



Function Description  
Version 0.17

[system-99 user-group](#)

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Actual versions at [system-99 user-group](#)

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# DSR-Scan

## DSR-Scanner

The DSR-Scanner displays all of the possible CRU-addresses and the names of the recognized cards in the system.

Each column contains the following important information:

- H** Header. This is the basic information where the card is located.
- R** Reset-Vector at address >4004. The card does a system initialization by switching reset on.
- P** Program-Vector at address >4006. In the DSR range of the TI, we see no programs in this area and it is always empty.
- D** DSR-Name at address >4008. All of the DSR calls are run from here such as: Open, Close, Read, Write, Delete, Load, Save etc. The available DSR names will be displayed in the next field.
- S** SBR-Vector at address >400A. All of the program parts in the card, that are called with CALL xxxx, for example, CALL FILES will be shown the the SBR column.
- I** Interrupt-Vector at address >400C. Here is where the program part that handles the interrupt can be found.
- X** For Future Expansion. The vector at >400E has no known application. TI also does not provide any information about it.

**DSR** All of the known DSR names that were captured are displayed here. The captured names may be shortened but, in any case, will be displayed correctly.

**SBR** All of the known SBR names that were captured are displayed here. The captured names may be shortened but, in any case, will be displayed here.

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DSR-Scanner                                v0.17 - 21.01.2009 - (c) H.Glaab
-----
CRU - Adresse |H|R|P|D|S|I|X|          DSR          |          SBR
-----
>0E00         |-|-|-|-|-|-|-|TEXT80      |DEFCOL      |EVPC         |GIF99
>0F00 *SGCPU* |*|*|-|-|*|-|-|GRAPH1      |GRAPH2      |BASIC        |
>1000 ASCSI 2 |*|*|-|-|*|*|-|-|          |          |          |
>1100 BwG     |*|*|-|-|*|*|-|-|          |          |          |
>1200         |-|-|-|-|-|-|-|          |          |          |
>1300 RS232   |*|*|-|-|*|-*|-|-|          |          |          |
>1400 EVPC-2  |*|*|-|-|*|*|-|-|          |          |          |
>1500         |-|-|-|-|-|-|-|          |          |          |
>1600 HRD 16  |*|*|-|-|*|*|*|-|-|          |          |          |
>1700         |-|-|-|-|-|-|-|          |          |          |
>1800 SPVMC   |*|*|-|-|*|*|-|-|          |          |          |
>1900         |-|-|-|-|-|-|-|          |          |          |
>1A00         |-|-|-|-|-|-|-|          |          |          |
>1B00 HSGPL-2F|*|*|-|-|*|*|-|-|          |          |          |
>1C00         |-|-|-|-|-|-|-|          |          |          |
>1D00         |-|-|-|-|-|-|-|          |          |          |
>1E00         |-|-|-|-|-|-|-|          |          |          |
>1F00         |-|-|-|-|-|-|-|          |          |          |
-----
(Pfeiltasten)                                (Back)

```

Use the arrow keys **Up** and **Down** to navigate through the CRU-addresses and go to the card of your choice. The CRU-addresses of a normal console and also the address of the SGCPU are supported.

# DSR-Scan

## CRU-ID

By pressing "C", the CRU-ID of the respective card will be placed in the first column.  
The CRU-ID gives the identity of the card type.

DSR-Scanner		v0.17 - 21.01.2009 - (c) H.Glaab					
CRU - Adresse	H R P D S I X	DSR			SBR		
>0E00 >0000	- - - - - -	TEXT80	DEFCOL	EVPC	GIF99		
>0F00 >FFFF	* * - - * - -	GRAPH1	GRAPH2	BASIC			
>1000 >A522	* * - * * * -						
>1100 >FF9F	* * - * * - -						
>1200 >FFFF	- - - - - -						
>1300 >0C0C	* * - * - * -						
>1400 >A5C2	* * - * * * -						
>1500 >FFFF	- - - - - -						
>1600 >A561	* * - * * * *						
>1700 >FFFF	- - - - - -						
>1800 >A541	* * - * * - -						
>1900 >FFFF	- - - - - -						
>1A00 >FFFF	- - - - - -						
>1B00 >A5A1	* * - * * - -						
>1C00 >FFFF	- - - - - -						
>1D00 >FFFF	- - - - - -						
>1E00 >FFFF	- - - - - -						
>1F00 >FFFF	- - - - - -						

(Pfeiltasten) (Back)

## PLD-ID

By pressing 'P' - as previously – the PLD-ID of the respective card is displayed.  
The PLD-ID is the Hardware Version number of the card

DSR-Scanner		v0.17 - 21.01.2009 - (c) H.Glaab					
CRU - Adresse	H R P D S I X	DSR			SBR		
>0E00	- - - - - -	TEXT80	DEFCOL	EVPC	GIF99		
>0F00	* * - - * - -	GRAPH1	GRAPH2	BASIC			
>1000 PLD# >07	* * - * * * -						
>1100	* * - * * - -						
>1200	- - - - - -						
>1300	* * - * - * -						
>1400 PLD# >0E	* * - * * * -						
>1500	- - - - - -						
>1600	* * - * * * *						
>1700	- - - - - -						
>1800 PLD# >07	* * - * * - -						
>1900	- - - - - -						
>1A00	- - - - - -						
>1B00 PLD# >09	* * - * * - -						
>1C00	- - - - - -						
>1D00	- - - - - -						
>1E00	- - - - - -						
>1F00	- - - - - -						

(Pfeiltasten) (Back)

# DSR-Scan

## Module Scanner

DSR-Scanner		v0.17 - 21.01.2009 - (c) H.Glaab	
GRMRD >9804	H R P D S I X	Programm	DSR   SBR
GROM >0000	* - * * -	TI EXTENDED BASIC	SOUND CLEAR
GROM >2000	* - * * -		COLOR GCHAR
GROM >4000	- - - - -		HCHAR VCHAR
GROM >6000	* - * * * -		CHAR KEY
GROM >8000	- - - - -		JOYST SCREEN
GROM >A000	- - - - -		VERSION ERR
GROM >C000	* - - - -		SPRITE DELSPRI
GROM >E000	- - - - -		POSITIO COINC
ROM >6000	- - - - -		MAGNIFY MOTION
ROM >6002	- - - - -		LOCATE PATTERN
ROM >6004	- - - - -		DISTANC SAY
ROM >6006	- - - - -		SPGET CHARSET
			LINK LOAD
			INIT PEEK
			CHARPAT
(Pfeiltasten)		(Back)	

With the **right** and **left** arrow keys you can inspect a HSGPL card or other card with more GROM-Bases and change from one base to another. The actual GROM-Base is in hexadecimal numbers after the "GRMRD" display. With the standard TI there is only one Grom-Base (>9800)

With the **UP** and **Down** arrow keys the storage areas can be chosen. Most of the programs are stored in Grom 3 (G>6000) or in ROM >6000 this area is usually displayed.

The recognized program names and DSR- as well as the SBR-captured names will be displayed in the appropriate column. The names will be displayed in shortened form.

DSR-Scanner		v0.17 - 21.01.2009 - (c) H.Glaab	
GRMRD >980C	H R P D S I X	Program	DSR   SBR
GROM >0000	* - * * -	MINI MEMORY	MINIMEM EXPMEM1 INIT LOAD
GROM >2000	* - * * -	EASY BUG	EXPMEM2 LINK PEEK
GROM >4000	- - - - -		PEEKV POKEV
GROM >6000	* - * * * -		CHARPAT
GROM >8000	- - - - -		
GROM >A000	- - - - -		
GROM >C000	- - - - -		
GROM >E000	- - - - -		
ROM >6000	* - - - -		
ROM >6002	* - - - -		
ROM >6004	* - - - -		
ROM >6006	* - - - -		
(Pfeiltasten)		(Back)	

## Versions Verification

When the Main Screen is displayed, you can press the # key and the information about the version number will be displayed.

The Version number consists of the Build number, the Assembler run, and the Assembler data. In the event that you have a problem with the version of the program, this will help provide us with an exact identification.

