10. Toolbox

10.1 Introduction

The **Toolbox** module contains several utility programs to:

- Determine the standard atmosphere characteristics at a given altitude.

- Calculate the density altitude.

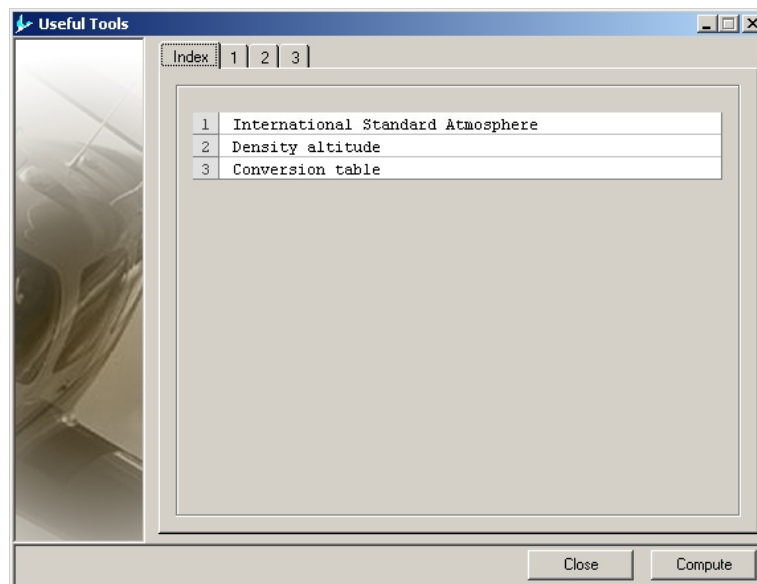- Convert the values of the values of the units system SI towards FPSR and reciprocally.

Figure 10.1 : Index

10.2   Table of content

10.3   Description

To access the **Toolbox** module, **click** on [**Options**] then [**Toolbox**] in the menu bar in the main window. You can also access it directly by clicking on in the vertical toolbar.
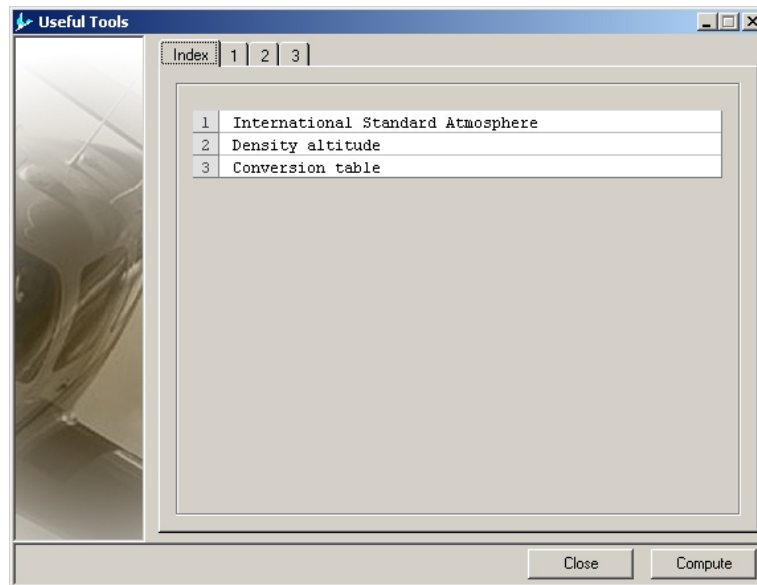

Figure 10.2 : Index

> You can press on the **F1** key at any time to reach the contextual help.

> To navigate within the controls of a window, use the **tab key**.

10.3.1 Standard atmosphere characteristics

This utility program calculates, for a given altitude, the standard atmosphere characteristics:

- Temperature

- Pressure

- Density

- Kinematic viscosity

- Dynamic viscosity

- Power ratio

- Acoustic velocity

To obtain the standard atmosphere characteristics at a given altitude:

1. **Introduce** the altitude for which you wish to obtain the standard atmosphere characteristics.

