

1.6 HRE IMPLEMENTATION STAGES

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1. HRE v0.1: Core with reduced menu, some services and features

1.1. Summary: The initial HRE stage that builds the infrastructure of the application. It includes operations on HRE Projects, Location Name Styles and Location Names with their screen displays.

1.2. Aims Overview:

- 1.2.1. CLIENT - Build the skeleton of the HRE Client application with layered architecture
- 1.2.2. SERVER - Build the skeleton of the HRE Server services with layered architecture
- 1.2.3. These will be within the same computer, linked by simplified communication
- 1.2.4. From actions using the GUI:
 - 1.2.4.1. Create and edit settings for a database
 - 1.2.4.2. Create an empty HRE database
 - 1.2.4.3. Backup, Restore, Delete and Rename that database
 - 1.2.4.4. Create database tables for all elements of Location Names
 - 1.2.4.5. Create database tables for all elements of Location Name Styles
 - 1.2.4.6. Define and Edit Location Name Styles
 - 1.2.4.7. Create and Edit Location Names using assigned Location Name Styles
 - 1.2.4.8. Display lists of Location Names using different Output Templates.

1.3. Outcome: Creation of the initial HRE core. This will be used to validate the vertical path through all architecture layers from the user interface to the detailed updating of database records. It is a test bed for various technologies.

1.4. CLIENT - Presentation Layer:

Build with action code for a reduced set of the Main Menu with following entries:

1.4.1. Project Menu head item:

- 1.4.1.1. Open Project
- 1.4.1.2. Recent Project
- 1.4.1.3. New Project
- 1.4.1.4. Project Backup
- 1.4.1.5. Project Restore
- 1.4.1.6. Project Close
- 1.4.1.7. Project Copy As
- 1.4.1.8. Project Rename
- 1.4.1.9. Project Delete
- 1.4.1.10. Close and Exit

1.4.2. Where & When head item:

1.4.2.1. Location Sub Menu:

- 1.4.2.1.1. Select by ID, Name Element, Name Styles
- 1.4.2.1.2. Recent Use
- 1.4.2.1.3. Manage Locations:
 - 1.4.2.1.3.1. Select
 - 1.4.2.1.3.2. Add
 - 1.4.2.1.3.3. Delete
 - 1.4.2.1.3.4. Edit
- 1.4.2.1.4. Manage Location Name Style Definitions:
 - 1.4.2.1.4.1. Select
 - 1.4.2.1.4.2. Add
 - 1.4.2.1.4.3. Delete

- 1.4.2.1.4.4. Edit
 - 1.4.2.1.5. Manage Location Flags:
 - 1.4.2.1.5.1. Select
 - 1.4.2.1.5.2. Add
 - 1.4.2.1.5.3. Delete
 - 1.4.2.1.5.4. Edit
 - 1.4.2.1.6. Manage Location Notepads:
 - 1.4.2.1.6.1. Select
 - 1.4.2.1.6.2. Add
 - 1.4.2.1.6.3. Delete
 - 1.4.2.1.6.4. Edit
 - 1.4.2.2. **Historical Date Sub Menu:**
 - 1.4.2.2.1. Select by Date Range
 - 1.4.2.2.2. Manage Historical Date:
 - 1.4.2.2.2.1. Select
 - 1.4.2.2.2.2. Add
 - 1.4.2.2.2.3. Delete
 - 1.4.2.2.2.4. Edit
- 1.4.3. **Tools Menu:**
 - 1.4.3.1. **Settings:**
 - 1.4.3.1.1. Client
 - 1.4.3.1.2. User
 - 1.4.3.1.3. Server
 - 1.4.3.1.4. Monitor
 - 1.4.3.1.5. GUI Language
 - 1.4.3.1.6. Project
 - 1.4.3.1.7. Location
 - 1.4.3.1.8. Historical Date
 - 1.4.3.2. **Application Language:**
 - 1.4.3.2.1. Select
 - 1.4.3.2.2. Delete
 - 1.4.3.2.3. Edit
 - 1.4.3.3. **User Language:**
 - 1.4.3.3.1. Select
 - 1.4.3.3.2. Delete
 - 1.4.3.3.3. Edit
- 1.4.4. **Help Menu:**
 - 1.4.4.1. Help Contents
 - 1.4.4.2. About HRE (splash screen)

1.5. CLIENT - Business Layer:

Build the following services and modules:

- 1.5.1. Data Entry Validation:
 - 1.5.1.1. Location-specific rules
 - 1.5.1.2. Location Name style-specific rules
 - 1.5.1.3. Historical Date-specific rules
 - 1.5.1.4. Historical Date Template-specific rules
- 1.5.2. Parallel Data Translation:
 - 1.5.2.1. Location-specific rules/hints
- 1.5.3. Notifications (Errors and Warnings):
 - 1.5.3.1. Project-specific notifications
 - 1.5.3.2. Location-specific notifications

