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Quality aspects of software product supply and support using the Internet

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The HTML page headers are defined.

l_header.asp is included.

A form is then output to the web browser with the relevant fields for obtaining the user's information. If the module has received any error messages, these are displayed first. In order to allow the shopper to select a country from the drop down list, *l_country.asp* is included.

A submit button is presented to the user allowing him/her to submit the form contents to the system. The button calls the *xt_shopper_new.asp* module.

l_footer.asp is included.

30.3 Algorithms

None

31 Shopper_update.asp

31.1 Objects and Variables

MscsPage: An instance of the Page object (declared in *i_shop.asp*)

MscsShopper: A variable containing all the shopper's information (retrieved in *i_shop.asp*)

Error: An error message received by the module

Label: A label for the received error message.

Current_country: The country for which the shopper is registered as being from.

31.2 Modular Functionality

i_shop.asp is included.

The HTML page headers are defined.

i_header.asp is included.

A form is output to the user's web browser containing all the user's current information in the database (*MscsShopper*). If the module has received any error messages, these are displayed first. In order to allow the shopper to select a country from the drop down list, *i_country.asp* is included.

A submit button is presented to the user allowing him/her to submit the form contents to the system. The button calls the *xt_shopper_update.asp* module.

i_footer.asp is included.

31.3 Algorithms

None

32 Thanks.asp

32.1 Objects and Variables

Task: the type of task that has been carried out for which thanks must be provided (passed from the calling module)

32.2 Modular Functionality

I_shop_open.asp is included.

The HTML page headers are defined.

I_header.asp is included.

If no task variable has been passed from the calling module, a standard thank you message is displayed to the user's web browser.

Otherwise the type of task (*task* variable) is retrieved from the calling module and the correct thank you message is displayed.

I_footer.asp is included.

32.3 Algorithms

None

33 Welcome.asp

33.1 Objects and Variables

MscsPage: An instance of the Page object (declared in *l_shop_open.asp*)

33.2 Modular Functionality

l_shop_open.asp is included.

The HTML page headers are defined.

l_header.asp is included.

The welcome page text and layout is output to the user's web browser. Links to the Seal web site, the Wits web site and the *about.asp* module are presented to the user to allow him/her to select one of the links.

l_footer.asp is included.

33.3 Algorithms

None

34 xt_exit.asp

34.1 Objects and Variables

MscsShopperId: The user's identification

MscsPage: An instance of the Page object

Destination: The module to which the *xt_exit.asp* module must redirect the user to after removing his shopper ID from the session.

34.2 Modular Functionality

The module defines a shopper ID variable (*MscsShopperId*) with no value.

The page component is defined and the shopper ID (*MscsShopperId*) is defined as the ID for the current session.

The user's web browser is redirected to the *default.asp* module.

34.3 Algorithms

None

35 Xt_feedback.asp

35.1 Objects and Variables

MscsPage: An instance of the Page object

MSCSFeedbackStorage: The application's *MSCSFeedbackStorage* object.

MscsShopperID: The user's shopper ID

StrError: An error message

StrLabel: A label for the error message

MSCSTraffic: The application's *MSCSTraffic* object.

MscsFeedback: A Commerce Server dictionary object used to store the feedback information.

35.2 Modular Functionality

The page component is declared and the *MSCSFeedbackStorage* object is defined as a local variable.

The shopper ID is retrieved from the application.

A traffic event is then logged.

If the shopper ID is not known, the user is redirected to *shopper_lookup.asp*.

If the shopper ID is known the *FeedbackNew* function is called. If the function returns no errors, the shopper ID and date are written to the *MscsFeedback* object (along with the information written by *FeedbackNew*). The object's content is then written to the database.

If there are errors with either the *FeedbackNew* function or with writing the data to the database the user is redirected to *feedback_menu.asp* and the relevant error messages are passed to the module.

If there are no errors the user is redirected to *thanks.asp*.

35.3 Algorithms

None

35.4 Functions

35.4.1 FeedbackNew

35.4.1.1 Objects and Variables

Page: The *MscsPage* object passed by the main module

Feedback: The *MscsFeedback* object passed by the main module

StrError: The *StrError* variable passed by the main module

StrLabel: The *StrLabel* variable passed by the main module

Feedback_type: The type of feedback being provided (passed by the module calling *xt_feedback.asp – feedback.asp*)

Feedback_product: The product for which feedback is being provided (passed by the module calling *xt_feedback.asp – feedback.asp*)

Feedback_comments: Feedback from the user (passed by the module calling *xt_feedback.asp – feedback.asp*)

Feedback_date: Feedback from the user (passed by the module calling *xt_feedback.asp – feedback.asp*)

Feedback_description: Feedback from the user (passed by the module calling *xt_feedback.asp – feedback.asp*)

Feedback_messages: Feedback from the user (passed by the module calling *xt_feedback.asp – feedback.asp*)

Feedback_repeat: Feedback from the user (passed by the module calling *xt_feedback.asp – feedback.asp*)

Feedback_os: Feedback from the user (passed by the module calling *xt_feedback.asp – feedback.asp*)

Feedback_processor: Feedback from the user (passed by the module calling *xt_feedback.asp – feedback.asp*)

Feedback_memory: Feedback from the user (passed by the module calling *xt_feedback.asp – feedback.asp*)

35.4.1.2 Functionality

The function retrieves each of the variables passed to *xt_feedback.asp* from *feedback.asp*. Depending on the type of feedback being provided (retrieved as *Feedback_type*) different variables are retrieved (due to different variables being entered by the user).

For each variable retrieved, the function determines whether the value of the variable falls within pre-set ranges. If any of the variables do not comply with the range requirements, the associated error messages and labels are generated, the function is exited and a value of "false" is returned.

If all the retrieved variables fall within the required ranges, the values are written to the *Feedback* object, the function ends and a value of "true" is returned.

35.4.1.3 Algorithms

None

36 Xt_orderform_additem.asp

36.1 Objects and Variables

Success: Whether or not the module's function was executed successfully.

MscsPage: An instance of the Page object (declared in *i_shop.asp*)

MSCSOrderFormStorage: The application's *MSCSOrderFormStorage* object (declared in *i_shop.asp*).

MscsShopperID: The user's shopper ID (defined in *i_shop.asp*)

36.2 Modular Functionality

i_shop.asp is included.

The module calls the *OrderFormAddItem* function and then redirects the user to *basket.asp.*

36.3 Algorithms

None

36.4 Functions

36.4.1 OrderFormAddItem

36.4.1.1 Objects and Variables

Page: The *MscsPage* object passed by the calling module

OrderformStorage: The *MscsOrderFormStorage* object passed by the calling module

ShopperID: The shopper ID variable (*MscsShopperID*) passed by the calling module.

Orderform: The shopper's order form retrieved from the database based on the shopper ID.

Product_qty: The quantity of the item to add to the order form.

Sku: The identifier of the product that must be added to the order form.

Product: The details of the product (retrieved from the database)

Item: The details of the item to be added to the order form.

36.4.1.2 Functionality

The function retrieves the particular customer's order form from storage (*Orderform)*. If the order form doesn't exist, one is then created for the customer.

The product quantity and ID are retrieved from the module that calls *xt_orderform_additem.asp*. The product details are then retrieved from the database based on the ID (*sku*). The item is added to the order form and the order form is written back to the database.

The function then returns a true value.

36.4.1.3 Algorithms

None

37 Xt_orderform_purchase.asp

37.1 Objects and Variables

order_id: The order form ID number.

MscsPage: An instance of the Page object (declared in *i_shop.asp*)

PageRedirect: The URL to where the shopper is to be redirected.

MSCSOrderFormStorage: The application's *MSCSOrderFormStorage* object (declared in *i_shop.asp*).

MscsShopperID: The user's shopper ID (defined in *i_shop.asp*)

MscsShopper: An object containing the shopper's details (defined in i_shop.asp)

37.2 Modular Functionality

I_shop.asp is included.

The module calls the *OrderFormPurchase* function. If the function returns a valid order ID, the shopper is redirected to *Invoice.asp* and the order ID is passed to the *Invoice.asp* module. If no valid order ID is present, the shopper is redirected to *basket.asp* and a relevant error message is passed to the *basket.asp* module.

37.3 Algorithms

None

37.4 Functions

37.4.1 OrderFormPurchase

37.4.1.1 Objects and Variables

OrderformStorage: The *MscsOrderFormStorage* object passed by the calling module

Orderform: The shopper's order form retrieved from the database based on the shopper ID.

ErrorStr: A string used to store an error message

Success: Whether or not the called function executed successfully

Page: The *MscsPage* object passed by the calling module

BasketErrors: An object containing the basket errors from passing the order form through the OPP.

NbasketErrors: The number of errors in *BasketErrors.*

PurchaseErrors: An object containing the purchase errors from passing the order form through the OPP.

NpurchaseErrors: The number of errors in *PurchaseErrors*

order_id: The order's ID number

shopperID: The shopper's ID (passed by the calling module)

Shopper: An object containing the shopper's details (passed by the calling module)

37.4.1.2 Functionality

The function retrieves the shopper's order form from database storage. If the order form is empty then an error is generated and the function exits.

The function then calls the *OrderFormPurchaseDepend* function. If the *OrderFormPurchaseDepend* function does not execute successfully then the parent function exits with an error message.

The function then calls the *OrderFormPurchaseArgs* function. If the *OrderFormPurchaseArg* function does not execute successfully then the parent function exits with an error message.

The order form is then passed through the OPP in verify and purchase modes respectively. If errors are generated by the OPP (*BasketErrors* and *PurchaseErrors*) then the function exits with error messages.

If everything executes successfully then the contents of the shopper's basket is deleted and the order ID is returned by the function to the parent module.

37.4.1.3 Algorithms

None

37.4.2 OrderFormPurchaseDepend

37.4.2.1 Objects and Variables

Orderform: The shopper's order form (passed by the calling function).

Page: The *MscsPage* object passed by the calling function.

ErrorStr: A string used to store an error message (passed by the calling function).

ShopperID: The shopper's ID (passed by the calling function)

OrderFormItems: The items in the shopper's order form

NorderFormItems: The number of items in *OrderFormItems*

LineItem: A specific line item in the order form

Prodreqs: The different dependency items for the specific line item in the order form

Purchases: The different purchases that the shopper has from the items in *Prodreqs*.

37.4.2.2 Functionality

The function cycles through each item in the shopper's order form.

For each item, the function retrieves the dependency items required. The function also retrieves the purchased products that the shopper has from the list of dependency items.

If the number of required items (*prodreqs.count*) does not match the number of purchased items (*purchases.count*) then an error string is generated and the function exits.

If however the dependency requirements are met for each item in the order form, the function returns a true value to the calling function.

37.4.2.3 Algorithms

None

37.4.3 OrderFormPurchaseArgs

37.4.3.1 Objects and Variables

Orderform: The shopper's order form (passed by the calling function).

Page: The *MscsPage* object passed by the calling function.

ErrorStr: A string used to store an error message (passed by the calling function).

Shopper: An object containing the shopper's details (passed by the calling function)

37.4.3.2 Functionality

Billing information required by the order form and by the OPP is retrieved from the *Shopper* object and written to the *orderform* object. The payment status for the order form is set to unpaid (*orderForm.status* = *0*). The function then exits.

37.4.3.3 Algorithms

None

38 Xt_orderform_update.asp

38.1 Objects and Variables

Success: Whether or not the module's function was executed successfully.

MscsPage: An instance of the Page object (declared in *l_shop.asp*)

MSCSOrderFormStorage: The application's *MSCSOrderFormStorage* object (declared in *l_shop.asp*).

MscsShopperID: The user's shopper ID (defined in *l_shop.asp*)

38.2 Modular Functionality

l_shop.asp is included.

The module calls the *OrderFormUpdate* function. When the function completes execution the user is redirected to *basket.asp*. If any errors arose in the execution of the function (*success* = "false") then the associated error message is sent to *basket.asp*.

38.3 Algorithms

None

38.4 Functions

38.4.1 OrderFormUpdate

38.4.1.1 Objects and Variables

Page: The *MscsPage* object passed by the calling module

OrderformStorage: The *MscsOrderFormStorage* object passed by the calling module

ShopperID: The shopper ID variable (*MscsShopperID*) passed by the calling module.

Orderform: The shopper's order form retrieved from the database based on the shopper ID.

Opcode (_opcode_): The type of update to be carried out (retrieved from the calling module)

Index: a counter used to scroll through each item in the order form.

Item: The details of the respective order form item

Qty: The quantity of the respective order form item (passed by the calling module).

Item_index (_item_): The order form index of the item to be updated.

38.4.1.2 Functionality

The function retrieves and determines the type of update to be carried out. If no update type (*_opcode_*) has been passed to the function then the function exits and returns false.

The user's order form is retrieved from the database. If no order form is present in the database, the function returns false.

Different procedures are carried out for the different cases of the update type (*opcode*).

If an order form item must be deleted, the functions checks for the presence of an item identifier. If it is not present, the function exits and returns a false value. If the identifier is present *(_item_)* then the item is deleted from the shopper's order form.

If the type of update is one of changing the quantity of the item, each item in the order form is scrolled though and the quantity is set to the value passed by the calling module. If the updated quantity is set to zero, the item is deleted from the order form.

If the order form items must be cleared or if the order form itself must be deleted, these functions are then carried out.

If the case passed to the function is not one of the set cases, the function exists and returns a value of false.

The function then exists and returns a value of true.

38.4.1.3 Algorithms

None

39 Xt_register.asp

39.1 Objects and Variables

Sku: The product Id of the product being registered.

mscsshopperId: The shopper's IS4 identification number

product: An object containing the details of the product being registered.

