[0006] Additional aspects will be set forth in part in the description which follows and, in part, will be apparent from the description, or may be learned by practice of the presented embodiments.

[0007] According to a first aspect of the present invention, there is provided a method of displaying weather information in an S-100 based electronic chart display information system (ECDIS), the method including: receiving weather data in unit of grids divided based on latitude and longitude; and overlapping and displaying the weather data on a map, wherein the weather data includes weather values of respective grids in a text form according to a preset order, wherein the displaying includes: mapping the respective grids with respective grid points, and identifying an intersection point that is a point at an edge indicating a position of a sample value to be drawn as a line based on weather values of the weather data corresponding to grid points at both ends of the edge connecting adjacent grid points; and displaying a line connecting intersection points corresponding to the sample value on the map.

[0008] The weather data may be obtained by compressing a section in which the same weather value is continuously repeated and including the weather values of the respective grids in the text form according to the preset order.

[0009] The receiving may include: receiving the weather data via an Internet network using an application program interface (API).

[0010] The identifying of the intersection point may include: comparing a weather value of one of grid points of both ends of each edge and a weather value between the grid points of both ends of each edge with the sample value.

[0011] The identifying of the intersection point may include: searching for a first intersection point having the sample value while sequentially advancing in a preset direction; if the first intersection point is found, identifying whether a second intersection point exists within a certain range in a clockwise or counterclockwise direction with respect to an edge where the first intersection point is found; and if the second intersection point exists, repeatedly identifying whether a third intersection point exists within a certain range in the same direction as a search direction of the second intersection point with respect to the edge where the second intersection point is found until the first intersection point is reached.

[0012] The respective grid points may be mapped to information of respective grids and coordinate values of respective grids, wherein each edge is mapped to information of grid point located at both ends of the each edge, information of intersection point having the sample value, and intersection use information indicating whether the intersection points are used for drawing the line, and wherein the identifying of the intersection point includes identifying an intersection point that is not used based on the intersection use information.

[0013] According to a second aspect of the present invention, there is provided an electronic chart display information system (ECDIS) including a receiving unit configured to receive weather data in unit of grids divided based on latitude and longitude; and a display unit configured to overlap and display the weather data on a map, wherein the display unit includes: an intersection point identifying unit configured to map respective grids with respective grid points, and to identify an intersection point that is a point at an edge indicating a position of a sample value to be drawn as a line based on weather values of the weather data corresponding to grid points at both ends of the edge connecting adjacent grid points; and a display unit configured to display a line connecting intersection points corresponding to the sample value on the map.

[0013a] According to a third aspect of the present invention, there is provided a non-transitory computer-readable recording medium having recorded thereon a program for executing the above method on a computer.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] These and/or other aspects will become apparent and more readily appreciated from the following description of the embodiments, taken in conjunction with the accompanying drawings in which:

[0015] FIG. 1 is a diagram showing a schematic structure of an overall system to which the present disclosure is applied;