

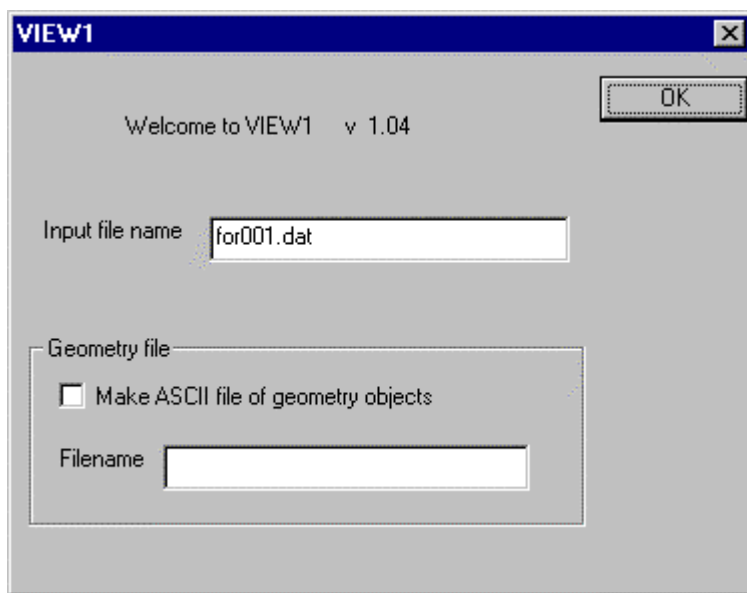
# VIEW1 User's Guide

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VIEW1 is a preprocessor for the simulation code ICOOL. Using VIEW1 the user can examine the geometrical structure present in the ICOOL input file FOR001.DAT.

## 1. Opening menu

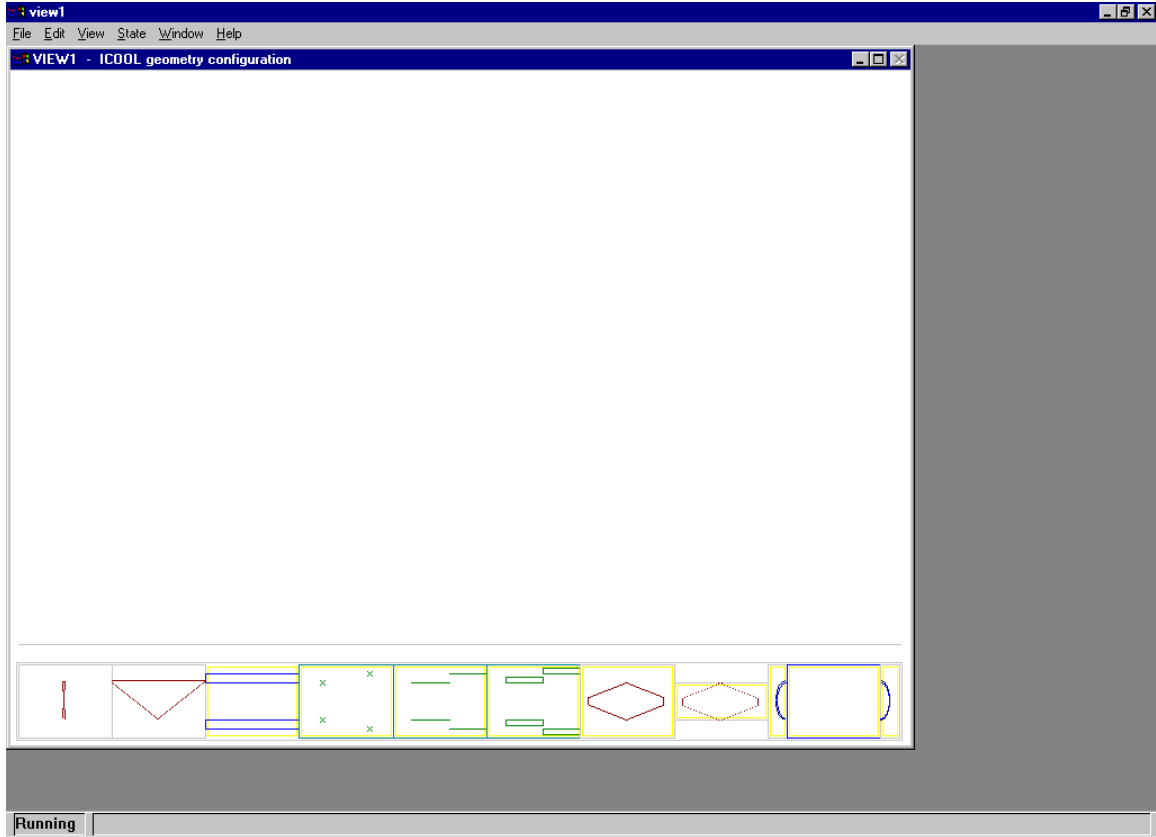
VIEW1 begins with the dialog window shown in Fig. 1. The program needs at a minimum the ICOOL file FOR001.DAT (or its renamed equivalent) as input. If the FOR001.DAT file refers in turn



