

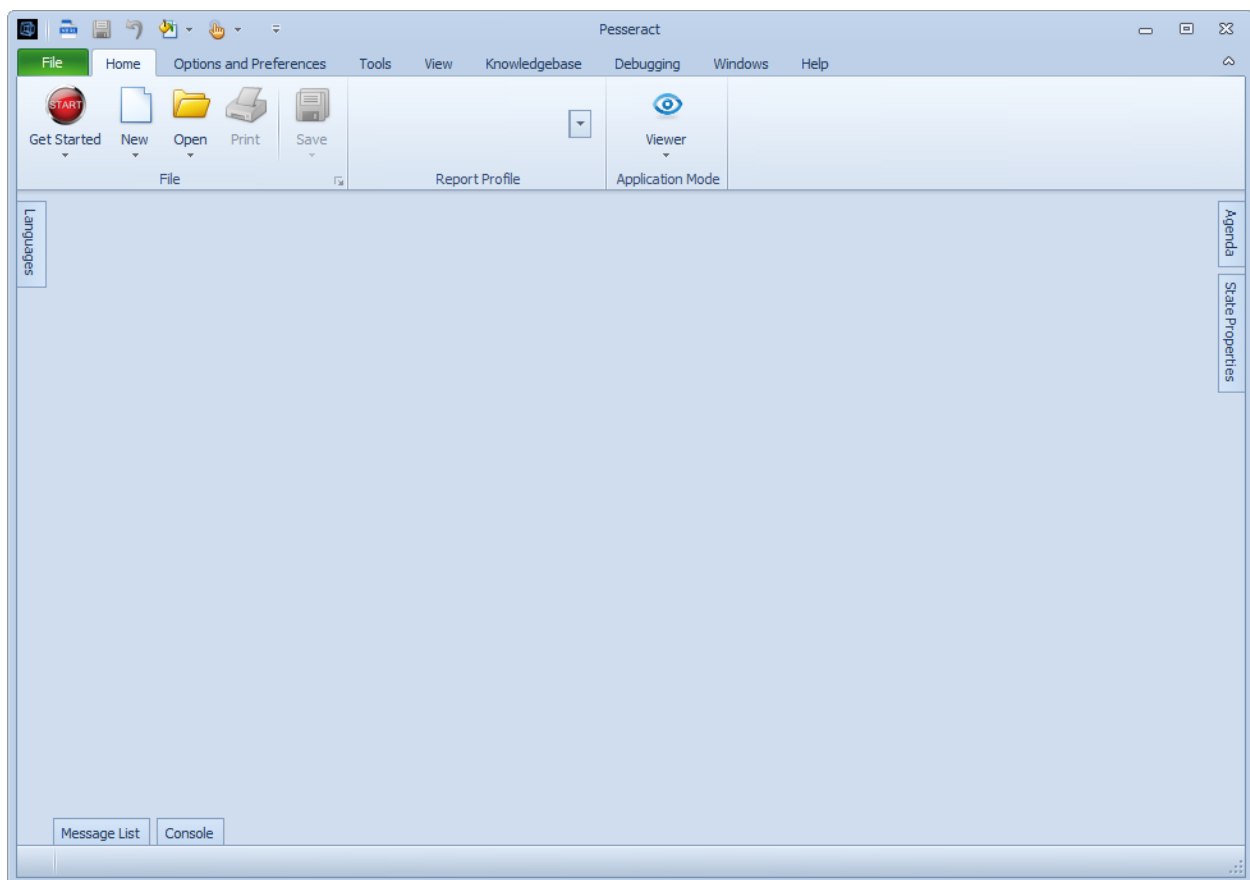
Get Started With Pesseract

By Charles Hoffman, CPA

This document walks you through the basics of Pesseract. You will load three XBRL-based digital financial reports, verify that the reports have been created correctly, and learn basics of navigating around the pieces of a report.

