

OCEAN DRILLING PROGRAM

TENSOR TOOL

USER'S MANUAL

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Introduction

The Tensor Tool (TTool) program is designed to aid in the viewing and editing of TTool data, including the stored averages for data runs, and the notes and comments regarding specific runs.

If you have any comments, questions, ideas, problems, suggestions, etc. regarding this document, please direct them to the ODP Applications Development group care of the Help Desk.

Document Layout

This document is divided into five sections and several subsections. The first four sections describe how to start the program and how to utilize the various editing features. The last section describes how to install and setup TTool.

Starting TTool

If TTool is properly installed and configured, there should be an icon available on the desktop. Double click on this icon to open the main TTool Results window (See Figure 1).

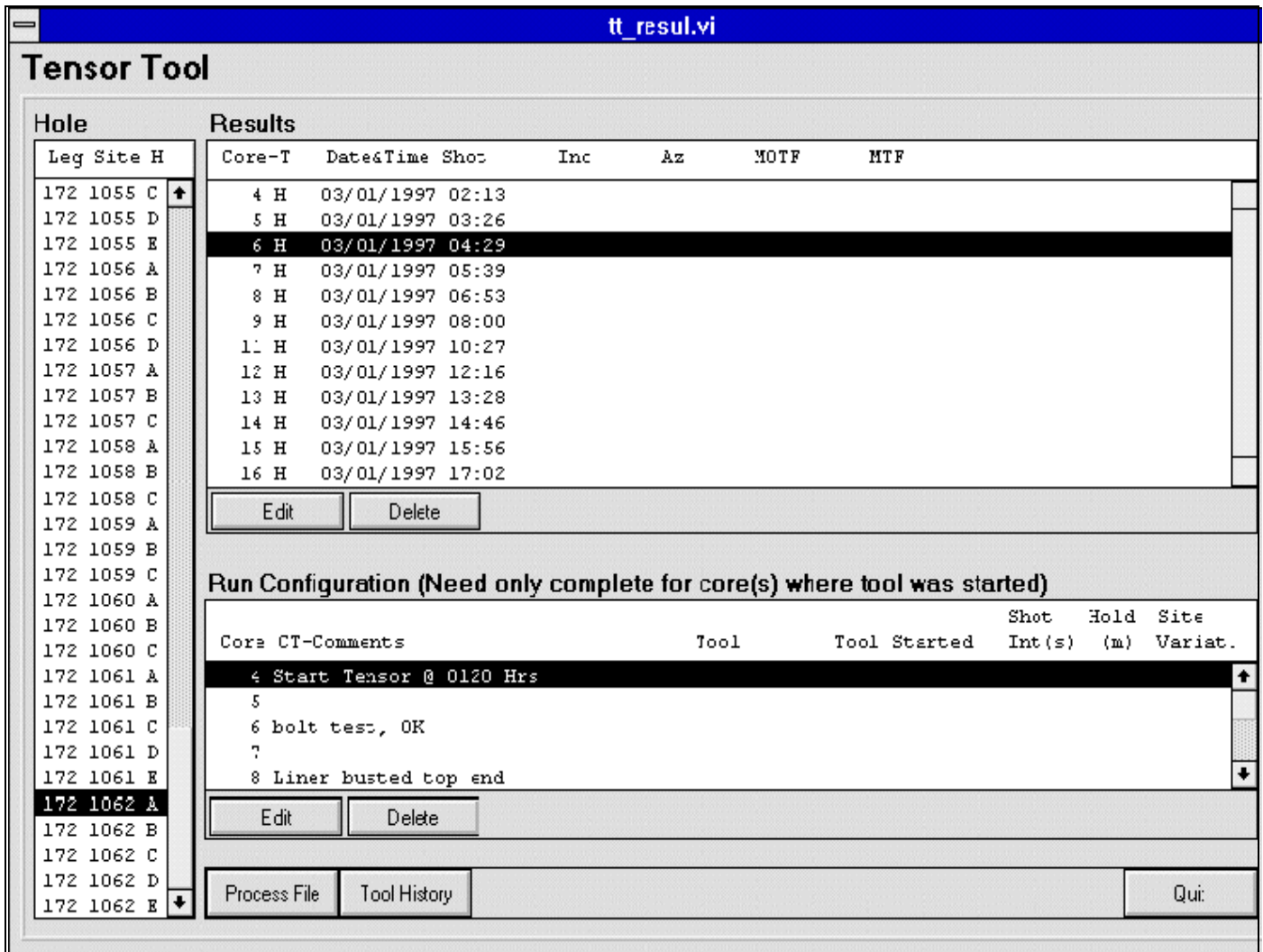


Figure 1. The main Tensor Tool Results window.

