



Manual MARS web viewer

08 July 2010

Document Change Log

Issue	Date	Description of changes
0.1	03-FEB-2009	Initial version
0.2	13-MAR-2009	Manual for viewer version 16-3-2009
1.0	20-MAY-2009	Manual for viewer Release 1 (20-5-2009)
1.1	16-JUL-2009	Manual for viewer Release version 17-7-2009
1.2	19-NOV-2009	Graph viewer functionality added for Release 2
1.3	18-DEC-2009	Small improvements
2.0	8-JUL-2010	Small improvements More choices are kept in memory Improved graph module interface Fixed number of bugs

Table of Contents

Table of Contents	1
1. Introduction	2
1.1. Start page	2
1.2. Links	3
1.3. Register	3
1.4. Start MARS web viewer	4
1.5. User Manual	4
1.6. Other links	4
2. MARS web viewer - starting window	6
3. MARS web viewer - maps	8
3.1. Working with map layers	8
3.2. Map functions	9
3.3. Data selection	11
3.4. Working with legends	13
3.4.1. Legends structure	13
3.4.2. Edit legends	14
4. MARS web viewer - graphs	17
4.1. Selection of graph target spatial entities	17
4.2. Initialization of a new graph window	17
4.3. Graph Data	18
4.3.1. Indicator	19
4.3.2. Spatial entity	22
4.3.3. Period	22
5. MARS web viewer - quicklooks	25

1. Introduction

For the implementation of the Common Agricultural Policy, the European Commission needs timely information on the agricultural production to be expected in the current season. This is a main concern of the MARS-project (Monitoring Agricultural ResourceS) of the AGR4CAST and FOODSEC units of the Directorate General Joint Research Center (JRC) of the European Commission in Ispra (Italy).

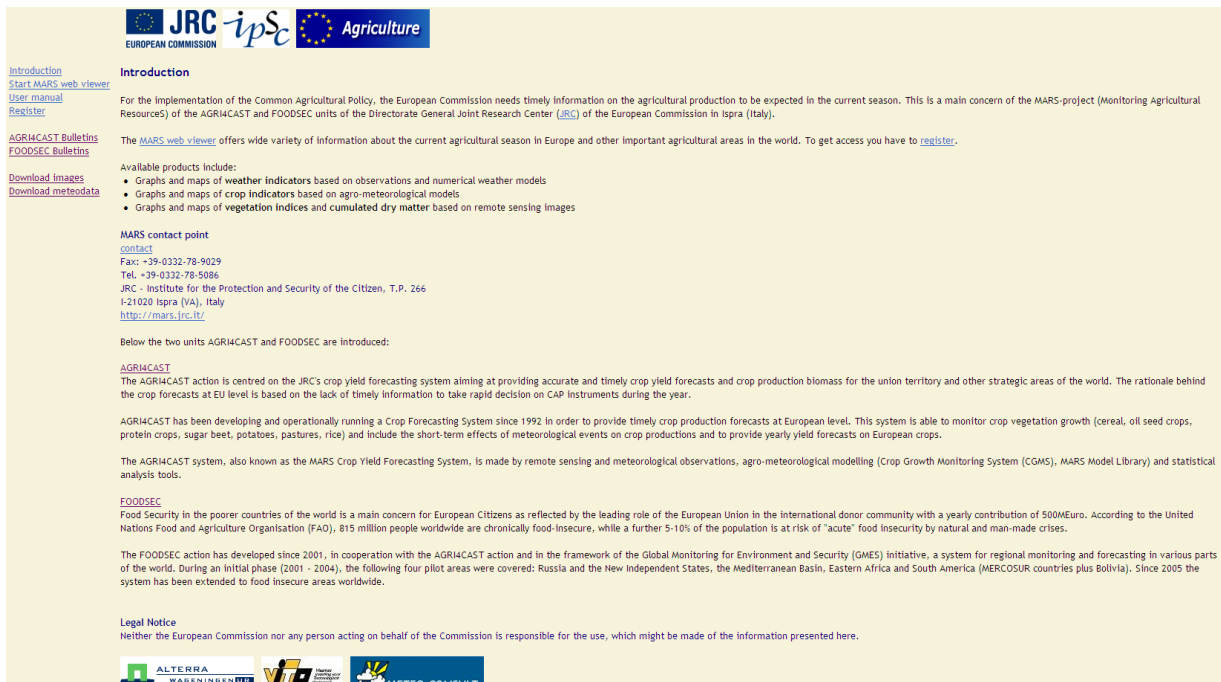
MARS contact point:

*JRC - Institute for the Protection and Security of the Citizen, T.P. 266
I-21020 Ispra (VA), Italy
<http://mars.jrc.it/>*

The user manual describes the functionality of the MARS web viewer. The operational MARS services deliver and store large amounts of data. These data vary from static reference layers and input weather data originating from different supplying meteorological sources (weather stations, ECMWF) and data quick looks to the data that is generated in the various operational levels of the MARS services through downscaling, simulation of crop indicators, estimation of crop yields etcetera. The new MARS web viewer enables the user to perform spatial and temporal analysis of these data sets in a customized way.

1.1. Start page

The MARS web viewer can be found through the following start pages: www.marsop.info.



Introduction

For the implementation of the Common Agricultural Policy, the European Commission needs timely information on the agricultural production to be expected in the current season. This is a main concern of the MARS-project (Monitoring Agricultural Resources) of the AGR4CAST and FOODSEC units of the Directorate General Joint Research Center (JRC) of the European Commission in Ispra (Italy).

The MARS web viewer offers wide variety of information about the current agricultural season in Europe and other important agricultural areas in the world. To get access you have to [register](#).