MSCSDataSource: The application's MSCSContent object (declared in *i_shop.asp*)

MscsPage: An instance of the Page object (declared in *i_shop.asp*)

PageRedirect: The URL to where the shopper is to be redirected.

Prodreqs: Dependency items for the particular product.

Purchases: The different purchases that the shopper has from the items in *Prodreqs*.

Comply: Whether or not the shopper complies with the dependency requirements for the product.

Purchase: The record from the purchased products database table that has the maximum copy number for the particular product.

ThisShopper: An object containing the shopper's details.

Register: An instance of the SEAL Register component.

MSCSPurchaseStorage: The application's *MSCSPurchaseStorage* component.

MscsPurchase: A dictionary component used to store the details for the current purchase.

39.2 Modular Functionality

I_shop.asp is included.

The sku and the shopper ID and retrieved. The product details for the product being registered are retrieved from the database.

If the list price of the product is not zero, the shopper is redirected to *product.asp* and an associated error message is passed to the module.

The module checks to determine whether the shopper meets the dependency requirements in order to be able to register this product. The module retrieves the dependency items required. The module also retrieves the purchased products that the shopper has from the list of dependency items.

If the number of required items (*prodreqs.count*) does not match the number of purchased items (*purchases.count*) then the *comply* variable is set to False.

If the dependency requirements are not met (*comply=False*), then the shopper is redirected to the product.asp module and a relevant error message is passed. Otherwise a purchase record is created. Where necessary information needed for the purchase records data items are retrieved from other records in the database. The Register component is declared and its Encrypt function is called in order to generate the encryption string needed to unlock the product.

Once all the data items for the record have been retrieved or generated, the information is written to the *mscsPurchase* component. The information is then written from the component to the database. If there are no errors, the shopper is redirected to the *confirmed.asp* module. Otherwise the shopper is redirected to the *product.asp* module and a relevant error message is passed.

39.3 Algorithms

None

40 Xt_registered_product.asp

40.1 Objects and Variables

MscsPage: An instance of the Page object

MSCSPurchaseStorage: The application's *MSCSPurchaseStorage* object.

MscsShopperID: The user's shopper identification.

Purchase_id: The purchase identifier

MSCSTraffic: The applications *MSCSTraffic* object.

MscsPurchase: The details of the current purchase (based on *Purchase_id*)

40.2 Modular Functionality

The *MscsPage* and the *MscsPurchaseStorage* objects are declared.

The shopper ID and purchase ID are retrieved from application and from the calling module respectively.

A traffic event is logged.

If the purchase identification (*purchase_id*) is not known the user is redirected to the *registered.asp* module, otherwise the purchase information is retrieved from the database based on the purchase ID.

The *PurchaseUpdate* function is called. If the function is successful (returns a true value), the updated purchase information is written to the database and the user is redirected to the *registered_product.asp* module. If the function is not successful, the user is still redirected to the *registered_product.asp* module except that no information is written to the database and an error message is passed to *registered_product.asp*.

40.3 Algorithms

40.4 Functions

40.4.1 PurchaseUpdate

40.4.1.1 Objects and Variables

Page: The *MscsPage* object passed by the main module

Purchase: The *MscsPurchase* object passed by the main module

StrError: The *StrError* variable passed by the main module

StrLabel: The *StrLabel* variable passed by the main module

Purchase_mlist: The mailing list status passed by the calling module.

40.4.1.2 Functionality

The function retrieves the mailing list status from the calling module.

The function checks whether the retrieved value falls within a set range. If it does, the value is written to the *Purchase* object and the function exits and returns a true value. If the value does not fall within the set range the relevant error message and label are generated and the function exits and returns a false value.

40.4.1.3 Algorithms

None

41 xt_shopper_lookup.asp

41.1 Objects and Variables

MscsPage: An instance of the Page object

MscsShopper: The object containing the shopper's information

MSCSTraffic: The application's *MSCSTraffic* object.

Destination: The module that *default.asp* must load in its main frame window.

ErrorStr: The variable used to hold any error message

Label: A label for the error message.

41.2 Modular Functionality

The module declares the MscsPage object and sets *MscsShopper* to null.

A traffic event is logged.

The module calls the *ShopperLookup* function. If the function returns a true value, the retrieved shopper ID is set as the shopper ID for this session where the user is logged in to the system. The user is then redirected to *default.asp*.

If *ShopperLookup* returns a false value, the user is redirected to *default.asp* with the destination set to *shopper_lookup.asp*. The relevant error messages are also passed.

41.3 Algorithms

41.4 Functions

41.4.1 ShopperLookup

41.4.1.1 Objects and Variables

Page: The *MscsPage* object passed by the main module

MscsShopper: The *MscsShopper* object passed by the main module

ErrorStr: The *ErrorStr* variable passed by the main module

Label: The *Label* variable passed by the main module

Shopper_password: The shopper's password passed by the calling module.

Shopper_username: The shopper's username passed by the calling module.

Values(n): An array used to store the values used in the lookup for the particular shopper.

Keys(n): An array used to store the column names used in the lookup for the particular shopper.

MSCSShopperStorage: The application's *MSCSShopperStorage* object.

Shopper: an object used to store shopper information

41.4.1.2 Functionality

The function retrieves the shopper's username and password from the calling module. If either of the two don't fall within the required ranges, error messages are generated and the function exits.

If the two values do fall within the given ranges two arrays are defined to store the name value pairs. The *MscsShopper* storage object is declared. A shopper is searched for in the database based on the received username and password. The shopper that is found is written to the *Shopper* object.

If no shopper is found based on the username and password, an error message is generated, the function exits and a false value is returned.

If a shopper is found, the shopper information is written to the *MscsShopper* object and the function ends and returns a true value.

41.4.1.3 Algorithms

None

42 Xt_shopper_new.asp

42.1 Objects and Variables

MscsPage: An instance of the Page component

MSCSShopperManager: The application's *MSCSShopperManager* object

MSCSShopperStorage: The application's *MSCSShopperStorage* object

MSCSTraffic: The application's *MSCSTraffic* object

MscsShopper: A dictionary component used to store the shopper information

ErrorStr: A variable used to store an error string

Label: A label for the error string

MscsShopperID: A generated shopper ID

Destination: The module that *default.asp* must load in its main frame window.

42.2 Modular Functionality

The *MscsPage*, *MscsShopperManager* and *MscsShopperStorage* objects are declared.

A traffic event is logged.

The *MscsShopper* object is declared and the *ShopperNew* function is then called. If the function executes successfully then a new shopper ID is generated and assigned to the registering user. The new shopper's information is entered into the database and the new shopper ID is assigned to the current session of the application. The user is then redirected to *default.asp*.

If any errors are encountered, the user is redirected to *default.asp* with the destination variable set to *shopper_new.asp*. The relevant error messages are also passed.

42.3 Algorithms

None

42.4 Functions

42.4.1 ShopperNew

42.4.1.1 Objects and Variables

Page: The *MscsPage* object passed by the main module

Shopper: The *MscsShopper* object passed by the main module

ErrorStr: The *ErrorStr* variable passed by the main module

Label: The *Label* variable passed by the main module

shopper_pwd1: A variable passed by the calling module

shopper_pwd2: A variable passed by the calling module

Shopper_surname: A variable passed by the calling module

Shopper_firstname: A variable passed by the calling module

Shopper_title: A variable passed by the calling module

Shopper_company: A variable passed by the calling module

Shopper_username: A variable passed by the calling module

Shopper_address1: A variable passed by the calling module

Shopper_address2: A variable passed by the calling module

Shopper_address3: A variable passed by the calling module

Shopper_address4: A variable passed by the calling module

Shopper_country: A variable passed by the calling module

Shopper_phone: A variable passed by the calling module

Shopper_fax: A variable passed by the calling module

Shopper_cell: A variable passed by the calling module

Shopper_email: A variable passed by the calling module

Shopper_mlist: A variable passed by the calling module

42.4.1.2 Functionality

The function retrieves each of the passed variables and checks if each one falls within a set range. If one of the variables do not, an associated error message is generated, the function exits and returns a false value.

The function checks that the two new password entries match. If this is not the case the function exits and returns a false value.

If all the retrieved variables fall within their required ranges, the values are written to the *Shopper* object. The function then ends and returns a true value.

42.4.1.3 Algorithms

None

43 Xt_shopper_update.asp

43.1 Objects and Variables

MscsPage: An instance of the Page component

MSCSShopperManager: The application's *MSCSShopperManager* object

MSCSShopperStorage: The application's *MSCSShopperStorage* object

MSCSDataFunctions: The application's *MSCSDataFunctions* object

MscsShopperID: the user's shopper ID

MSCSTraffic: The application's *MSCSTraffic* object

MscsShopper: A dictionary component storing the shopper's information

StrError: A variable used to store an error string

StrLabel: A label for the error string

43.2 Modular Functionality

The *MscsPage*, *MscsShopperStorage*, *MscsShopperManager* and *MscsDataFunctions* objects are declared.

The shopper ID (*mscsShopperID*) is retrieved from the application.

A traffic event is logged.

If the shopper ID is null, the user is redirected to *shopper_lookup.asp*, otherwise the shopper information is retrieved from the database and stored in *MscsShopper*.

The *ShopperUpdate* function is called. If the function executes with success, the updated shopper information is written to the database and the user is redirected to *thanks.asp*. If the function does not execute with success, the user is redirected to *shopper_update.asp* and the relevant error messages are passed.

43.3 Algorithms

None

43.4 Functions

43.4.1 ShopperUpdate

43.4.1.1 Objects and Variables

Page: The *MscsPage* object passed by the main module

Shopper: The *MscsShopper* object passed by the main module

StrError: The *StrError* variable passed by the main module

StrLabel: The Str*Label* variable passed by the main module

DataFuncs: The MscsDataFunctions object passed by the main module

Pwd_old: The users original password

pwd1: A variable passed by the calling module

pwd2: A variable passed by the calling module

Shopper_surname: A variable passed by the calling module

Shopper_firstname: A variable passed by the calling module

Shopper_title: A variable passed by the calling module

Shopper_company: A variable passed by the calling module

Shopper_address1: A variable passed by the calling module

Shopper_address2: A variable passed by the calling module

Shopper_address3: A variable passed by the calling module

Shopper_address4: A variable passed by the calling module

Shopper_country: A variable passed by the calling module

Shopper_phone: A variable passed by the calling module

Shopper_fax: A variable passed by the calling module

Shopper_cell: A variable passed by the calling module

Shopper_email: A variable passed by the calling module

Shopper_mlist: A variable passed by the calling module

43.4.1.2 Functionality

The function retrieves each of the passed variables and checks if each one falls within a set range. If one of the variables do not, an associated error message is generated, the function exits and returns a false value.

The function checks that the received old password (*pwd_old*) matches the actual password in the database and that the two new password entries match. If these criteria are not met, the function exits and returns a false value.

If all the retrieved variables fall within their required ranges, the values are written to the *Shopper* object. The function then ends and returns a true value.

43.4.1.3 Algorithms

None

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QSI

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Change History

Configuration Control

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Management Authorisation

Version	Date	Status	Management Board Minute Reference
1.00	98\04\08	Approved	QSI 2049 section 2.3

Change Forecast

1 Scope

1.1 Introduction

The Manager Interface Low Level Design for the IS4 details the detailed design of each module comprising the Manager Interface. The high level descriptions and module interactions have been specified in the High Level Design for the Manager Interface (QSI 231). The Low Level Design implements each module of the Manager Interface as a separate Active Server Page (Refer to QSI 232 section 3 for an overview of Active Server pages). Unless otherwise specified, all the Active Server Page scripting is implemented using Microsoft Visual Basic Scripting.

1.2 Purpose

This document aims to describe the internal functionality of each module comprising the Manager Interface. The document defines the flow of each module and the algorithms used therein. All relevant variables used in each module are also described.

1.3 Applicability

This document is applicable as the Low Level Design for the Manager Interface of the IS4 and is a technical product in the QSI project. This document forms part of the following series of documents:

a. IS4 High Level Design 1 - System and Database (QSI 232)

b. IS4 High Level Design 2 - Shopper Interface (QSI 230)

c. IS4 High Level Design 3 – Manager Interface (QSI 231)

d. IS4 Low Level Design 1 – System and Database (QSI 242)

e. IS4 Low Level Design 2 – Shopper Interface (QSI 240)

f. IS4 Low Level Design 3 – Manager Interface (QSI 241)

1.4 Definitions

IS^4 – Internet System for the Supply and Support of Software

SEAL - Software Engineering Applications Laboratory

WWW - World Wide Web

FTP - File Transfer Protocol

ASP – Active Server Pages

IIS – (Microsoft) Internet Information Server

HTTP – Hypertext Transfer Protocol

HTML – Hypertext Markup Language

OPP – Order Processing Pipeline

1.5 Audience

- The Product Manager
- The Product Developers
- Individuals who perform 2nd and 3rd party surveillance on SEAL QMS.
- Fulltime members of SEAL Management Board.

1.6 Applicable Documents

1.6.1 Specifications

1.6.2 Standards

a. SEAL QMS Document Layout, Presentation and Typesetting Guide, QS 003, Revision 1.00, 3 October 1994

1.6.3 Procedures

Boillot M. H., Gleason G. M, Horn L. W., Essentials of Flowcharting, 3rd Edition, Wm. C. Brown Company Publishers, 1982

1.6.4 Guidelines

1.6.5 Exemplar Document

A helpful example where this template is used can be found in:

a) TMP 127 Task Management Package Low Level Design, Revision 1.00, 27 December 1995. (See project 1995_34)

1.7 Assumptions

It is assumed that the reader has access to the entire High and Low level design series (Refer to section 1.3) and has read and is familiar with the High and Low Level Designs for the System and Database (QSI 232 and QSI 242) and the High Level Design for the Manager Interface (QSI 230).