The Results Window

The TTool Results window provides several functions:

- The **hole pick list** displays all holes with TTool data results. Select a hole in order to retrieve data about a particular tensor tool run.

- The **tool results list** displays the stored averages for actual tensor tool data runs.
- The **tool run list** displays any special comments or notes regarding a specific tool run.

Hole Pick List

To view the data for a specific run of TTool data, first select a hole from the **Hole Pick List**. Use the scroll bar to view the entire list, then click once on your selection. Please be patient as data is retrieved from the central database and may take a few moments.

Tool Results List

Use the **Tool Results** panel to review, record or delete tensor results data in the central database. If the selected hole has any tensor tool runs associated with it, the dates and shoot times of the runs are displayed here, ordered by core, core type, and time. If no tool runs were logged, this panel will be blank, excepting the column headings.

Note: You cannot add new TTool shoot-times to the database. This information is logged by the drilling or operations staff using the Operations portion of the Janus data entry application.

Recording Results: the Result Edit Window

To record the results of a run, click on the **Edit** button in the **Tool Results** panel (See Figure 2). You can also open this window by double-clicking on a run in the **Tool Results** list.

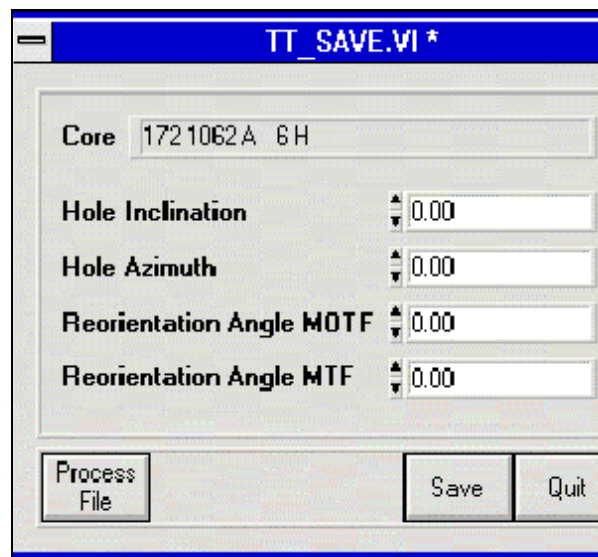


Figure 2. Record the results of a run here.

- If you have previously calculated values for the tool results, enter them here. Use the up and down arrow buttons beside each entry field to enter the values. Click on the

Save button to record your entries, and return to the **Results Window**.

- If you wish to read the raw tensor tool data files and do the necessary calculations to obtain the tool results values, click on the **Process File** button (See "Processing Files", p. 5).
- To quit without saving any edits or changes, click on the **Quit** button.

Deleting Results Data

To delete the recorded data values associated with a tensor tool run, first click on the record you wish to remove, then click on the **Delete** button in the "Results" panel. The run data (inclination, azimuth, MOTF, and MTF) will be cleared from the selected record.

Tool Run Information

The **Tool Run** panel (Run Configuration) displays supporting details for the elements of the **Tool Results** panel. Use the **Tool Run** panel to review, record or delete tensor run data in the central database.

If any tensor tool runs were made for the current hole, comments regarding that run are displayed. If other data—tool number, tool start time, shot intervals, hold off time, and site variation—were entered previously, they are also display here. If no run data was recorded, this panel will be blank, except for the column headings.

Note: You cannot edit the TTool comments. This information is logged by the drilling or operations staff using the Operations portion of the Janus data entry application.

Recording Run Information

To record run information, click on the **Edit** button in the **Tool Run** panel. This opens the window shown in Figure 3. You can also open this window by double-clicking on a run from the **Tool Run** list.

The screenshot shows a window titled "TT_RUNED.VI" with a blue header bar. Below the header, there are four input fields: "Leg" with the value "172", "Site" with "1062", "Hole" with "A", and "Start Core" with "4". Below these is a section for recording run information with the following fields: "Used Tool Number" (empty), "Start (MM/DD/YYYY)" (03/01/1997), "(HH:MM)" (01:20:00), "Shot Interval (s)" (30), "Hold Off time (min)" (0), and "Site Variation" (0.00). At the bottom of the window are two buttons: "Save" on the left and "Quit" on the right.

Figure 3. Record run information at this window.