Available products include:

- Graphs and maps of weather indicators based on observations and numerical weather models
- Graphs and maps of crop indicators based on agro-meteorological models
- Graphs and maps of vegetation indices and cumulated dry matter based on remote sensing images

MARS contact point

contact
Fax: +39-0332-78-9029
Tel. +39-0332-78-5086
JRC - Institute for the Protection and Security of the Citizen, T.P. 266
I-21020 Ispra (VA), Italy
<http://mars.jrc.it/>

Below the two units AGR4CAST and FOODSEC are introduced:

AGR4CAST

The AGR4CAST action is centred on the JRC's crop yield forecasting system aiming at providing accurate and timely crop yield forecasts and crop production biomass for the union territory and other strategic areas of the world. The rationale behind the crop forecasts at EU level is based on the lack of timely information to take rapid decision on CAP instruments during the year.

AGR4CAST has been developing and operationally running a Crop Forecasting System since 1992 in order to provide timely crop production forecasts at European level. This system is able to monitor crop vegetation growth (cereal, oil seed crops, protein crops, sugar beet, potatoes, pastures, rice) and include the short-term effects of meteorological events on crop productions and to provide yearly yield forecasts on European crops.

The AGR4CAST system, also known as the MARS Crop Yield Forecasting System, is made by remote sensing and meteorological observations, agro-meteorological modelling (Crop Growth Monitoring System (CGMS), MARS Model Library) and statistical analysis tools.

FOODSEC

Food Security in the poorer countries of the world is a main concern for European Citizens as reflected by the leading role of the European Union in the international donor community with a yearly contribution of 500MEuro. According to the United Nations Food and Agriculture Organisation (FAO), 815 million people worldwide are chronically food-insecure, while a further 5-10% of the population is at risk of "acute" food insecurity by natural and man-made crises.

The FOODSEC action has developed since 2001, in cooperation with the AGR4CAST action and in the framework of the Global Monitoring for Environment and Security (GMES) Initiative, a system for regional monitoring and forecasting in various parts of the world. During an initial phase (2001 - 2004), the following four pilot areas were covered: Russia and the New Independent States, the Mediterranean Basin, Eastern Africa and South America (MERCOSUR countries plus Bolivia). Since 2005 the system has been extended to food insecure areas worldwide.

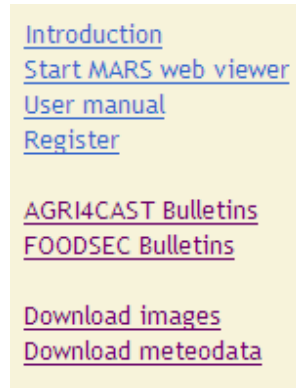
Legal Notice

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use, which might be made of the information presented here.

Logos at the bottom: ALTERRA, WAGENBOND, VITO, METEO CONSULT.

1.2. Links

The following links are given on the start page:



The links are explained in the following.

1.3. Register

A new user must first register to the external MARS web viewer through the link 'Register'.

Apply to get access to the MARS web viewer

Fill in this form and submit it to apply.
Within 3 working days you will receive an e-mail message whether you will be granted access. All fields are required.

Username	<input type="text"/>
Full name	<input type="text"/>
Postal address	<input type="text"/>
E-mail address	<input type="text"/>
Organisation	<input type="text"/>
Department	<input type="text"/>
Password	<input type="text"/>
Confirm password	<input type="text"/>
Country	<input type="text"/>
Main field of activity	<input type="text"/>

The form above has to be filled and submitted. Within 3 working days the applicant will receive an e-mail message whether (s)he will be granted access.

1.4. Start MARS web viewer

When activating the link ‘Start MARS web viewer’ the following page appears:

MARS web viewer

Username:

Password:

I want to change my password.

After entering the username and password the MARS web viewer starts (see Chapter 2-4).

1.5. User Manual

This link gives access to the user manual describing the features of the user interface in detail.

1.6. Other links

The other links are:

AGRI4CAST Bulletins: These MARS bulletins offer in a near real time and operational context analyses and information at EU25 level (currently without Cyprus and Malta) and neighbouring countries like Ukraine, on crop growth monitoring and yield forecasting, including rice and pastures, basing on the MARS Crop Yield Forecasting System

FOODSEC Bulletins: More than 40 regional and annual bulletins are published each year describing the agricultural and pastoral situation in the monitored countries (Somalia, Ethiopia, Eritrea, Kenya, Uganda, Sudan, South America, Central Asian countries) and providing qualitative and, where possible, quantitative yield forecasts.

Download images:

AGRI4CAST ImageServer: This is the online portal for remote sensing vegetation state parameters. In the frame of the Mars Crop Yield Forecasting System remote sensing data such as

NOAA-AVHRR, SPOT VEGETATION, MSG or MODIS is used. The data is needed to assess the vegetation state by means of NDVI, SAVI or DMP in order to support our crop yield forecasting system. The image server allows displaying, printing and downloading of the full resolution remote sensing imagery.

FOODSEC ImageServer: This is a service to download meteo data derived from global atmospheric model. FOODSEC regularly receives daily, 10-daily and monthly outputs of the ECMWF (European Centre for Medium-Range Weather Forecast) atmospheric model. A time series for more than 40 years is now available thanks to the ERA40 reanalysis project.

Download meteodata:

One of the main output of the MARS system for Europe are the meteorological interpolated data. A web application - CGMS browser - is available to select the interested years, parameters and NUTS (nomenclature des unités territoriales statistiques) where the GRIDs belongs to. To do so the user needs to register, in order to access to a secure part of our site, after acceptance of some Data Distribution Condition.

2. MARS web viewer - starting window

The window that opens when a user starts the MARS web viewer, gives the choice (view) to do a spatial analysis (map) or a temporal analysis (graph). In addition an overview is presented of the available ROIs (Region Of Interest) and the themes and spatial resolutions that are available for that ROI. It allows the user to select a ROI and open the map or graph window for that ROI.

