

XBRL Processing Engine (XPE) 5.0

A powerful and flexible processor to validate and generate XBRL documents.



“XPE provides more flexibility and is easier to use than anything else on the market. UBPARTNER really knows its stuff. They are continually ahead of the latest developments and help us to understand what is required to process XBRL efficiently and effectively.”

XPE offers the richest set of XBRL processing features:

- Read, validate, and write XBRL taxonomies and instance documents
- Proven performance and scalability for the largest and complex XBRL documents
- The ability to dynamically load XBRL Formula and to optimize their execution.
- Developer-friendly API with comprehensive library of code samples and documentation
- Support for XBRL 2.1, including XBRL dimensions and XBRL Formulas

The UBPARTNER XBRL Processing Engine is the platform of choice for government agencies, market regulators and leading application software vendors. It has been designed to make the process of developing and deploying XBRL-based applications as simple as possible. XPE can support high volume, large-scale collection systems; delivers unrivalled performance for large and complex XBRL taxonomies, and yet, can also plug easily into client applications. Built on an extensible object-oriented architecture, it supports both taxonomy and instance document validation and can be used to transform XBRL from and into various formats. Continually updated and tested, XPE fully conforms to all the latest XBRL standards.

Flexibility

The XBRL Processing Engine is delivered with a functionally rich software development kit, so that it can be used to build XBRL-based applications or integrate XBRL capabilities into existing applications or web services. The XPE API is available for both .NET and Java environments.

Organizations that collect and process XBRL data will benefit from a highly scalable and powerful processing engine, while developers looking to XBRL enable their ERP, financial management and spreadsheet applications will find that XPE has all the features and flexibility they are looking for.

The XBRL Processing Engine is tightly integrated with XSLT and XPath 2.0 and fully supports the XBRL standard:

- XBRL 2.1
- XBRL Dimensions

- XBRL Formula
- Inline XBRL
- Table Linkbase

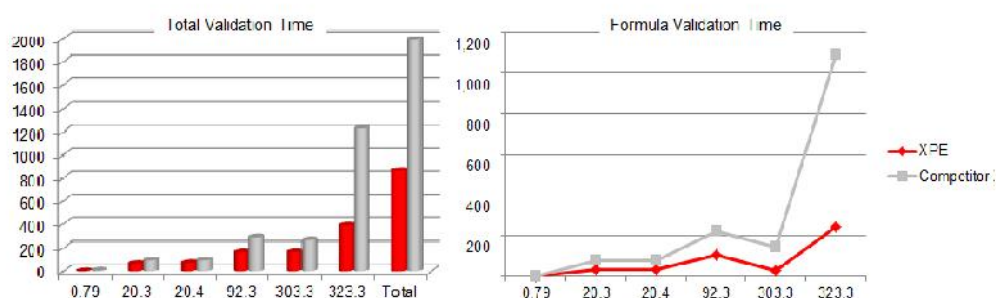
Performance

In tests, XPE always performs well across a range of tasks and it is continually enhanced to ensure that it meets the latest requirements.

Recent improvements have focused on the efficient handling of very large documents and formula processing optimization. The result is an XBRL processing engine that delivers exceptional performance. In benchmarks using the EBA's new COREP and FINREP taxonomies:

- XPE took less than half the time of another leading processor to complete the validation of a set of test documents
- XPE Formula processing was 2 to 5 times faster

Unrivalled Performance



Based upon tests on EBA COREP and FINREP (2.0) – January 2014

What's New in Version 5.0?