- 1.5.3.3. Location Name style -specific notifications
- 1.5.3.4. Historical Date-specific notifications
- 1.5.4. Repeated Values
- 1.5.5. Settings
- 1.5.6. Screen Configurations
- 1.5.7. Viewpoints
- 1.5.8. Storage and retrieval of ordered Named Elements
- 1.5.9. Syntax Checking:
 - 1.5.9.1. Location Name style Templates
 - 1.5.9.2. Historical Date input values
- 1.5.10. Value Substitution:
 - 1.5.10.1. Location Value substitution
 - 1.5.10.2. Historical Dates substitution
- 1.5.11. Flags
 - 1.5.11.1. Definitions
 - 1.5.11.2. Validate Values
 - 1.5.11.3. Retrieve Values
- 1.5.12. Notepads
 - 1.5.12.1. Definitions
 - 1.5.12.2. Validate Values
 - 1.5.12.3. Retrieve Values

1.6. CLIENT - Requester Layer:

Build the following modules:

- 1.6.1. Connection Contract and Security (dummy –same computer)
- 1.6.2. Connection Termination (dummy – same computer)
- 1.6.3. Same Computer Server

1.7. SERVER - Head Layer:

- 1.7.1. Server Listener
- 1.7.2. Server Queues

1.8. SERVER - Services Layer:

- 1.8.1. Database Maintenance
- 1.8.2. Direct Request

1.9. SERVER - Database Abstraction Layer:

- 1.9.1. Database Integrity, Validation
- 1.9.2. SQL Request Type Check and Security
- 1.9.3. Management of Commit and Roll back of database
- 1.9.4. Project-related request validation
- 1.9.5. Location-related request validation
- 1.9.6. Historical Date-related validation
- 1.9.7. Add Flag related database request validation
- 1.9.8. Add Notepad related database request validation
- 1.9.9. Add Accent related database request validation

1.10. SERVER - Database Action Layer:

- 1.10.1. Interface SQL to the API of the database
- 1.10.2. Perform actions on database
 - 1.10.2.1. Database Creation with the following system tables:
 - 1.10.2.1.1. Data Types Dictionary
 - 1.10.2.2. Add the tables to support:
 - 1.10.2.2.1. Locations
 - 1.10.2.2.2. Location Names
 - 1.10.2.2.3. Location Name Styles

- 1.10.2.2.4. Location Name Elements
- 1.10.2.2.5. Location Name Element Types
- 1.10.2.2.6. Location Name Style Input Templates
- 1.10.2.2.7. Location Name Style Output Templates
- 1.10.2.2.8. Location to Location Links
- 1.10.2.2.9. Location Flag Definitions
- 1.10.2.2.10. Location Flag Validation Rules
- 1.10.2.2.11. Location Flag Values
- 1.10.2.2.12. Location Notepad Definitions
- 1.10.2.2.13. Location Notepad Validation Rules
- 1.10.2.2.14. Location Notepad Values
- 1.10.2.2.15. Historical Dates Definitions
- 1.10.2.2.16. Historical Date Values (usually embedded in other tables)
- 1.10.2.2.17. Repeated Values
- 1.10.2.2.18. Notification Substitution Definitions
- 1.10.2.2.19. Notification Message Templates
- 1.10.2.2.20. Short translated text
- 1.10.2.2.21. Medium length translated text
- 1.10.2.2.22. Very large length translated text
- 1.10.2.2.23. Data Validation Rules

This list may be incomplete

2. HRE v0.2: Adding Persons and Plugins for TMG Importing

2.1. Summary: Starts to build the HRE Persons, Human Genealogy and Import TMG plugins. This stage includes the HRE data objects, Persons, Person Name Styles, Person Names, Person Flags and Accents, each with their screen displays. It commences the Import TMG plugin by importing TMG Person and Place (Location) data into HRE formats.

2.2. Aims:

- 2.2.1. Create a Person plugin, permit other plugins to plug into it
- 2.2.2. Create a Human Genealogy plugin and plug it into the Person plugin
- 2.2.3. Create an Import TMG plugin and plug it into the Human Genealogy plugin
- 2.2.4. Within the Person plugin build code to support:
 - 2.2.4.1. Person Name Styles
 - 2.2.4.2. Persons
 - 2.2.4.3. Person Names
 - 2.2.4.4. Person Flags
 - 2.2.4.5. Person Notepads
 - 2.2.4.6. Person Accents
- 2.2.5. Within the Import TMG plugin, build code to import from TMG projects:
 - 2.2.5.1. Person Name Styles
 - 2.2.5.2. Persons
 - 2.2.5.3. Person Names
 - 2.2.5.4. Place Name Styles
 - 2.2.5.5. Places
 - 2.2.5.6. Place Names
 - 2.2.5.7. Accents