View:

Select region of interest:

Zoom to:

Available resolutions for Europe:

NUTS Level 0
NUTS Level 1
NUTS Level 2
NUTS Level 3
25x25 km

Available themes for Europe:

Weather indicators (observed) - CGMS
Crop indicators (simulated) - CGMS
Crop indicators (remote sensing) - SPOT-VEGETATION-P

The user can additionally select a country within the ROI. This will cause the map window to directly zoom to the extent of the specified country within that ROI.

Currently not all data servers are fully deployed.

In case of **maps** the following data are available:

- For Europe the themes ‘Weather indicators (observed) - CGMS’ and ‘Crop indicators (simulated) - CGMS’ are available at NUTS levels 0 to 3 and 25x25 km grid resolution. In addition theme ‘Crop indicators (remote sensing) - SPOT-VEGETATION-P’ and ‘Crop indicators (remote sensing) – NOAA-AVHRR’ is available at NUTS levels 0 to 3 and 25x25 km grid resolution.
- For other ROIs, including the world, the theme ‘Weather indicators (simulated) - GWSI based on ECMWF analysis Deterministic Model’ is available for resolution 0.25 degree. An exception is made for ROI Asia. In addition theme ‘Crop indicators (remote sensing) - SPOT-VEGETATION - dekad’ is available for the administrative regions at level 1 (sub national) and 0 (national) of all ROIs outside Europe.

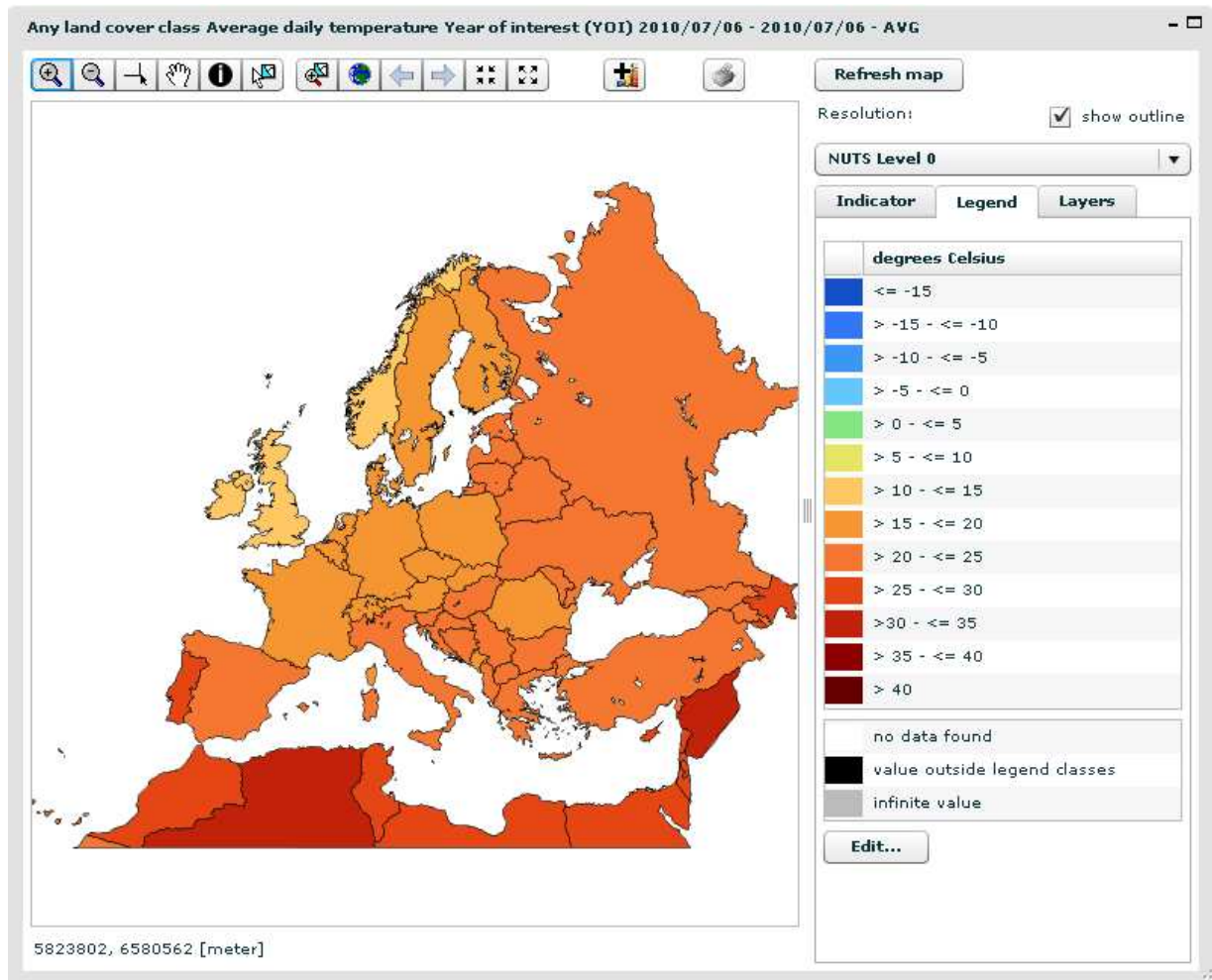
In case of **graphs** the following data are available:

- For Europe theme ‘Weather indicators (observed) - CGMS’ is available at NUTS levels 0 to 3 and 25x25 km grid resolution. In addition theme ‘Crop indicators (remote sensing) - SPOT-VEGETATION-P’ and ‘Crop indicators (remote sensing) – NOAA-AVHRR’ is available at NUTS levels 0 to 3 and 25x25 km grid resolution.
- For other ROIs, including the world, the theme ‘Weather indicators (simulated) - GWSI based on ECMWF analysis Deterministic Model’ is available for resolution 0.25 degree. An exception is made for ROI Asia. In addition the theme ‘Crop indicators (remote sensing) - SPOT-VEGETATION - dekad’ is available for the administrative regions at level 1 (sub national) and 0 (national).