- Enter any additional run information in the fields displayed on this window. Do this by using the up and down arrow keys beside each entry field. Click on the **Save** button to record your entries and return to the **Results** window.
- To quit without saving any edits or changes, click on the **Quit** button.

Deleting Run Data

To delete the recorded data values associated with a tensor tool run, first click on the record you wish to remove, then click on the **Delete** button in the “Run” panel. The run data (tool number, tool start date & time, shot interval, hold off time, and site variation) will be cleared from the selected record.

Processing Files

Open the **Process File** window by clicking on the **Process File** button in the **Results Window** or the **Result Edit Window**. Use this window to perform the following functions:

- Review the content of raw tensor tool data files.
- Review the content of a processed tensor tool data file.
- Graph the tool data available in a processed tensor tool data file.

Use the **display mode** switch to set TTool to configure graph data or to display raw text in a tabular format (See Figure 4 below).

Viewing Raw & Processed Data

Display the text of a raw or processed tensor tool data file by selecting either “Text Table - File Contents” or “Text Table - Data Only” from the **Display** entry field (See Figure 4). Use the up and down arrow keys to select one of these two entries.

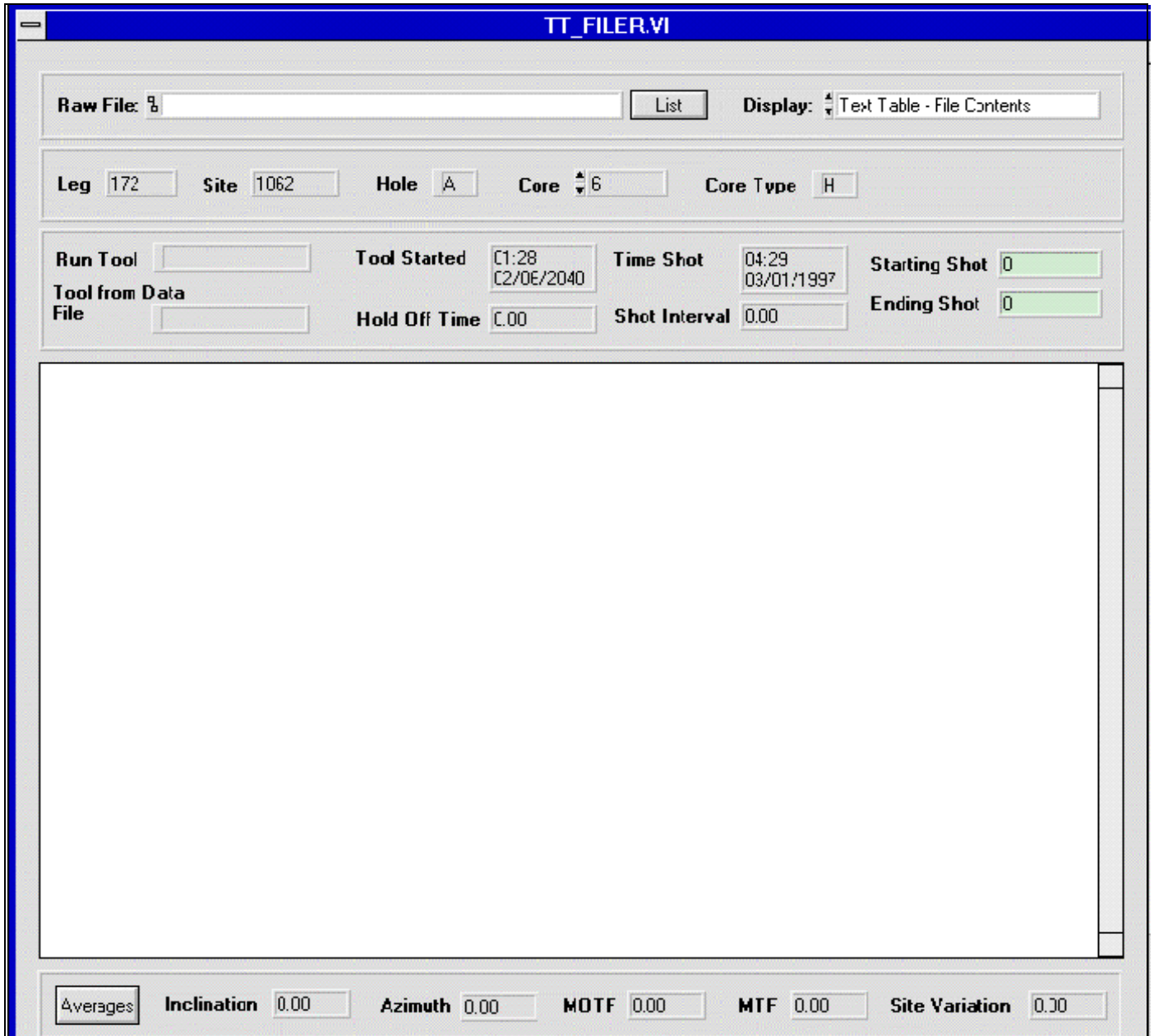


Figure 4. View raw or processed data here.