1.8 Requirements Traceability

2 List of modules

Table 2.1: List of all modules in the application

Module No.	Module Name	Description
1.	_add.asp	Used to add various entities to the respective database tables.
2.	_delete.asp	Used to delete various entities from the respective database tables.
3.	_update.asp	Used to modify various entities in the respective database tables with updated information.
4.	Default.asp	The default module that is displayed when the manager enters the IS4 manager interface.
5.	Event.asp	This module lists all the events logged for the store according to various criteria.
6.	Feedback.asp	This module lists all the feedback received by the store manager according to various criteria
7.	Feedback_delete	This module prompts the store manager as to whether he wants to delete the selected feedback item.
8.	Feedback_view	This module displays the details of a single feedback item.
9.	Global.asa	This .odule defines the global variables and creates the global objects for the application
10.	Mail.asp	This module is used by the store manager to input a mail message to be sent to a selected group of customers.

Module No.	Module Name	Description
11.	Mail_delete.asp	This module prompts the store manager as to whether he wants to delete the selected mail item.
12.	Mail_list.asp	This module lists all the sent mail items according to various criteria.
13.	Mail_view.asp	This module displays the details of a selected mail item.
14.	Order_day.asp	This module lists statistics for the orders that have been received in a selected month according to day.
15.	Order_month.asp	This module lists statistics for the orders that have been received in a selected year according to month.
16.	Order_product.asp	This module lists statistics for orders that have been received according to products.
17.	Order_shopper.asp	This module lists statistics for orders that have been received according to shoppers.
18.	Order_view.asp	This module displays all the details of a selected order.
19.	Orders.asp	This module displays a list of all orders received according to various criteria.
20.	Proddepend_delete.asp	This module prompts the store manager as to whether he wants to delete the selected product dependency.
21.	Proddepend_edit.asp	This module allows the store manager to edit the details relating to the specific product dependency.

Module No.	Module Name	Description
22.	Proddepend_new.asp	This module presents a drop down list to the store manager containing all the products in the store. The manager can select from the list a dependency for the current product being viewed
23.	Proddoc_delete.asp	This module prompts the store manager as to whether he wants to delete the selected product document.
24.	Proddoc_edit.asp	This module allows the store manager to edit the details relating to the specific product document.
25.	Proddoc_new.asp	This module presents a form to the store manager allowing him to input information for a new product document.
26.	Proddown_delete.asp	This module prompts the store manager as to whether he wants to delete the selected product download.
27.	Proddown_edit.asp	This module allows the store manager to edit the details relating to the specific product download.
28.	Proddown_new.asp	This module presents a form to the store manager allowing him to input Information for a new product download item.
29.	Prodinfo_delete.asp	This module prompts the store manager as to whether he wants to delete the selected product information item.
30.	Prodinfo_edit.asp	This module allows the store manager to edit the details relating to the specific product information item.

Module No.	Module Name	Description
31.	Prodinfo_new.asp	This module presents a form to the store manager allowing him to input information for a new product information item.
32.	Product_delete.asp	This module presents a confirmation prompt checking whether the manager wants to delete a product from the system.
33.	Product_edit.asp	This module allows the store manager to edit the details relating to a specific product.
34.	Product_list.asp	This module lists all of the products in the system.
35.	Product_new.asp	This module presents a form allowing the manager to input a new product into the system
36.	Product_view.asp	This module displays the details of a selected product.
37.	Purchase.asp	This module lists all the purchased products according to various criteria.
38.	Purchase_delete.asp	This module is used to output a confirmation prompt as to whether the user wishes to delete the selected purchase
39.	Purchase_new.asp	This module allows the manager to register the shopper for a purchase.
40.	Purchase_view.asp	This module is used to display all the details of a selected purchase and to allow the manager to edit selected purchase details.
41.	Reload_store.asp	This page is used to reload the Store

Module No.	Module Name	Description
		Manager.
42.	Shopper_day.asp	This module lists the number of new shoppers that have registered in the system per day for a selected month.
43.	Shopper_delete.asp	This module presents a confirmation prompt checking if the manager wishes to delete the selected shopper from the system.
44.	Shopper_edit	This module presents the selected shopper information to the user and allows the user to modify and submit the information.
45.	Shopper_month.asp	This module lists the number of new shoppers that have registered in the system per month for a selected year.
46.	Shopper_new	This module presents a form allowing the store manager to register a new shopper in the system.
47.	Shopper_view.asp	This module displays the details of a selected shopper.
48.	Shoppers.asp	This module lists all shoppers registered in the system according to various criteria.
49.	Status_change.asp	This module is used to change the status of the store from Open to Closed or vice versa.
50.	Sys_error.asp	This module displays a default error message.
51.	Xt_mail.asp	This module generates an e-mail message using the information entered in the mail.asp form.

Module No.	Module Name	Description
52.	Xt_product_delete.asp	This module deletes the selected product and all its associated entities from the database.
53.	Xt_receipt_pay.asp	This module changes the status of an order from unpaid to paid and then creates a purchased product record for each item purchased through the order.
54.	Xt_shopper_delete.asp	This module deletes the selected shopper and all its associated entities from the database.
55.	auth_include.asp	This module checks the whether the user is allowed to access the module, and if not, outputs an error message.
56.	date_args2var.asp	This module retrieves the month and year from the calling module or otherwise sets the values to the current month and year.
57.	date_args2var2.asp	This module retrieves the month, year and other variables from the calling module. If some variables are not passed when required, the variables are set to default values.
58.	DSN_Include.asp	This module contains VB Script used for the database connection.
59.	Error.asp	This module is used to present an error message to the store manager
60.	list.asp	This module lists the contents of a query with navigation arrows between pages of the list.
61.	list_column.asp	This module lists the column headers for the items listed in List.asp

Module No.	Module Name	Description
62.	list_no_rows.asp	This module displays a message in the case of there not being any items to list in a selected list.
63.	list_row.asp	This module lists the row items for the selected list.
64.	manager.asp	This module defines all the variables necessary to connect to the database and creates instances of objects necessary for most modules.
65.	mgmt_define.asp	This module sets values to variables necessary for the HTML links in the store manager interface
66.	mgmt_footer.asp	This module outputs the standard page footer for the Store Manager HTML pages.
67.	mgmt_header.asp	This module outputs a standard page header for the Store Manager HTML pages
68.	mgmt_style.asp	This module defines an HTML style for all the Store Manager HTML pages.
69.	picker_group.asp	This module outputs a drop down HTML form list allowing the user to select a group to which to send a mail message.
70.	picker_month.asp	This module outputs a drop down HTML form list containing the months of the year.
71.	picker_month2.asp	This module outputs a drop down HTML form list containing the months of the year including the option to select all the months of the year.

Module No.	Module Name	Description
72.	picker_page.asp	This module outputs a drop down HTML form list allowing the user to select an HTML page for which to view events.
73.	picker_product.asp	This module outputs a drop down HTML form list allowing the user to select a system product for which to view feedback items or purchases.
74.	picker_year.asp	This module outputs a drop down HTML form list containing the years from 1997 to 2003.
75.	picker_year2.asp	This module outputs a drop down HTML form list containing the years from 1997 to 2003 as well as the option to select all the years in the list.

3 _add.asp

3.1 Objects and Variables

ErrorFields: An instance of the Commerce server's *Dictionary* component used to store error messages.

Type: The type of item being added.

Test: A variable to hold a string for testing of its validity.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

RecordSet: A set of records from a database based on a specific query.

CmdTemp: An object containing the query to be executed by the *recordset*.

Product: A *recordset* containing the details of a product based on a query.

Purchase: A *recordset* containing the details of a purchase based on a query.

MSCSShopperStorage: The application's *MSCSShopperStorage* object.

ThisShopper: A *Dictionary* component containing the details of the specific shopper.

Register: An instance of the SEAL's *Register* component

MSCSShopperManager: The application's *MSCSShopperManager* object.

Goto: The module to be loaded after adding of the entity.

PASS_sku: The product ID relevant to the loading of the new module (*goto*).

PASS_shopper_ID: The shopper ID relevant to the loading of the new module (*goto*)

3.2 Modular Functionality

Manager.asp is included.

The *errorfields* object is declared.

The module retrieves the type of entity being added (*type*). Depending on the type of entity being added, the relevant variables are retrieved and tested for validity (presence and range). If there are any errors present these are written to the *errorfields* object.

Furthermore certain entities being added require information from the database tables. This information is retrieved when necessary (*product*, *purchase* and *thisShopper*). For a purchase, an encryption number is required. This is generated using the *Register* object. When adding a shopper, a shopper ID is obtained from the *MSCSShopperManager* object.

If there are no errors (*errorfields.count = 0*) then a recordset is created with data from the relevant database table (depends on the type of entity being added). The new data is then added to the recordset as a new record. The user is then redirected to the required module based on the *goto* variable and the *PASS_sku* and *PASS_shopper_id* variables.

If there are errors present, the *error.asp* module is included to display the error messages.

3.3 Algorithms

None

4 _delete.asp

4.1 Objects and Variables

Type: The type of item being added.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

RecordSet: A set of records from a database based on a specific query.

CmdTemp: An object containing the query to be executed by the *recordset*.

Goto: The module to be loaded after adding of the entity.

PASS_sku: The product ID relevant to the loading of the new module (*goto*).

PASS_shopper_ID: The shopper ID relevant to the loading of the new module (*goto*)

4.2 Modular Functionality

Manager.asp is included.

The module retrieves the type of entity being deleted (*type*). Depending on the type of entity being added, a recordset is created containing the data to be deleted. The recordset is then deleted.

The user is redirected to the required module based on the *goto* variable and the *PASS_sku* and *PASS_shopper_id* variables.

4.3 Algorithms

None

5 _update.asp

5.1 Objects and Variables

Type: The type of item being added

CmdTemp: An object containing the query to be executed by the *recordset*.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

RecordSet: A set of records from a database based on a specific query.

ErrorFields: An instance of the Commerce server's *Dictionary* component used to store error messages.

Test: A variable to hold a string for testing of its validity.

Goto: The module to be loaded after adding of the entity.

PASS_sku: The product ID relevant to the loading of the new module (*goto*).

PASS_shopper_ID: The shopper ID relevant to the loading of the new module (*goto*)

PASS_purchase_ID: The purchase ID relevant to the loading of the new module (*goto*)

5.2 Modular Functionality

Manager.asp is included.

The module retrieves the type of entity being added (*type*). Depending on the type of entity being added, the relevant record is retrieved from the database.

The *errorfields* and *recordSet* objects are declared.

The relevant variables are retrieved from the calling module and tested for validity (presence and range). If there are any errors present these are written to the *errorfields* object.

If there are no errors (*errorfields.count = 0*) then the recordset is updated with the new data. If there are no errors in updating the recordset, the user is redirected to the required module based on the *goto* variable and the *PASS_sku* and *PASS_shopper_id* and *PASS_purchase_id* variables.

If there are errors present, the *error.asp* module is included to display the error messages.

5.3 Algorithms

None

6 Default.asp

6.1 Objects and Variables

PathPipeConfig: The path of the OPP configuration file

CurrStore: An object containing details about the current store

Status: Whether the store is currently open or closed.

RevStatus: The opposite to whether the store is open or closed.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

6.2 Modular Functionality

Manager.asp is included.

The path of the OPP configuration file is defined and the string is parsed. The file is then checked for existence.

The *CurrStore* object is declared and initialised. The *status* and *Revstatus* variables are defined based on the current status of the store (*CurrStore.status*).

Note: The source code relating to the definition of the OPP configuration file and the source code defining the status of the store was created by the Microsoft Commerce Server when the store was created. This code has not been edited during development.

The mgmt_header.asp module is included.

A table is defined containing links to all the main sections of the Store Manager interface. HTML links are defined and incorporated into the table. The links make use of template (*tmpl**) variables defined in *mgmt_define.asp*.

A button is included to change the status of the store. This calls *status_change.asp*.

A button is included in the table to reload the store. This calls *reload_store.asp*.

A link to the Store (the shopper interface) is included in the table.

Mgmt_footer.asp is included.

6.3 Algorithms

None

7 Event.asp

7.1 Objects and Variables

ListElemTemplate: A variable containing the module to be linked to by each item in the list

ListElement: The type of item to be listed.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

lyear: The year for which to list items.

lmonth: The month for which to list items.

llogged: The status of the shopper for which to display events.

lorder: The database table column to use to order the items listed

lpage: The HTML page for which to list events.

CmdTemp: An object containing the query to be executed by a *recordset.*

7.2 Modular Functionality

Manager.asp is included.

The *ListElemTemplate* and *ListElement* variables are defined for use in *list.asp.*

Date_args2var2.asp and *mgmt_header.asp* are included.

An HTML form is output to the user's web browser. Fields are output allowing the user to select a month, year and HTML page for which to view events. These selection lists are displayed by including *picker_month2.asp*, *picker_year2.asp* and *picker_page.asp*. A field is output allowing the user to select which database field to use for ordering of the listed events. The further field is output allowing the user to select whether to view events for a user being logged in, logged out or both. The user is then presented with an Update button. This button recalls this

module and results in the module listing the items as selected in the form above.

The SQL query to be used to retrieve the items based on the user's selection is defined.

List.asp in then included to retrieve the items from the database and list them.