2.3. Outcome: At completion of v0.2, be able to:

- 2.3.1. Display a list of Persons in the HRE database
- 2.3.2. Edit Person Names and Person Name Styles
- 2.3.3. Display a list of Locations in the HRE database

- 2.3.4. Edit Location Names and Location Name Styles
- 2.3.5. Import a list of Persons and their names and name styles from a TMG project
- 2.3.6. Import a list of Locations and their names and name styles from a TMG project

2.4. CLIENT - Presentation Layer:

Add action code for the following added entries in the Main Menu:

2.4.1. Project Menu:

- 2.4.1.1. Import from TMG

2.4.2. Person Menu:

- 2.4.2.1. Select by ID, Name Elements, Name Styles

- 2.4.2.2. Recent Use

- 2.4.2.3. Manage Persons:

- 2.4.2.3.1. Select

- 2.4.2.3.2. Add

- 2.4.2.3.3. Delete

- 2.4.2.3.4. Edit

- 2.4.2.4. Manage Person Name Style Definitions:

- 2.4.2.4.1. Select

- 2.4.2.4.2. Add

- 2.4.2.4.3. Delete

- 2.4.2.4.4. Edit

- 2.4.2.5. Manage Person Flags:

- 2.4.2.5.1. Select

- 2.4.2.5.2. Add

- 2.4.2.5.3. Delete

- 2.4.2.5.4. Edit

- 2.4.2.6. Manage Person Notepads:

- 2.4.2.6.1. Select

- 2.4.2.6.2. Add

- 2.4.2.6.3. Delete

- 2.4.2.6.4. Edit

- 2.4.2.7. Manage Person Accents:

- 2.4.2.7.1. Select

- 2.4.2.7.2. Add

- 2.4.2.7.3. Delete

- 2.4.2.7.4. Link

- 2.4.2.7.5. Edit

- 2.4.2.8.

2.4.3. Tools Menu:

- 2.4.3.1. Add to Settings:

- 2.4.3.1.1. Persons

2.5. CLIENT - Business Layer:

- 2.5.1. Data Entry Validation:

- 2.5.1.1. Person-specific rules

- 2.5.1.2. Person Name style-specific rules

- 2.5.2. Parallel Data Translation:

- 2.5.2.1. Person-specific rules/hints

- 2.5.3. Syntax Checking:

- 2.5.3.1. Person Name style Templates

- 2.5.4. Value Substitution:

- 2.5.5. Person Value substitution

- 2.5.6. Accents

- 2.5.6.1. Definitions
- 2.5.6.2. Validate Values
- 2.5.6.3. Retrieve Values
- 2.5.6.4. Color Swatches
- 2.5.6.5. Use with Filters

2.6. CLIENT - Requester Layer:

Nothing new

2.7. SERVER - Head Layer:

Nothing new

2.8. SERVER - Services Layer:

Nothing new

2.9. SERVER - Database Abstraction Layer:

Add Person-related database request validation

2.10. SERVER - Database Action Layer:

Add the tables to support:

- 2.10.1. Person
- 2.10.2. Person Names
- 2.10.3. Person Name Styles
- 2.10.4. Person Name Input templates
- 2.10.5. Person Output Templates
- 2.10.6. Person Name Element Types
- 2.10.7. Person Name Elements
- 2.10.8. Person Flag Definitions
- 2.10.9. Person Flag Validation Rules
- 2.10.10. Person Flag Values
- 2.10.11. Person Notepad Definitions
- 2.10.12. Person Notepad Validation Rules
- 2.10.13. Person Notepad Values
- 2.10.14. Accent
 - 2.10.14.1. Definitions
 - 2.10.14.2. Validation Rules
 - 2.10.14.3. Colour Swatches
 - 2.10.14.4. Values

This list may be incomplete

3. HRE v0.3: Add Events, Occasions and Tasks

3.1. Summary: Adds HRE Events and Tasks with their screen displays. It also extends the TMG importing to include the conversion of that TMG data into HRE formats.

3.2. Aims:

- 3.2.1. To add Events, Occasions and Locations to v0. 2
- 3.2.2. To add more Person-related GUI via the Person plugin or Human Genealogy plugin
- 3.2.3. To extend the Import TMG plugin to import Events and the Research Log from TMG projects via the Import TMG plugin.

3.3. Outcome:

At the completion of v0.3, HRE will operate on Persons, Events, Tasks, Locations and Tasks.

