# MODO - Version 4.0

# **Modtran4 for Remote Sensing Research**

## Scientific Tool

useful for...

analysis of signatures at various sensor systems, hyperspectral instrument design,

vicarious calibration of operational sensors,

surface reflectance signature propagations,

education about radiative transfer, and

analysis of atmospheric gases and aerosols.

#### Features

- creation of MODTRAN4 ('tape5') input,
- import/export of MODTRAN4 control files,
- import/export of ground reflectance spectra,
- support for ENVI™ spectral libraries,
- direct call of MODTRAN4 for Windows and UNIX/Linux/MacOSX,
- includes original executable code of MODTRAN4, v3r1



- extraction of radiance/transmittance/ solar flux components from original MODTRAN4 output,
- plotting of standard MODTRAN4 outputs (tape7 / flux),
- direct at-sensor radiance simulation for remote sensing systems,
- sensitivity analysis by series of critical parameters,
- broad collection of sensor response functions for airborne and spaceborne optical and thermal instruments,
- helper applications for visibility determination and solar angles calculation, and
- direct online help for each GUI and electronic user manuals for MODO and MODTRAN4.

# Ease of Use

MODO is a tool providing access to the wealth of the functionality of MODTRAN4 through a graphical user interface. It is often used as an expert system and is also well suited for educational purposes.

The built-in MODTRAN4 executables allow to use this radiative transfer code on all current operating systems.

### **Technical Requirements**

- IDL 6.2 and higher or the free IDL Virtual Machine (available from ITT Corp.)
- Windows XP or higher, Solaris, Linux (x86), MacOSX ,
- high processing power for MODTRAN4 runs.

The included MODTRAN4 components are licensed from the United States of America under U.S. Patent No. 5,315,513.

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