Finally, quicklooks are available for all ROIs except Europe. It covers the themes ‘Crop indicators (remote sensing) - SPOT-VEGETATION - dekad’ and ‘Crop indicators (remote sensing) - SPOT-VEGETATION – month’.

3. MARS web viewer - maps

After selecting 'map' the following map window will appear. The main settings relate to the desired data (indicator tab), the preferred legend (legend tab) and supporting map layers (layers tab). First an explanation is given on map layers and map functions, followed by information on how to select a data set and finally instructions on how to work with legends.



3.1. Working with map layers

Selectable layers are (polygon) layers that can be used to visualize layers and to select features from that layer. These features can be used as a basis for the creation of a new map extent by zooming to the extent of the selected features. The features can also be used to create graphs for the selected features. Opening a graph window will then initialize graphs for the selected regions.

The list with selectable layers controls the status of the available selectable layers.

Selectable layers:

<input checked="" type="checkbox"/> NUTS Level 0	<input checked="" type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> NUTS Level 1	<input checked="" type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/> NUTS Level 2	
<input type="checkbox"/> NUTS Level 3	
<input type="checkbox"/> 25x25 km	

Display or hide a selectable layer

The list allows the user to display or hide a selectable layer in the map window by checking the check box in front of the selectable layer name.

Activate or deactivate a selectable layer

A selectable layer can be activated or deactivated by clicking behind the selectable layer name. The currently activated layer is displayed in a blue bar. Only one layer can be activated at the same time. Regions from the active layer can be selected by using the function <Activate select feature tool> (see description of that function). Selected features can be used to zoom to (in order to adapt the map extent to the area of interest). In addition, the activated layer will also be the initial data resolution setting in the child map window. Note that in case another layer is activated the regions of the previously active layer remain selected. More regions can be selected by clicking on them in combination with the shift-key; regions can be de-selected by clicking on them in combination with the ctrl-key.

Show or hide selected features of a layer

Selected features of a selectable layer can be displayed and hidden by using the first check box behind the layer label.

Show or hide labels for a layer

The map labels for a specific selectable layer can be enabled and disabled by the second checkbox behind the layer label. Labels will only be displayed for visible selectable layers. Note that not all selectable layers have labels available (e.g. the 25x25 km grid cells). This is indicated by a tool tip “Labels not available for this layer” on mouse over of the control. The control is disabled in such cases.

3.2. Map functions

The map window contains a set of user controls to operate map functions. These functions are explained in this section.

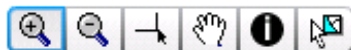
Open graph window



A child graph window opens. In the child graph window data can be visualized as a graphs, using the currently selected features from the currently **selected resolution**. The following settings are inherited from the map window:

- The selected features (in case of the graph type only supports one spatial entity the first selected feature will be used if more than one feature is selected).
- The selected theme and resolution.

Map function toolbar 1



This toolbar contains a set of functions of which one is activated at a time (toggle buttons). The following functions are available:

1. Activate zoom in tool

Activates the zoom in function. A click on the map will zoom in one level, with the clicked position as the center of the new extent. It is also possible to zoom in to a specific extent by holding the mouse button and dragging the desired extent.

2. Activate zoom out tool

Activates the zoom out function. A click on the map will zoom out one level, with the clicked position as the center of the new extent.

3. Activate crosshair tool

This function activates a crosshair cursor.

4. Activate pan tool

Activates the pan function. The map can be panned by dragging it with the mouse.

5. Activate identify tool

Activates the identify function. When clicking on the map, the identify function displays the thematic properties of the feature clicked in the currently selected map resolution layer.

6. Activate select feature tool

Activates the select feature function. The select feature option allows the user to select one or more regions of the current active layer (by click or shift-click for multiple selections). The selected regions are the basis for the selection of regions in the graph tool. The <zoom to selected features> (see below) allows the user to adapt the extent to the selected features. De-selecting features can be done via ctrl-click.

Map function toolbar 2



This toolbar contains a set of map functions that directly cause a map action. The following functions are available:

1. *Zoom to selected features*

Allows the user to zoom to the extent of the selected region(s) of the currently active selectable layer.

2. *Zoom to full extent*

Allows the user to zoom to the full extent of the selected ROI.

3. *Zoom to previous / next extent*

Allows the user to navigate to previously selected extents and back.

4. *Zoom in / Zoom out*

Allows the user to zoom in or out one zoom level. The new map extent is centered at the center of the current map extent.

Print



The map can be printed. For an optimal fitting of the map to the selected paper size the user might have to change the default settings of the printer.

Refresh map



The Refresh map button executes a refresh of the data set according the choices made in the indicator tab (see data selection below).

3.3. Data selection

Select map resolution

Resolution: show outline

25x25 km ▼

This function allows the user to select the resolution (spatial aggregation level) of the data to be mapped. The selected resolution can be displayed or hidden using the show outline checkbox. The function ‘activate a layer’ (clicking behind the selectable layer name in advanced tab sheet) is synchronized with function ‘Resolution’ in a single map child window. The functions ‘show outline’ and ‘show a layer’ (checking the check box in front of the selectable layer name in layers tab sheet) are synchronized in both directions.

Indicator selection tab

In this tab sheet the user can select the dataset to be mapped. Theme, crop- or land cover, indicator and function can be selected. Depending on the chosen combination of theme, indicator

and function, additional selection for e.g. aggregation (avg, min, max), start and end of time period etc. can be configured.