3.4. CLIENT - Presentation Layer:

Add action code for the following added entries in the Main Menu:

3.4.1. Persons head item: Associates Sub-menu

- 3.4.1.1. Manage Event Associates:

- 3.4.1.1.1. Select
 - 3.4.1.1.2. Add
 - 3.4.1.1.3. Delete
 - 3.4.1.1.4. Edit
- 3.4.1.2. Manage Event Associate Flags:
 - 3.4.1.2.1. Select
 - 3.4.1.2.2. Add
 - 3.4.1.2.3. Delete
 - 3.4.1.2.4. Edit
- 3.4.1.3. Manage Event Associates Notepads:
 - 3.4.1.3.1. Select
 - 3.4.1.3.2. Add
 - 3.4.1.3.3. Delete
 - 3.4.1.3.4. Edit
- 3.4.1.4. Manage Task Associates:
 - 3.4.1.4.1. Select
 - 3.4.1.4.2. Add
 - 3.4.1.4.3. Delete
 - 3.4.1.4.4. Edit
- 3.4.1.5. Manage Task Associate Flags:
 - 3.4.1.5.1. Select
 - 3.4.1.5.2. Add
 - 3.4.1.5.3. Delete
 - 3.4.1.5.4. Edit
- 3.4.1.6. Manage Task Associates Notepads:
 - 3.4.1.6.1. Select
 - 3.4.1.6.2. Add
 - 3.4.1.6.3. Delete
 - 3.4.1.6.4. Edit
- 3.4.2. Events & Tasks head item: **Event Sub-Menu****
 - 3.4.2.1.1. Select by Person/Assoc-ID, Location, Date, Tag type
 - 3.4.2.1.2. Recent Use
 - 3.4.2.1.3. Pick List
- 3.4.2.2. Manage Events:
 - 3.4.2.2.1. Select
 - 3.4.2.2.2. Add
 - 3.4.2.2.3. Delete
 - 3.4.2.2.4. Edit
- 3.4.2.3. Manage Event Flags:
 - 3.4.2.3.1. Select
 - 3.4.2.3.2. Add
 - 3.4.2.3.3. Delete
 - 3.4.2.3.4. Edit
- 3.4.2.4. Manage Event Notepads:
 - 3.4.2.4.1. Select
 - 3.4.2.4.2. Add
 - 3.4.2.4.3. Delete
 - 3.4.2.4.4. Edit
- 3.4.3. Events & Tasks head item: **Task Sub-Menu****
 - 3.4.3.1. Select by Person/Assoc-ID, Location, Date, Tag type
 - 3.4.3.2. Recent Use

- 3.4.3.3. Pick List
- 3.4.3.4. Manage Tasks:
 - 3.4.3.4.1. Select
 - 3.4.3.4.2. Add
 - 3.4.3.4.3. Delete
 - 3.4.3.4.4. Edit

3.4.4. Where & When head item: Occasion Sub-Menu

- 3.4.4.1. Select by Person/Assoc-ID, Location, Date, Tag type
- 3.4.4.2. Recent Use
- 3.4.4.3. Pick List
- 3.4.4.4. Manage Occasions:
 - 3.4.4.4.1. Select
 - 3.4.4.4.2. Add
 - 3.4.4.4.3. Delete
 - 3.4.4.4.4. Edit

3.4.5. Where & When head item: Historical Date Sub-Menu: (addition)

- 3.4.5.1. Tools:
 - 3.4.5.1.1. Date Converter
 - 3.4.5.1.2. Date Calculator

3.4.6. Tools Menu:

- 3.4.6.1. Add the following to Settings:
 - 3.4.6.1.1. Events
 - 3.4.6.1.2. Tasks
 - 3.4.6.1.3. Occasions

3.5. CLIENT - Business Layer:

- 3.5.1. Historical Date
- 3.5.2. Data Entry Validation
- 3.5.3. Event Associate-specific rules
- 3.5.4. Task-specific rules
- 3.5.5. Task Associate-specific rules

3.6. CLIENT - Requester Layer:

Nothing new

3.7. SERVER - Head Layer:

Nothing new

3.8. SERVER - Services Layer:

Nothing new

3.9. SERVER - Database Abstraction Layer:

- 3.9.1. Add Event related database request validation
- 3.9.2. Add Task related database request validation
- 3.9.3. Add Occasion related database request validation

3.10. SERVER - Database Action Layer:

- 3.10.1. Add the tables to support:
 - 3.10.1.1. Sentences
 - 3.10.1.2. Named Memos
 - 3.10.1.3. Events
 - 3.10.1.4. Event to Occasion Links
 - 3.10.1.5. Event Tag Definitions
 - 3.10.1.6. Event to Associate Person Role links
 - 3.10.1.7. Tasks
 - 3.10.1.8. Task to Occasion Links
 - 3.10.1.9. Task Tag Definitions

- 3.10.1.10. Task to Associate Person Role links
- 3.10.1.11. Occasions
- 3.10.1.12. Event Flag Definitions
- 3.10.1.13. Event Flag Validation Rules
- 3.10.1.14. Event Flag Values
- 3.10.1.15. Task Flag Definitions
- 3.10.1.16. Task Flag Validation Rules
- 3.10.1.17. Task Flag Values

This list may be incomplete

4. HRE v0.4: Add Citations, Sources, Repositories

4.1. Summary: Adds HRE Sources, Repositories and Citations with their screen displays. It also extends the TMG importing to include the conversion of that TMG data into HRE formats.

