HRE Project Plan – Initial Steps

This document attempts to list or describe initial steps and tasks for HRE 1.0. For now, the focus is on general requirements and the routines needed to implement installation, initial startup and the project menu items. Later, we will add the additional details needed to implement LOCATIONS as our planned HRE 0.1, and then other parts of the HRE as we complete development and testing of the earlier tasks. So this is the first of many updates.

First Step – Review CONTRIBUTING.md on GitHub – Software Standards

You should have read this when you volunteered to be part of the core team. It is probably a good idea to review all of it, but we want the core team to focus on Section 2.4 Coding Standards. The document proposes using the Google Java standard and the PEP 8 Jython standard. Now is the time to comment or propose alternatives. Once we begin coding, all will be expected to adhere to whatever standards we can agree to. If you have objections, now is the time to voice them. This task is now considered active and we hope you can respond by the end of March if not sooner.

Schema Completed, Frozen and Created in H2

This gets us a blank, but fully implemented H2 database. It is very unlikely that we will complete all of the HRE 1.0 without changes to the tables, although we hope the schema is stable as we approach testing and release of HRE 1.0. Developers and testers should be prepared for table changes during development.

This task has been active for months and is not yet completed. The large portion (perhaps 95%+) of the work has been done.

Decide What, if any, tables and fields need to be pre-populated

To transform the blank but fully implemented H2 database to something that can be used as a target of development and testing, we need to pre-load values is some of the tables. The following lengthy table lists the 137 tables, which ones are used by PROJECT routines, which ones by LOCATION routines, and whether they can be pre-populated manually or need a temporary GUI application to facilitate the pre-population.

Database List	Used by Menu Project	Used by Menu Location	Preloading Min Records	Project Entry Type	Location Entry Type
137	59	22			
Documents					
D_101 Schema Defns.docx	Y		1	Y	
D_102 Package Defns.docx	Y		1	Y	

Database List	Used by Menu Project	Used by Menu Location	Preloading Min Records	Project Entry Type	Location Entry Type
D_103 Plugin Defns.docx	Y		1	Y	
D_104 Table Defns.docx	Y		137	Y	
D_105 Record Valid Defns.docx	Y				
D_107 Field Defns.docx	Y				
D_108 Field Type Defns.docx	Y				
D_109 Field Data Type Defns.docx	Y				
D_110 Field Format Defns.docx	Y				
D_111 Field Valid Defns.docx	Y				
D_112 Field Recents.docx	Y		0	N	
D_126 Projects.docx	Y		0	N	
D_127 Display Type Defns.docx	Y		1	Y	
D_128 Sessions.docx	Y		0	N	
D_129 Commit Logs.docx	Y		0	N	
D_130 Commit Items.docx	Y		0		
D_131 Users.docx	Y		2	MANUAL	
D_132 User Group Defns.docx	Y		2	MANUAL	
D_133 User Type Defns.docx	Y		2	MANUAL	
D_134 User Messages.docx	Y		0		
D_136 User Group Rights Defns	Y		2	MANUAL	
D_152 Entity Name Tag Defns.docx					
D_153 Tag Group Defns.docx					
D_155 Theme Defns.docx					
D_156 Life Phase Defns.docx					
D_157 Encoding Type Defns.docx	Y		1	MANUAL	
D_158 Template Type Defns.docx	Y		1	MANUAL	
D_159 Publish Type Defns.docx					
D_160 Sentence Type Defns.docx					
D_161 Named Memo Type Defns.docx					
D_162 Name Style Type Defns.docx		Y	many		GUI
D_163 Name Elmnt Input Defns.docx		Y	many		GUI
D_164 Name Elmnt Type Defns.docx		Y	many		GUI
D_165 Name Template Type Defns.docx		Y	many		GUI
D_166 Name Output Template Defns.docx		Y	many		GUI
D_167 Memo Set Defns.docx					
D_168 Sentence Set Defns.docx					
D_169 Entity Sub Type Defns.docx	Y		few	MANUAL	
D_170 Sentence Style Defns.docx	Y		1	MANUAL	
D_171 Script Group Defns.docx	Y		1	MANUAL	
D_172 Script Defns.docx	Y		1	MANUAL	
D_173 HDate Date Type Defns.docx		Y	1		MANUAL
D_174 HInterval Interval Type Defns.docx		Y	1		MANUAL
D_175 HDate Modifier Defns.docx		Y	1		MANUAL
D_176 HInterval Modifier Defns.docx			1		MANUAL
D_177 HDate Calendar Defns.docx		Y	1		MANUAL
D_178 Script Action Type Defns.docx	Y		1	MANUAL	
D_179 Units Defns.docx					
D_201 Language Defns.docx	Y		1	MANUAL	