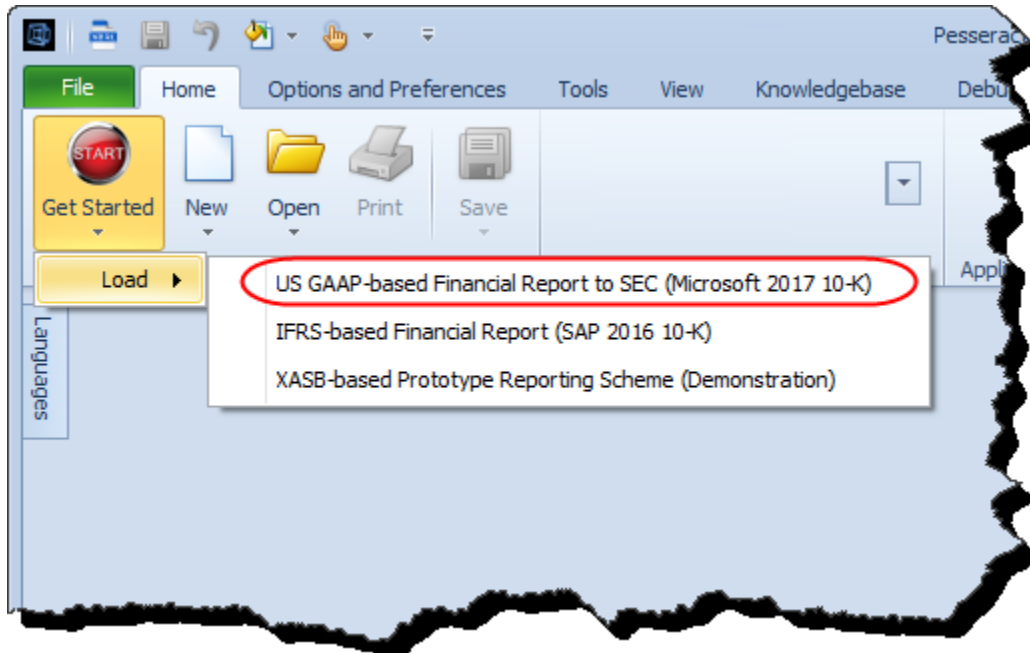
STEP 1: *Start Pesseract.*

Open the Pesseract application and the main form is displayed and the “Home” tab of the menu ribbon is displayed.



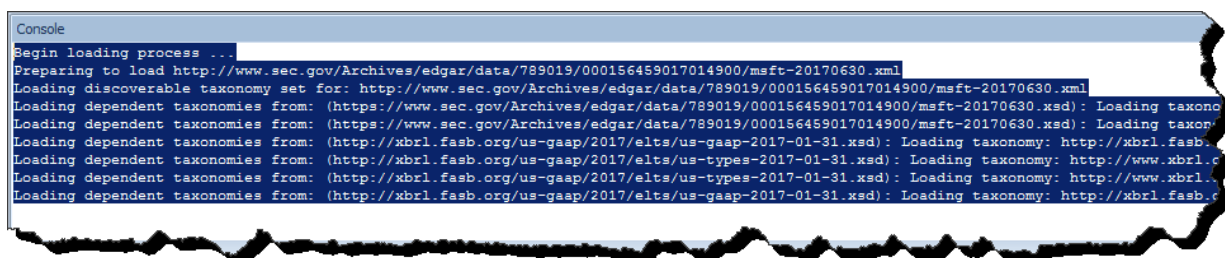
STEP 2: *Open an XBRL-based digital report.*

Press the “Get Started” icon on the “Home” menu ribbon. Select the “US GAAP-based Financial Report to SEC” menu item.



This will load the Microsoft 2017 10-K filing from the SEC’s EDGAR system. The XBRL instance, related XBRL taxonomy files, and US GAAP XBRL Taxonomy used by the report are all pre-cached and should load relatively rapidly.

You can see the files being loaded in the “Console” window on the bottom of the main window:



NOTE that this is the actual XBRL instance document and related XBRL taxonomies that was loaded:

<http://www.sec.gov/Archives/edgar/data/789019/000156459017014900/msft-20170630.xml>

STEP 3: View information from the report.

After the loading process has been completed you will see the fragments of the report in a list on the LEFT side of the screen with the first fragment highlighted in GREEN. The highlighted report fragment is shown on the RIGHT side of the screen.

Toward the bottom of the screen you can see the “Message List” which is a summary of information, warnings, and errors that resulted from the loading process.