Mgmt_footer.asp is included.

7.3 Algorithms

None

8 Feedback.asp

8.1 Objects and Variables

ListElemTemplate: A variable containing the module to be linked to by each item in the list

ListElement: The type of item to be listed.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

lyear: The year for which to list items.

lmonth: The month for which to list items.

lorder: The database table column to use to order the items listed

lproduct: The product for which to list feedback items.

CmdTemp: An object containing the query to be executed by a *recordset*.

8.2 Modular Functionality

Manager.asp is included.

The *ListElemTemplate* and *ListElement* variables are defined for use in *list.asp*.

Date_args2var2.asp and *mgmt_header.asp* are included.

An HTML form is output to the user's web browser. Fields are output allowing the user to select a month, year and product for which to view feedback items. These selection lists are displayed by including *picker_month2.asp*, *picker_year2.asp* and *picker_product.asp*. A field is output allowing the user to select which database field to use for ordering of the listed feedback items. The user is then presented with an Update button. This button recalls this module and results in the module listing the items as selected in the form above.

The SQL query to be used to retrieve the items based on the user's selection is defined.

List.asp in then included to retrieve the items from the database and list them.

Mgmt_footer.asp is included.

8.3 Algorithms

None

9 Feedback_delete.asp

9.1 Objects and Variables

Feedback_id: The identification number of the feedback item to be deleted.

Type: The type of item being deleted.

Goto: The module to load after the item is deleted.

9.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

A form is output prompting the user whether he /she wants to delete the selected feedback item. A Delete button is presented which when selected calls *_delete.asp* to delete the feedback item.

Mgmt_footer.asp is included.

9.3 Algorithms

None

10 Feedback_view.asp

10.1 Objects and Variables

Feedback_id: The identification number of the feedback item to be viewed.

CmdTemp: An object containing the query to be executed by a *recordset*.

Feedback: A *recordset* containing the details of the selected feedback item.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

RecordSet: A set of records from a database based on a specific query

10.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The feedback item details are retrieved from the database based on the *feedback_id.* The details are stored in a recordset (*Feedback*).

The feedback details output to an HTML page. Depending on the feedback type (*feedback("type")*) different relevant fields are output relating to the type of feedback being displayed.

An HTML form button is displayed allowing the user to select to delete the feedback item. This button calls *feedback_delete.asp*.

Mgmt_footer.asp is included.

10.3 Algorithms

None

11 Global.asa

11.1 Objects and Variables

None

11.2 Modular Functionality

A content component (*MSCSContent*) with an associated Data source (*MSCSDataSource*) is defined.

The following instances of objects are defined and initialised (Refer to QSI 232 for definitions of each of the objects):

a. Data Functions (*MSCSDataFunctions*)

b. Shopper Manager (StandardSManager component) (*MSCSShopperManager*)

c. Shopper DBStorage (*MSCSShopperStorage*)

d. Order form DBStorage (*MSCSOrderFormStorage*)

e. Receipt DBStorage (*MSCSReceiptStorage*)

The components that are defined and initialised as listed above as well as other variables are given Application scope.

11.3 Algorithms

None

12 Mail.asp

12.1 Objects and Variables

Error_msg: A string containing any error message passed to the module.

CmdTemp: An object containing the query to be executed by a *recordset.*

RecordSet: A set of records from a database based on a specific query

Products: A *recordset* containing the details of the products in the system.

12.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

Any error messages are requested from the calling module and are displayed on the HTML page.

The details of the products in the system are retrieved from the database and stored in the *products* recordset.

A form is presented on the HTML page. The form allows the user to select a group to mail based on the products in the syst' ı. The form also allows the user to input a message subject and contents. A Send Mail button is presented which submits the form to *xt_mail.asp.*

Mgmt_footer.asp is included.

12.3 Algorithms

None

13 Mail_delete.asp

13.1 Objects and Variables

Mail_id: The identification number of the mail item to be deleted.

Type: The type of item being deleted.

Goto: The module to load after the item is deleted.

13.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

A form is output prompting the user whether he /she wants to delete the selected mail item. A Delete button is presented which when selected calls *_delete.asp* to delete the mail item.

Mgmt_footer.asp is included.

13.3 Algorithms

None

14 Mail_list.asp

14.1 Objects and Variables

ListElemTemplate: A variable containing the module to be linked to by each item in the list

ListElement: The type of item to be listed.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

lyear: The year for which to list items.

lmonth: The month for which to list items.

lorder: The database table column to use to order the items listed

lgroup: The mail group for which to list mail items.

CmdTemp: An object containing the query to be executed by a *recordset*.

14.2 Modular Functionality

Manager.asp is included.

The *ListElemTemplate* and *ListElement* variables are defined for use in *list.asp*.

Date_args2var2.asp and *mgmt_header.asp* are included.

A link is displayed allowing the user to select to send a new message. This calls *mail.asp*.

An HTML form is output to the user's web browser. Fields are output allowing the user to select a month, year and mail group for which to view mail items. These selection lists are displayed by including *picker_month2.asp*, *picker_year2.asp* and *picker_group.asp*. A field is output allowing the user to select which database field to use for ordering of the listed mail items. The user is then presented with an Update button. This button recalls this module and results in the module listing the items as selected in the form above.

The SQL query to be used to retrieve the items based on the user's selection is defined.

List.asp in then included to retrieve the items from the database and list them.

Mgmt_footer.asp is included.

14.3 Algorithms

None

15 Mail_view.asp

15.1 Objects and Variables

Mail_id: The identification number of the mail item to be viewed.

CmdTemp: An object containing the query to be executed by a *recordset*.

Mail: A *recordset* containing the details of the selected mail item.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

RecordSet: A set of records from a database based on a specific query

15.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The mail item details are retrieved from the database based on the *mail_id*. The details are stored in a recordset (*Mail*).

The mail details are output to an HTML page. An HTML form button is displayed allowing the user to select to delete the mail item. This button calls *mail_delete.asp*.

Mgmt_footer.asp is included.

15.3 Algorithms

None

16 Order_day.asp

16.1 Objects and Variables

ListElement: The type of Item to be listed.

Iyear: The year for which to list items.

Imonth: The month for which to list items.

CmdTemp: An object containing the query to be executed by a *recordset*.

16.2 Modular Functionality

Manager.asp is included.

The *ListElement* variable is defined for use in *list.asp*.

Date_args2var.asp and *mgmt_header.asp* are included.

The SQL query to be used to retrieve the items based on the user's selection is defined.

An HTML form is output to the user's web browser. Fields are output allowing the user to select a month and year for which to view order statistics. These selection lists are displayed by including *picker_month.asp* and *picker_year.asp*. The user is then presented with an Update button. This button recalls this module and results in the module listing the items as selected in the form above.

List.asp in then included to retrieve the items from the database and list them.

Mgmt_footer.asp is included.

16.3 Algorithms

None

17 Order_month.asp

17.1 Objects and Variables

ListElement: The type of item to be listed.

Iyear: The year for which to list items.

CmdTemp: An object containing the query to be executed by a *recordset*.

17.2 Modular Functionality

Manager.asp is included.

The *ListElement* variable is defined for use in *list.asp*.

Date_args2var.asp and *mgmt_header.asp* are included.

The SQL query to be used to retrieve the items based on the user's selection is defined.

An HTML form is output to the user's web browser. Fields are output allowing the user to select a year for which to view order statistics. The selection list is displayed by including *picker_year.asp*. The user is then presented with an Update button. This button recalls this module and results in the module listing the items as selected in the form above.

List.asp in then included to retrieve the items from the database and list them.

Mgmt_footer.asp is included.

17.3 Algorithms

None

18 Order_product.asp

18.1 Objects and Variables

ListElemTemplate: A variable containing the module to be linked to by each item in the list

ListElement: The type of item to be listed.

Iyear: The year for which to list items.

Imonth: The month for which to list items.

CmdTemp: An object containing the query to be executed by a *recordset*.

18.2 Modular Functionality

Manager.asp is included.

Date_args2var.asp and *mgmt_header.asp* are included.

The *ListElemTemplate* and *ListElement* variables are defined for use in *list.asp.*

The SQL query to be used to retrieve the items based on the user's selection is defined.

An HTML form is output to the user's web browser. Fields are output allowing the user to select a month and year for which to view order statistics per product. These selection lists are displayed by including *picker_month.asp* and *picker_year.asp*. The user is then presented with an Update button. This button recalls this module and results in the module listing the items as selected in the form above.

List.asp in then included to retrieve the items from the database and list them.

Mgmt_footer.asp is included.

18.3 Algorithms

None

19 Order_shopper.asp

19.1 Objects and Variables

ListElemTemplate: A variable containing the module to be linked to by each item in the list

ListElement: The type of item to be listed.

lyear: The year for which to list items.

lmonth: The month for which to list items.

CmdTemp: An object containing the query to be executed by a *recordset*.

19.2 Modular Functionality

Manager.asp is included.

Date_args2var.asp and *mgmt_header.asp* are included.

The *ListElemTemplate* and *ListElement* variables are defined for use in *list.asp*.

The SQL query to be used to retrieve the items based on the user's selection is defined.

An HTML form is output to the user's web browser. Fields are output allowing the user to select a month and year for which to view order statistics per shopper. These selection lists are displayed by including *picker_month.asp* and *picker_year.asp*. The user is then presented with an Update button. This button recalls this module and results in the module listing the items as selected in the form above.

List.asp in then included to retrieve the items from the database and list them.

Mgmt_footer.asp is included.

19.3 Algorithms

None

20 Order_view.asp

20.1 Objects and Variables

MSCSReceiptStorage: The application's *MSCSReceiptStorage* object

Receipt: A *Dictionary* component containing the details of the specific receipt

Items: The items in the receipt

row_items: The details of a particular item in the receipt.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

MSCSDataFunctions: The application's *MSCSDataFunctions* component.

20.2 Modular Functionality

Manager.asp, *mgmt_define.asp* and *mgmt_header.asp* are included.

The application's *MSCSReceiptStorage* object is declared and the receipt details are retrieved (*receipt*).

If the order is found in the database, the details are then displayed in tabular format. The general details of the order are first displayed and then each item in the order (*row_items*) is listed. The totals for the order are then listed.

Mgmt_footer.asp is included at the bottom of the order.

20.3 Algorithms

None

21 Orders.asp

21.1 Objects and Variables

ListElemTemplate: A variable containing the module to be linked to by each item in the list

ListElement: The type of item to be listed.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

lyear: The year for which to list items.

lmonth: The month for which to list items.

lorder: The database table column to use to order the items listed

CmdTemp: An object containing the query to be executed by a *recordset.*

21.2 Modular Functionality

Manager.asp is included.

The *ListElemTemplate* and *ListElement* variables are defined for use in *list.asp.*

Date_args2var2.asp and *mgmt_header.asp* are included.

An HTML form is output to the user's web browser. Fields are output allowing the user to select a month and year for which to view orders. These selection lists are displayed by including *picker_month2.asp* and picker_*year2.asp*. A field is output allowing the user to select which database field to use for ordering of the listed orders. The user is then presented with an Update button. This button recalls this module and results in the module listing the items as selected in the form above.

Links to *order_day.asp*, *order_month.asp*, *order_shopper.asp* and *order_product.asp* respectively are output to the HTML page.

The SQL query to be used to retrieve the items based on the user's selection is defined.

List.asp in then included to retrieve the items from the database and list them.

Mgmt_footer.asp is included.

21.3 Algorithms

None

22 Proddepend_delete.asp

22.1 Objects and Variables

depend_id: The identification number of the product dependency to be deleted.

Sku: The product ID of the product to which the dependency relates.

Type: The type of item being deleted.

Goto: The module to load after the item is deleted.

22.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

A form is output prompting the user whether he /she wants to delete the selected dependency item. A Delete button is presented which when selected calls *_delete.asp* to delete the dependency item.

Mgmt_footer.asp is included.

22.3 Algorithms

None

23 Proddepend_edit.asp

23.1 Objects and Variables

depend_id: The identification number of the dependency item to be edited.

CmdTemp: An object containing the query to be executed by a *recordset*.

proddepend: A *recordset* containing the details of the selected dependency item.

Product: A recordset containing the details of the dependency product.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

RecordSet: A set of records from a database based on a specific query

Sku: The product ID of the product to which the dependency relates

23.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The dependency item details are retrieved from the database based on the *depend_id*. The details are stored in a recordset (*proddepend*).

Based on the dependency details, the information about the dependency product is retrieved from the database and stored in a recordset (*product*).

The dependency details are output to an HTML page. The details of the dependency product are also displayed. An HTML form button is displayed allowing the user to select to delete the dependency item. This button calls *proddepend_delete.asp*.

Mgmt_footer.asp is included.

23.3 Algorithms

None

24 Proddepend_new.asp

24.1 Objects and Variables

CmdTemp: An object containing the query to be executed by a *recordset*.

RecordSet: A set of records from a database based on a specific query

Product: A *recordset* containing the details of the products in the system.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

Sku: The product ID of the product for which a dependency is being added.

Type: The type of item being added.

Goto: The module to load after the item is added.

24.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The details of the products in the system are retrieved from the database and stored in the *product* recordset.

A form is presented on the HTML page. A list of all the products in the system are output to the form in the format of a drop down list. This allows the user to select a product on which the current product will be dependent. An Add Product Dependency button is presented which allows the user to submit the form to *_add.asp*.

Mgmt_footer.asp is included

24.3 Algorithms

None

25 Proddoc_delete.asp

25.1 Objects and Variables

document_id: The identification number of the product document to be deleted.

Sku: The product ID of the product to which the document relates.