Database List	Used by Menu Project	Used by Menu Location	Preloading Min Records	Project Entry Type	Location Entry Type
D_202 Language Uses.docx	Y		1	MANUAL	
D_203 Language Name Trans.docx	Y		1	MANUAL	
D_204 Label Trans.docx	Y		many	MANUAL	
D_214 Role Name Trans.docx					
D_215 Role Pair Name Trans.docx					
D_216 Reminder Trans.docx	Y		0		
D_180 Message Template Defns.docx	Y		0		
D_181 Sentence Template Defns.docx					
D_182 Memo Defns.docx[1]					
D_220 Output Template Trans.docx		Y			GUI
D_222 Script Trans.docx	Y		1	MANUAL	
D_251 Flag Defns.docx		Y	few		GUI
D_252 Flag State Defns.docx		Y	few		GUI
D_253 Notepad Defns.docx		Y	few		GUI
D_260 Text Style Defns.docx	Y		1	MANUAL	
D_284 List Object Sets.docx	Y		0		
D_285 List Objects.docx	Y		0		
D_286 List Sort Sets.docx	Y		0		
D_287 List Sorts.docx	Y		0		
D_301 GUI Languages.docx	Y		1	MANUAL	
D_302 GUI Language Names.docx	Y		1	MANUAL	
D_303 GUI Viewpoint Configs.docx	Y		1	MANUAL	
D_304 GUI Viewpoint Elements.docx	Y		1	MANUAL	
D_305 GUI Screen Configs.docx	Y		1	MANUAL	
D_306 GUI Screen Defns.docx	Y		few	MANUAL	
D_307 GUI Elements.docx	Y		few	MANUAL	
D_351 Subset Defns.docx		Y	1		MANUAL
D_352 Subset Type Defns.docx		Y	1		MANUAL
D_353 Subset Single Defns.docx					
D_354 Subset Pair Defns.docx					
D_355 Subset Mix Defns.docx					
D_356 Subset Filter Defns.docx					
D_363 Subset Bio Network Defns.docx					
D_401 Bios.docx					
D_403 Bio Notepads.docx					
D_404 Bio Names.docx					
D_405 Bio Name Parts.docx					
D_406 Bio Name Maps.docx					
D_407 Sex Defns.docx					
D_408 Living Defns.docx					
D_409 Bio Parent Sets.docx					
D_410 Bio Kin Term Defns.docx					
D_411 Bio Ethnicity Defns.docx					
D_412 Bio Kin Term Trans.docx					
D_501 Occasn Tag Defns.docx					

[1] These three tables are recent replacements of the former D_217 through D_219.

