TASC THE ADVANCED SOFTWARE COMPANY

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# Tasc PC SmartBoard

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# Introduction

We thank you for purchasing the Tasc SmartBoard. We are sure you will enjoy the ease of use and beauty of it. Please read these instructions carefully to take full benefit of its features and operate it correctly.

Your PC SmartBoard set consists of the following items:

- wooden chessboard
- chess pieces
- power supply
- PC interface with cable
- this documentation
- SmartBoard test diskette

Available separately:

- SmartBoard extension cord of about 7.5 meters.

### TASC BBS

The latest version of the SmartBoard driver can be downloaded from the Tasc BBS. Tasc BBS uses ANSI screens and supports speeds up to 14.400 bps. Communications settings: 8 data bits, 1 stop bit, no parity.
The number is: +31.10.485 42 48.

### Suggestions

Your suggestions and remarks on the SmartBoard and its drivers are welcomed. Contact us by writing to:

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# SmartBoard Installation

To connect the Tasc SmartBoard to your computer take these easy steps:

1. Make sure the PC is switched off and the SmartBoard is not connected to its power supply.
2. Connect the interface to the PC *printer* port. The arrow on the interface should point towards the PC.
3. If applicable: Connect the printer cable to the other end of the interface.
4. Connect the interface cable to the SmartBoard by inserting the telephone plug into (one of) the connector(s) near the top edge of the board.
5. Connect the power supply to a wall socket and to the SmartBoard.
6. Put the chess pieces on the board.
7. To test the SmartBoard and the connections you have just made, insert the SmartBoard diskette in a drive and type

   ```
   A:\SMARTBRD [Enter]
   ```
   you may have to replace A with B).

   If the SmartBoard is functioning correctly, the SmartBoard test screen will appear after a while, and a representation of the board will be shown on the screen.
   For more information about the SmartBoard test program, refer to '*About the SmartBoard test program*'.
1. If the board shown on the screen matches the position on the SmartBoard and the SmartBoard LEDs (lights) are activated one by one, the SmartBoard is functioning correctly.

Installation of the SmartBoard is now completed. If you also have SmartBoard compatible software, you can now proceed with the installation of this software.

**Do not:**

- Connect or disconnect the PC interface from the PC printer port as long as the power supply is connected to the SmartBoard. This could damage the interface.
- Connect the interface to the PC serial (COM-) port. Some versions of the PC serial port also use a DB25 connector, but of male gender. Therefore it is possible to connect the other end of the interface to the PC serial port. This cannot happen if you are sure that the arrow on the interface points towards the PC.

## Operation of the interface

The interface is completely invisible to the printer, no matter whether the power supply is connected to the SmartBoard or not.

# About the SmartBoard test program

Besides testing the Tasc SmartBoard, The SMARTBRD program also provides diagnostic information. If you are interested in this information, you should read this chapter.

The SMARTBRD program can be used to test the chessboard, the PC interface and even the SmartBoard chess pieces. To run SMARTBRD, you must have a VGA-adapter. A mouse is recommended.

To start the test program:

1. Install the SmartBoard hardware as described in the previous chapter.
2. Insert the SmartBoard diskette in a drive and type:

   ```
   A:\SMARTBRD [Enter]
   ```
   (you may have to replace A with B).

   Optionally, you can enter the printer port name at the command line. For more information about the command line parameters type:

   ```
   A:\SMARTBRD /? [Enter]
   ```

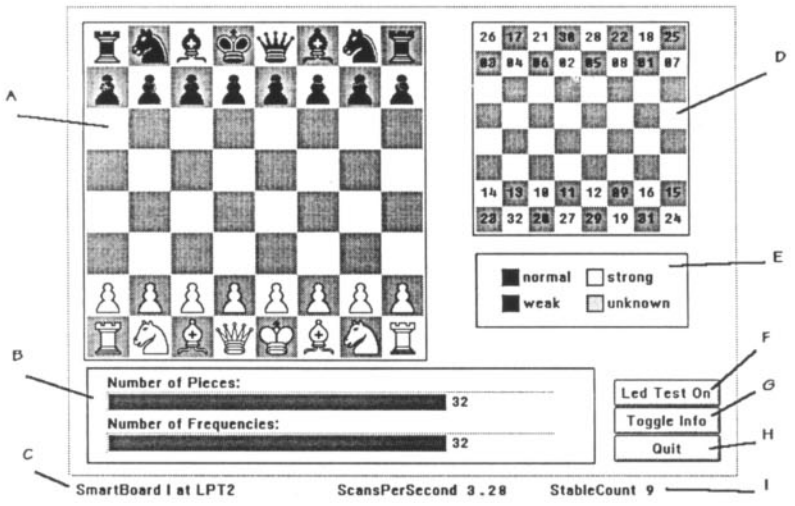


Figure 1: SMARTBRD test screen

A Screen representation of the position on the SmartBoard. If the position on the SmartBoard changes, so does the screen.

B Information window, currently showing the number of pieces and the number of frequencies.

C SmartBoard type and printer port.

D Board showing the individual frequency and strength of each piece.

E Explanation of the color coding of the piece strength shown in D.

F Button to toggle the LED test. During the test LEDs of every SmartBoard square will be activated.
Shortcut key: L.

G Toggles the contents of the information window.

Shortcut key: T.

H Quits the test program.
Shortcut key: Q or [Escape].

I ScansPerSecond shows information about the performance of the SmartBoard. StableCount shows how many times the board has been scanned since the last change. If the position on the board remains unchanged, this number should increment continuously.

## Frequencies

The Tasc SmartBoard features a unique piece recognition system. Through the use of clever electronics, it is able to distinguish between individual chess pieces. It knows the difference between a rook and a knight, a king and a queen etc. You can easily see this by looking at the board on the top right of the test screen. It will show a different number for each piece.

## SmartBoard Type

Currently there are two types of SmartBoard: SmartBoard I and SmartBoard II. At the bottom left, the connected SmartBoard type is displayed. The information displayed on the screen is slightly different for each SmartBoard type.
When SmartBoard II is connected, an extra button is available for testing the side to move leds. At startup, the test program will automatically detect the SmartBoard type.

## Individual piece statistics

After pressing the Toggle Info button, the information window will show extra information about the individual chess pieces. The stronger the piece the higher the column will reach, with a maximum strength of 2 for SmartBoard I and 7 for SmartBoard II.
If a column does not reach the maximum height, this is not a sign of a bad piece but merely a normal fluctuation that is also influenced by its position on the board and its position relative to the square.

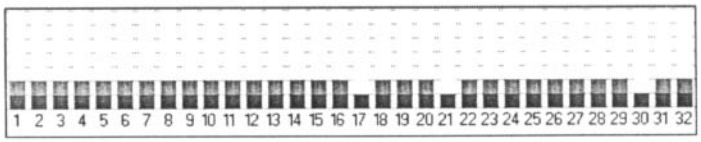


Figure 2: SmartBoard I

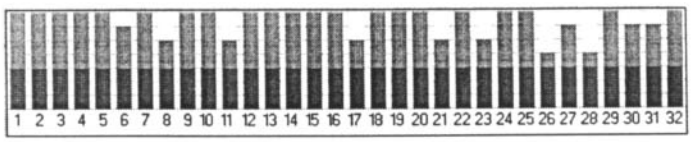


Figure 3: SmartBoard II

If there is more than one piece with the same frequency, this frequency will be shown in bright red. Normally, you should not have two pieces with the same frequency.

# SmartBoard with TascBase

- Install the SmartBoard following the instructions in "*SmartBoard installation*".
- Install TascBase using the install program on TascBase disk 1.
- The install-program will ask whether a smartboard is connected. Answer "yes"
- Complete the TascBase installation.