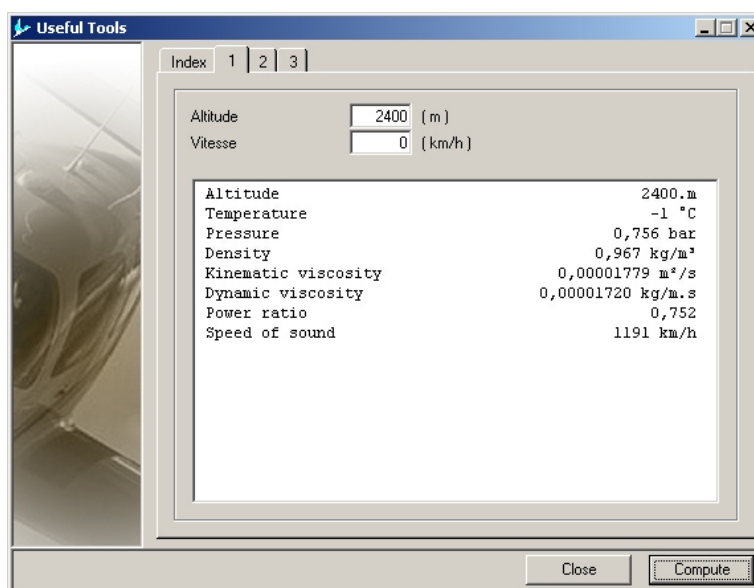2. **Click** on Compute to carry out the treatment.

Figure 10.3 : Standard atmosphere characteristics

10.3.2 Calculation of the density altitude

This utility program calculates the density altitude that corresponds to a given altitude and temperature

To obtain the density altitude at a given altitude and temperature:

1. **Introduce** the altitude

2. **Introduce** the temperature

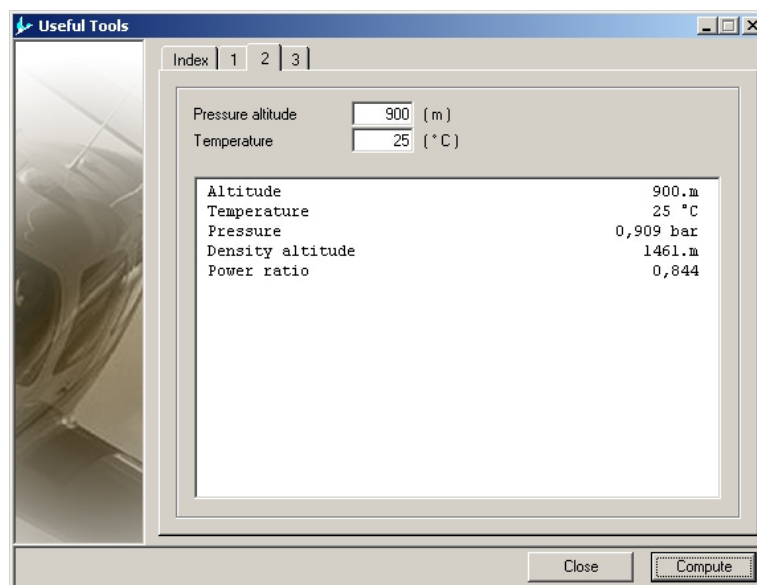3. **Click** on [Compute] to carry out the treatment.

Figure 10.4 : Density altitude

10.3.3 Conversion table

This utility program makes it possible to convert a value of the SI units system in FPSR and vice versa.

The values are:

-	Length	-	Distance
-	Surface	-	Volume
-	Weight	-	Weight by unit area
-	Power by unit area	-	Speed
-	Vertical speed	-	Power
-	Force	-	Specific consumption
-	Temperature	-	Pressure
-	Capacity	-	Density
-	Kinematic viscosity	-	Dynamic viscosity

To convert a value of a units system in the other:

1. **Select** the value to convert
2. **Select** the conversion direction
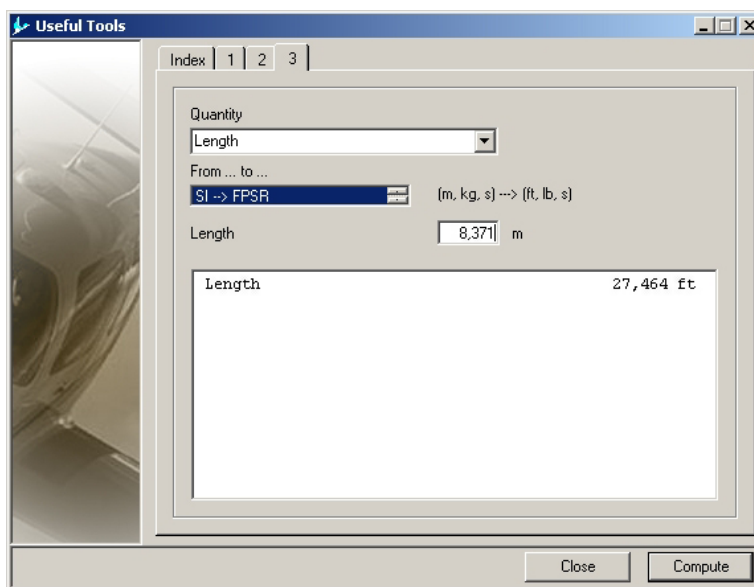3. **Introduce** the value to convert
4. **Click** on [Compute] to carry out the treatment.

Figure 10.5 : Conversion table