Indicator
Legend
Layers

Theme (available years 1975 - 2010):

Weather indicators (observed) - CGMS

Crop / Landcover:

Any land cover class

Indicator:

Average daily temperature

Function:

Year of interest (YOI)

Start date (yyyy/mm/dd):

2010/07/06

End date (yyyy/mm/dd):

2010/07/06

Aggregation type:

AVG

Depending on the chosen theme, indicator, function etc., appropriate controls are provided to configure the relevant map parameters. Some examples are displayed below:

Date selector

Start date (yyyy/mm/dd)

2009/03/01

End date (yyyy/mm/dd)

2009/03/09

Aggregation

AVG

Update

◀
March
2009
▶

S	M	T	W	T	F	S
	1	2	3	4	5	6
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Dekad selector

Start: year/month/dekad

The interface consists of three input fields: a year selector with '2006', a month selector with '1', and a dekad selector with '1-10'. Each field has a small arrow icon for navigation.

Development stage selector

Fixed development event or custom development stage

The interface features four radio buttons labeled 'Flowering', 'Ripening', 'Maturity', and 'Custom'. Below them is a horizontal slider bar with a triangular handle and the number '100' at the right end.

Note that when the selection of one of the associated controls for indicator selection is updated, the current map is grayed out to indicate that the map does not correspond anymore with the currently selected settings.

3.4. Working with legends

3.4.1. Legends structure

For a better understanding, before explaining the legend functionality in the viewer application, we briefly explain the way that datasets and legends are linked.

Datasets

A dataset is a selection of data from the MARS database selected through a combination of resolution, theme, indicator, function, parameter and parameter values as displayed in a map.

Legends

A legend defines a set of classes and the colors and labels per class.

Three types of legends exist:

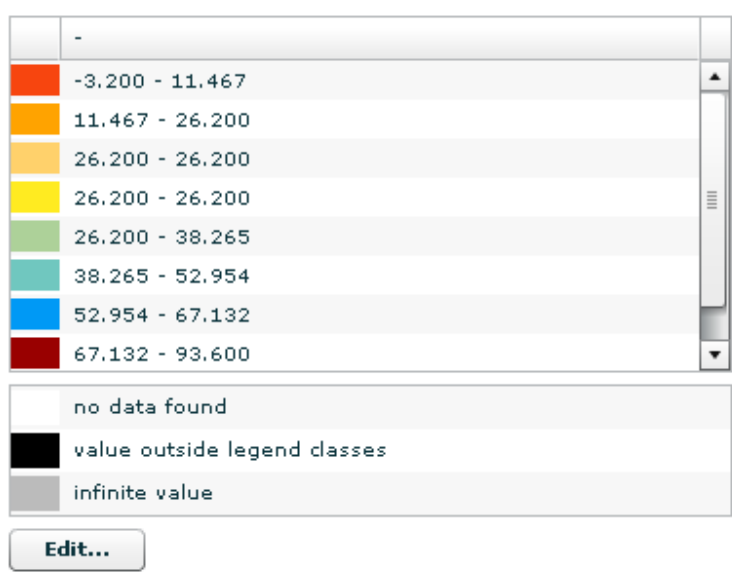
- Normal legends
A normal legend defines a set of legend classes where the lower and upper boundary of every class can be defined by the user.
- Equal area legends
An equal area legend only allows the user to choose the number of classes and the colors used to represent these classes in the map. The system will determine the class boundaries in such a way that every class represents an equal area in the map.
- Equal width legends
An equal width legend also only allows the user to choose the number of classes and the colors used to represent these classes in the map. The system will determine the class boundaries in such a way that every class has the same width between the minimum and maximum value of the dataset.

Legend identifiers

Groups of datasets that are supposed to be based on the same legend (e.g. temperature, minimum temperature and maximum temperature) share a legend identifier. Thus, every combination of resolution, theme, indicator, function, parameter and parameter values is linked to a legend identifier. Each legend identifier has a default link to a system legend.

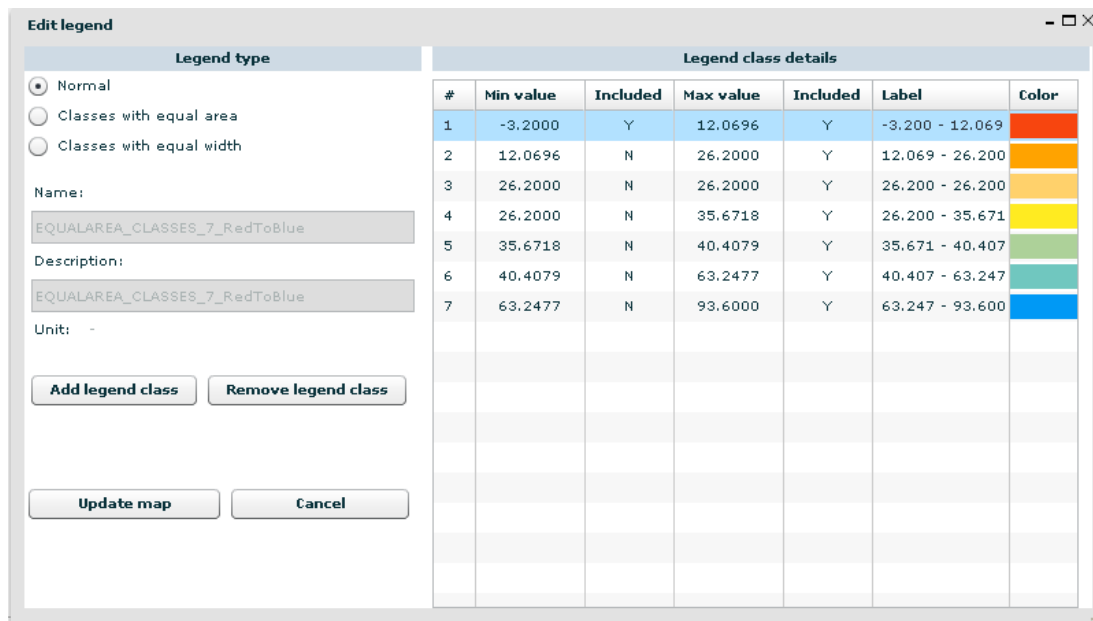
3.4.2. Edit legends

The MARS web viewer offers to edit legends:



Editing a legend class

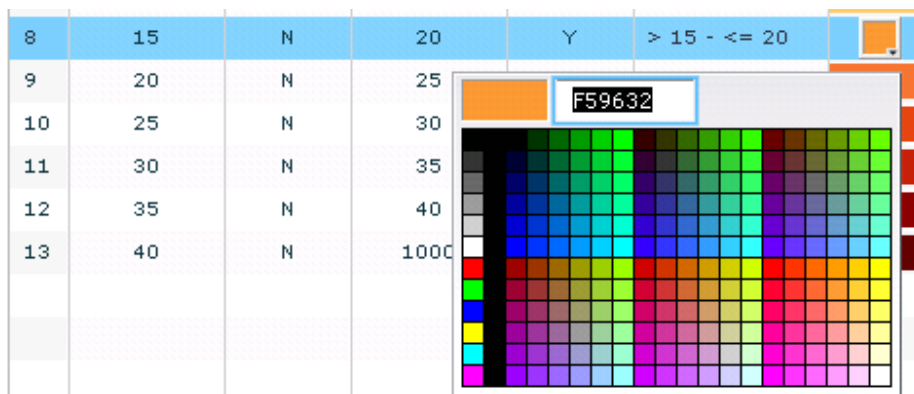
Legend editing is described here for the editing of a normal legend. Editing of equal area and equal with legends is identical, except that certain options (editing the legend class boundaries) are not available.



An existing legend class can be edited by clicking on a field in that class. The field will become editable and the value can be changed.

#	Min value	Included	Max value	Included	Label	Color
1	-1000	N	-15	Y	<= -15	
2	-15	N	-10	Y	> -15 - <= -10	
3	<input type="text" value="-10"/>	N	-5	Y	> -10 - <= -5	
4	-5	N	0	Y	> -5 - <= 0	





The color for a class can be adapted by using a special color selector.



Legend classes can be added and removed by selecting one of the classes in the editor and adding or removing it with the Add Legend Class and Remove Legend Class buttons.

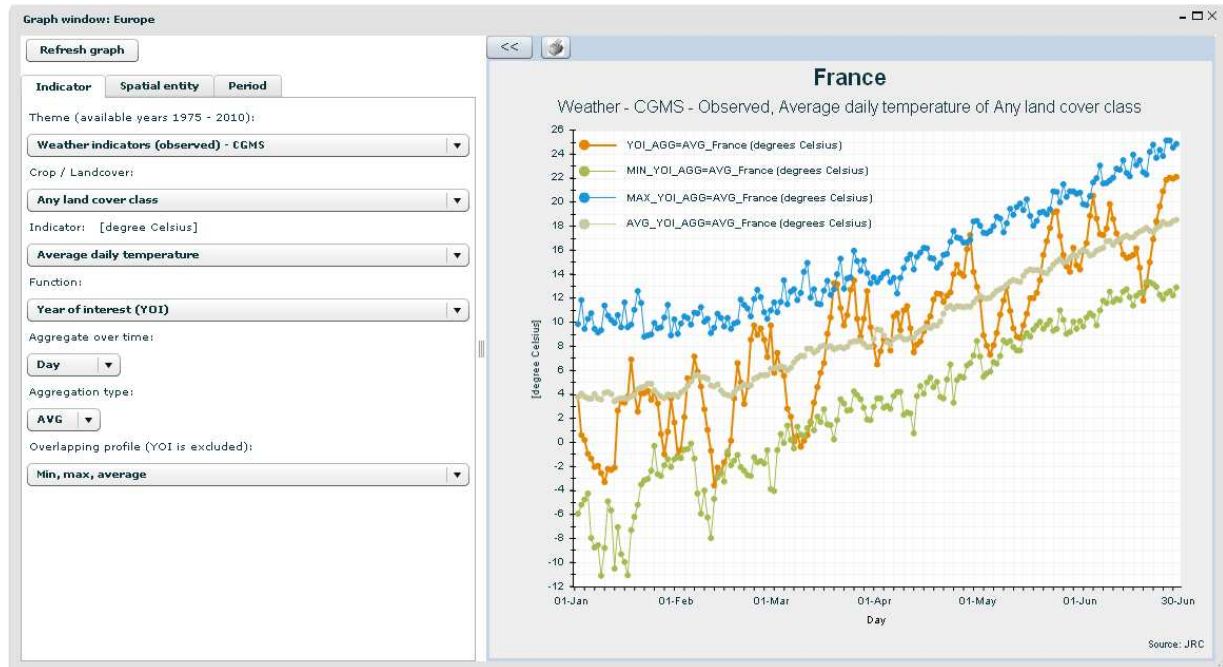
*Adding or removing legend classes***Add legend class****Remove legend class**

Remove legend class removes the selected class from the class list. Add legend class adds a new legend class to the class list under the selected legend class.

10	30	N	35	Y	>30 - <= 35	
11	-	-	-	-	-	
12	35	N	40	Y	> 35 - <= 40	
13	40	N	1000	N	> 40	

Using the <Update map> function, the user can apply the updated legend to the current dataset. Changes to the legend will be applied to the map, but the legend will not be saved. New map windows in the current or new sessions will remain using the old legend.

4. MARS web viewer - graphs



The graph window allows a user to produce graphs based on the data in the MARS database. Graphs are primarily based on spatial entities (e.g. NUTS-x areas, grid cells) that are selected by the user and display one or more indicators for one or more selected spatial entities.