Type: The type of item being deleted.

Goto: The module to load after the item is deleted.

25.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

A form is output prompting the user whether he /she wants to delete the selected document. A Delete button is presented which when selected calls *_delete.asp* to delete the document record.

Mgmt_footer.asp is included.

25.3 Algorithms

None

26 Proddoc_edit.asp

26.1 Objects and Variables

document_id: The identification number of the document item to be edited.

CmdTemp: An object containing the query to be executed by a *recordset*.

proddoc: A *recordset* containing the details of the selected document item.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

RecordSet: A set of records from a database based on a specific query

Type: The type of item being edited.

Goto: The module to load after the item is edited

Sku: The product ID of the product to which the document relates.

26.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The document item details are retrieved from the database based on the *document_id*. The details are stored in a recordset (*proddoc*).

The document details are output to an HTML form. The user can then edit the document details in the text boxes. An HTML button labelled "Update Product Document" is displayed. Pressing this button results in *_update.asp* being called in order to update the record with the modified information. Another HTML form button is displayed allowing the user to select to delete the document item. This button calls *proddoc_delete.asp*.

Mgmt_footer.asp is included.

26.3 Algorithms

None

27 Proddoc_new.asp

27.1 Objects and Variables

Sku: The product ID of the product for which a dependency is being added.

Type: The type of item being added.

Goto: The module to load after the item is added.

27.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included

A form is presented on the HTML page. This form allows the user to input details for a new product document. An Add Product Dependency button is presented which allows the user to submit the form to *_add.asp*.

Mgmt_footer.asp is included.

27.3 Algorithms

None

28 Proddown_delete.asp

28.1 Objects and Variables

dowload_id: The identification number of the product document to be deleted.

Sku: The product ID of the product to which the download relates.

Type: The type of item being deleted.

Goto: The module to load after the item is deleted.

28.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

A form is output prompting the user whether he /she wants to delete the selected download. A Delete button is presented which when selected calls *_delete.asp* to delete the download record.

Mgmt_footer.asp is included.

28.3 Algorithms

None

29 Proddown_edit.asp

29.1 Objects and Variables

download_id: The identification number of the download item to be edited.

CmdTemp: An object containing the query to be executed by a *recordset*.

proddown: A *recordset* containing the details of the selected download item.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

RecordSet: A set of records from a database based on a specific query

Type: The type of item being edited.

Goto: The module to load after the item is edited

Sku: The product ID of the product to which the download relates.

29.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The document item details are retrieved from the database based on the *download_id*. The details are stored in a recordset (*proddown*).

The download details are output to an HTML form. The user can then edit the download details in the text boxes. An HTML button labelled "Update Product Download" is displayed. Pressing this button results in *_update.asp* being called in order to update the record with the modified information. Another HTML form button is displayed allowing the user to select to delete the download item. This button calls *proddown_delete.asp.*

Mgmt_footer.asp is included.

29.3 Algorithms

None

30 Proddown_new.asp

30.1 Objects and Variables

Sku: The product ID of the product for which a dependency is being added.

Type: The type of item being added.

Goto: The module to load after the item is added.

30.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

A form is presented on the HTML page. This form allows the user to input details for a new product download. An Add Product Download button is presented which allows the user to submit the form to *_add.asp*.

Mgmt_footer.asp is included.

30.3 Algorithms

None

31 Prodinfo_delete.asp

31.1 Objects and Variables

Info_id: The identification number of the product information item to be deleted.

Sku: The product ID of the product to which the information item relates.

Type: The type of item being deleted.

Goto: The module to load after the item is deleted.

31.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

A form is output prompting the user whether he /she wants to delete the selected information item. A Delete button is presented which when selected calls *_delete.asp* to delete the information item record.

Mgmt_footer.asp is included.

31.3 Algorithms

None

32 Prodinfo_edit.asp

32.1 Objects and Variables

info_id: The identification number of the information item to be edited.

CmdTemp: An object containing the query to be executed by a *recordset*.

prodinfo: A *recordset* containing the details of the selected information item.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

RecordSet: A set of records from a database based on a specific query

Type: The type of item being edited.

Goto: The module to load after the item is edited

Sku: The product ID of the product to which the information item relates.

32.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The information item details are retrieved from the database based on the *info_id*. The details are stored in a recordset (*prodinfo*).

The information item details are output to an HTML form. The user can then edit the details in the text boxes. An HTML button labelled "Update Product Information" is displayed. Pressing this button results in *_update.asp* being called in order to update the record with the modified information. Another HTML form button is displayed allowing the user to select to delete the information item. This button calls *prodinfo_delete.asp*.

Mgmt_footer.asp is included.

32.3 Algorithms

None

33 Prodinfo_new.asp

33.1 Objects and Variables

Sku: The product ID of the product for which a dependency is being added.

Type: The type of item being added.

Goto: The module to load after the item is added.

33.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

A form is presented on the HTML page. This form allows the user to input details for a new product information item. An Add Product Information button is presented which allows the user to submit the form to *_add.asp*.

Mgmt_footer.asp is included.

33.3 Algorithms

None

34 Product_delete.asp

34.1 Objects and Variables

Sku: The product ID of the product to be deleted.

34.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

A form is output prompting the user whether he /she wants to delete the selected product. A Delete button is presented which when selected calls *xt_product_delete.asp* to delete the product record and all its dependent entities.

Mgmt_footer.asp is included.

34.3 Algorithms

None

35 Product_edit.asp

35.1 Objects and Variables

sku: The identification number of the product being edited.

CmdTemp: An object containing the query to be executed by a *recordset*.

product: A *recordset* containing the details of the selected product.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

RecordSet: A set of records from a database based on a specific query

Type: The type of item being edited.

Goto: The module to load after the item is edited

35.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The product details are retrieved from the database based on the *sku*. The details are stored in a recordset (*product*).

The product details are output to an HTML form. The user can then edit the details in the text boxes. An HTML button labelled "Update Product" is displayed. Pressing this button results in *_update.asp* being called in order to update the record with the modified information. Another HTML form button is displayed allowing the user to select to delete the product. This button calls *product_delete.asp*.

Mgmt_footer.asp is included.

35.3 Algorithms

None

36 Product_list.asp

36.1 Objects and Variables

ListElemTemplate: A variable containing the module to be linked to by each item in the list

ListElement: The type of item to be listed.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

lorder: The database table column to use to order the items listed

CmdTemp: An object containing the query to be executed by a *recordset*.

36.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The *ListElemTemplate* and *ListElement* variables are defined for use in *list.asp*.

Date_args2var2.asp is included.

A link is displayed allowing the user to select to add a new product. This calls *product_new.asp*.

An HTML form is output to the user's web browser. A field is output allowing the user to select which database field to use for ordering of the listed products. The user is then presented with an Update button. This button recalls this module and results in the module listing the items as selected in the form above.

The SQL query to be used to retrieve the items based on the user's selection is defined.

List.asp in then included to retrieve the items from the database and list them.

Mgmt_footer.asp is included.

36.3 Algorithms

None

37 Product_new.asp

37.1 Objects and Variables

Type: The type of item being added.

Goto: The module to load after the item is added.

37.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

A form is presented on the HTML page. This form allows the user to input details for a new product. An Add Product button is presented which allows the user to submit the form to *_add.asp*.

Mgmt_footer.asp is included.

37.3 Algorithms

None

38 Product_view.asp

38.1 Objects and Variables

sku: The identification number of the product being viewed.

CmdTemp: An object containing the query to be executed by a *recordset*.

Product: A *recordset* containing the details of the selected product

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

MSCSDataFunctions: The application's *MSCSDataFunctions* component.

Prodinfos: A *recordset* containing the details of the information items applicable to the selected product

Proddocs: A *recordset* containing the details of the product documents

Proddowns: A *recordset* containing the details of the product download items.

Proddepends: A *recordset* containing the details of the product dependency items.

38.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The product details are retrieved from the database based on the *sku*. The details are stored in a recordset (*product*).

A link to edit the product (*product_edit.asp*) is output to an HTML page followed by the product details. Following the product details, lists of the product information items, product documents, product downloads and product dependencies are output respectively to the HTML page. Each item in each of the lists contains a link to edit the particular item. Furthermore preceding each list is a link to create a new item of the particular type.

Mgmt_footer.asp is included.

38.3 Algorithms

None

39 Purchase.asp

39.1 Objects and Variables

ListElemTemplate: A variable containing the module to be linked to by each item in the list

ListElement: The type of item to be listed.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

lorder: The database table column to use to order the items listed

lproduct: The product for which to list purchases

lmonth: The month for which to list purchases

lyear: The year for which to list purchases

CmdTemp: An object containing the query to be executed by a *recordset*.

39.2 Modular Functionality

Manager.asp is included.

The *ListElemTemplate* and *ListElement* variables are defined for use in *list.asp*.

Date_args2var2.asp and *mgmt_header.asp* are included.

An HTML form is output to the user's web browser. Fields are output allowing the user to select a month, year and product for which to list purchases. These selection lists are displayed by including *picker_month2.asp*, *picker_year2.asp* and *picker_product.asp*. A field is output allowing the user to select which database field to use for ordering of the listed purchases. The user is then presented with an Update button. This button recalls this module and results in the module listing the items as selected in the form above.

The SQL query to be used to retrieve the items based on the user's selection is defined.

List.asp in then included to retrieve the items from the database and list them.

Mgmt_footer.asp is included.

39.3 Algorithms

None

40 Purchase_delete.asp

40.1 Objects and Variables

purchase_id: The identification number of the purchase item to be deleted.

Shopper_id: The ID of the shopper to whom the purchase pertains.

Type: The type of item being deleted.

Goto: The module to load after the item is deleted.

40.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

A form is output prompting the user whether he /she wants to delete the selected purchase. A Delete button is presented which when selected calls *_delete.asp* to delete the purchase record.

Mgmt_footer.asp is included.

40.3 Algorithms

None

41 Purchase_new.asp

41.1 Objects and Variables

CmdTemp: An object containing the query to be executed by a *recordset*.

RecordSet: A set of records from a database based on a specific query

roducts: A *recordset* containing the details of the available products in the system.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

Shopper_id: The ID of the shopper for whom a purchase is being added.

Type: The type of item being added.

Goto: The module to load after the item is added.

41.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The details of the available products in the system are retrieved from the database and stored in the *products* recordset.

A form is presented on the HTML page. A list of all the available products in the system are output to the form in the format of a drop down list. This allows the user to select a product to register the shopper as having purchased. An Add Purchase button is presented which allows the user to submit the form to *_add.asp*.

Mgmt_footer.asp is included.

41.3 Algorithms

None

42 Purchase_view.asp

42.1 Objects and Variables

purchase_id: The identification number of the purchase item to be viewed.

CmdTemp: An object containing the query to be executed by a *recordset*.

Purchase: A *recordset* containing the details of the selected purchase item.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

RecordSet: A set of records from a database based on a specific query

Shopper_id: The ID of the shopper to whom the purchase pertains.

Type: The type of item being updated.

Goto: The module to load after the item is updated

42.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The purchase item details are retrieved from the database based on the *purchase_id*. The details are stored in a recordset (*Purchase*).

The purchase details are output to an HTML form. The user can then edit selected details in the form. An HTML button labelled "Update Purchase" is displayed. Pressing this button results in *_update.asp* being called in order to update the record with the modified information. Another HTML form button is displayed allowing the user to select to delete the purchase. This button calls *purchase_delete.asp.*

Mgmt_footer.asp is included.

42.3 Algorithms

None

43 Reload_store.asp

43.1 Objects and Variables

Storename: The name of the current store.

StoreObj: An instance of the Microsoft Commerce Server *AdminStore* object.

43.2 Modular Functionality

The *Storename* is retrieved from the calling module. The *StoreObj* is declared and initialised. The store is then reloaded (*StoreObj.ReloadStore)* and the user is redirected to *default.asp*.

43.3 Algorithms

None

44 Shopper_day.asp

44.1 Objects and Variables

ListElement: The type of item to be listed.

lyear: The year for which to list items.

lmonth: The month for which to list items.

CmdTemp: An object containing the query to be executed by a *recordset.*

44.2 Modular Functionality

Manager.asp is included.

Date_args2var.asp and *mgmt_header.asp* are included.

The *ListElement* variable is defined for use in *list.asp.*

The SQL query to be used to retrieve the items based on the user's selection is defined.

An HTML form is output to the user's web browser. Fields are output allowing the user to select a month and year for which to view shoppers who have registered with the system. These selection lists are displayed by including *picker_month.asp* and *picker_year.asp*. The user is then presented with an Update button. This button recalls this module and results in the module listing the items as selected in the form above.

List.asp is then included to retrieve the items from the database and list them.

Mgmt_footer.asp is included.

44.3 Algorithms

None

45 Shopper_delete.asp

45.1 Objects and Variables

Shopper_Id: The ID of the shopper to be deleted.

45.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

A form is output prompting the user whether he /she wants to delete the selected shopper. A Delete button is presented which when selected calls *xt_shopper_delete.asp* to delete the shopper record and all its dependent entities.

Mgmt_footer.asp is included.

45.3 Algorithms

None

46 Shopper_edit.asp

46.1 Objects and Variables

Shopper_id: The identification number of the product being edited.

MSCSShopperStorage: The application's *MSCSShopperStorage* object.

ThisShopper: A *Dictionary* component containing the details of the specific shopper.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

Type: The type of item being edited.

Goto: The module to load after the item is edited

46.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The *MSCSShopperStorage* object is declared and the shopper details are retrieved from the database based on the *shopper_id*. The details are stored in *ThisShopper*.

