

# **Travel Reporting System**

## **Greenfield Financial**

# Travel Expense Reporting System

## INTRODUCTION

Paper prototyping is a method used as a participatory design to generate a set of low-fidelity prototypes using visual information and identify techniques that are applicable to web-based or end-user orientation. It is also used for testing designs before these are handed over to the developers for design. It provides rapid navigation between screens and/or dialog boxes. However, some elements, such as dropdown lists, buttons, and other widgets are better viewed through an on-line prototype.

As part of developing the user interfaces for the Travel Expense Reporting System (TERS) through Greenfield Financial's website, the use of paper prototyping was both awkward and inadequate for representing all of the frequent navigation necessary of a real browser-like user interface. Therefore, the paper prototyping was done using PowerPoint to help simulate the access to multiple screens using previously developed use case scenarios. The paper mockups would not have easily supported such rapid creating of the process flow efficiently.

## BACKGROUND

The Greenfield Financial TERS currently exists on the mainframe and is being replaced and improved. The new system focuses on automating the processes making the reporting of travel expenses more efficient and effective. It will also provide better reporting capabilities and budgeting controls. The project team conducted interviews, analyzed user roles and functions, and developed use case scenarios which were used to create the high-level and detailed flowcharts and now prototypes.

## OBJECTIVES

The objectives of prototyping are to clarify requirements and enable rough draft interaction design of screens to rapidly simulate workflow processes. Using prototypes the following benefits can be achieved:

- Potential usability problems can be detected very early in the design process before any coding starts
- Communication between users and developers is encouraged
- Prototypes are quick to build and modify
- Limited materials and resources are necessary.

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## PROTOTYPE DESCRIPTIONS

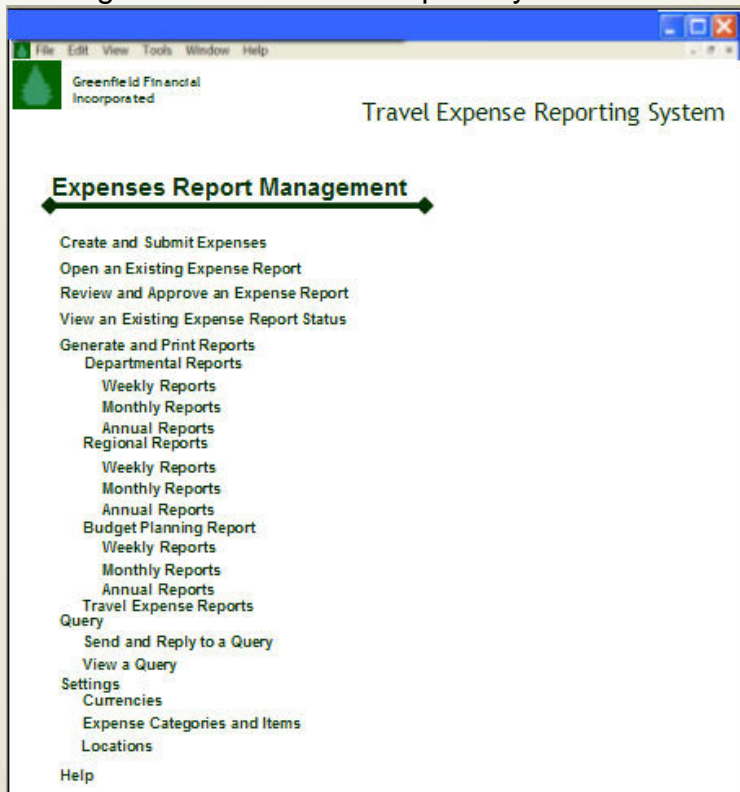
Low-fidelity prototyping of TERS was done as a web-based user interface, therefore no special software will need to be installed to use the system. This will make TERS more readily accessible to its users. TERS has been developed to be compatible with major internet browser providing access to your expenses data and reporting from any computer that has internet access. Personal information and settings for using the system will be remain static regardless of what computer you will be using to access the system.