Database List	Used by Menu Project	Used by Menu Location	Preloading Min Records	Project Entry Type	Location Entry Type
D_502 Occasns.docx					
D_503 Occasn Assoc Tag Defns.docx					
D_504 Occasn Assocs.docx					
D_505 Occasn Btwn Assoc Tag Defns.docx					
D_506 Occasn Btwn Assocs.docx					
D_507 Occasn Timeline Defns.docx					
D_508 Occasn Timeline Elmnts.docx					
D_510 Occasn Notepads.docx					
D_511 Occasn Occasn Tag Defns.docx					
D_512 Ocassn Ocassns.docx					
D_651 Physicals.docx					
D_652 Physical Names.docx					
D_653 Physical Name Parts.docx					
D_654 Physical Name Maps.docx					
D_656 Physical Notepads.docx					
D_676 Digitals.docx					
D_677 Digital Names.docx					
D_678 Digital Name Parts.docx					
D_679 Digital Name Maps.docx					
D_680 Digital Notepads.docx					
D_701 Contains.docx		Y	0		
D_702 Contain Names.docx		Y	0		
D_703 Contain Name Parts.docx		Y	0		
D_704 Contain Name Maps.docx		Y	0		
D_706 Contain Notespads.docx		Y	0		
D_734 Citn Type Defns.docx					
D_735 Citations.docx					
D_751 HDates.docx					
D_752 HIntervals.docx					
D_876 Substn Syntax Defns	Y		few	MANUAL	
D_877 Substn Data Aliases	Y		few	GUI	
D_878 Substn Other Aliases	Y		few	GUI	
D_879 Substn Steps	Y		few	GUI	
D_880 Substn Param Lists	Y		few	GUI	
D_881 Substn Param Set Defns	Y		few	GUI	
D_882 Substn Param Names	Y		few	GUI	
D_883 Substn Param Values	Y		few	GUI	
D_884 Substn Common Defns	Y		few	GUI	
D_885 Substn Commons	Y		few	GUI	
D_886 Substn Template Defns	Y		few	GUI	
D_887 Substn Templates	Y		few	GUI	
D_888 Substn Filter Defns		Y	few		GUI
D_889 Substn Filters		Y	few		GUI

So there are tasks:

1. Develop the temporary GUI application(s) for loading values and then execute those routines to do the loading.
2. Perform the manual loading of the remaining tables with initial values.

Specify local files, server and client

These are needed for the client (preservation of recently accessed projects, client-specific devices like screen properties) and the server (catalog of resident projects, status). On the client, this is partly equivalent to the collection of TMG .PJC files, naming and locating known projects and the large collection of shared files installed by TMG for that TMG version, e.g. language translations, report templates, etc.

Note that the access history (recent project) list is client-dependent. It is the recent history of a user on a particular client. The same user will see a different access history if a different client is used, even for the same projects.

This task has not started but is needed for the next section.

Specify a basic installation kit

Install the software and HRE-supplied template database to

1. The system-default location for software installations (depends on O/S) or
2. A set of user-specified locations[2] which may or may not be on the system disk

At this point, members of the core team and board could install but there is no data and no menu. There may be variants for private local, private remote and shared remote (especially for the shared case).

This installation kit needs to install enough of the GUI to implement the main menu and its submenus, even if all of the actions are stubs as we start.

Table-access Routines, subset for project operations

We need routines to act on the H2 tables. In general, each of them needs to do the following:

- Create A New Record In Table X (needs to include a number of other table operations, allocation of PID and commit logging)
- Update A Record In Table X Matching A Unique Condition (needs include a number of other table operations, including retrieval and commit logging)
- Delete A Record In Table X Matching A Unique Condition (need to include a number of other table operations, including retrieval and commit logging)

---

[2] It is highly likely that there will be locations for the executable (read only), accompanying system files (updatable) and separate locations for user projects and user auxiliary data (e.g, images)

- Retrieve A Record From Table X Matching A Unique Condition
- Retrieve A Set Of Records From Table X Matching A Condition
- Count Records In Table X Matching A Condition

We expect a lot of common features among these routines as it is primarily the fields and the structure to be passed that will differ from table to table.