If the shopper details exist then the shopper details are output to an HTML form. The user can then edit the details in the text boxes. An HTML button labelled "Update Shopper" is displayed. Pressing this button results in *_update.asp* being called in order to update the record with the modified information. Another HTML form button is displayed allowing the user to select to delete the shopper. This button calls *shopper_delete.asp*.

If the shopper details do not exist then a message is displayed indicating that the shopper could not be found.

Mgmt_footer.asp is included.

46.3 Algorithms

None

47 Shopper_month.asp

47.1 Objects and Variables

ListElement: The type of item to be listed.

Iyear: The year for which to list items.

CmdTemp: An object containing the query to be executed by a *recordset*.

47.2 Modular Functionality

Manager.asp is included.

Date_args2var.asp and *mgmt_header.asp* are included.

The *ListElement* variable is defined for use in *list.asp.*

The SQL query to be used to retrieve the items based on the user's selection is defined.

An HTML form is output to the user's web browser. Fields are output allowing the user to select a year for which to view shopper statistics. The selection list is displayed by including *picker_year.asp.* The user is then presented with an Update button. This button recalls this module and results in the module listing the items as selected in the form above.

List.asp in then included to retrieve the items from the database and list them.

Mgmt_footer.asp is included.

47.3 Algorithms

None

48 Shopper_new.asp

48.1 Objects and Variables

Type: The type of item being added.

Goto: The module to load after the item is added.

48.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

A form is presented on the HTML page. This form allows the user to input details for a new shopper. A Register button is presented which allows the user to submit the form to *_add.asp*.

Mgmt_footer.asp is included.

48.3 Algorithms

None

49 Shopper_view.asp

49.1 Objects and Variables

Shopper_id: The identification number of the shopper being viewed.

MSCSShopperStorage: The application's *MSCSShopperStorage* object.

ThisShopper: A *Dictionary* component containing the details of the specific shopper.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

MSCSOrderFormStorage: The application's *MSCSOrderFormStorage* object.

basket: A *Dictionary* component containing the details of the specific shopper's basket

items: the items in the shopper's basket

nitems: The number of items in the shopper's basket

row_items: The details of a specific item in the shopper's basket

MSCSDataFunctions: The application's MSCSDataFunctions component.

ListElemTemplate: A variable containing the module to be linked to by each item in the list

ListElement: The type of item to be listed.

CmdTemp: An object containing the query to be executed by a *recordset*.

Purchases: A *recordset* containing the details of the purchases applicable to the selected shopper

49.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The *MSCSShopperStorage* object is declared and the shopper details are retrieved from the database based on the *shopper_id*. The details are stored in *ThisShopper*.

If the shopper details exist then a link is output to an HTML page allowing the user to select to edit the shopper details (*shopper_edit.asp*). Following this, the shopper details are output to the HTML page. Following the shopper details, the shopper's basket is retrieved from the database and stored in *basket*. If there are items in the shopper's basket, the details are displayed on the HTML page.

Following the shopping basket, the shopper's receipts are listed. The SQL query is defined and *list.asp* is then included to list the receipts.

The shopper's purchased products are then listed. The *purchases recordset* is created containing the details of all the shopper's purchases. These are then listed.

If the shopper could not however be found in the database an error message is displayed indicating this.

Mgmt_footer.asp is included.

49.3 Algorithms

None

50 Shoppers.asp

50.1 Objects and Variables

ListElemTemplate: A variable containing the module to be linked to by each item in the list

ListElement: The type of item to be listed.

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

lyear: The year for which to list items.

lmonth: The month for which to list items.

lorder: The database table column to use to order the items listed

CmdTemp: An object containing the query to be executed by a *recordset*.

50.2 Modular Functionality

Manager.asp is included.

The *ListElemTemplate* and *ListElement* variables are defined for use in *list.asp*.

Date_args2var2.asp and *mgmt_header.asp* are included.

A link to add a new shopper (*shopper_new.asp*) is output to the user's web browser in an HTML page. An HTML form is output to the HTML page. Fields are output allowing the user to select a month and year for which to view shoppers. These selection lists are displayed by including *picker_month2.asp* and picker_*year2.asp*. A field is output allowing the user to select which database field to use for ordering of the listed shoppers. The user is then presented with an Update button. This button recalls this module and results in the module listing the items as selected in the form above.

Links to *shopper_day.asp* and *shopper_month.asp* respectively are output to the HTML page.

The SQL query to be used to retrieve the items based on the user's selection is defined.

List.asp in then included to retrieve the items from the database and list them.

Mgmt_footer.asp is included.

50.3 Algorithms

None

51 Status_change.asp

51.1 Objects and Variables

Storename: The name of the current store.

StoreObj: An instance of the Microsoft Commerce Server *AdminStore* object.

51.2 Modular Functionality

The *Storename* is retrieved from the calling module. The *StoreObj* is declared and initialised. If the store is open, then it is set to be closed (*StoreObj.Status=FALSE*) and vice versa. The user is redirected to *default.asp*.

51.3 Algorithms

None

52 Sys_error.asp

52.1 Objects and Variables

Error: The error string that is passed to the module.

52.2 Modular Functionality

Manager.asp and *mgmt_header.asp* are included.

The error message (*error*) is retrieved from the calling module and is displayed on the HTML page.

Mgmt_footer.asp is included.

52.3 Algorithms

None

53 Xt_mail.asp

53.1 Objects and Variables

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

Sm: An instance of the Microsoft Personalisation Server's SendMail component.

error_msg: An error message to be passed to the next module that is called.

WebMaster: The IS4 webmaster's e-mail address.

mail_to: A string received from the calling module indication who the message should be sent to.

Subject: A subject for the mail message.

Comment: The text to insert into the mail message.

Error_msg1: An error message to be passed to the next module that is called.

Error_msg2: An error message to be passed to the next module that is called.

Invalliddata: Whether or not the data passed to the module is valid.

CmdTemp: An object containing the query to be executed by a *recordset*

Recipients: A recordset containing the e-mail addresses of the people to whom to send the mail message.

Salutation: An opening line for the mail message.

Product: details about the product to which the mail message relates.

Feedback: Whether or not a mail message was successfully sent.

RecordSet: A set of records from a database based on a specific query

53.2 Modular Functionality

Manager.asp is included.

The instance of the mail component (*sm*) is declared. If the object is not found an error message is generated, the user is redirected back to the *mail.asp* page and the error message is passed to *mail.asp*.

If the object is found then the parts of the mail message are retrieved from the calling module and checked for empty strings. If any of the strings are empty an error message is generated, the user is redirected back to the *mail.asp* page and the error message is passed to *mail.asp*.

If all of the required strings are present, then a list of e-mail addresses is retrieved from the database based on the *mail_to* string. The addresses are stored in *recipients*. Furthermore a relevant salutation is created (*Salutation)*. The final fields of the mail message are then generated and the module cycles through all the e-mail addresses in *recipients* and mails off messages.

If all the messages were sent successfully (*sent="yes"*) then a record of the message is written to the database. Otherwise an error message is generated and passed to *mail.asp*. If the record is not successfully written to the database then an error message is generated and passed to mail.asp.

If all is successful then the user is redirected to *mail_list.asp*.

53.3 Algorithms

None

54 Xt_product_delete.asp

54.1 Objects and Variables

Sku: The product ID of the product to be deleted.

CmdTemp: An object containing the query to be executed by a *recordset*

RecordSet: A set of records from a database based on a specific query

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

54.2 Modular Functionality

The *sku* is retrieved from the calling module. For the product, its information items, its documents, its downloads its dependencies and the dependencies on this product respectively, the module defines a SQL query (*CmdTemp)* based on the *sku,* executes the query and stores the relevant records in a *recordSet.* If the *recordSet* contains records they are deleted from the database.

The user is then redirected to *product_list.asp*.

54.3 Algorithms

None

55 Xt_receipt_pay.asp

55.1 Objects and Variables

Page: An Instance of the Commerce server's *Page* component (declared in *manager.asp*).

order_id: The identification number of the order being paid for.

ErrorFields: An instance of the Commerce server's *Dictionary* component used to store error messages.

MSCSReceiptStorage: The application's MSCSReceiptStorage object

Receipt: A *Dictionary* component containing the details of the specific receipt

Items: The items in the receipt

Nitems: The number of items in the receipt.

CmdTemp: An object containing the query to be executed by a *recordset*

RecordSet: A set of records from a database based on a specific query

row_items: The details of a particular item in the receipt.

Product: A *recordset* containing the details of the product being registered as a purchase

Purchase: A *recordset* containing the maximum *copy_number* of the of the product being registered as a purchase.

copy_number: The number of copies purchases of the particular item being registered as a purchase.

MSCSShopperStorage: The application's *MSCSShopperStorage* object.

ThisShopper: A *Dictionary* component containing the details of the specific shopper.

Register: An instance of the SEAL Register component

55.2 Modular Functionality

Manager.asp is included

The order ID is retrieved from the calling module and necessary components are declared.

The receipt is retrieved from the database. If there are no items in the receipt, the manager is redirected to *orders.asp*.

If there are items in the receipt, the receipt is again retrieved from the database in the form of a *recordset*. The status of the receipt is changed to 1 (paid) and the record is then updated in the database.

For each item in the receipt, a purchase record is then created. Where necessary information needed for the purchase records data items are retrieved from other records in the database. The Register component is declared and its Encrypt function is called in order to generate the encryption string needed to unlock the product.

Once all the data items for the record have been retrieved or generated, a *recordset* is created and then written to the database containing the purchase details. This is repeated for each item in the receipt.

If all the purchase records are written successfully, the manager is redirected to *order_view.asp* and the order ID is passed to the module.

If there are errors in writing the purchase records, relevant error messages are output to the web browser.

Error.asp is included.

55.3 Algorithms

None

56 Xt_shopper_delete.asp

56.1 Objects and Variables

Shopper_id: The ID of the shopper to be deleted.

CmdTemp: An object containing the query to be executed by a *recordset*

RecordSet: A set of records from a database based on a specific query

Page: An instance of the Commerce server's *Page* component (declared in *manager.asp*).

56.2 Modular Functionality

The *shopper_id* is retrieved from the calling module. For the shopper, his basket and his purchases respectively, the module defines a SQL query (*CmdTemp)* using the *shopper_id*, executes the query and stores the relevant records in a *recordSet*. If the *recordSet* contains records they are deleted from the database.

The user is then redirected to *shoppers.asp*.

56.3 Algorithms

None

57 Auth_include.asp

57.1 Note

This module forms part of the Microsoft Commerce Server store foundation and has not been altered in development. A low-level design is therefore not applicable for this module.

58 Date_args2var.asp

58.1 Objects and Variables

lmonth: The month for which to list items.

lyear: The year for which to list items.

58.2 Modular Functionality

lmonth is retrieved from the calling module. If it exists, then lmonth is left as the month that has been retrieved. Otherwise imonth is set to the current month.

If the month value (1-12) is less than 10, then a "0" is added to the front of the value. This converts *imonth* to a string. Otherwise the value is simply converted to a string.

lyear is retrieved from the calling module. If it exists, then lyear is left as the year that has been retrieved. Otherwise iyear is set to the current year.

58.3 Algorithms

None

59 Date_args2var2.asp

59.1 Objects and Variables

lmonth: The month for which to list items.

lyear: The year for which to list items.

ListElement: The type of item to be listed.

lorder: The database table column to use to order the items listed

lgroup: The mail group for which to list mail items

lpage: The HTML page for which to list events

llogged: The status of the shopper for which to display events.

lproduct: The product for which to list feedback items

59.2 Modular Functionality

lmonth is retrieved from the calling module. If it exists, then lmonth is left as the month that has been retrieved. Otherwise imonth is set to the current month.

If imonth is not the wild card character (%) and if the month value (1-12) is less than 10, then a "0" is added to the front of the value. This converts *imonth* to a string. If imonth is not the wildcard character and the month value is 10 or greater the value is simply converted to a string.

lyear is retrieved from the calling module. If it exists, then lyear is left as the year that has been retrieved. Otherwise lyear is set to the current year.

Depending on the type of item being listed (*ListElement)*, various variables used for listing purposes are retrieved from the calling module. If the variables have been passed with values then the values are left as they are. If the variables have not been assigned values then default values are assigned.

If the type of item being listed is not present in the list in the module, then an error message is output.

59.3 Algorithms

None

60 DSN_Include.asp

60.1 Note

This module forms part of the Microsoft Commerce Server store foundation and has not been altered in development. A low level design is therefore not applicable for this module.

61 Error.asp

61.1 Objects and Variables

ErrorFields: An instance of the Commerce server's *Dictionary* component used to store error messages.

ErrorStr: Each error message string in the *Errorfields* component.

61.2 Modular Functionality

Mgmt_header.asp is included.

The module cycles through each error message (*errorstr*) in the *errorfields* component and lists it on the HTML page.

Mgmt_footer.asp is included.

61.3 Algorithms

None

62 List.asp

62.1 Objects and Variables

EmptyRecordset: Whether or not the *recordset* to be listed is empty.

FirstPass: Whether or not the row being listed is the first row on the page.

PagingMove: The navigation option selected.

RecordsProcessed: The number of records output onto the current HTML page.

PageSize: The maximum number of records possible on a single page.

List: The *recordset* containing the records to be listed.

PageCount: The total number of pages that the list of records spans.

RecordCount: The total number of records in the *recordset*.

List_AbsolutePage: The page number of the current page.

62.2 Modular Functionality

The variables are first set to initial values.