From within TascBase the SmartBoard is activated through the SmartBoard-option in the edit-menu. With TascBase SmartBoard has three modes of operation:

| | |
|---|---|
| Disabled | The SmartBoard is disabled, the program does not react to changes on the board. |
| Game | TascBase keeps track of the game played on the SmartBoard.<br>If illegal moves are made, or pieces are misplaced the board will signal this by flashing LEDs.<br>It is possible to take back the last move by undoing it on the board.<br>A new game starts automatically when the pieces are placed in the starting position |
| Position | The TascBase board will display all changes made on the board regardless whether they are legal moves or random changes.<br>TascBase will consider the side that did not change on the board the last time to have the move.<br>The background analysis will calculate immediately using the latest SmartBoard-position. |

If you like to analyse or play from a specific position:

- switch to "position" - mode
- put the desired position on the SmartBoard
- switch to "Game" - mode

You can now continue to enter legal moves from the position. The game is considered to be a fragment starting from the position.

# SmartBoard software drivers

Currently the SmartBoard is compatible with the following chess programs:
-Chess Genius 3.001
-Kallisto
-Mchess 3.0
-Rebel 6.0
-Frits 3

## Installation

The driver must be installed once for each chess program you want to use the SmartBoard with. This installation takes two steps:

1. The TASCDRV.EXE and TASCDRV.INI must be copied to the directory that contains the chess program executable file.
2. The program name and executable file name of the chess program should be set in TASCDRV.INI, as well as the port the SmartBoard is connected two.

The SmartBoard driver install program will normally take care of these steps. To use the driver install program.

1. Make sure you kwow the directory name where your chess program is installed.
2. Insert the SmartBoard diskette in a drive and type

   `A:\install <Enter>`
   (you may have to replace A with B)

3. Answer the questions asked by the driver install program.

After the install program has finished the chessprogram is ready to be used with SmartBoard. Start the SmartBoard driver by switching to the directory of the chess program and typing:

```
TASCDRV <ENTER>.
```

The driver will automatically load and start the chess program. All command line arguments TASCDRV detects, are passed on to the chess program. This means, you can use command line arguments like you normally would. For example if you normally type

```
FRITZ /X <ENTER>
```

you can now type

```
TASCDRV /X <ENTER>.
```

After terminating the chess program, the SmartBoard driver will be fully removed from memory.

## Backups

You can install the SmartBoard driver as many times as you like. The driver installation program consists of only one file. You can make backup copies of the installation program by simply copying this file with the DOS COPY-command.

# Using the SmartBoard with PC chess programs.

Playing on the SmartBoard against a PC chess program is a unique way of playing chess against a computer. On the SmartBoard you can do things, that a chess program normally wouldn't accept. You can, for example, make a move when it is not your turn. Also, the actions you take on the chessboard can lead to multiple actions for the chess program. For example, sliding a piece from e2 to e4 may be translated into 'play e2-e3' followed by 'take back last move' and finally 'e2-e4'. The time needed by a chess program to respond to these situations, differs from program to program and is influenced by the speed of your computer.

To avoid confusing situations you should follow this simple rule:
**Do not make any changes on the board before your last action has been accepted by the computer and the board LEDs have stopped flashing,**

Features:
- Friendly move input.
  You play the moves like you would on a normal chessboard.
  The computer move is indicated by flashing leds.

- Automatic detection of New Game.
  Simply put the chesspieces in the initial position on the SmartBoard and you are ready to start a new game.

- Automatic detection of New Game with rotated board.
  If you want to play a game with the black pieces closest to you, set up the starting position with the black pieces at this side and the SmartBoard will automatically detect this.

- Sliding of pieces allowed (e2->e3->e4).
  If you slide a piece over the board, the SmartBoard will automatically detect this and generate the correct moves.

- On board take back is possible.
  You can take back the last move(s) played on the SmartBoard and play different moves.
  You can even take back your last move when the computer has already responded and the chessboard leds indicating this move are flashing.

- Setup position supported (not in Rebel 6.0, Mchess and Fritz).
  Simply set up a new position on the SmartBoard!

## About the supported chess programs

### ChessGenius 3.0

To use the SmartBoard driver with ChessGenius, you need version 3.001 dated October 17, 1994 or a newer one. If you have an older version of ChessGenius 3.0, contact your dealer for a free update. If you have a version of ChessGenius prior to version 3.0, you should upgrade to version 3.001.

Tip: When using the SmartBoard with ChessGenius, disable the "Sliding pieces" option from the "Display" menu for a better response.

### Rebel 6.0

The SmartBoard driver is compatible with Rebel 6.0.