4.1. Selection of graph target spatial entities

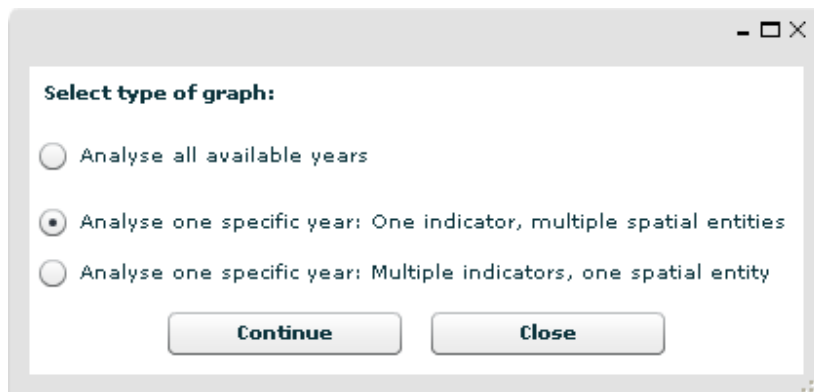
In a graph window, opened from a map window, spatial entities to be displayed in graphs can only be selected through the select feature functionality that is available in the map window. After activation of the select feature tool, the user can select areas using the mouse as described in paragraph 3.2. A maximum of six spatial entities can be selected.

In case the user directly opened a graph window spatial entities can be selected from a list (national level) or entered provided the user knows region name or grid number.

4.2. Initialization of a new graph window

When a new graph window is opened, first of all a choice must be made between different graph types. The following choices are available:

- Create a graph for analysis of all available years.
- Create a graph for one specific year, displaying one indicator and multiple spatial entities.
- Create a graph for one specific year, displaying multiple indicators for one spatial entity.



The <Continue> function will provide the user with the required configuration settings for the chosen graph type. The <Close> function will close the graph window.

*Option: Create a graph for one specific year, one indicator and **multiple spatial entities***

The selection of this option opens a graph window that is designed for the configuration of a graph with multiple data series covering one year of data of one specific indicator and function, where each data series represents the data of one of the selected regions. Up till 6 spatial entities can be selected. Every single data series displays the same indicator for a different spatial entity. The spatial entities are in this option preset to the entities that are selected by the user. In the graph window, the user is allowed to select just one indicator to be displayed for each spatial entity.

*Option: Create a graph for one specific year, **multiple indicators** and one spatial entity*

The selection of this option opens a graph window that is preset for the configuration of multiple data series covering one year of data for one spatial entity, where each data series represents a specific indicator. Up till 6 different indicators can be displayed. All graphs represent a different indicator data for the same single spatial entity. The selected spatial entity is fixed and the user is allowed to select up till 6 different indicator settings.

*Option: Create a graph for analysis of **all available years***

This option enables the user to display graphs that contain data from all available years for the selected theme. It allows for the selection of one spatial entity and one indicator. Data aggregated for each year are displayed for the selected spatial entity and the selected indicator for all available years.

4.3. Graph Data

The data specific settings of a graph can be configured using the available graph settings options grouped in three tabs: indicator, spatial entity and period.

Refresh graph



A user can refresh the data set in the graph window through the <Refresh graph> button.

4.3.1. Indicator

Indicator
Spatial entity
Period

Theme (available years 1975 - 2010):

Weather indicators (observed) - CGMS ▼

Crop / Landcover:

Any land cover class ▼

Indicator: [degree Celsius]

Average daily temperature ▼

Function:

Year of interest (YOI) ▼

Aggregate over time:

Day ▼

Aggregation type:

AVG ▼

Overlapping profile (YOI is excluded):

None ▼

The indicator tab allows the user to set the data that are displayed in the graph window.

Theme

The MARS theme that contains the desired datasets. In brackets the available years are given.

Crop / Landcover

This option offers to select a specific crop or land cover for which data are simulated, processed or aggregated.

Indicator

The MARS indicator to be displayed in the graph.

Function

The function to be applied to the chosen indicator. E.g. current year values, long term average, difference with long term average etc.

Aggregate over time

The time resolution to be displayed in the graph (e.g. day, dekad, month, quarter). This is only available for themes 'weather indicators (observed) - CGMS' and 'Weather indicators (simulated) - GWSI based on ECMWF analysis Deterministic Model'.

Aggregation type

The aggregation method to be used for aggregation if the selected time resolution is coarser than the original time resolution e.g. average, minimum, maximum.

Overlapping profile

Selection of a set of overlapping profiles, e.g. display the data series of the selected indicator plus minimum, maximum and average or the average and 10, 30, 70 and 90 percentiles. This way the current year can easily be compared with the reference (long term average). The selected overlapping profile is calculated for the spatial entity that appears first in the list of selected spatial entities. Note that the selected Year of Interest (YOI) is excluded in the calculation of the overlapping profiles.

For specific combinations of indicators and functions, extra settings might be available. Examples are the selection of the maximum temperature as criterion for the number of hot days or the difference type (absolute or percent) and year number for the comparison of the current year with another year.

If the user has chosen the option of “analyze one specific year: multiple indicators, one spatial entity”, a maximum of 6 tabs with graph settings are available to set the graph settings for up till 6 different indicators.

Indicators
Spatial entity
Period

1
2
3
4
5
6

Visible
 Theme (available years 1975 - 2010):

Weather indicators (observed) - CGMS

 Crop / Landcover:

Any land cover class

 Indicator: [degree Celsius]

Average daily temperature

 Function:

Year of interest (YOI)

 Aggregate over time:

Day

 Aggregation type:

AVG

 Overlapping profile (YOI is excluded):

None

In case the user has chosen the option “analyse all available years”, only the settings for theme, crop / landcover, indicator, function, aggregation type and overlapping profile are available.

Indicator
Spatial entity
Period

Theme (available years 1975 - 2010):

Weather indicators (observed) - CGMS
▼

Crop / Landcover:

Any land cover class
▼

Indicator: [degree Celsius]

Average daily temperature
▼

Function:

Year of interest (YOI)
▼

Aggregation type:

AVG
▼

Overlapping profile (YOI is excluded):

None
▼

Show only values outside confidence interval

Standardize values

Order by: value ▼ asc ▼

Besides the user can choose the following options.

