

2-4-3. Latest Disaster Information Database

To provide information in a more user-oriented way, ADRC website was upgraded in 2002 by adding new functions to the disaster information database.

ADRC developed a platform of Internet-based GIS for disaster management - "VENTEN" three years ago. In response to the increasing demand for geographical map information of the disaster affected areas, ADRC added a new function using this "VENTEN" system which allows users to jump to the map information from the information page on the "Latest disaster information" website.

Two types of maps are available; a simple map to find the rough location and a map with GIS function, Internet-based GIS system VENTEN. As shown in Fig. 2-4-3-1, a map button is provided at the bottom of the latest disaster information page. Clicking the button will bring up a simple map in which the location of the selected disaster is marked.



Fig. 2-4-3-1 Latest disaster info page

To GIS system VENTEN

<Simple map>

<Internet-based GIS system VENTEN>
Map of area in question is displayed.

Fig. 2-4-3-2 New function and screen

As shown in figure 2-4-3-2, users can jump to the Internet-based GIS system VENTEN by simply clicking the button to view the map of the country or region stricken by a disaster. The map is configured to show the topography, main rivers and national borders of each country in the default setup. The default scale of the map is set to display the total area of each country except China and Russia. China and Russia are split into 2 sections for display (Eastern and Western sections) and 5 areas, respectively, due to the restriction of the VENTEN system.

To display these maps, two columns were added to enter the latitude and longitude to the latest disaster information database. When a command requesting disaster information is sent from a user, a key code of the disaster information is retrieved, and the country code and latitude and longitude are also retrieved based on the key code. Because the country code used for the latest disaster information is not the same as the VENTEN's coding, the country code of the latest disaster information is converted into the VENTEN's code using a newly added conversion table. Data from 35 Asian countries are available on VENTEN, and the map button is displayed when VENTEN's country code is allocated to the requested disaster information, whereas no map button appears if no country code is allocated (see 2-4-3-3 Simple map display button, flow chart).

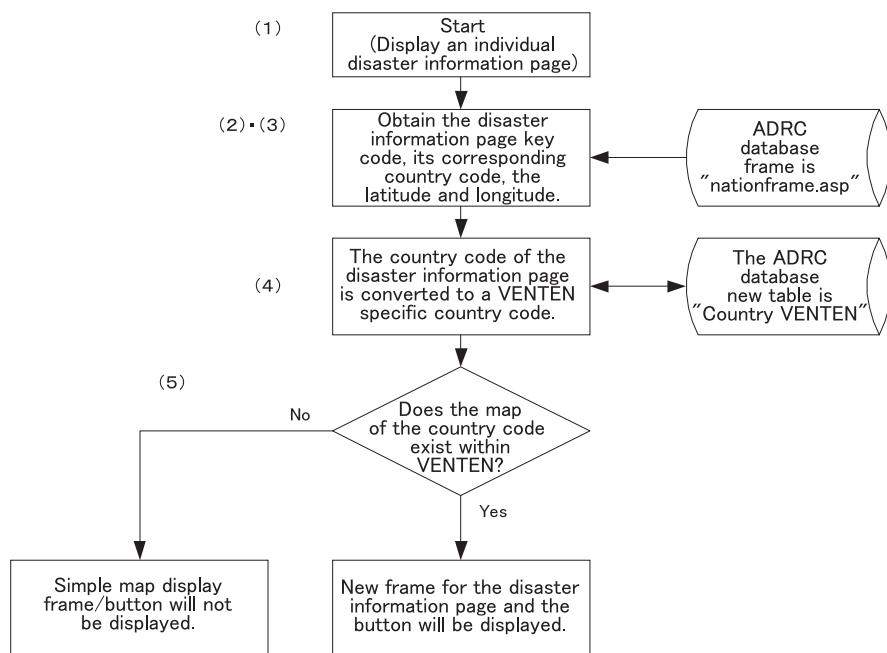


Fig. 2-4-3-3 Simple map display button flow chart

Clicking the map button will send the country code and latitude and longitude data of the requested disaster information to the VENTEN system. Based on the country code received, VENTEN checks if the country falls in the category of split-display country (China or Russia). When the requested country is China or Russia, VENTEN determines the disaster location based on the longitude and latitude data and defines the range of the map to be displayed. When the requested country falls on the non-split display group, VENTEN proceeds to the next step by skipping the aforementioned steps. For both split and non-split display group countries, the map is displayed in the window at a scale calculated for full display of the country (or split area). Then, the disaster location is marked if longitude and latitude data are available, whereas no mark is displayed if such geographic data are not available (see Fig. 2-4-2-3 Simple map display button flow chart)