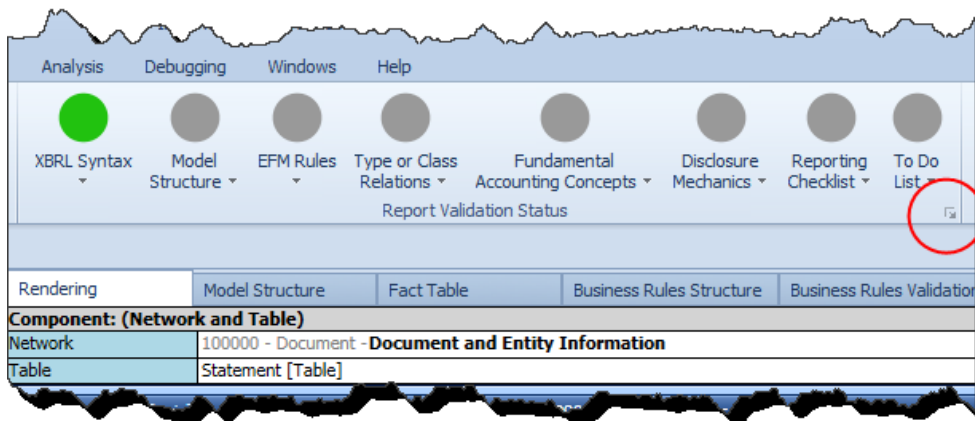
The screenshot displays the XBRL Viewer application interface. The top menu bar includes File, Home, Options and Preferences, Tools, View, Knowledgebase, Analysis, Debugging, Windows, and Help. Below the menu is a toolbar with icons for Getting Started, New, Open, Print, Save, and a Report Profile dropdown. The main window is titled 'Instance (msft-20170630.xml) - Pesseract'. The left pane shows a list of components (128) under 'Components (128)'. The 'Component View' is selected, and the first component, '100000 - Document - Document and Entity Information', is highlighted in green. The right pane displays the 'Document and Entity Information' table, which includes fields such as Reporting Entity, Legal Entity, Period, and various financial metrics. The bottom pane shows a 'Message List' with several warnings related to mathematical computation inconsistencies.

Statement [Line Items]	2017-07-31	2016-07-01/2017-06-30	2016-12-31
Document Type	10-K		
Amendment Flag		false	
Document Period End Date		2017-06-30	
Document Fiscal Year Focus		2017	
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	7,702,243,979		
Entity Public Float			466,500,000,000
I.R.S. Employer Identification No.		911144442	

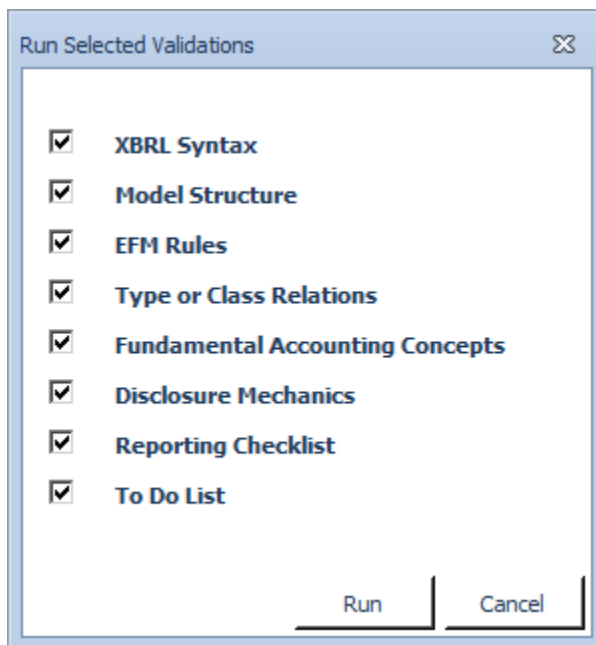
Type	Message ID	Message	Location
Info	Report.Load	Loading was successful: please see messages as there are errors/warnings.	Filename: msft-20170630.xml
Incon...	Report.Validation...	Mathematical computation inconsistency related to memberaggregation with member, us-gaap:EquityComponentDomain	101100 - Disclosure - Summary of Changes in Accumulated Other Comprehensive Income by Component (Detail)
Incon...	Report.Validation...	Mathematical computation inconsistency related to memberaggregation with member, us-gaap:EquityComponentDomain	101100 - Disclosure - Summary of Changes in Accumulated Other Comprehensive Income by Component (Detail)
Incon...	Report.Validation...	Mathematical computation inconsistency related to memberaggregation with member, us-gaap:EquityComponentDomain	101100 - Disclosure - Summary of Changes in Accumulated Other Comprehensive Income by Component (Detail)

STEP 4: *Validate the document against business rules.*

After the document has loaded, on the “Home” tab, in the “Report Validation Status”, select and click the icon in the lower right hand corner circled in RED below:



The following window will appear. Use the default options (i.e. all items selected) and then press the “Run” button:



After about 30 seconds or so, the icons in the Report Validation Status section will change colors. GREEN means that everything validated successfully. ORANGE indicates that there is some sort of inconsistency that has been detected. RED would indicate that some sort of serious error has occurred.