4.2. Aims:

- 4.2.1. To add Citations, Sources and Repositories to v0.3
- 4.2.2. To extend the Import TMG plugin to import Citations, Sources and repositories from TMG projects

4.3. Outcome:

At completion of v0.4, the Import TMG plugin should be able to import all TMG data except Images, External Files, DNA and sundry data like merge exclusions, focus groups, etc.

4.4. CLIENT - Presentation Layer:

Add action code for the following added entries in the Main Menu:

4.4.1. Evidence head item: Source Sub-Menu:

- 4.4.1.1. Select by Source-ID, Abbreviation
- 4.4.1.2. Recent Use
- 4.4.1.3. Pick List
- 4.4.1.4. Manage Sources:
 - 4.4.1.4.1. Select
 - 4.4.1.4.2. Add
 - 4.4.1.4.3. Delete
 - 4.4.1.4.4. Edit
- 4.4.1.5. Manage Source Name Style Definitions:
 - 4.4.1.5.1. Select
 - 4.4.1.5.2. Add
 - 4.4.1.5.3. Delete
 - 4.4.1.5.4. Edit
- 4.4.1.6. Manage Source to Repository Links:
 - 4.4.1.6.1. Select
 - 4.4.1.6.2. Add
 - 4.4.1.6.3. Delete
 - 4.4.1.6.4. Edit
- 4.4.1.7. Manage Source Flags:
 - 4.4.1.7.1. Select
 - 4.4.1.7.2. Add
 - 4.4.1.7.3. Delete
 - 4.4.1.7.4. Edit
- 4.4.1.8. Manage Source Notepads:
 - 4.4.1.8.1. Select

- 4.4.1.8.2. Add
- 4.4.1.8.3. Delete
- 4.4.1.8.4. Edit

4.4.2. Evidence head item: Repository Sub-Menu:

- 4.4.2.1. Select by Repository ID, Abbreviation
- 4.4.2.2. Pick List
- 4.4.2.3. Recent Use
- 4.4.2.4. Manage Repositories:
 - 4.4.2.4.1. Select
 - 4.4.2.4.2. Add
 - 4.4.2.4.3. Delete
 - 4.4.2.4.4. Edit
- 4.4.2.5. Manage Repository Flags:
 - 4.4.2.5.1. Select
 - 4.4.2.5.2. Add
 - 4.4.2.5.3. Delete
 - 4.4.2.5.4. Edit
- 4.4.2.6. Manage Repository Notepads:
 - 4.4.2.6.1. Select
 - 4.4.2.6.2. Add
 - 4.4.2.6.3. Delete
 - 4.4.2.6.4. Edit
- 4.4.2.7. Manage Repository to Source Links:
 - 4.4.2.7.1. Select
 - 4.4.2.7.2. Add
 - 4.4.2.7.3. Delete
 - 4.4.2.7.4. Edit
- 4.4.2.8. Manage Source Repository Link Flags:
 - 4.4.2.8.1. Select
 - 4.4.2.8.2. Add
 - 4.4.2.8.3. Delete
 - 4.4.2.8.4. Edit
- 4.4.2.9. Manage Source Repository Link Notepads:
 - 4.4.2.9.1. Select
 - 4.4.2.9.2. Add
 - 4.4.2.9.3. Delete
 - 4.4.2.9.4. Edit

4.4.3. Evidence head item: Citation Sub-Menu:

- 4.4.3.1. Select by Citing Object-ID, Source-ID, Abbreviation
- 4.4.3.2. Pick List
- 4.4.3.3. Recent Use
- 4.4.3.4. Manage Citations:
 - 4.4.3.4.1. Select
 - 4.4.3.4.2. Add
 - 4.4.3.4.3. Delete
 - 4.4.3.4.4. Edit
- 4.4.3.5. Manage Citation Flags:
 - 4.4.3.5.1. Select
 - 4.4.3.5.2. Add
 - 4.4.3.5.3. Delete
 - 4.4.3.5.4. Edit

4.4.3.6. Manage Citation Notepads:

- 4.4.3.6.1. Select
- 4.4.3.6.2. Add
- 4.4.3.6.3. Delete
- 4.4.3.6.4. Edit

4.4.4. Tools Menu

4.4.4.1. Add the following to Settings:

- 4.4.4.1.1. Sources
- 4.4.4.1.2. Source Name Styles
- 4.4.4.1.3. Repositories
- 4.4.4.1.4. Repository to Source Links

4.5. CLIENT - Business Layer:

4.5.1. Parallel Data Translation:

- 4.5.1.1. Source-specific rules/hints

4.5.2. Syntax Checking:

- 4.5.2.1. Source Name style Templates

4.5.3. Value Substitution:

- 4.5.3.1. Source Value substitution

4.5.4. Source-specific rules

4.5.5. Repository-specific rules

4.5.6. Citation-specific rules

4.6. CLIENT - Requester Layer

Nothing new

4.7. SERVER – Head Layer:

Nothing new

4.8. SERVER - Services Layer:

Nothing new

4.9. SERVER - Database Abstraction Layer:

- 4.9.1. Add Source related database request validation
- 4.9.2. Add Repository related database request validation
- 4.9.3. Add Citation related database request validation