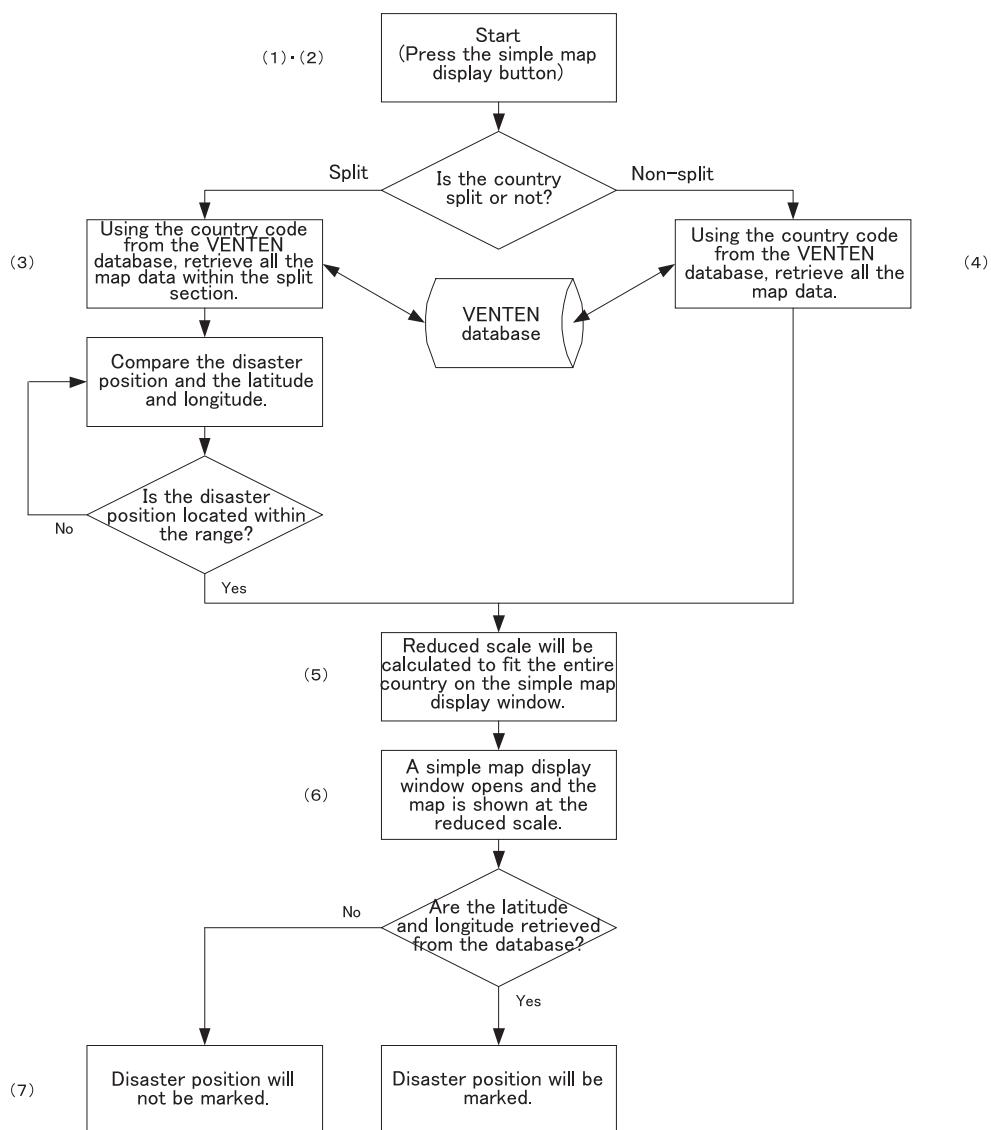


Fig. 2-4-3-4 Simple map display process flow chart

Two buttons, “VENTEN” and “Window Close”, are provided on the simple map screen, and users can open VENTEN using the following procedure. When the VENTEN display button is pressed, the country code converted to VENTEN’s coding specification is sent to the system. The default display parameters are defined and the scale to display the map of the requested country (or region) in the window is calculated, and then VENTEN is displayed (see Fig. 2-4-3-5 VENTEN display process flow chart).

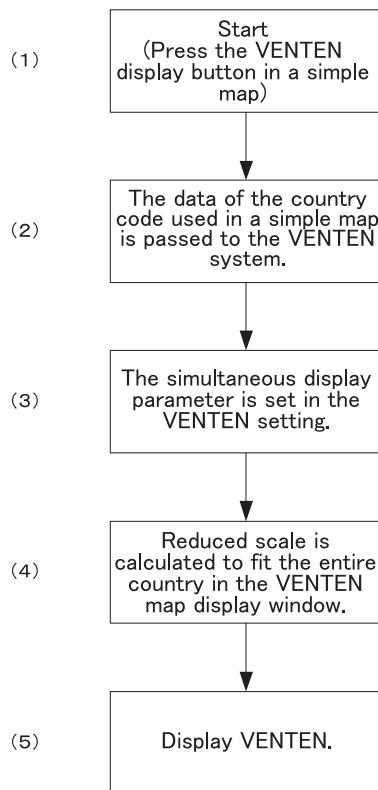


Fig. 2-4-3-5 VENTEN display process flow chart

The main purpose of adding new functions in 2002 is not the upgrading of the VENTEN system itself, thereby the function to mark the disaster location on the map is not provided to VENTEN. Instead, it was designed to open two windows, the simple map and VENTEN, simultaneously to allow the users to view the disaster location. However, the function of disaster location marking will surely be included in future upgrades of VENTEN.