Note: The SmartBoard driver only works if the standard piece set REBEL.PCS is selected.
Note: Setup position from the SmartBoard is not supported in Rebel

### Kallisto

The SmartBoard driver is compatible with Kallisto version 1.83 dated November 11, 1994 and newer ones.

If you have an older version of Kallisto, you can receive an update by sending your original Kallisto diskette together with 10 Dutch Guilders for shipment and handling to Kallisto in Holland. For the exact address refer to your Kallisto manual.

### MChess Pro 3.5

The SmartBoard driver is compatible with MChess Pro 3.5

Tip: Select "Jumping Pieces" from the "Presentation" menu for a better response.
Note: Setup position from the SmartBoard is not supported in MChess.

### Fritz 3.0

The SmartBoard driver is compatible with Fritz 3.0 In Fritz.

Note: You must set "Animation" from the "Options" menu to 0 (zero).
Note: The SmartBoard driver only works if the standard board colors are used.
Note: Setup position from the SmartBoard is not supported in Fritz.

## Description of TASCDRV.INI

There is only one version of TASCDRV.EXE for all chess programs. TASCDRV.EXE is configured for a specific program through the settings in TASCDRV.INI. These settings are:

| | |
|---|---|
| Program= | (Identification string for the chess program) |
| ExecutableName= | (Name of the DOS executable. TASCDRV uses this name to start the chess program.) |
| SmartBoardType= | (Type of SmartBoard hardware.This is also displayed by the SMARTBRD test program.) |
| SmartBoardPort= | (Printer port to which the SmartBoard is connected.) |
| Delay= | (This value determines the delay between each key press generated by The SmartBoard driver to control the chess program. On a normal machine this should be 1. On slow machines, it can be set to a value in the range 2-10. |

# Troubleshooting

**The SMARTBRD test program displays the message "SmartBoard not detected" or**

**The SMARTBRD test program shows 64 black pawns or**

**The SMARTBRD test program doesn't update the *screen position***

Probable cause: The SmartBoard isn't correctly installed.
Please, verify the instructions in "*SmartBoard Installation*". Also try disconnecting and then re-inserting the power supply plug to reset the SmartBoard. Remember to put some (some of) the pieces on the board before running the SMARTBRD test program.

**TASCDRV reports "SmartBoard not detected".**

Does the SmartBoard work correctly with the SMARTBRD test program? If so, the SmartBoard driver is probably configured incorrectly. Re-install the driver or edit the TASCDRV.INI file using a DOS text editor. Refer to "*SmartBoard Installation*" and "*description of TASCDRV.INI*" Also try disconnecting any printer from the SmartBoard interface.

**TASCDRV reports "Program not found".**

The SmartBoard driver is configured incorrectly. Re-install the driver or edit the "ExecutableName=" entry in the TASCDRV.INI file using a DOS text editor.

**TASCDRV reports Insufficient free memory to start program**

Do not start the TASCDRV from within a DOS shell. In a DOS shell, there is less memory available. Otherwise you can try making more memory available by removing any unnecessary entries from your AUTOEXEC.BAT or CONFIG.SYS. Before changing anything, make a backup of these files!

**Chess program doesn't start and/or reports an error.**

This is most likely the result of an incorrectly configured chess program. Try running the chess program, without the SmartBoard driver. If this works, the 'ExecutableName=' entry in the TASCDRV.INI file is probably incorrect. Otherwise there is a problem with the chess program itself. Refer to the manual of your chess program for more information.

**Program doesn't (always) read moves, detect take back or new game.**

Are you sure the version of your chess program matches the version supported by the SmartBoard driver?
Your computer might be too slow. Add 1 to the value at the "Delay=" entry in TASCDRV.INI and try again. This value can range from 1 to 10.

**Move made on SmartBoard not accepted (leds keep flashing).**

Are you sure the move is legal? You can check this by entering the move using your mouse or keyboard.

If the move is legal but not accepted, the SmartBoard driver may have somehow missed a position and therefore doesn't accept your move. Enter the move using your mouse or keyboard to update the SmartBoard driver and you will probably be able to continue normally.

Remember to always wait until the last move has been accepted, before entering another one.