If a navigation instruction (*PagingMove)* has been passed to the module then it is retrieved. The records to be listed are then retrieved from the database and stored in the *List recordset*. The query that is used to retrieve the records is obtained from the module that includes *list.asp*.

The *recordset* is then checked to contain values. If it does not *EmptyRecordset* is set to True. If not already done, the page size and the current page being displayed are written to session objects (*Session("list_PageSize")* and *Session("list_AbsolutePage")*).

If the *recordset* is not empty then the navigation control is retrieved from the calling module. Based on the navigation control received, the new current page is calculated. If the user attempts to navigate to after the last page or to before the first page, the new current page is set to page 1. The current page is then written to *list.AbsolutePage*

If there is more than 1 page of records (*PageCount > 1)* then navigation controls are displayed on the HTML page.

The list column headings are then displayed by including *list_columns.asp*.

If there are no records in the *recordset* then *list_no_rows.asp* is included to display the appropriate message.

If there are records in the *recordset*, the number of the first row to display on the particular page is calculated. The module then loops from the first record on the page sequentially through the records until either the page is full or the end of the list is reached. Each row is displayed by including *list_row.asp*.

62.3 Algorithms

None

63 List_column.asp

63.1 Objects and Variables

ListElement: The type of item to be listed.

63.2 Modular Functionality

Depending on the type of item to be listed, the headers for the columns in the list generated by *list.asp* are defined and output to the HTML table.

If the type of item to be listed is not found in the module, an error message is generated.

63.3 Algorithms

None

64 List_no_rows.asp

64.1 Objects and Variables

ListElement: The type of item to be listed.

lmonth: The month for which to list items

lyear: The year for which to list items

64.2 Modular Functionality

Depending on the type of item to be listed, a relevant message is output to the HTML page in the case of there being no items to list based on the selected criteria.

If the type of item to be listed is not found in the module, an error message is generated.

64.3 Algorithms

None

65 List_row.asp

65.1 Objects and Variables

ListElement: The type of item to be listed

Page: An instance of the Commerce server's *Page* component

List: A *recordset* containing the records being listed.

MSCSReceiptStorage: The application's MSCSReceiptStorage object

Receipt: A *Dictionary* component containing the details of the specific receipt

Items: The items in the receipt

NItems: The number of items in the receipt.

MSCSDataFunctions: The application's *MSCSDataFunctions* component

RowCount: A counter indicating the row number in the list.

65.2 Modular Functionality

Depending on the type of item to be listed (*ListElement)*, the relevant details for the row in the list are output to the HTML table. Depending on the type of item being listed, various elements in the row are created as HTML links. Furthermore where necessary additional data is retrieved from the database (*Receipt)* for displaying in the list row.

If the type of item to be listed is not found in the module, an error message is generated.

65.3 Algorithms

None

66 manager.asp

66.1 Objects and Variables

Page: An instance of the Commerce server's *Page* component

MSCSDataFunctions: The application's *MSCSDataFunctions* component.

MSCS: An ADO Database connection instance.

CmdTemp: An ADO Database command instance.

66.2 Modular Functionality

The *Page* component instance is defined.

The application's *MSCSDataFunctions* object is declared as a local object.

The variables necessary for the ADO database object are defined.

The *MSCS* component instance is defined and it is initialised with application scope constants.

The *CmdTemp* object is defined and initialised.

66.3 Algorithms

None

67 Mgmt_define.asp

67.1 Objects and Variables

TableBaskets: The database table to use for shopper's baskets.

TableReceipts: The database table to use for shopper's receipts.

TableReceiptItems: The database table to use for items within receipts.

TableShoppers: The database table to use for shopper information.

TableEvents: The database table to use for store events.

TableProducts: The database table to use for product details

TmplAdmin: The module to use for the main interface.

TmplOrder: The module to use for the orders section main page.

TmplEvent: The module to use for the events section main page.

TmplShopper: The module to use for the shoppers section main page.

TmplProduct: The module to use for the products section main page.

TmplFeedback: The module to use for the feedback section main page.

TmplMail: The module to use for the mail section main page.

TmplPurchase: The module to use of the purchases section main page.

StdListRange: The number of items to list on one HTML page.

67.2 Modular Functionality

The module assigns tables to the table variables.

The module assigns modules to the module variables.

The *StdListRange* is set.

67.3 Algorithms

None

68 Mgmt_footer.asp

68.1 Objects and Variables

TmplAdmin: The module to use for the main interface.

TmplOrder: The module to use for the orders section main page.

TmplEvent: The module to use for the events section main page.

TmplShopper: The module to use for the shoppers section main page.

TmplProduct: The module to use for the products section main page.

TmplFeedback: The module to use for the feedback section main page.

TmplMail: The module to use for the mail section main page.

TmplPurchase: The module to use of the purchases section main page.

68.2 Modular Functionality

The module outputs an HTML table containing links to all of the main section pages of the IS4 Manager Interface.

68.3 Algorithms

None

69 Mgmt_header.asp

69.1 Objects and Variables

69.2 Modular Functionality

Mgmt_define.asp and mgmt_style.asp are included. The module then outputs the standard background, standard interface banner and a page title to an HTML page.

69.3 Algorithms

None

70 Mgmt_style.asp

70.1 Objects and Variables

70.2 Modular Functionality

The module defines styles for various HTML tags. This is done within the HTML <STYLE> tag.

70.3 Algorithms

None

71 Picker_group.asp

71.1 Objects and Variables

CmdTemp: An object containing the query to be executed by the *recordset*.

Product: A *recordset* containing the details of the products in the system

lgroup: The mail group for which to list mail items

Page: An instance of the Commerce server's *Page* component

RecordSet: A set of records from a database based on a specific query

71.2 Modular Functionality

The SQL query is defined and the product details are retrieved from the database and stored in the *product recordset*.

The module generates an HTML form drop down list containing some default options. Furthermore the module cycles through the *recordset* and lists each product as a selection option.

71.3 Algorithms

None

72 Picker_month.asp

72.1 Objects and Variables

lmonth: The month for which to list items

72.2 Modular Functionality

The module generates an HTML form drop down list containing the months of the year. The abbreviated month names are displayed for selection however the month number (01 – 12) is stored once selected.

72.3 Algorithms

None

73 Picker_month2.asp

73.1 Objects and Variables

lmonth: The month for which to list items

73.2 Modular Functionality

The module generates an HTML form drop down list containing the months of the year as well as an option to select all the months of the year. The abbreviated month names are displayed for selection however the month number (01 – 12) is stored once selected. For the option of selecting all the months, the word "all" is displayed and the wildcard character "%" is stored for use in SQL queries.

73.3 Algorithms

None

74 Picker_page.asp

74.1 Objects and Variables

lpage: The mail group for which to list mail items

74.2 Modular Functionality

The module generates an HTML form drop down list containing some of the IS4 modules for which to view events. The user is also presented with the options of selecting events for all the IS4 modules. For the option of selecting all the modules, the words "All Pages" is displayed and the wildcard character "%" is stored for use in SQL queries.

74.3 Algorithms

None

75 Picker_product.asp

75.1 Objects and Variables

CmdTemp: An object containing the query to be executed by the *recordset*.

Product: A *recordset* containing the details of the products in the system

Iproduct: The product for which to list items

Page: An instance of the Commerce server's *Page* component

ListElement: The type of item to be listed.

RecordSet: A set of records from a database based on a specific query

75.2 Modular Functionality

The SQL query is defined and the product details are retrieved from the database and stored in the *product recordset*.

The module generates an HTML form drop down list containing firstly the option to select all the products. Thereafter depending on the type of item being listed based on this selection, the option of selection the IS4 as a product is given. The module then cycles through the *recordset* and lists each product as a selection option.

75.3 Algorithms

None

76 Picker_year.asp

76.1 Objects and Variables

lyear: The year for which to list items

76.2 Modular Functionality

The module generates an HTML form drop down list containing the years from 1997 until 2003.

76.3 Algorithms

None

77 Picker_year2.asp

77.1 Objects and Variables

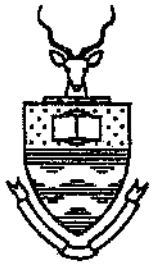
lyear: The year for which to list items

77.2 Modular Functionality

The module generates an HTML form drop down list containing the years from 1997 until 2003 as well as an option to select all years. For the option of selecting all the years, the word "all" is displayed and the wildcard character "%" is stored for use in SQL queries.

77.3 Algorithms

None



QSI

Is4 Shopper User Reference Manual

Technical Product

Version 1.00

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Change History

Configuration Control

Project:	QSI
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Version	Date	Changes
0.01	97\04\29	Created document using QST32430.100
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1.00	98\06\02	Document approved

Management Authorisation

Version	Date	Status	Management Board Minute Reference
1.00	98\06\02	Approved	QSI 2053 section 2.4

Change Forecast

1 Scope

1.1 Introduction

The IS4 (Internet System for the Supply and Support of Software) is a system used by the Software Engineering Applications Laboratory (SEAL) for the supply and support of SEAL software products. The IS4 is an Internet based system allowing the user to view and purchase products. The user is also given the functionality to obtain the product and its documentation via the Internet. Two-way feedback mechanisms are also present in the system.

1.2 Purpose

This document serves as a User Reference Manual for the shopper interface of the IS^4 system.

1.3 Applicability

This document is applicable to the QSI project. This document serves as a User Reference Manual for external users of the IS4 system and does not discuss Manager or Administrator procedures. Details regarding Manager and Administrator features and procedures have been excluded from this document.

1.4 Definitions

URM: User Reference Manual

SEAL: Software Engineering Applications Laboratory

IS^4 - Internet System for the Supply and Support of Software

1.5 Audience

- The manager for this project
- The developer(s) on this project
- Individuals who perform 2nd and 3rd party surveillance on SEAL QMS.
- Full-time members of SEAL Management Board.

1.6 Applicable Documents

1.6.1 Specifications

1.6.2 Standards

a. SEAL QMS Document Layout, Presentation and Typesetting Guide, QS 003, Revision 0.01, 1 April 1994

1.6.3 Procedures

1.6.4 Guidelines

1.6.5 Other Documents

1.7 Assumptions

1.8 Requirements Traceability

ISO 9001(1994) 4.4 Design Control

2 Introduction

2.1 Background

The IS⁴ system serves as a system for the sale of SEAL software products via the Internet. The system serves as a fully automated and secure procedure for acquiring a user's details and order information, processing the order and then providing the user with access to the selected software products. The software purchased via the system is freely available for downloading, however the product is locked and requires and encryption number to unlock the software. This encryption number is made available via the web site after a user has purchased the product.

2.2 Features

a. The system provides secure on-line purchasing of software products

b. The system complies with all applicable ISO and IEC standards relating to the sale and support of software.

c. The system allows for customised interaction between the customer and the SEAL.

d. The system uses password protection to verify users and make information available to them.

2.3 Hardware Requirements

a. Any computer capable of running Internet Explorer 3 or later or Netscape Navigator 3 or later.

b. A connection to the Internet.

2.4 Software Requirements

Any one of the following:

a. Microsoft Internet Explorer version 3 or above.

b. Netscape Navigator version 3 or above

c. Netscape Communicator.

2.5 Getting Started

a. Load the Web browser (refer to the specific browser's instructions)

b. Access the URL: http://ls4.seal.ac.za (refer to the browser's instructions)

c. The user will now be viewing the main menu page for the IS^4 user Interface (see section 3).

2.6 User Interface Terminology

2.6.1 Product Dependencies

a. Certain software products are only available for purchasing by a user, if the user already owns another software products. This would be best illustrated in the case of a version upgrade of a particular software product. The upgrade of the product would only be purchasable if the user already owns the previous version of the product. If the user did not own a previous version, the user would have to purchase the full product in the new version.

b. The dependencies of a particular product are listed below each product when purchasing.

2.6.2 Mailing lists

Mailing lists are lists that the IS4 webmaster / SEAL webmaster uses to send e-mail messages to a list of people. User can add or remove themselves from the mailing lists using the IS4 Login and Registered Product sections (see sections 5.2 and 5.5). In the IS4 the following mailing lists exit:

a. A list containing all users who have registered with the IS4.

b. A list containing all users who have purchased products

c. A separate list for each product available on the IS4.

2.7 Application Window

2.7.1 HTML Page (web page)

A web page is the interface that is used to interact with the IS4 system. The web page is made up of HTML and is viewed over the Internet using a standard Web browser.

2.7.2 Browser controls

a. Browser controls are the controls that form part of the web browser used to access the IS4 User Interface.

b. Refer to the Browser instructions or help for information on the browser controls.

2.7.3 HTML links

a. HTML links are controls in the Web page than when selected will display the selected item.

b. HTML links are indicated by BLUE or RED underlined text. Also images having a BLUE or RED border indicate an http link.

c. A BLUE border indicates that the user has not yet visited the destination link.

d. A RED border indicates that the user has visited the destination link.

e. Some of the images that form part of an HTML link are not colour coded. If one moves the mouse cursor over an http link, the cursor changes to a hand. This can be used to help identify http links.

f. To select a link, click once with the left mouse button over the link.