This following sections contain the following:

- Three sketches or layout views of the primary interface of the screens:
  - Hierarchical interface
  - Timeline-based interface
  - Spatial-based interface
- The rationale for selecting the hierarchical as primary interface
- The descriptions of the prototypes
- The detailed task sequence for the secondary interface for the selected primary interface, for two case scenarios of the Submitters (Employee):
  - Creating and submitting an expense report
  - Viewing the status of an expense report

## LAYOUT VIEWS - PRIMARY INTERFACE

The following is TERS hierarchical primary interface:



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## LAYOUT VIEWS - PRIMARY INTERFACE

The following is TERS timeline-based primary interface:



The following is TERS spatial-based primary interface:



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## RATIONALE OF THE PRIMARY INTERFACE

The prototyping activity looked at five primary interface layouts or views, developed three, and selected one specifically for TERS. The five layouts were the hierarchical, spatial, timeline, procedural, and table-based. Of the three developed, the hierarchical was chosen and further developed.

Although any of the three layouts could be used, the hierarchical view was selected because it offers simplicity of design and simplicity of user interface.

## DETAILED TASK SEQUENCE OF INTERFACE

The overall structure of the TERS system is relatively simple as shown on the right.

There are six primary elements and two provide additional options. All are available from the main page.

The primary navigation is provided as part of the standard browser menu bar, horizontally. The secondary navigation is provided in a vertical list.

Pages are displayed in a single browser window, except for dialog boxes and simulated dropdown lists.



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## DESCRIPTION OF THE PROTOTYPES

This sections contains the detailed descriptions of each screen for the submitter (employee) functions: (1) creating and submitting an expense report, and (2) viewing an expense report status.

### (1) CREATING AND SUBMITTING AN EXPENSE REPORT

- ① Once the submitter (employee) selects the website, the first screen that gets displayed is the Login ID and Password screen. The Login ID and Password must be entered to get access to TERS.
- ② Once login is successful, the submitter (employee) is given access to TERS and the main screen is displayed.
- ③ The menu option 'Create and Submit Expenses' can be selected from the main page by clicking on the menu option.
- ④ The detailed TERS expense report screen is displayed. It will contain personal and departmental information associated with Login ID. The report filing date will default to the system date. Only the department and date fields can be modified. A calendar function, represented by an icon, is provided to facilitate entry.
- ⑤ A calendar function, represented by an icon, is provided to facilitate entry.

- ⑥ The purpose of the travel is the next field to be completed.

The details of the expenses can be entered as follows:

- ⑦ • enter the expense date using the calendar function
- ⑧ • select from a list of categorized and predetermined expense items using a dropdown list. Depending on the category selected, the expense details are inserted within the appropriate category.
- ⑨ • enter the expense description
- ⑩ • select the expense location using a dropdown list of established locations
- ⑪ • enter the expense amount. The amount is verified against entitlements. If it is
- ⑫ over a warning message is displayed and the justification field can be completed.
- ⑬ • select the currency using the dropdown list of established currencies
- ⑭ Select the currency for payment
- ⑮ Select the save and submit option.
- ⑯ The system saves and submits the expense report. It generates and displays a message with the expense report number. It also asks if you wish to create another expense report. Select "no".
- ⑰ The system displays a reminder message to submit your receipts. Click OK and the system returns to the main page.
- ⑱ If the "cancel button" is selected at anytime, the system will display a warning message.



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## Expenses Report Management

Create and Submit Ex

Open an Existing Exp

Review and Approve :

View an Existing Exp

Generate and Print Re

Departmental Rep

Weekly Reports

Monthly Report:

Annual Reports

Regional Reports

Weekly Reports

Monthly Reports

Annual Reports

Budget Planning Report

Weekly Reports

Monthly Reports

Annual Reports

Travel Expense Reports

Query

Send and Reply to a Query

View a Query

Settings

Currencies

Expense Categories and Items

Locations

Help

**Express Login**

Login ID:  1

Password:



## Expenses Report Management

**Create and Submit Expenses**

**Open an Existing Expense Report**

**Review and Approve an Expense Report**

**View an Existing Expense Report Status**

**Generate and Print Reports**

**Departmental Reports**

**Weekly Reports**

**Monthly Reports**

**Annual Reports**

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**Travel Expense Reports**

**Query**

**Send and Reply to a Query**

**View a Query**

**Settings**

**Currencies**

**Expense Categories and Items**

**Locations**

**Help**



## Expenses Report Management

### Create and Submit Expenses

3

- Open an Existing Expense Report
- Review and Approve an Expense Report
- View an Existing Expense Report Status
- Generate and Print Reports
  - Departmental Reports
    - Weekly Reports
    - Monthly Reports
    - Annual Reports
  - Regional Reports
    - Weekly Reports
    - Monthly Reports
    - Annual Reports
  - Budget Planning Report
    - Weekly Reports
    - Monthly Reports
    - Annual Reports
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- Query
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- Help

