

Data Manager is a very useful program that allows an easy and fast management of all data on your TI, in every fold. It is particularly useful with numeric data because it can interpolate two data rows choosing column and requested value. It's some more fast renaming it Kbdprgm1-9. Scientific data packs are also available.

Select the fold were requested datas are contained and enter main\dataman() (or use kbdprgm1-9). In all folds the program uses a folder matrix named *datamand* where all necessary informations are contained. If this matrix doesn't exists the program creates it when you chose **New** from the first menu.

*datamand* structure is:

$$\begin{bmatrix} \text{"Title\_1"} & \text{"Var\_1"} & \text{"{Tit\_1,Tit\_2,Tit\_3}"} \\ \text{"Title\_2"} & \text{"Var\_2"} & \text{"{Tit\_1,Tit\_2}"} \\ \text{"Title\_3"} & \dots & \dots \\ \dots & \dots & \dots \end{bmatrix}$$

When you insert a new data in the folder archive you have to enter the title or the description of the data (you can use more than 8 characters), the variable name of the data and the title of each column (if you want you can chose default names).

You can edit *datamand* directly from the home screen but take care of string signs.

When you delete a data from archive the program shows the list of archive datas: if you deleted data is removed from the archive but it is still present in the fold. **No data will be lost!**

When you open a data you can chose to use interpolation or not.

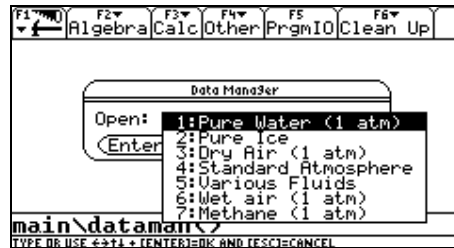
### Example 1

You want to know the physic characteristics of pure water when temperature is 12.5 °C.

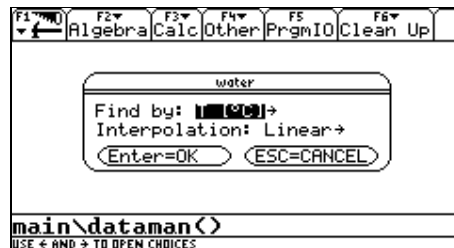
In your fold is stored this data:

$T$	$\rho$	$e$	$p_v$	$\sigma$	$\mu$	$\nu$	$k$
°C	kg m <sup>-3</sup>	Pa	kPa	N m <sup>-1</sup>	Pa s	m <sup>2</sup> s <sup>-1</sup>	W m <sup>-1</sup> K <sup>-1</sup>
-10	998.14	1.80·10 <sup>9</sup>	0.286	7.7 · 10 <sup>-2</sup>	2.58· 10 <sup>-3</sup>	2.58 · 10 <sup>-6</sup>	0.55
-5	999.28	1.89	0.422	7.62	2.10	2.1	0.56
0	999.87	1.96	0.611	7.56	1.75	1.75	0.57
5	999.99	2.03	0.872	7.49	1.50	1.50	0.58
10	999.73	2.09	1.227	7.42	1.30	1.30	0.59
15	999.13	2.14	1.704	7.35	1.14	1.14	0.60
20	998.23	2.18	2.337	7.28	1.00	1.00	0.60
25	997.08	2.21	3.166	7.20	0.89	0.89	0.61
30	995.68	2.23	4.241	7.12	0.80	0.80	0.62
35	994.06	2.25	5.622	7.04	0.72	0.721	0.63
40	992.25	2.26	7.375	6.96	0.65	0.650	0.63
50	988.07	2.26	12.335	6.79	0.54	0.550	0.64
60	983.16	2.28	19.912	6.63	0.47	0.480	0.65
70	977.76	2.25	31.119	6.44	0.40	0.410	0.66
80	971.77	2.21	47.323	6.25	0.35	0.36	0.67
90	965.30	2.15	70.141	6.07	0.31	0.32	0.68
100	958.43	2.07	101.325	5.89	0.28	0.30	0.68

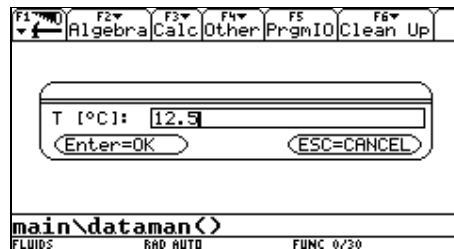
Select pure water data (available in fluids package) by the OPEN menu:



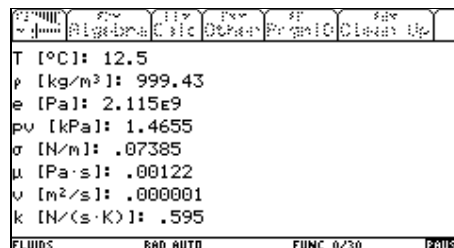
Select T[°C] in *Pure Water* menu (you can chose each column, not only the first) and chose linear interpolation



Enter the requested value:



and press Enter. All data relative to this temperature are displayed (it is not important the number of column):



If you want to know a datum without interpolation you have to select interpolation OFF: if the datum is present in the data it is displayed else the program gives the message **“Search finished without results”**.

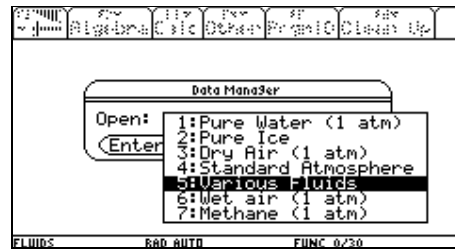
If you want to know all data about a specific item, like a substance, that in your data is present like a string the program gives automatically a list to chose.

### Example 2

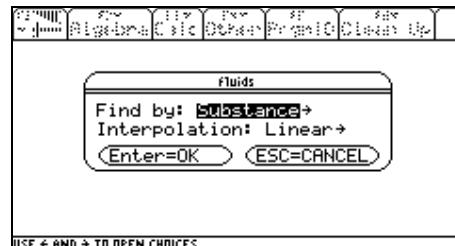
You want to know all physic data of Kerosene (available in fluids package).

Sostanza	$\rho$	$p_v$	$e_s$	$\sigma$	$\mu$	$\nu$
	$\text{kg m}^{-3}$	Pa	Pa	$\text{N m}^{-1}$	Pa s	$\text{m}^2\text{s}^{-1}$
Alcool etilico	789	5900	$0.91 \cdot 10^9$	$2.3 \cdot 10^{-2}$	$1.2 \cdot 10^{-3}$	$1.52 \cdot 10^{-6}$
Glicerina	1263	0.011	4.5	6.3	1490	1.180
Benzina	680	30000	1.2	2.7	0.3	0.44
Mercurio	13546	0.16	25.0	48.4	1.55	0.114
Kerosene	820	3000	1.5	3.2	1.90	2.32
Benzolo	879	10000	1.1	2.9	0.65	0.74
Acido acetico	10555	1500	1.1	2.8	1.29	1.22

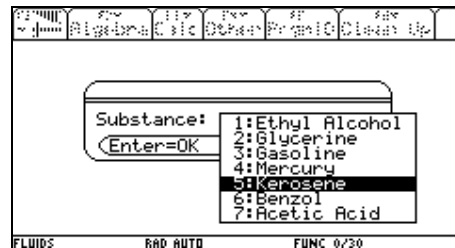
Select *Various Fluids* in the open menu



Select substance in the Fluids menu (interpolation is not important: you can keep linear)



The program shows now a menu of the substances contained in the data. Chose Kerosene



All data relative to Kerosene are displayed like in the example before

File	Edit	View	Options	Program	Help
Substance:	Kerosene				
$\rho$ [kg/m <sup>3</sup> ]:	820				
$p_v$ [Pa]:	3000				
$e_s$ [Pa]:	1.5e9				
$\sigma$ [N/m]:	.032				
$\mu$ [Pa·s]:	.0019				
$\nu$ [m <sup>2</sup> /s]:	.000002				
FLUIDS	END AUTO	FUNC 0/30	PAUSE		

The program is created to a scientific application but you can also use it with a lot of datas: telephone numbers, address book...

This program has been already used many times without problems. If somebody finds any bug is asked to let me know. My address is [paolo.silingardi@libero.it](mailto:paolo.silingardi@libero.it).  
Thank you very much for your help!

Paolo Silingardi