

TRGdos 1.3

DOS environment for TRGpro handhelds.

(limited DOS operations on other Palm handhelds).

(Freeware!)

```
C:\>pause
Press any key to continue...
C:\>dir

Volume in drive C is CF_CARD
Directory of C:\

TRGPRO*1 <DIR>      08-22-00 05:26p
URANTIA <DIR>       08-22-00 05:27p
PROJECTS <DIR>      08-22-00 05:27p
APPS&B*1 <DIR>      08-22-00 05:27p
PALMSDK <DIR>      08-22-00 05:27p
DAT&B&*1 <DIR>      08-22-00 05:28p
E-S&B&* <DIR>      08-22-00 05:28p
OLDS&B*1 <DIR>      08-22-00 05:28p
REFERE*1 <DIR>      08-22-00 05:28p
SYSTEM <DIR>       08-22-00 05:28p
SC&B&ATI <DIR>     09-15-00 09:29p
TEMP <DIR>         12-21-00 09:26p
AUTO&F <DIR>       12-01-00 11:00p
AUTOEXEC.BAT 4 12-31-00 07:57p
14 file(s) 4 bytes
13 dir(s) 350208 bytes free

C:\>
```

Download: [TRGDOS.ZIP](#)

(Visit <http://www.total.net/~hkonstas> for updates.)

Jan 29, 2001: Vr. 1.3 UPDATE:

TRGdos now works on other Palm devices (besides the TRGpro). Please note that since other Palm handhelds have no CF card slot, TRGdos drive C: is not accessible, and all file/directory DOS operations are not available. So you can only use TRGdos in other Palms to execute TRGdos applications.

Jan 7, 2001: Vr. 1.2 UPDATE:

Included developer's documentation in the ZIP file.

Added UserAbort() function.

Fixed the onscreen-keyboard crash (PalmOS seems to be crashing if there is no form resource in an application and the user taps the on-screen keyboard).

Jan 3, 2001: Vr.1.1 UPDATE:

* Implemented a **BOOT** manager.

* You can now create an **AUTOEXEC.BAT** file in **MEMO**. While booting, TRGdos now checks **first** for a memo titled "AUTOEXEC.BAT", and if found, it skips any autoexec.bat file found at the root of the CF card.

- * Batch files can now launch other batch files.
- * TRGdos applications can now have **.EXE** extensions.
- * You can now delete TRGdos applications from within TRGdos like this: *del b:filename*
- * Included more TRGdos sample applications.
- * Few Bug fixes.

INTRODUCTION:

TRGdos is the first and only, true **DOS environment** for **TRGPro** handheld computers (limited DOS operations on other Palm handhelds). **TRGdos** is very similar to the good old' **COMMAND.COM**. It's not only used for CF file operations (on TRGpro handhelds) - **it's a DOS environment** where **TRGdos applications** and batch files can be launched.

TRGdos has the following features:

- * *True **DOS commands**: CLS, DIR, REN, MD, RD, CD, TYPE, ECHO, PAUSE, VER, COPY, DEL, ...*
- * *Minimal support for simple batch (.BAT) files, including AUTOEXEC.BAT.*
- * *Support for **TRGdos applications** (A TRGdos utility is included in the ZIP file as a sample).*
- * ***DOS application library** freely available to developers for developing DOS applications for TRGdos.*
- * *Launches native Palm apps and TRGdos applications with command-line parameters from the command prompt.*
- * *No need of unique PalmOS registration IDs: All DOS applications use the same ID and operate under TRGdos.*
- * *TRGdos applications are of small size, since there's no graphical user interface overhead.*
- * *DOS command-line parameter and batch-control power.*
- * *Scrollable 40x26 output console.*
- * *Easy to port existing DOS (text) applications to TRGdos: The TRGdos programmer's library is using standard STDIO functions: printf(), gets(), getch(), open(), close(), read(), write(), malloc(), main(int argc, char *argv[]), etc...*

What is a TRGdos application:

It's a DOS application that is written to run under the **TRGdos environment**. It has no graphical user interface - it uses a **40x26 scrollable screen** as output and has **command-line input** (flashing cursor, input via graffiti or external keyboard). TRGdos applications are easy to develop: they are **using standard C-library functions** such as *printf()*. It's easy for developers to write **TRGdos applications**, and source code can be ported to the PC with no modifications, recompiled and run on the PC.

TRGdos was primarily designed for TRGpro handhelds. However, it works on other Palm handhelds as well, but since other Palms have no CF card slot, all file/directory DOS operations are not available. You can use TRGdos on other Palms to only execute TRGdos applications. Since PalmOS uses long filenames for its application databases, directory output on non-TRGpro handhelds differs from the standard output (TRGpro Palms only have standard DOS directory output since they have access to CF cards.)

Here's the source code of a very simple TRGdos application. It simply displays the command line parameters that are passed to it from the TRGdos command prompt:

```
// -----  
  
//      DOS SAMPLE APPLICATION  
  
//      Version 1.0  
  
//      by: Harry Konstas 00/12/28  
  
// -----  
  
// (change the following to "stdio.h" to compile on a PC.)  
#include "OBLstdio.h"  
  
// -----  
  
//      M A I N  
  
// -----  
  
int main(int argc, char *argv[])  
{  
  
    int f;
```



```

printf("DOS sample application.\n\n");

printf("Number of parameters = %d\n\n",argc);

for(f=0;f<=argc;f++)

    printf("parameter #%d = %s\n",f,argv[f]);


printf("\nPress any key to continue...");

getch();

return 0;

}

```

* I'm currently using OnBoardC to compile all TRGdos applications directly on my TRGpro.