Notice that several new documents have been added to the main window of the application. Those documents contain information about the validation rules that were used and the results of the validation process.

The screenshot displays the XBRL Viewer application interface. The top menu bar includes File, Home, Options and Preferences, Tools, View, Knowledgebase, Analysis, Debugging, Windows, and Help. Below the menu is a toolbar with icons for Getting Started, New, Open, Print, and Save. A central banner reads "XBRL-based public company financial reports in US GAAP to the SEC".

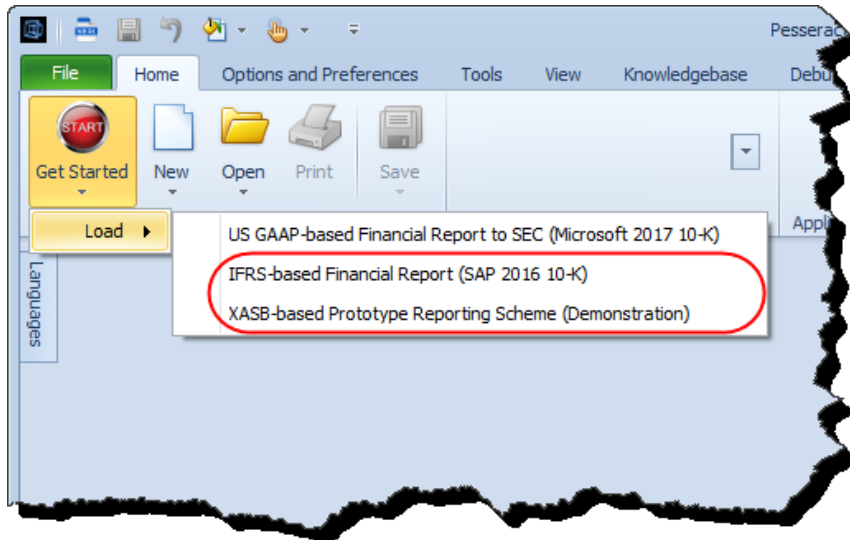
The main window is divided into several panes. On the left, a "Components (128)" pane lists various financial statement and disclosure items, such as "100000 - Document - Document and Entity Information", "100010 - Statement - INCOME STATEMENTS", and "100020 - Statement - COMPREHENSIVE INCOME STATEMENTS". Below this is a "Component Properties" pane showing details for the selected component.

The right pane displays a detailed view of the selected component, "100000 - Document - Document and Entity Information". It includes a table with columns for "Statement [Line Items]", "2017-07-31", "2016-07-01/2017-06-30", and "2016-12-31". The table contains various financial and corporate data points, including Document Type, Amendment Flag, Document Period End Date, Document Fiscal Year Focus, Trading Symbol, Entity Registrant Name, Entity Central Index Key, Current Fiscal Year End Date, Entity Well-known Seasoned Issuer, Entity Current Reporting Status, Entity Voluntary Filers, Entity Filer Category, Entity Common Stock, Par Value Per Share, Entity Common Stock, Shares Outstanding, Entity Public Float, and I.R.S. Employer Identification No.

You can explore the different documents to begin to understand what is going on when a document.

STEP 5: *Repeat the same process for the other two documents.*

After loading the first document and validating it, go back to the “Get Started” button and load the second document and validate it. Then, load the third and validate it.



NOTICE that the Pesseract application supports the US GAAP reporting scheme, the IFRS reporting scheme, and a prototype reporting scheme which we created for demonstration purposes called XASB-based reporting.

You should be able to get through each of these examples if the application was installed correctly. For each of the examples the XBRL instance and the related XBRL taxonomies are all cached locally so you don't need to wait for them to download.