4.10. SERVER - Database Action Layer:

Add the tables to support:

- 4.10.1. Sources
- 4.10.2. Source Name Style Definitions
- 4.10.3. Source Name Style Elements
- 4.10.4. Source Name Style Element Types
- 4.10.5. Source Name Style Input Template
- 4.10.6. Source Name Style Output Template
- 4.10.7. Source Name Elements
- 4.10.8. Repositories
- 4.10.9. Repository to Source Links
- 4.10.10. Citations

This list may be incomplete

5. HRE v0.5: Add Filters, Subsets, Images, External Files, Internal Texts

5.1. Summary: Adds Filters, Subsets, Images, External Files and Internal Texts with their screen displays. It also extends the TMG importing to include the conversion of that available TMG data into HRE formats. This completes the TMG Importing modules, except for some conversion issues for sentence-based reporting.

5.2. Aims:

- 5.2.1. Add construction and execution of filters
- 5.2.2. Add the selection of subsets and operations on them
- 5.2.3. To add all remaining data types which are represented in a TMG project
- 5.2.4. To add into Import TMG plugin to complete the import process for all data types to the HRE associated with TMG projects

5.3. Outcome:

At completion of v0.5, be able to:

- 5.3.1. Import all data in TMG projects
- 5.3.2. View all TMG imported data
- 5.3.3. Note that some data conversion adjustments clarified for report generation are deferred to v0.7.

5.4. CLIENT - Presentation Layer:

- 5.4.1. Select by filter: Insert a menu entry and add action code under “Select by” for “Filter” to the following places in the Sub-Menus for Persons, Locations, Events, Tasks, Sources, Repositories, Citations, Images, External Files and Internal Texts and to all of the related inter object link search locations.
- 5.4.2. Accents: Append the branch of entries below after the Flags entry and add action code to the following places in the Sub-Menus for Locations, Events, Tasks, Sources, Repositories, Citations, Images, External Files and Internal Texts and to all of the related inter object link search locations.
 - 5.4.2.1. Values
 - 5.4.2.2. Definitions (Add, Delete, Edit)
- 5.4.3. Subsets: Append the branch of entries below after the Notepads entry and add action code to the following places in the Sub-Menus for Persons, Locations, Events, Tasks, Sources, Repositories, Citations, Images, External Files and Internal Texts and to all of the related inter object link search locations.
 - 5.4.3.1. Select Type:
 - 5.4.3.1.1. ID
 - 5.4.3.1.2. ID Pairs
 - 5.4.3.2. Manage (Add, Delete, Edit)
- 5.4.4. Filters: Append the branch of entries below after the Subsets entry and add action code to the following places in the Sub-Menus for Persons, Locations, Events, Tasks, Sources, Repositories, Citations, Images, External Files and Internal Texts and to all of the related inter object link search locations.
 - 5.4.4.1. Manage (Add, Delete, Edit)
 - 5.4.4.2. Definitions (Add, Delete, Edit)
- 5.4.5. Evidence head item: **Image Sub-Menu**:
 - 5.4.5.1. Select by Image-ID, Abbreviation
 - 5.4.5.2. Pick List
 - 5.4.5.3. Recent Use
 - 5.4.5.4. Manage Images (Select, Add, Delete, Edit)
 - 5.4.5.5. Manage Image Flags (Select, Add, Delete, Edit)
 - 5.4.5.6. Manage Image Notepads (Select, Add, Delete, Edit)
 - 5.4.5.7. Select links to:
 - 5.4.5.7.1. Person
 - 5.4.5.7.2. Location
 - 5.4.5.7.3. Source
 - 5.4.5.7.4. Repository
 - 5.4.5.7.5. Citation
 - 5.4.5.7.6. Event

