Database Management System

Define table structure (*.tdf file)

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Copyright Declaration

Function

Input the field information of the table, save into the table definition file (.tdf), and display in the tree view and the list view.

Input

(1) Select a table in the tree view and get the table name.

(2) Through menu “Table -> Add Field”, pop up the dialog box, input the field information.

Processing

(1) If the table definition file (.tdf) does not exist, create the file.

Path: [DBMS_ROOT]\data\Ruanko\Table_Name.tdf

(2) Save –append the field information into the table definition file (.tdf).

Output

(1) Save a piece of the field information in the table definition file (.tdf) .

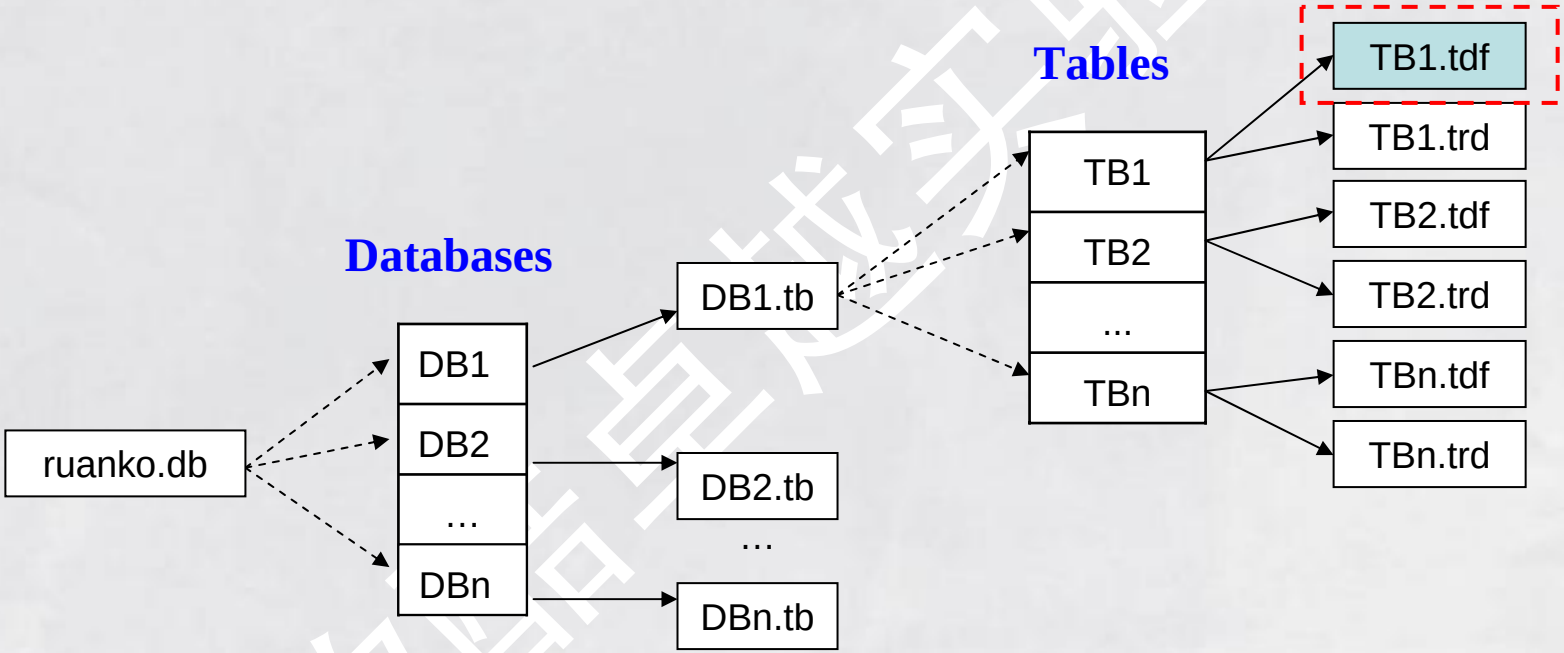
(2) Display the field name in tree view CDBView.

(3) Display the field information in the table in list view CTableView .

Design

Iteratively develop on the basis of "Create table description file" function.

According to the table name, create the table definition file (*.tdf), save the table structure defined by the user. Save the file path into the table description file. By reading the table description file, you can find the table definition file (*.tdf).



1. Data Structure Design

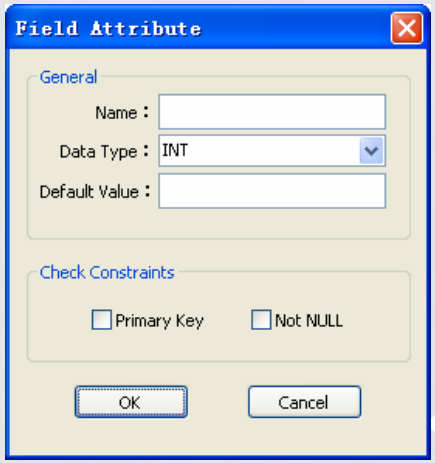
Define structure FieldBlock to represent the field information. It is used to access data from the table structure definition file (*.tdf). The field information is as follows:

Field	Data Type	Description
order	INTEGER	Field order.
name	VARCHAR	Field name.
type	INTEGER	Field data type.
param	INTEGER	Data type parameter, such as VARCHAR(32).
mtime	DATETIME	Last modification time.
integrities	INTEGER	Integrity number. Default value is 0.