USAGE:

We won't go into the details on how to use the DOS commands since TRGdos is very similar to MSDOS. Assuming that you already have used DOS in the past, I will only list the current limitations/differences of TRGdos.

First, simply launch TRGdos like any other application from your application launcher screen. You will immediatly find the familiar **c:> prompt** on your screen. **To EXIT TRGdos** simply tap the **APPS** icon or press any of the four **HARDWARE** buttons. The first time you launch TRGdos, you will get the version information of TRGdos, and the available disk drives. You can always get this information by using the command **VER.:**

Available disk drives:

A: (virtual) This is your handheld's RAM, where all your Palm applications reside. You cannot switch (log) onto this drive - you can only use the command **dir a:** to view its contents. Between "press any key" prompts, if you press 'C' (use graffiti) it reacts as the familiar **CTRL-C** in DOS, which halts the current operation.

B: (virtual) Again your RAM, but this time only TRGdos applications will be displayed. You cannot switch (log) into this drive - use the **dir b:** command to view its contents. This drive is only used to group all the TRGdos applications. Between "press any key" prompts, if you press 'C' (use graffiti) it reacts as the familiar **CTRL-C** in DOS, which halts the current operation.

You can delete any installed TRGdos DOS application from the C: prompt as follows:

```
c:/>del b:filename
```

were *filename* is an installed TRGdos application.

C: (real) This is your compact flash card drive. All DOS operations can be used with this drive, since it's the **only** drive that points to a true file-system (RAM has no file system - only databases). **This drive is not available on non-TRGpro Palms.**

D: (virtual) Another RAM portion which groups together **ALL DOC** (document reader) files. You cannot switch (log) into this drive, you can only access it by using the **dir d:** command to view only all the DOC files installed into your memory.

* **All DOS file operations such as:** *del,ren,md,cd, etc...* **can only be used on the C: drive.**

The **REBOOT** command can be used to "reboot" TRGdos and re-launch any available autoexec.bat file.

TRGdos Limitations:

You can only log into the **C:** drive (non-TRGpro Palms log only into drive B:). Virtual disk drives **A: B: and D:** are only accessible via the **DIR drive:** command. This is because drive C: has access to the only available file system of your TRGpro, the CF card slot.

The **COPY** command is limited to copying one file at a time (no wildcard specs). Parameters are:

copy <source filename> <destination filename>

The **DIR** command has only the **/p** switch option (paged output). Between "press any key" prompts, if you press '**C**' (use graffiti) it reacts as the familiar **CTRL-C** in DOS, which halts the current operation.

Batch file support has no stack, so launching an application within a batch file, the control returns to DOS. Available batch language commands are: *echo* and *pause*.

Currently there is no piping or input redirection support in TRGdos.

Output screen is erased by PalmOS when a TRGdos application is launched.

Currently available TRGdos functions on TRGpro handhelds:

?, reboot,help, exit, ver, cls, dir [/p], cd, md/mkdir, rd/rmdir, del/delete, ren/rename, type,echo and pause.

Currently available TRGdos functions on other Palm handhelds:

?, reboot,help, exit, ver, cls, dir [/p], del/delete (drive b: only), echo and pause.

* The **REBOOT** command is used to reboot TRGdos.

Other important notes:

At the DOS prompt, pressing the **UP hardware button** has the same effect as the **F3** key of DOS: it repeats the last command that was entered at the DOS prompt.

TRGdos remembers and stays at the last directory path between launches.

While booting, TRGdos checks for a **MEMO** having **AUTOEXEC.BAT** as a title (1st line). If found, the batch file will be executed. If not, TRGdos launches **AUTOEXEC.BAT** file - if available at the root of drive C:. Please note that first line of the autoexec memo **MUST BE IN CAPITALS** like this: **AUTOEXEC.BAT** so TRGdos can recognize it and launch it during boot time.

TRGdos applications have all the same (already registered) unique ID: '**pdos**'. They are not visible under the Palm's native application launcher since they are of type '**pdos**'. They are only visible and executable from drive B: under TRGdos.

There's a few sample TRGdos utilities included with TRGdos: **txt2doc** will allow you to convert TEXT files to DOC directly from the CF card (similar to my **CF2DOC** utility, freely available from [my web site](#)). **words** is a small utility that counts the number of words in a text file. **demo** is a simple TRGdos demo application. To launch any TRGdos application, simply type its name and command line parameters from the c:\> prompt.

To launch a Palm application, simply type the application's name. Please note that **Palm applications are case sensitive**.

You can delete any installed TRGdos DOS application from the C: prompt as follows:

```
c:/>del b:filename
```

where *filename* is an installed TRGdos application. **You must include the drive 'b:' followed by filename.**

TRGdos and any included TRGdos utilities, were written by [Harry Konstas](#) on a TRGpro handheld, using [OnBoardC](#).

The **TRGdos programmer's library** was also written for OnBoardC. There are no warranties given with the use of TRGdos. User assumes all responsibilities - use at your own risk.

January 29, 2001

Harry Konstas

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