to any external COIL, SHEET, or BLOCK input files, these must also be present in the same directory. If you want to save an ASCII file of the geometry information, mark the check box and enter a filename in the other edit box. The user could, for example, use this information for doing their own graphics. Otherwise, click OK or press the ENTER key to continue with the program.

## 2. Coarse geometry layout

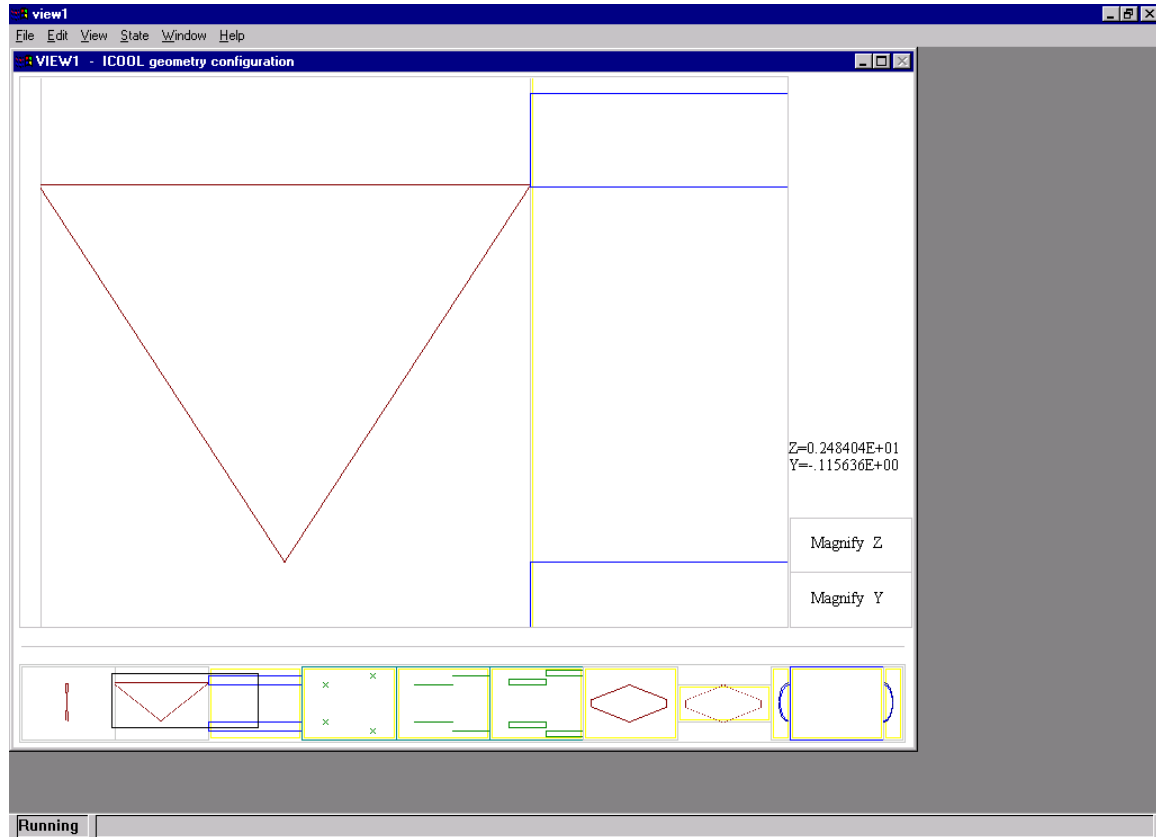
VIEW1 begins by extracting and reorganizing geometry information from the ICOOL input files. This process may take a minute or so for a complicated simulation design, like



the front end for Feasibility Study 2 of the Neutrino Factory. The complete layout of an example problem is shown in the bottom portion of the window in Fig. 2. If a WEDGE or PWEDGE is present, the vertical dimension displays information on both sides of the axis. The wedges are drawn at a fixed azimuthal angle of 0 degrees, regardless of the actual input value. Otherwise, symmetry around the axis is assumed and the bottom of the figure corresponds to  $r=0$ . The display does not show any bending caused by dipole magnets. Regions that also have a superimposed CELL or BACKGROUND field present are surrounded with a yellow border.