Text Table - File Contents Mode

Use this mode to browse the tabular tensor tool data extracted from the original raw tensor

data files. To select a particular data file, click on the **List** button. This opens a standard dialog box. Navigate through the box until you find the file you want to open.

- Select a single line of data in the open panel by clicking on it. Select multiple, non-continuous segments by clicking on each line while holding down the **Shift** key.
- When TTool first displays the data file, it highlights the data rows corresponding to the selected tensor shot start time and duration.
- You can display the average inclination, azimuth, MOTF, MTF and site variation for a group of tensor data rows. First highlight the rows you want averaged, then click on the **Averages** button.

The averages do not automatically update when you change your data panel selections—you must press the Averages button again if you select new rows of data.

- Save these average values to the **Results** window by clicking on the **Save** button.
- Click on the **Quit** button to exit the **Process File** window without saving the calculated averages.

Text Table - Data Only

Use this mode to display raw tensor tool data. In all other respects this mode is identical to the one above.

Graphing the Data

To graph tensor tool data, first select one of the following modes from the **Display** field:

- Line Graph - Hole Inclination
- Line Graph - Hole Azimuth
- Line Graph - Reorientation MOTF
- Line Graph - Reorientation MTF

Next use the **List** button to select a data file that you want graphed (See "Text Table - File Contents Mode", p. 6).

If you selected a graph view while in a text mode with highlighted data lines, the graph automatically centers on that region of the graphed data.

A variety of graphing controls are provided by TTool. The zoom, pan, and scale features are identical to those described at the end of the **MsTV** user's guide. Please refer to that document for information on how these features work.

Tool History

Open the **Tool History** window from the **Results** window by clicking on the **Tool History** button (See Figure5). Use this window to review, add, or delete comments about the status of specific tensor equipment (similar to an electronic log-book).

Existing comments cannot be edited unless you first delete the comment and then enter a new one.

If no tool history entries have been logged, the **Tool Pick List** and the **History View** panel will be empty.