- 5.4.5.7.7. Task
- 5.4.5.8. Link Manage (Select, Add, Delete, Edit)
- 5.4.6. **Evidence head item: External File Sub-Menu:**
 - 5.4.6.1. Select by Source-ID, Abbreviation
 - 5.4.6.2. Pick List
 - 5.4.6.3. Recent Use
 - 5.4.6.4. Manage Files (Select, Add, Delete, Edit)
 - 5.4.6.5. Manage File Flags (Select, Add, Delete, Edit)
 - 5.4.6.6. Manage File Notepads (Select, Add, Delete, Edit)
 - 5.4.6.7. Select links to:
 - 5.4.6.7.1. Person
 - 5.4.6.7.2. Location
 - 5.4.6.7.3. Occasion
 - 5.4.6.7.4. Source
 - 5.4.6.7.5. Repository
 - 5.4.6.7.6. Citation
 - 5.4.6.7.7. Event
 - 5.4.6.7.8. Task
 - 5.4.6.8. Link Manage (Add, Delete, Edit)
- 5.4.7. **Evidence head item: Internal Text Sub-Menu:**
 - 5.4.7.1. Select by Source-ID, Abbreviation
 - 5.4.7.2. Pick List
 - 5.4.7.3. Recent Use
 - 5.4.7.4. Manage Internal Text (Select, Add, Delete, Edit)
 - 5.4.7.5. Manage Internal Text Flags (Select, Add, Delete, Edit)
 - 5.4.7.6. Manage Internal Text Notepads (Select, Add, Delete, Edit)
 - 5.4.7.7. Select links to:
 - 5.4.7.7.1. Person
 - 5.4.7.7.2. Location
 - 5.4.7.7.3. Occasion
 - 5.4.7.7.4. Source
 - 5.4.7.7.5. Repository
 - 5.4.7.7.6. Citation
 - 5.4.7.7.7. Event
 - 5.4.7.7.8. Task
 - 5.4.7.8. Link Manage (Add, Delete, Edit)

5.5. CLIENT - Business Layer:

- 5.5.1. Flags (add)
 - 5.5.1.1. Use with Filters
- 5.5.2. Notepads (add)
 - 5.5.2.1. Use with Filters
- 5.5.3. Subsets
 - 5.5.3.1. Definitions
 - 5.5.3.2. Validate Values
 - 5.5.3.3. Reorder Values
 - 5.5.3.4. Retrieve Values
 - 5.5.3.5. Use with Filters
- 5.5.4. Filters
 - 5.5.4.1. Operation Definitions
 - 5.5.4.2. Filter Tree Management
 - 5.5.4.3. Jython content composition scripts

- 5.5.4.4. Validate Syntax
- 5.5.4.5. Execute Jython Scripts
- 5.5.5. Validate
 - 5.5.5.1. Image
 - 5.5.5.2. External File
 - 5.5.5.3. Internal Text
- 5.5.6. Display
 - 5.5.6.1. Image
 - 5.5.6.2. External File
 - 5.5.6.3. Internal Text
- 5.5.7. Select Person link to
 - 5.5.7.1. Image
 - 5.5.7.2. External File
 - 5.5.7.3. Internal Text
- 5.5.8. Select Location link to
 - 5.5.8.1. Image
 - 5.5.8.2. External File
 - 5.5.8.3. Internal Text
- 5.5.9. Select Occasion link to
 - 5.5.9.1. Image
 - 5.5.9.2. External File
 - 5.5.9.3. Internal Text
- 5.5.10. Select Source link to
 - 5.5.10.1. Image
 - 5.5.10.2. External File
 - 5.5.10.3. Internal Text
- 5.5.11. Select Repository link to
 - 5.5.11.1. Image
 - 5.5.11.2. External File
 - 5.5.11.3. Internal Text
- 5.5.12. Select Citation link to
 - 5.5.12.1. Image
 - 5.5.12.2. External File
 - 5.5.12.3. Internal Text
- 5.5.13. Select Event link to
 - 5.5.13.1. Image
 - 5.5.13.2. External File
 - 5.5.13.3. Internal Text
- 5.5.14. Select Task link to
 - 5.5.14.1. Image
 - 5.5.14.2. External File
 - 5.5.14.3. Internal Text

5.6. CLIENT - Requester Layer:

Nothing new

5.7. SERVER - Head Layer:

Nothing new

5.8. SERVER - Services Layer:

Nothing new

5.9. SERVER - Database Abstraction Layer:

- 5.9.1. Add Subset related database request validation
- 5.9.2. Add Filter related database request validation

- 5.9.3. Add Image related database request validation
- 5.9.4. Add External File related database request validation
- 5.9.5. Add Internal Text related database request validation

This list may be incomplete

5.10. SERVER - Database Action Layer:

Add the tables to support:

- 5.10.1. Subset
 - 5.10.1.1. ID Elements
 - 5.10.1.2. ID Pair Elements
- 5.10.2. Filter
 - 5.10.2.1. Operation Definitions
 - 5.10.2.2. Node Type Definitions
 - 5.10.2.3. Nodes
- 5.10.3. Images
- 5.10.4. Images links to
 - 5.10.4.1. Persons
 - 5.10.4.2. Locations
 - 5.10.4.3. Occasions
 - 5.10.4.4. Sources
 - 5.10.4.5. Repositories
 - 5.10.4.6. Citations
 - 5.10.4.7. Events
 - 5.10.4.8. Tasks
- 5.10.5. External Files
- 5.10.6. External Files links to
 - 5.10.6.1. Persons
 - 5.10.6.2. Locations
 - 5.10.6.3. Occasions
 - 5.10.6.4. Sources
 - 5.10.6.5. Repositories
 - 5.10.6.6. Citations
 - 5.10.6.7. Events
 - 5.10.6.8. Tasks
- 5.10.7. Internal Texts
 - 5.10.7.1. Persons
 - 5.10.7.2. Locations
 - 5.10.7.3. Occasions
 - 5.10.7.4. Sources
 - 5.10.7.5. Repositories
 - 5.10.7.6. Citations
 - 5.10.7.7. Events
 - 5.10.7.8. Tasks

This list may be incomplete

6. HRE v0.6: Add Tabular Reports

6.1. Summary: Adds Tabular Reports screen displays and output in a small choice of file formats. Person Reports will be added to the Person plugin. Reports based on Genealogy-specific concepts will be added to the Human Genealogy plugin.