Show only values outside confidence interval

With this option the user chooses to exclude values within the confidence interval and only displays the years with extreme values.

Standardize values

Yearly values are standardized, the value displayed is the difference between the specific year and the average of all displayed years divided by the average.

Order by

Lets the user order the yearly values in descending or ascending order, either by year or by value.

4.3.2. Spatial entity

This tab just reflect the selected spatial entity as selected in the map window. You will find a format like below for possibly multiple spatial entities:

Or a format like below for one single spatial entity:

4.3.3. Period

The following choices can be set:

Timescale: Day

Through this option, the user can set the start and end date of the data series expressed in calendar days. The dekads (see below) are synchronized with these entered days.

Indicators	Spatial entity	Period
Timescale: Day		
Start date:	End date:	
<input type="text" value="2010/01/01"/>	<input type="text" value="2010/06/30"/>	
Timescale: Dekad		
Start dekad:		
<input type="text" value="2010"/>	<input type="text" value="1"/>	<input type="text" value="1-10"/>
End dekad:		
<input type="text" value="2010"/>	<input type="text" value="6"/>	<input type="text" value="21-end"/>
Timescale: Development stage		
<input type="checkbox"/> Last available data (available next version)		
Comparison years:		
1: <input type="text"/>	2: <input type="text"/>	3: <input type="text"/>

Timescale: Dekad

Through this option, the user can set the start and end date of the data series expressed in dekads. The days (see above) are synchronized with these entered dekads.

Timescale: Development Stage

Through this option, the user can set the start and end date of the data series expressed in development stages. This option will become available once the CGMS level 2 crop indicators are supported in the graph window. Currently these indicators are offered in the user interface but the underlying data server does not return the data sets.

Last available data

This option will become available in the future.

Comparison years

This option allows the user to select one to three years for comparison of the selected year with a set of other years.

Hide / Unhide graph data settings section

This function allows the user to hide or unhide the graph data settings section of a graph window. It thus allows to create extra space to display the graph canvas.

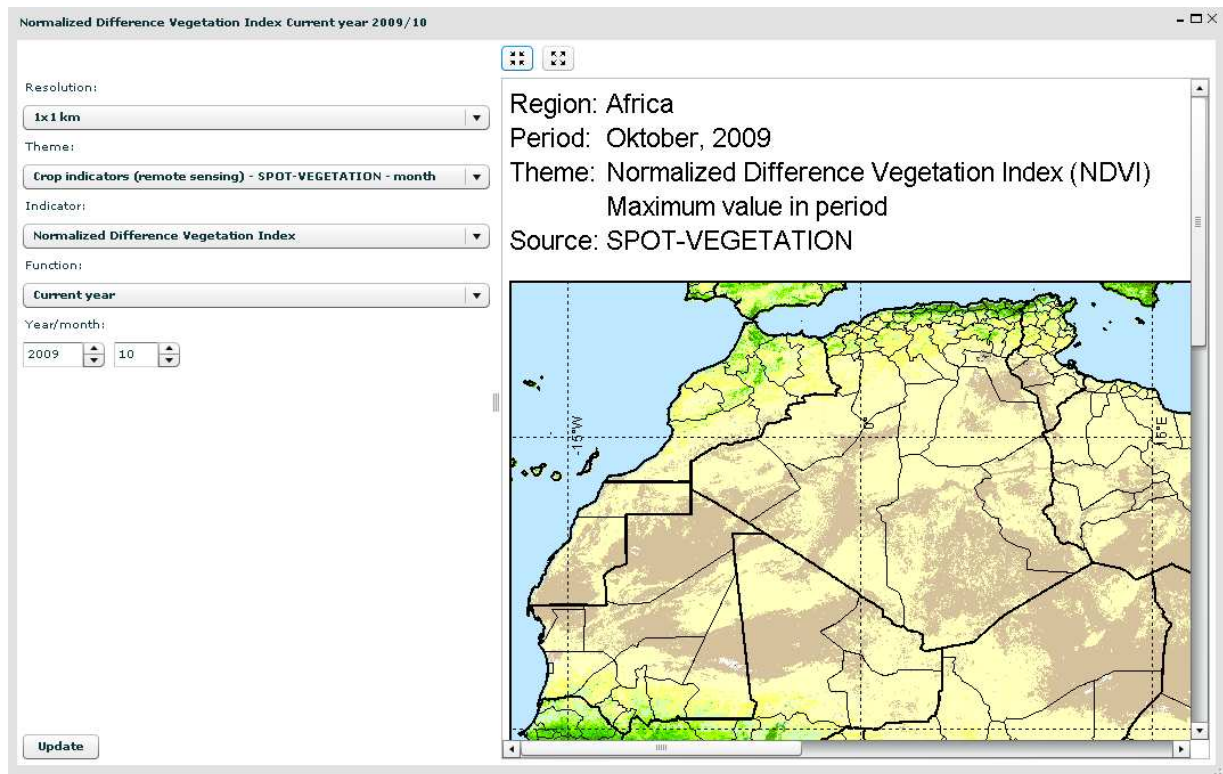
Print



The graph can be printed. For an optimal fitting of the graph to the selected paper size the user might have to change the default settings of the printer.

5. MARS web viewer - quicklooks

The quicklook window is offered for all regions except Europe. It includes static maps of satellite based vegetation indices at a resolution of approximately 1 km. As these maps are static, pre-processed maps there are no additional features like map navigation, legend editing or graph display.



Selection of quicklook

Within the quicklook window the user can select the quicklook map of his/her choice. The following choices have to be made: resolution, theme, indicator, function and time step. Afterwards the user confirms by clicking the update button. The quicklook is presented in the original size. In case it does not fit in the window scroll bars will appear.

Simple zoom



The size of the quicklook can be decreased by clicking on the left button. The decrease goes in predefined steps. Restoring the original size can be accomplished by clicking the right button.