

The Essential Macleod is a comprehensive software package for the design, analysis, manufacture and trouble shooting of thin film optical coatings.

It runs under Microsoft Windows 10, 8.1, 8 and 7 operating systems, both 64 bit and 32 bit. The program has a true multiple document interface. It can handle coatings from rugates to ultrafast, from single-layer antireflection coatings to demanding color separation beamsplitters, providing all that is necessary for their design, analysis, production planning and even reverse engineering of a failed production attempt.

A wide range of performance parameters, from straightforward transmittance and reflectance to color coordinates in different color spaces, is built into the software. It can synthesize designs from scratch or refine existing ones, investigate errors and extract optical constants of film materials for use in designs. It consists of a Core that is its minimum configuration. The Core is supplemented by a number of optional Enhancements that extend the capabilities in various directions. The package is an integrated whole with a progressive licensing system that controls the activation of the various enhancements. This permits fitting the configuration, and price, to the needs of the user. The licensing system is a software one residing within the computer. Each user is permitted to have the software installed not only on an office machine but also on a laptop and machine at home. Licenses for these are issued at no extra charge.