To implement all 137 table access routines in one batch sounds tedious and boring. So, to implement PROJECTS, we think the following is the list (derived from the previous table) of such routines needed for just the project-related menu items:

D_101 Schema Defns, D_102 Package Defns, D_103 Plugin Defns, D_104 Table Defns, D_105 Record Valid Defns, D_107 Field Defns, D_108 Field Type Defns, D_109 Field Data Type Defns, D_110 Field Format Defns, D_111 Field Valid Defns, D_112 Field Recents, D_126 Projects, D_127 Display Type Defns, D_128 Sessions, D_129 Commit Logs, D_130 Commit Items, D_131 Users, D_132 User Group Defns, D_133 User Type Defns, D_134 User Messages, D_136 User Group Rights Defns, D_157 Encoding Type Defns, D_158 Template Type Defns, D_169 Entity Sub Type Defns, D_170 Sentence Style Defns, D_171 Script Group Defns, D_172 Script Defns, D_178 Script Action Type Defns, D_201 Language Defns, D_202 Language Uses, D_203 Language Name Trans, D_204 Label Trans, D_216 Reminder Trans, D_180 Message Template Defns[3], D_222 Script Trans, D_260 Text Style Defns, D_284 List Object Sets, D_285 List Objects, D_286 List Sort Sets, D_287 List Sorts, D_301 GUI Languages, D_302 GUI Language Names, D_303 GUI Viewpoint Configs, D_304 GUI Viewpoint Elements, D_305 GUI Screen Configs, D_306 GUI Screen Defns, D_307 GUI Elements, D_876 Substn Syntax Defns, D_877 Substn Data Aliases, D_878 Substn Other Aliases, D_879 Substn Steps, D_880 Substn Param Lists, D_881 Substn Param Set Defns, D_882 Substn Param Names, D_883 Substn Param Values, D_884 Substn Common Defns, D_885 Substn Commons, D_886 Substn Template Defns, D_887 Substn Templates

Of course the previous table also lists those needed to implement LOCATIONS.

Each of these routines is a task and of course needs to be tested.

Service Routines Needed for Project Operations

The next level of implementation are these commonly executed routines required by project-related menu items:

04.14 GUI_ProjectSummary, 05.75 GUI_Server Login, 05.32 GUI_PanelConfigEdit, 07.24 BR_Setting, 05.30 GUI_Notification, BR_PanelConfig, 07.06 BR_GuiElement, 07.29 BR_Translation, 08.01 BCS_Bridge, 10.02 SS_DirectRequest, 11.01 DBA_DatabaseValidateRequest, 11.02 DBA_DatabaseMapRequest, 11.03 DBA_DatabaseTransaction, 12.01 DBE_PerformDatabaseRequest, 07.04 BR_Files, 05.20 GUI_Logging, 07.25 BR_Schema,

---

[3] One of the recently replaced tables, formerly D_217.

07.02 BR_EntityLink, 07.26 BR_Substitution, BR_EncodedString, 07.21 BR_Project, 4.03 GUI_ProjectRecent, 05.31 GUI_Output, 05.32 GUI_PanelConfigEdit

Each of these is a task and of course needs to be tested.

The additional service routines to implement LOCATIONs have not yet been analyzed.

Project-Related Routines

This is the level at which, finally, user requests are received and executed.

- 04.01 GUI_UserInterface (main menu)
- 04.02 GUI_ProjectOpen
- 04.03 GUI_ProjectRecent
- 04.04 GUI_ProjectNew
- 04.05 GUI_ProjectBackup
- 04.06 GUI_ProjectRestore
- 04.07 GUI_ProjectClose
- 04.08 GUI_ProjectCopyAs
- 04.09 GUI_ProjectRename
- 04.10 GUI_ProjectDelete
- 04.13 GUI_ExitHRE
- 04.14 GUI_ProjectSummary

Each of these is a task and of course needs to be tested.

GUI_ProjectMerge and GUI_ProjectSubset have been proposed but not yet specified.

NOTE: In the remote shared project mode, not all of these will be accessible to the general user. An administrative role is needed for shared remote projects but not for private ones (where the user is the administrator, too).