

# Engine



Product  
Overview

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## WHAT IS THE ENGINE

The Engine is the calculation heart of Cassiopae UK pricing and evaluation products. It performs the interest and tax calculations in a range of general and specialist products including Freehand, the UK's industry-standard asset finance calculator, and Flex 4, our middle- to big-ticket lease evaluation system.

Cassiopae also provides the Engine to clients for use within their own systems.

## WHO USES THE ENGINE

Obviously, we do, and hence all the clients who use our pricing and evaluation products – probably in excess of 10,000 users in the UK alone. Our clients also use the Engine to provide finance calculations in:

- Point-of-sale systems, including mobile, locally installed PC, and internet/browser-based applications.
- Mid-office systems evaluating and checking incoming quotations, finance proposals and contracts.
- Back-office systems performing hire purchase, loan and lease administration and accounting.
- Other systems, such as Consumer Credit Act APR and settlement calculations.

## BENEFITS

Our clients enjoy many benefits by using our calculation Engine rather than developing the code in-house or using non-specialist third-party developers:

- Tried and tested. The Engine has been running since the early '90s, and has been tested extensively both by us and by the many clients using it or using our products which encapsulate it.
- Lower development cost. The cost of developing a comparable finance calculation system would be considerable, and would require scarce and expensive resources.
- Lower maintenance cost. We continue to develop the Engine to reflect changes in the business, legal and tax environments in which it works, and are always available to maintain the Engine to handle client-specific changes in business process. Reliably providing such maintenance in-house again means committing scarce and expensive resource on an on-going basis.
- Lower maintenance risk. Where calculation code is developed in-house, or by a non-specialist, we normally find that after a while (sometimes a very short while indeed) the only people who ever understood the code, and the calculations it is trying to perform, have moved on. Whether elsewhere within the company, or left for pastures new, they leave the calculation code essentially unmaintainable. Cassiopae, on the other hand, will be available to maintain the Engine whenever needed.
- Consistency across systems. The Engine allows you to produce systems at different stages of the business process all using a consistent, high-quality, reliable calculation kernel. Particularly where Cassiopae's pricing and business origination systems are used at the front end, this allows complete consistency from front to back.
- Access to our skills base. As an Engine client, you will have access to our knowledge and experience, particularly in legislative and regulatory issues, including the effects of changes to tax and consumer credit regulation.

## PLATFORMS

The Engine is available to run on a range of platforms:

- Windows
- Windows Mobile
- Linux/Unix

The Engine is written in C++ and is therefore capable of being ported to many other environments, including Apple iOS and Android mobile devices.

The Engine is generally supplied as a Microsoft COM object, suitable for integration into Visual Basic, Microsoft Excel and Access, .Net, Delphi, ASP, and so on.

It can also be supplied:

- As a native C++ library.
- With a Java wrapper.
- With a flat file interface.

## MODULES

The Engine is normally supplied at one of the following levels of functionality:

- Module A**      Periodic IRR calculations; Flat rate calculations.
- Module B**      Plus Consumer Credit Act functionality – APR and early settlement calculations.
- Module C**      Plus Daily interest rates, full amortisation schedule, various more specialised functionality.
- Module D**      Plus Tax-based leasing.

## DETAILED FUNCTIONALITY

Our [Freehand Product brochure](#) provides a comprehensive summary of the basic functionality of the Engine. A full explanation of over two hundred input parameters and over one hundred different output parameters would be just too extensive for a brochure such as this. Please contact us for further details.

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