Statement [Line Items]	Fact Value
Components of Inventories	The components of inventories were as follows:

(In millions)

June 30,	2016	2015
Raw materials	$ 612	$ 1,100
Work in process	158	202
Finished goods	1,481	1,600
Total	$ 2,251	$ 2,902

A text block can always be identified by the data type used to represent the text block.

1.2. Concept arrangement patterns (pseudo patterns)

The following are not really concept arrangement patterns but they are worth pointing out and understanding.

1.2.1. Grid (not really a pattern)

A **grid** pattern which uses the presentation characteristics of the columns and rows of a table to represent information is a pseudo concept arrangement pattern. Because the grid models presentation information and not business semantics, it cannot be considered a metapattern. However, the grid is included in this list because the US GAAP Taxonomy uses a grid concept arrangement pattern to model the statement of changes in equity.

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Component: (Network and Table)	
Network	90000 - Document - **Statement of Changes in Equity**
Table	Statement of Changes in Equity [Table]

Reporting Entity [Axis]	SAMP http://www.SampleCompany.com
Legal Entity [Axis]	Consolidated Entity [Member]

Statement of Changes in Equity [Line Ite...	Period [Axis]: 2010-01-01/2010-12-31 / Equity Component [Axis]: Common Stock [Member]	Additional Paid-in Capital [Member]	Retained Earnings (Accumulated Deficit) [Member]	Equity [Member]
Statement of Changes in Equity [Grid]				
Equity, Beginning Balance	150,000	50,000	200,000	400,000
Net Income (Loss)			200,000	200,000
Dividends			(100,000)	(100,000)
Common Stock Issued	25,000	25,000		50,000
Equity, En	175,000	75,000	300,000	550,000

1.2.2.Compound fact (not really a pattern)

A **compound fact** is a pseudo pattern were a concept arrangement pattern that is further characterized by one or more additional [Axis]. For example, the salary information for the directors of an entity shown below is a [Hierarchy] of concepts that is further characterized by the name of the director which receives the compensation. The salary information is made up of salary, bonuses, director fees and this set of information (or compound facts) can be expressed for any number of directors, the director being the characteristic or axis of the compound fact.

Component: (Network and Table)	
Network	50000 - Document - **Director Compensation**
Table	Director Compensation [Table]

Reporting Entity [Axis]	SAMP http://www.SampleCompany.com
Period [Axis]	2010-01-01/2010-12-31
Legal Entity [Axis]	Consolidated Entity [Member]

Director Compensation [Line Items]	Director [Axis]: John Doe [Member]	Jane Doe [Member]	Directors, All [Member]
Director [Hierarchy]			
Director, Salary	1,000	1,000	2,000
Director, Bonuses	1,000	1,000	2,000
Director, Fees	1,000	1,000	2,000
Director, Options Granted, at Fair Value	1,000	1,000	2,000

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