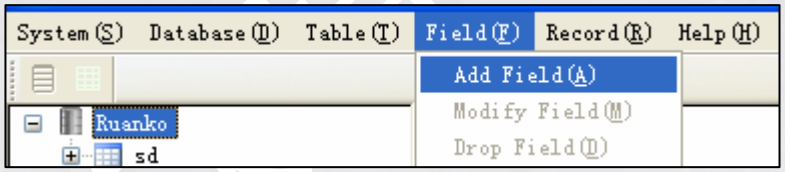
2. Interface Design

Create a dialog CFieldDlg used to receive input field information. Add message response function for menu “Field-> Add Field”. Pop up this dialog box after it is clicked.

(1) Dialog CFieldDlg



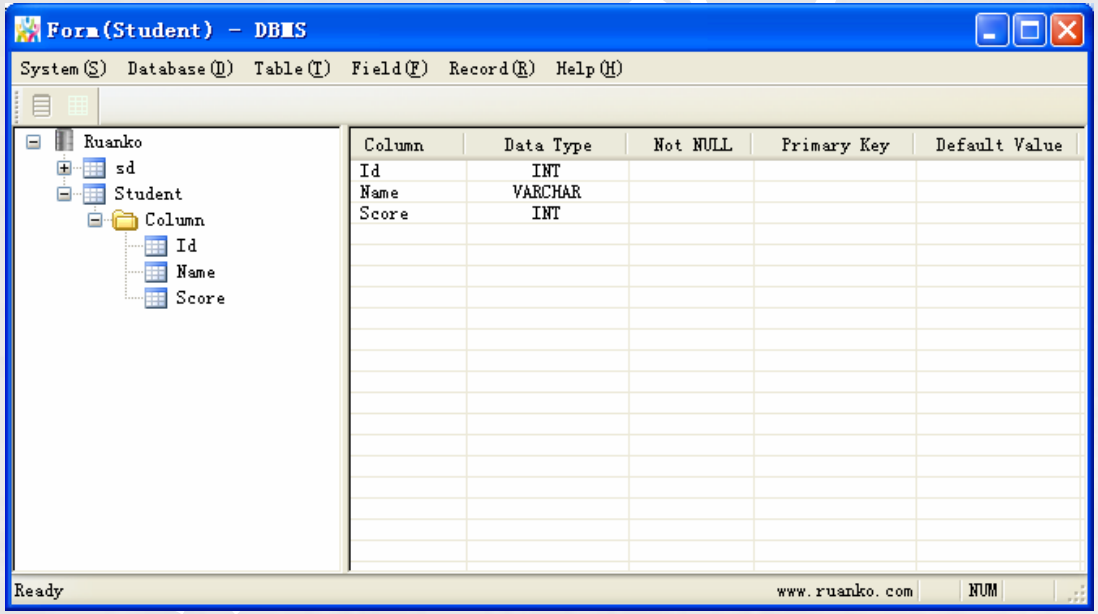
(2) Menu



(3) Main Interface

Create list view CTableView to display the table structure information. When you select menu “Table -> New Table”, after the table is successfully created, with CSpliterWnd::CreateView() function, switch the right view that separates the window to CTableView.

After the field is successfully added, display the added field information in list view CTableView, display all the field names under “Column” node in tree view CDBView.



3. Data Transmission

(1) Table Name

Through tree view TVN_SELCHANGED event response function CDBView::OnTvnSelchanged(), according the table node selected by the mouse, get the table name. Save the table name into document class CRKDBMSDoc.

(2) Field Information

In “Add Field” message response function OnAddField() of framework class CMainFrame, create and display field information dialog CFieldDlg. Receive input field information, call CRKDBMSDoc::AddField() function and pass to the document class.

(3) Save Table Structure

By calling business logic class CTableLogic::AddField(), CRKDBMSDoc class passes the field information to the business logic class.

By calling data access class CTableDao::AddField(), CTableLogic class saves the field information into the corresponding table definition file (.tdf).

4. View Update

In framework class CMainFrame, by calling CRKDMBSDoc::UpdateAllViews() function, send Add-field message UPDATE_ADD_FIELD and field information CFieldEntity. Notify all views to update. In OnUpdate() of tree view CDBView and list view CTableView, receive UPDATE_ADD_FIELD message, get the field information, and update the interface.

Implementation

Iteratively develop on the basis of “create database description file”. By inputting the field information in dialog CFieldDlg, save the field information into the table definition file (.tdf).

The implementation steps are as follows:

Step 1: Define the data structure.

Step 2: Create field dialog CFieldDlg.

Step 3: Tree view CDBView displays the field name.

Step 4: List view CTavleView displays the field information.

Step 5: Save the field information.

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Thanks

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