The UBPartner XBRL Processing Engine has been continually developed to ensure that it meets the growing requirements of the XBRL community. Some of the newest features include:

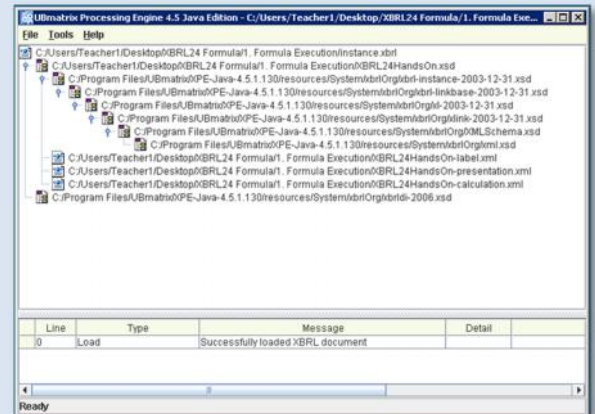
Virtual Object Model (VOM) – Recent taxonomies, such as the EBA's COREP and FINREP taxonomies and EIOPA's Solvency II, are highly multi-dimensional in nature and can result in the production of large XBRL instance documents (> 100mb). These large XBRL reports require additional handling to ensure that they are processed efficiently. VOM mode enables XPE to breakdown the XBRL instance document into smaller objects on which to operate, which enables it to process large (100mb+) and very large instance documents (1GB+) without serious performance degradation.

XBRL Formulas Pre-processor and Optimizer – Formulas are one of the most powerful of XBRL features, enabling both sender and receiver of XBRL reports to fully test the quality of the data being reported. Taxonomy authors are including increasing numbers of Formulas in their taxonomies with greater complexity. XPE formula optimizer first analyses the formulas and then uses in-built intelligence to determine how best to execute them efficiently.

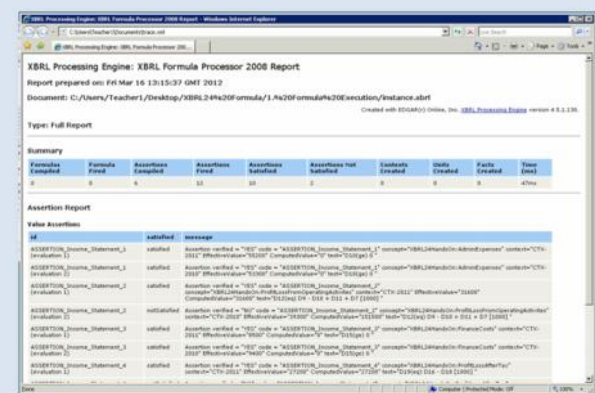
Validation and Formula Partitioning – is another advanced feature to enable large documents to be validated with a relatively small memory footprint. It optimizes and groups related data sets and formulae into units of work for efficient processing.

Inline XBRL (iXBRL) Support – Inline XBRL (iXBRL) is a growing part of the XBRL standard and XPE 5.0 delivers advanced support for both applications designed to support iXBRL creation, and also allows the developer to enable the reading of iXBRL documents, requesting the Processing Engine to extract the XBRL instance from the HTML. This allows the developer's application to enable features like validation and data transformation.

Advanced Tracing – As XBRL taxonomies include more complex business rules (XBRL Formulas) developers require more advanced trace and debug modes to help them identify issues. This is particularly the case for large and complex formulas.



UBPartner Processing Engine enables your application to display and interact with any XBRL



Standard XBRL Formulas reports and flexible error message system

System Requirements

Operating Systems Supported:	Additional requirements:
<ul style="list-style-type: none"> ▪ Microsoft Windows 7, 10 ▪ Microsoft Windows Server System 2003, 2008 ▪ Red Hat Linux Enterprise Linux 5 	<ul style="list-style-type: none"> .NET Edition <ul style="list-style-type: none"> - Microsoft .Net Framework 4.0 or later Java Edition <ul style="list-style-type: none"> - Oracle Java 1.6, 1.7, 8 Java Runtime Environment (JRE) - Oracle Java 1.6, 1.7, 8 Software Development Kit (SDK)
Recommended RAM: <ul style="list-style-type: none"> ▪ Minimum: 4 GB ▪ Recommended 8 GB RAM or greater for large XBRL documents 	
Disk Space: <ul style="list-style-type: none"> • .NET Edition: 135 MB • Java Edition 35 MB 	