

HRE – DATABASE - OVERVIEW

Revision history

2018-08-27	Rod Thompson	Original draft
2018-09-05	Don Ferguson	Expanded explanation of T_204 tab; aligned example SQL with real format for T101
2018-10-16	Rod Thompson	Addition to DATA or USER tab; Extra note regarding Excel sheet designators
2018-11-08	Rod Thompson	Add to the TRANS (T_204) section of DESIGN DOCUMENTION
2021-03-15	Don Ferguson	Aligned with reality

SCOPE

The HRE database serves multiple purposes.

1. It records the data input by the user, allowing its use for onscreen display and report creation
2. It includes 'preload' data which establishes the basic operations of the application, providing design flexibility enabling adaption to a variety of historical data uses.

DATABASE DETAIL

HRE is designed to use an H2 database.

This is an open source Java SQL database, usable in embedded and server modes.

Further detail is available at: <http://www.h2database.com/html/main.html>

DATABASE DESIGN DOCUMENTATION

Documentation of the H2 Database created for HRE is recorded in two ways.

1. A Word document file, one for each database Table; detailing the use of each field in the Table
Filename example: 101-21 Schema Defns.docx
The '-21' (above) is the version number of the document
Each document includes a 'Revision History' recording changes
2. The DDL file (as follows).

DDL (Data Definition Language)

Each DDL prepared is tracked via filename and date.

Filename example: DDL Table List v21a (2020-11-02).txt

The DDL file includes a complete listing of the SQL statements copied from the Table definitions. Additionally, it includes instructions provided to set the PRIMARY KEY for each table. Variations to the DDL may result from the use of different tools used to create the H2 database.

The present structure adopted for HRE uses the following format:

Top line --<ScriptOptions statementTerminator="";"/>

Table SQL One for each table

Top line, identifying the table (e.g. -- Table 101)

Followed by the SQL set from the Table spreadsheet

Example: -- Table 101

```
CREATE TABLE SCHEMA_DEFNS (  
  SCHEMA_DEFN_PID INTEGER NOT NULL,  
  SET_RPID INTEGER NOT NULL,
```

```
CL_COMMIT_RPID INTEGER NOT NULL,  
VERSION_NAME VARCHAR(160) NOT NULL,  
MAIN_PCKG_RPID INTEGER NOT NULL,  
REMINDER_KEY SMALLINT,  
DISPLAY_ORDER SMALLINT,  
IS_DEFAULT BOOLEAN,  
SHOW BOOLEAN  
);
```

These are entered in Table Number order.

Primary Key Instructions

One for each table>

Example: ALTER TABLE SCHEMA_DEFNS ADD PRIMARY KEY (SCHEMA_DEFN_PID);

To check the DDL syntax and create the initial H2 database for HRE, it is copied into the H2 browser based console operation and run.