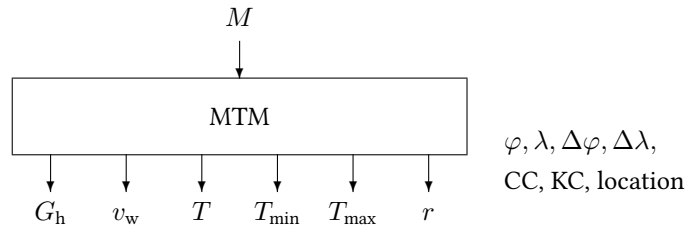


Block MTM

The MTM block returns monthly mean values of meteorological data from the inselWeather database.



Name	MTM
Function	em0018
Inputs	1
Outputs	9
Parameters	0 ... [6]
Strings	1
Group	S

Inputs

- 1 Month $M \in [1, 12]$

Outputs

- 1 Global radiation $G_h / \text{W m}^{-2}$ on a horizontal plane
- 2 Wind speed $v_w / \text{m s}^{-1}$
- 3 Ambient temperature $T / ^\circ\text{C}$
- 4 Minimum ambient temperature $T_{a,\min} / ^\circ\text{C}$
- 5 Maximum ambient temperature $T_{a,\max} / ^\circ\text{C} / ^\circ\text{C}$
- 6 Rain / mm
- 7 Annual mean ambient temperature / $^\circ\text{C}$
- 8 Maximum ambient temperature difference / $^\circ\text{C}$
- 9 Relative humidity

Parameters

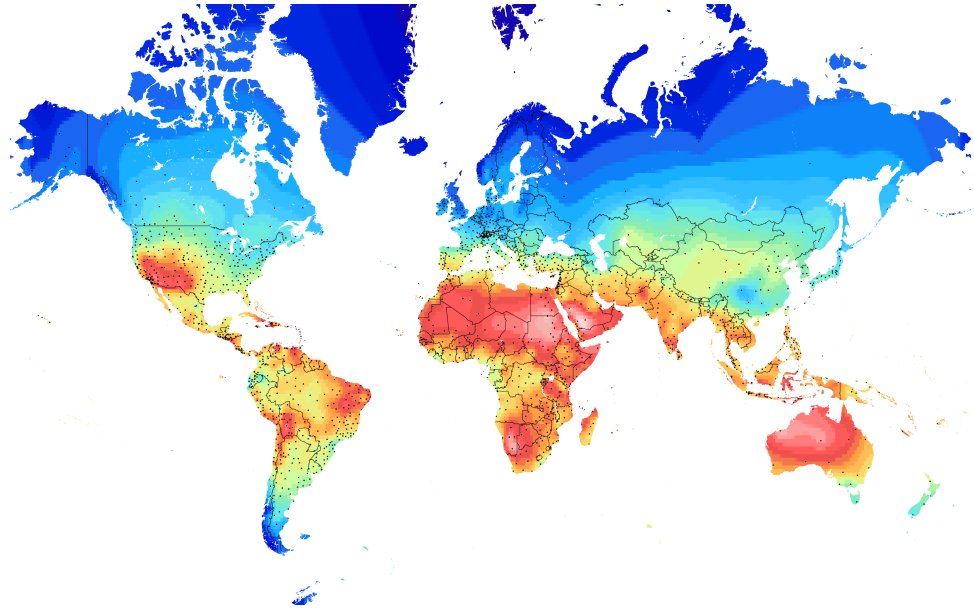
- 1 Latitude $\varphi \in [-90^\circ, +90^\circ]$, northern hemisphere positive
- 2 Longitude $\lambda \in [0^\circ, 360^\circ)$, west of Greenwich; values east of Greenwich may be used with a minus sign
- 3 Latitude range $\Delta\varphi / ^\circ$

- 4 Longitude range $\Delta\lambda / ^\circ$
- 5 Country code CC
- 6 Continent code KC

Strings

- 1 Name of location

Description The MTM database provides long-term monthly mean values of the most important climatological parameters like global irradiance, ambient temperature etc. The image below shows the interpolated mean annual irradiance data distribution on a horizontal surface as stored for about 2 000 locations worldwide.

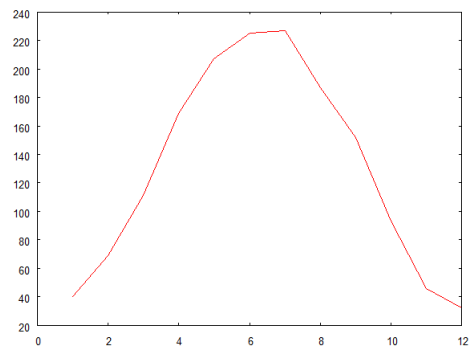


mtm.vseit



A **DO** block counts through the twelve months of an arbitrary year. The month is connected to a **MTM** block which delivers irradiance data for the location of Stuttgart, Germany.

A **PLOT** block displays the data.



The **MTM** block's VSEit entity editor provides a browser to access the data base.

MTM weather data base (monthly means): 3

Browser Parameters Block

Location

Continent: Europe Latitude: 48.77° North

Country: Germany Longitude: 9.18° East

City: Stuttgart Time zone: 23

Weather data

Month	Irradiance	T ambient	Tmin	T max	Humidity	Rain
January	40	0.3	-2.6	3.3	85	46
February	69	1.4	-2.2	4.9	80	39
March	111	5.4	0.8	10.1	74	37
April	169	9.6	4.7	14.4	69	48
May	207	13.6	8.4	18.8	69	73
June	225	16.9	11.7	22.0	69	96
July	227	18.8	13.6	23.9	67	79
August	187	18.4	13.1	23.6	71	75
September	152	15.3	10.2	20.3	77	62
October	93	9.9	5.6	14.2	82	49
November	46	5.2	2.0	8.3	84	47
December	32	1.2	-1.5	3.9	84	38
Average	130	9.7	5.3	14.0	76	57

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