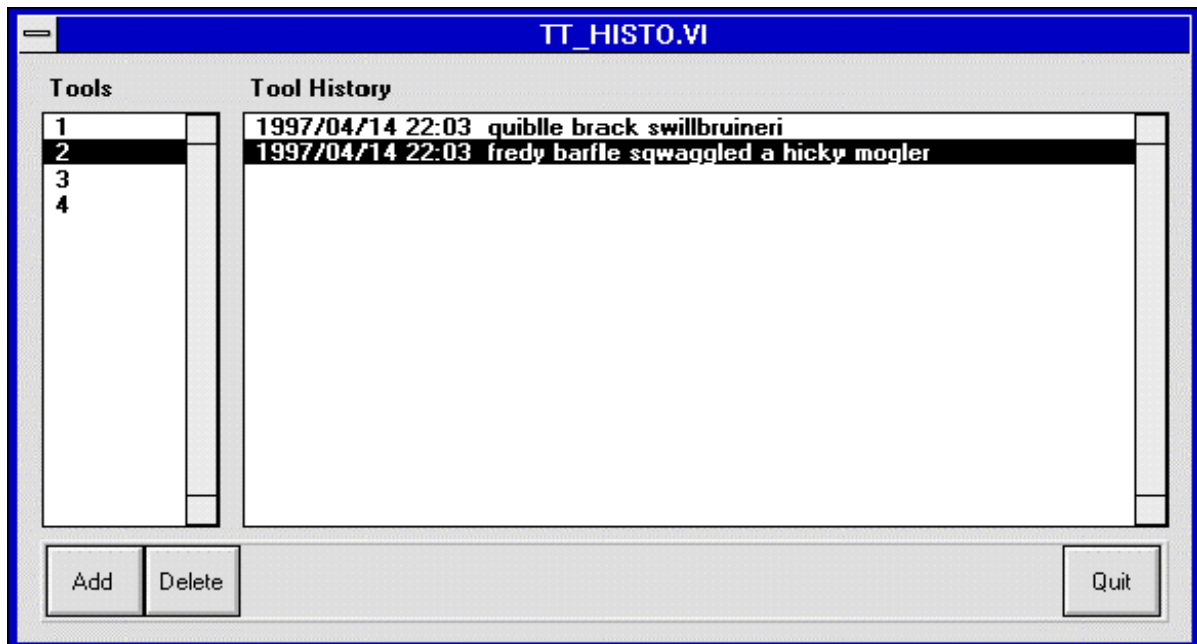


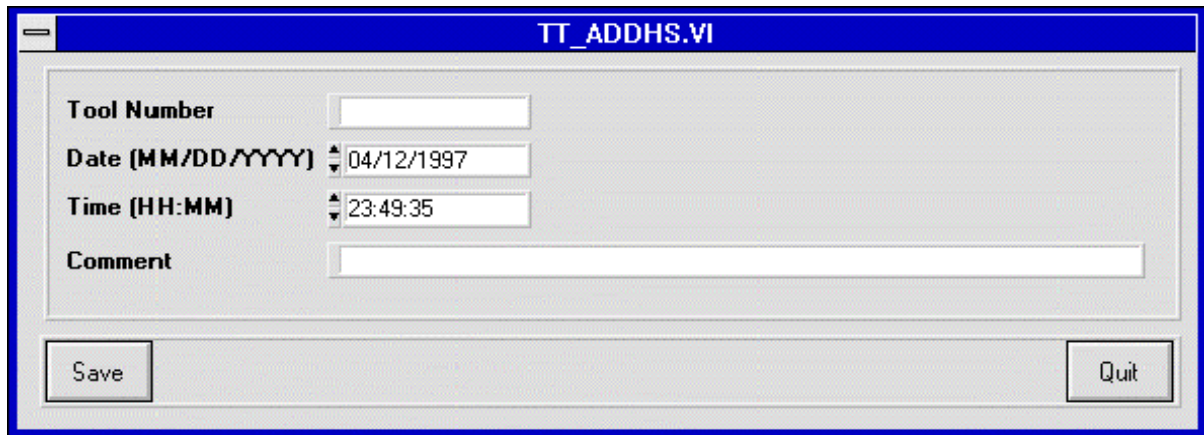
Figure 5. The Tool History window.

Reviewing Tool History

To review the history notes of a tool, select that tool number from the **Tool Pick List**. All comments appear in date and time order on the **History View** panel.

Adding Tool History

To add comments or notes to a tool history, click on the **Add** button. This opens the **History Edit** window (See Figure 6).



The image shows a software dialog box titled "TT_ADDHS.VI". It has a light gray background and a blue border. Inside the dialog, there are four input fields: "Tool Number" (empty), "Date (MM/DD/YYYY)" (04/12/1997), "Time (HH:MM)" (23:49:35), and "Comment" (empty). At the bottom of the dialog, there are two buttons: "Save" on the left and "Quit" on the right.

Figure 6. Add new comments and notes here.

- Select the tool number for which you are logging a comment, input your comment, and press the **Save** button to record your changes.
- Click on the **Quit** button to exit the **History Edit** window without saving any edits or changes.
- Add multiple comments for the same tool by specifying the same tool number on repeated data entry edits.

Deleting Tool History

To delete a tool history comment, first select it from the **History View** panel., then click on the **Delete** button. To delete an entire tool, you must first delete all comments added for that tool before it can be removed from the **Tool Pick List**.

Installation and Setup

Requirements

The following are the minimum recommended requirements needed to support this program:

- A 486 or higher IBM-compatible computer with a minimum 8 MB of RAM (16 MB recommended)
- A hard disk drive with at least 1 MB of free disk space
- SVGA or higher resolution monitor
- Windows 3.1
- LabView 4.0
- DataView Oracle 7 drivers
- ODBC (Open Database Connectivity) drivers for Oracle

Installing TTool

To install TTool on your computer, follow these steps:

1. Use the File Manager to create a directory where you want to install TTool (e.g. you might create the directory TTool off the root directory of your hard drive).
2. Copy the **TTool.EXE** program file to the newly created directory. The program is either provided as a diskette (copied from a network software warehouse), or transferred from an FTP site.
3. Create an icon on your desktop for TTool. Under Windows, do this by dragging a copy of the program to your desktop (or Program Manager window) from the File Manager window.
4. If you were given a diskette of TTool, remove the diskette and store it in a safe place.