```
+-----+
| DSR-Scanner                               v0.17 - 21.01.2009 - (c) H.Glaab |
+-----+
|
|                                     +-----+
|                                     | Hauptauswahl |
|                                     +-----+
| D .... Informationen DSR-Bereich |
| M .... Informationen Modul-Bereich |
| E .... Programm Beenden         |
|                                     +-----+
|
+-----+
|                                     Build: 00000083 26.09.2004 00:44 |
+-----+
```



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## DSR-Scan

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### Glossary

- CRU** Communication Register Unit, a 1-Bit shorthand for the processor for incoming and outgoing functions. The area is a 128 bit block where the individual card information is found. The first address is reserved for turning on the DSR.
- DSR** Device System Routine, the "Brain" of the individual card. The DSR has the right program parts for each card. It is needed so each card can communicate and commands are fulfilled so that the right actions are taken.
- DSR-Name** Placed here are the known Level-2 calls that are called by OPEN, CLOSE, READ, WRITE, RESTORE, LOAD, SAVE, REWIND, DELETE, SCRATCH or STATUS.
- SBR-Name** Placed here are the known Level-1 calls that are accessed with CALL.
- CRU-ID** The identification of the card, placed in the logic chip(s) of the Hardware. Specific information is in the document CRU-ID on the Internet site [system-99 user-group](#).
- PLD-ID** Hardware revision of the card, placed in the logic chip(s) of the Hardware. Specific information is in the document CRU-ID on the Internet site of the [system-99 user-group](#).