6.2. Aims:

- 6.2.1. Add customizable Tabular Reports for all data types
- 6.2.2. Add specialized screens to the Human Genealogy Plugin

6.3. Outcome:

At completion of v0.6:

- 6.3.1. Addition of tabular reports in at least .txt or .csv format heralds a new phase of HRE development
- 6.3.2. Have the ability to create new tabular report layouts using a scripting language.

6.4. CLIENT - Presentation Layer:

Add action code for the following added entries in the Main Menu:

6.4.1. Report Menu

- 6.4.1.1. Recently Used
- 6.4.1.2. Edit Settings (only enabled when report definition is selected)
- 6.4.1.3. Create Report (only enabled when report definition is selected)
- 6.4.1.4. 'List of' Reports:
 - 6.4.1.4.1. Persons
 - 6.4.1.4.2. Locations
 - 6.4.1.4.3. Events
 - 6.4.1.4.4. Tasks
 - 6.4.1.4.5. Sources
 - 6.4.1.4.6. Repositories
 - 6.4.1.4.7. Citations
 - 6.4.1.4.8. Images
 - 6.4.1.4.9. External Files
 - 6.4.1.4.10. Internal Texts

6.5. CLIENT - Business Layer:

- 6.5.1. Report Definition Jython Scripts
- 6.5.2. Report Configuration
- 6.5.3. Colum Formats
- 6.5.4. Row Highlighting
- 6.5.5. Report Execution
- 6.5.6. Translation Retrieval
- 6.5.7. Value Substitution
- 6.5.8. Use of filters
- 6.5.9. Printer Access Management
- 6.5.10. Page size/orientation management
- 6.5.11. Formatting control
- 6.5.12. CSV Conversion

6.6. CLIENT - Requester Layer:

Nothing new

6.7. SERVER - Head Layer:

Nothing new

6.8. SERVER - Services Layer:

Nothing new

6.9. SERVER - Database Abstraction Layer:

- 6.9.1. Add Report Definition related database request validation
- 6.9.2. Add Report Row Configuration related database request validation
- 6.9.3. Add Report Column Configuration related database request validation
- 6.9.4. Add Printer related database request validation
- 6.9.5. Add Page related database request validation

6.10. SERVER - Database Action Layer:

- 6.10.1. Add the tables to support:
 - 6.10.1.1. Report Definition Scripts

- 6.10.1.2. Colum Formats
- 6.10.1.3. Row Highlighting
- 6.10.1.4. Printer Access Management
- 6.10.1.5. Page size/orientation management

This list may be incomplete

7. HRE v0.7: Add more complex layout reports

7.1. Summary: Adds HRE Sentenced-based Reports with screen displays and output in a small choice of file formats. Person Reports will be added to the Person plugin. Reports based on Genealogy-specific concepts will be added to the Human Genealogy plugin.

7.2. Aims:

- 7.2.1. Add customizable sentence-based reports within the Human Genealogy plugin
- 7.2.2. Add customizable GUI screens within the Human Genealogy plugin

7.3. Outcome:

At completion of v0.7, be able to:

- 7.3.1. Import a TMG project
- 7.3.2. Provide sentence-based reports for Human Genealogy
- 7.3.3. Provide specialist screen displays for Human Genealogy

7.4. CLIENT - Presentation Layer:

Extent the **Report Menu** > **Report Focus** entries with more types of report and add action code for specially created reports:

- 7.4.1. Multi-table reports
 - 7.4.1.1. Family Group Sheet (example)
- 7.4.2. Sentence-based reports
 - 7.4.2.1. Individual Narrative (example)

7.5. CLIENT - Business Layer:

- 7.5.1. Extend Jython scripting definition to LaTeX creation
- 7.5.2. LaTeX conversion to other output formats

7.6. CLIENT - Requester Layer:

- 7.6.1. *Nothing new*

7.7. SERVER - Head Layer:

- 7.7.1. *Nothing new*

7.8. SERVER - Services Layer:

- 7.8.1. *Nothing new*

7.9. SERVER - Database Abstraction Layer:

- 7.9.1. *Nothing new*

7.10. SERVER - Database Action Layer:

- 7.10.1. *Nothing new*