Upgrading or reinstalling TTool

To upgrade from a previous version of TTool, simply replace your existing **TTool.EXE** program file with the new files obtained from a diskette, a network volume, or an FTP site.

Starting TTool

Start TTool by double-click on the desktop icon. The main window of TTool should open (See figure 7).

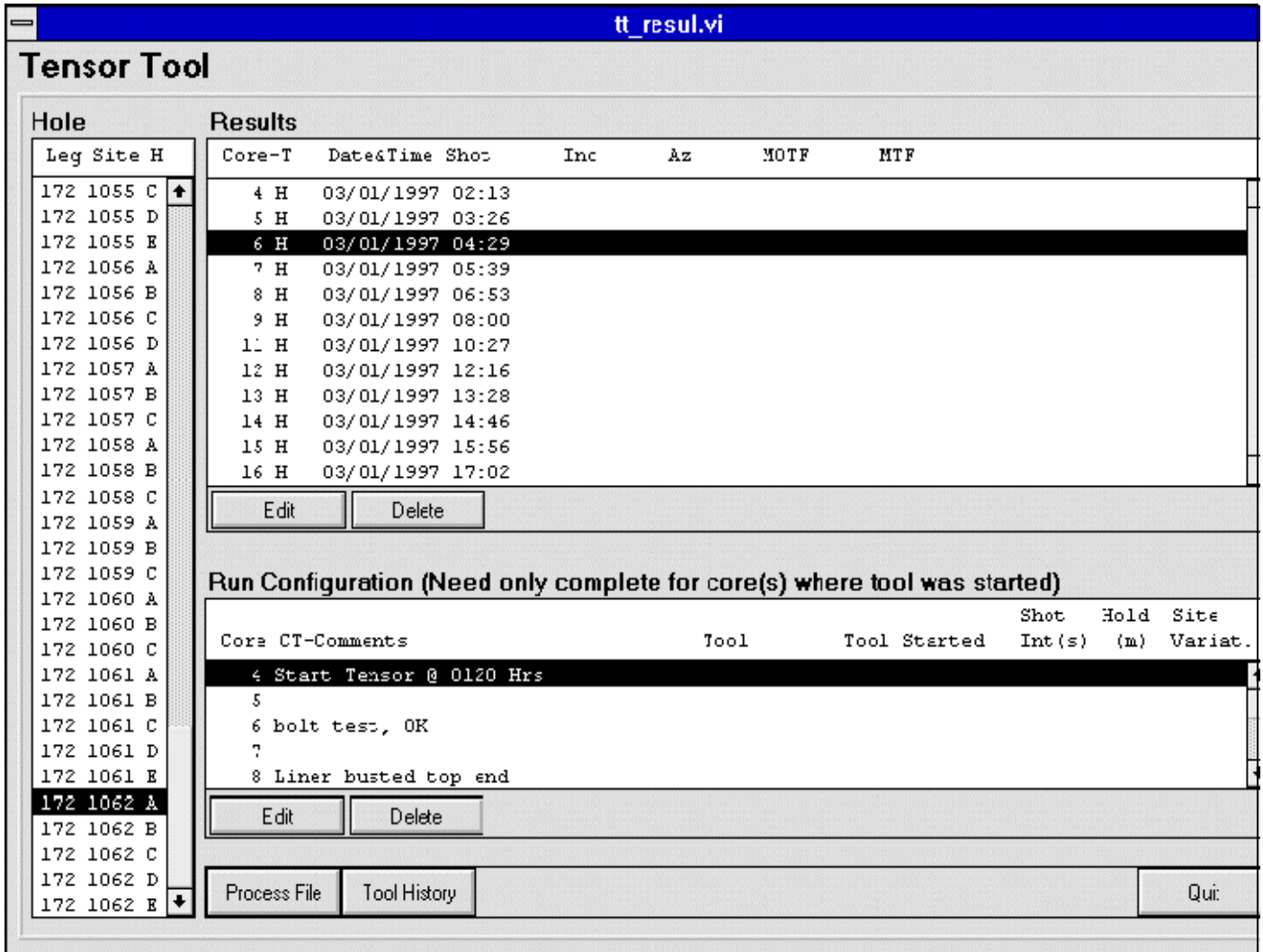


Figure 7. The main TTool window.

What's next

You have just installed TTool and run it for the first time. Feel free to explore. Refer to the first part of the *TTool User's Guide* for clear instructions how to use the features of TTool. Bon appetite!