### 3. Selection box

The user can select a portion of the drawing for more detailed study. Click the left mouse button at the upper left corner of the desired selection box. The program will mark the

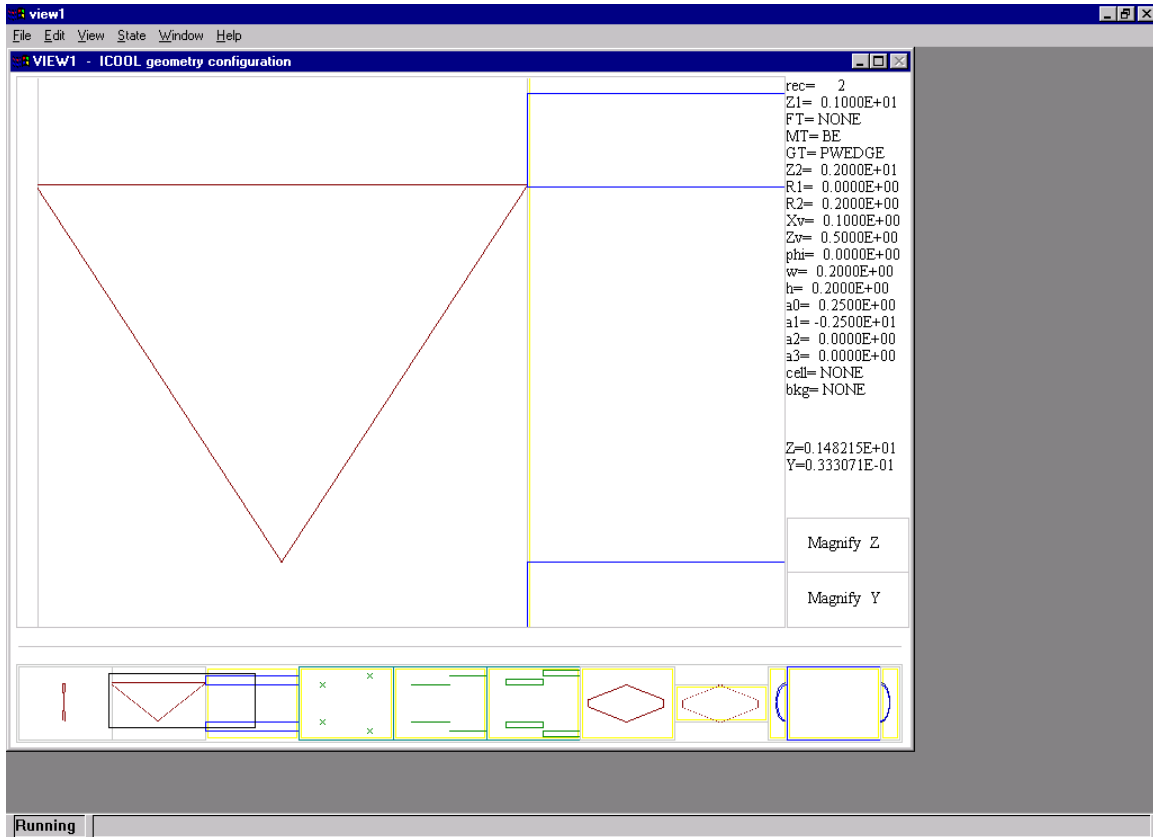


spot with a cross. Then click the left mouse button a second time at the lower right corner of the desired box. At this point a black box will indicate the selected region, as shown in Fig. 3. A detailed display of the items included in the selection box is produced in the upper portion of the window.

When the mouse cursor is moved over the upper figure, the physical Z and Y coordinates corresponding to the mouse position are shown on the right side of the screen. Moving the mouse to the edges of the upper figure pans the selection box. The magnification of the selected area can be changed by clicking the mouse in the two MAGNIFY boxes on the right side of the screen. Clicking in a box with the left mouse button decreases the size of objects in the upper figure (increases the size of the selection box), while clicking with the right mouse button has the opposite effect.

#### 4. Object properties

If the mouse cursor is held steady over an object in the upper figure for a period of approximately 3 seconds, information about the object will be displayed on the right edge



of the screen, as shown in Fig. 4.

#### 5. Help menu

The help menu contains an item (INSTRUCTIONS) giving brief real time instructions for using the program.