2.7.4 Forms

a. Forms on a web site are a means for the user to input information into the system.

b. The user fills in the form appropriately using the text boxes, check boxes, radio buttons and drop down lists. Text boxes are either single or multiple line boxes in which the user types text using the keyboard. Check boxes are small boxes that when clicked on using the left mouse button, places a small "X" in the box. This is used for selecting or de-selecting a specific option. Radio buttons operate in

the same way as check boxes except that a round holder is used in place of a square one and also a black dot is used in place of the "X". Drop down lists are lists that drop down when the list is selected using the left mouse button. Drop down lists can be differentiated from text boxes by the arrow that is present on the right hand side of each drop down list. Once the list has dropped down the user can select an option by either moving down with the arrow keys or by selecting the required option with the mouse. Thereafter the drop down list closes with the selected option visible.

c. In order to move from one box to the next, either the TAB key is used or each field can be individually selected using the left mouse button.

d. If a user wishes to return to a field to modify information (before submitting it) the user can click on the field with the left mouse button and thereafter retype in the information.

e. When the user has completed the form there are either one or two button (see 2.7.5 below) options:

   i. Submit - this is used to submit the information into the system. This button is present in all forms. The button may be named differently in each form but the text indicates that this button is used to submit the entered information.

   ii. Clear - this is used to clear the form and restart. This button is not present in all forms.

2.7.5 Buttons

a. Buttons function either as an HTML link (refer to 2.7.3 above), as a form button (refer to 2.7.4 above) or to control other processes. The exact task of each button is indicated where applicable in this document.

b. A button is operated by clicking the left mouse button once over the button.

2.7.6 Restricted areas

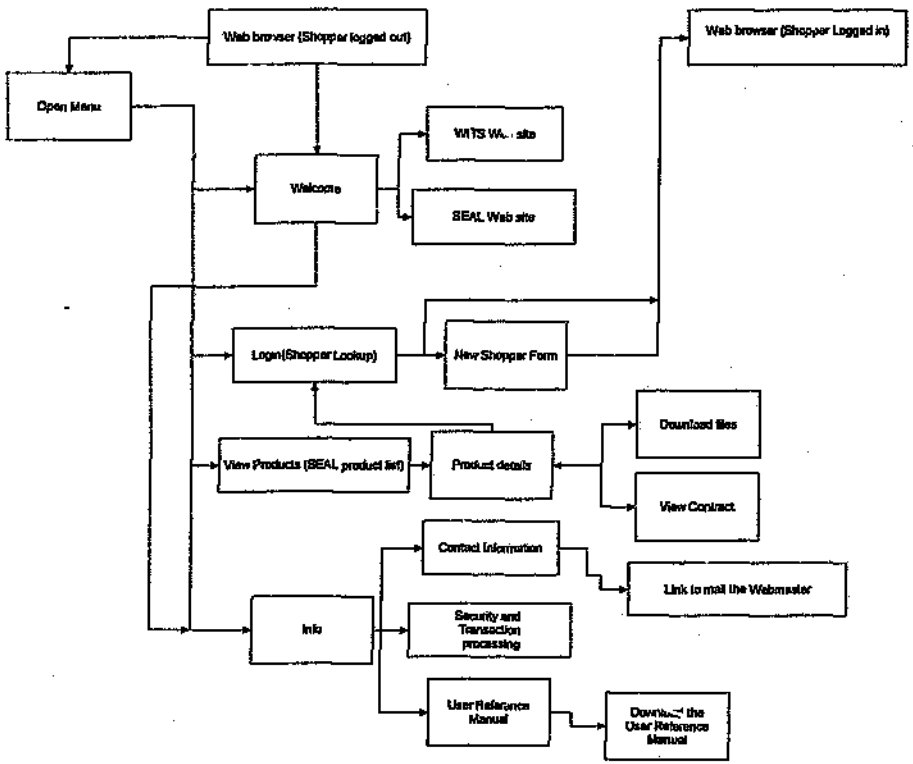
a. Certain sections as indicated in this document require a username and password to be accessed.

b. This username and password are provided to a user after the user has registered with the system (Refer to section 5.2).

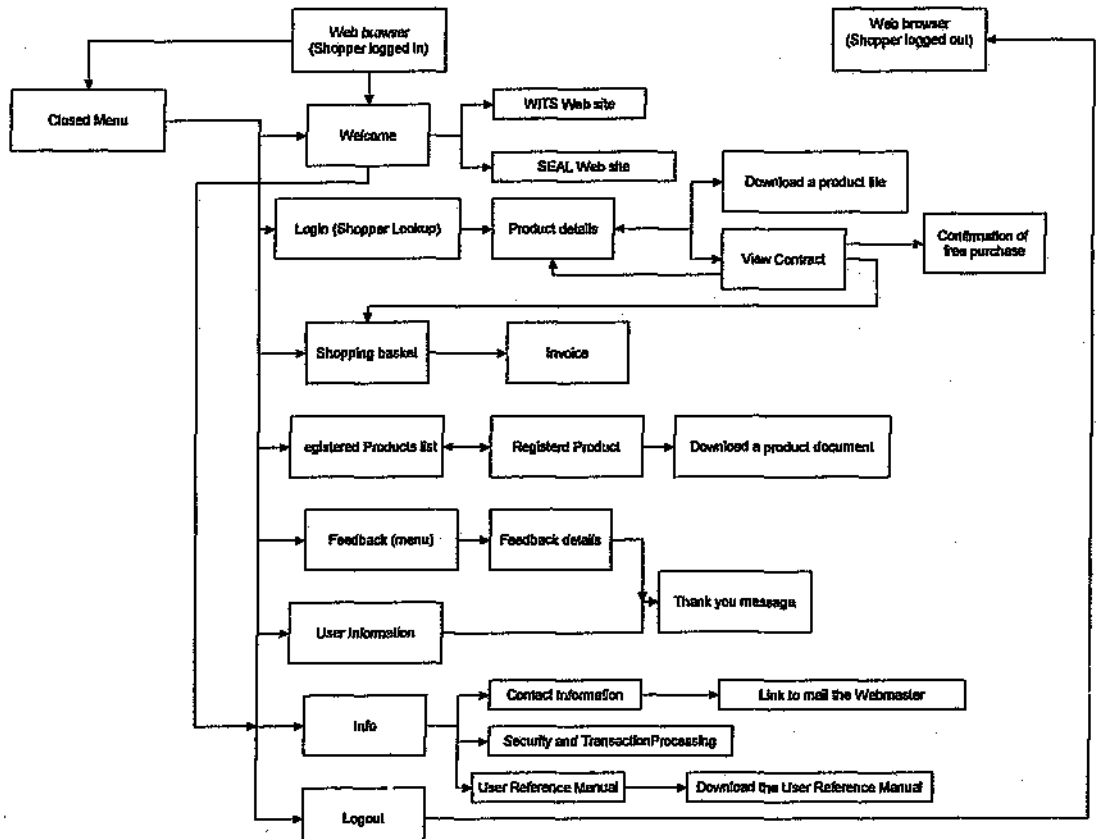
c. Once a user has entered his username and password and been verified by the system, he / she may navigate through all the restricted sections until he / she logs out of or exits the system.

3 System Interface Maps

Shopper Interface: Shopper Logged Out



Shopper Interface: Shopper Logged in



4 Menu bars

4.1 Function

The menu bars serve as the main navigation tool for users of the IS4. The user is presented with a different menu bar depending on whether he / she is or is not logged in to the system. The menu bar (when logged in or logged out) is always present in the left-hand side frame of the web browser. Any selections made from the menu bar is presented to the user as an HTML page in the right hand side frame of the web browser.

A menu bar containing the following options is presented to a user who is not logged in to the application (This menu will be referred to as the 'open menu'):

a. Welcome – refer to section 5.1

b. Login – refer to section 5.2

c. View Products – refer to section 5.3

d. Info – refer to section 5.8

A user who is logged in to the system is presented with the following menu bar (This menu will be referred to as the 'closed menu'):

a. Welcome – refer to section 5.1

b. View products – refer to section 5.3

c. Shopping basket – refer to section 5.4

d. Registered Products – refer to section 5.5

e. Feedback – refer to section 5.6

f. User Information – refer to section 5.7

g. Info – refer to section 5.8

h. Logout – refer to section 5.9

4.2 How to use

In order to select one of the menu bar options, the user must click on the required option with the left mouse button.

4.3 Remarks

None

4.4 Error messages

None

5 Interface Sections

5.1 Welcome

5.1.1 Function

The Welcome section presents an overview of the IS4 and serves as an introductory section when entering the system.

5.1.2 How to use

The section consists of a web page with links to the following web sites or sections within the IS4:

a. The Software Engineering Applications Laboratory's Web site

b. The University of the Witwatersrand's Web site

c. The Information Section of the IS4.

The above mentioned links are in the form of text based HTML links (Refer to section 2.7.3 above)

5.1.3 Remarks

None

5.1.4 Error Messages

There are no error messages in this section.

5.2 Login

5.2.1 Function

The function of the login section is to allow the user to input his / her username and password in order to be verified by the system and be allowed access to the restricted sections of the system. If the user does not have a username and password that has been allocated by the system, he / she may register with the system (by providing contact information) and register a valid username and password pair for accessing restricted sections.

5.2.2 How to use

The login section presents an HTML form (Refer to section 2.7.4 above) requiring the user to enter his / her username and password. If the user has a valid username and password, it can be entered and the "Lookup" button must be pressed. If the user is identified as a valid system user, the closed menu is displayed in place of the open menu and the welcome page is displayed in the right hand side browser frame. If the system cannot verify the user as a valid system user, the user remains in the login section and the relevant error messages are displayed (refer to "Error Messages" below).

If the user does not have a username and password pair to enter (if the user has not registered with the system previously) select the "If you've never been here, click here to sign up" message. This then displays a registration form. This form is a standard HTML form (Refer to section 2.7.4 above). Upon completion of the form, select the "Register" button. This registers the user with the system. The user is then automatically logged into the system. The closed menu is displayed in place of the open menu and the welcome page is displayed in the right hand side browser frame.

5.2.3 Remarks

a. The "Registered Username for software licensing" that is entered when registering with the system is the username that is used when logging in to the system.

b. The registration information that is entered when registering with the system can be modified at a later stage in the "User Information" section (Refer to section 5.7 below). The "Registered Username for software licensing" cannot however be modified.

5.2.4 Error Messages

When logging into the system the following are the possible error messages that may be displayed above the "Shopper Lookup" form:

a. "There is no shopper with that email and/or password. Please try again." – Based on the entered username and password, no user can be verified. This can be due to either the username and / or password being entered incorrectly. Try entering the information again. If the problem persists and the user is a registered user with the system, contact the system administrator as detailed in the "Information" section (refer to section 5.8 below)

b. "You did not provide a value for *<username / password>*. Please try again." – The username and / or password were not entered. Try again and ensure that both the username and password are entered in their respective text boxes.

When registering with the system the following are the possible error messages that may be displayed above the "New Shopper" form:

a. "You entered two different passwords. Please be sure to type the same password twice." – In the two instances where passwords were entered, the entered passwords were different. Attempt to register again and ensure that the two entered passwords are identical.

b. "You did not provide a password. Please be sure to provide a password." – One of the password fields was left empty. Attempt to register again and ensure that identical passwords are entered in both password fields.

c. "You must provide a value for *<<label>>* between 1 and 50 characters long." – One of the required fields was left empty or the entered information was not between 1 and 50 characters in length. Attempt to register again and ensure that valid information is entered in all the required fields.

d. "A shopper with that Registered Username is already registered with this store. Please specify a different Username." – The selected username has already been selected by another user. Attempt to register again and select a different username.

c. "You could not be registered at this time because of a problem at the server. Please try again later." – An unknown error has occurred. Please try again at a later stage. If the problem persists, contact the system administrator as detailed in the "Information" section (refer to section 5.8 below)

5.3 View Products

5.3.1 Function

The "View Products" section allows the user to:

a. View a list of products available for purchasing

b. View details for selected products

c. View the contracts for selected products

d. Download program files for the selected products

e. Add selected products to his / her shopping basket – only if the user is logged in to the system. (Note: If the product is free, the product is not added to the shopping basket. Upon selection to purchase, the user is automatically registered as having purchased the product without it being added to the basket and being paid for.)

5.3.2 How to use

One entering the "View Products" section, a list of available products is displayed as HTML links (See section 2.7.3 above). Selecting one of the products results in the details of the product being displayed.

One the detailed page for a specific product, the major details of the product are displayed followed by buttons which the user can select. Following on the buttons are more specific details about the product. The user has the following options (some in the form of HTML form buttons and others in the form of HTML links):

a. Login (only displayed if the user is not logged in to the system)

b. View Contract

c. Download Files

d. Add to Basket / Purchase

5.3.2.1 Login

Selecting this button results in the Login section being opened (refer to section 5.2 above).

5.3.2.2 View Contract

This selection displays the contract for the respective product. Below the contract is an HTML link. Selecting this link returns the user to the detailed product page.

5.3.2.3 Download Files

Selecting this link results in a table being displayed containing a list of all the files comprising the product. The filename of the product is created as an HTML link and selecting this link causes the selected file to be downloaded.

When a link is selected a box appears giving the user the option to either view the file or to save it to disk. Select the option to save it to disk, then select a directory in which to save the file and then select the "Save" button.

Below the table containing the list of files is an HTML link, which when selected returns the user to the detailed product page.

5.3.2.4 Add to Basket / Purchase

Selecting this link results in the contract for the selected product being displayed. In order for a product to be purchased, the user has to agree with the product's contract.

Below the contract are two buttons, one entitled "I Accept" and the other "I don't accept". If the "I don't accept" button is selected, the product is not permitted to be purchased and the user is returned to the detailed product page.

If the "I Accept" button is selected, the system records that the user agrees to the contract for the product. If the product is free, the user is then registered as having purchased the product, without it first being added to the shopping basket (see section 5.5 below). Otherwise the product is added to the user's shopping basket. The shopping basket is then displayed to the user (Refer to section 5.4)

5.3.3 Remarks

None

5.3.4 Error Messages

If the shopper attempts to purchase a free product without meeting the dependency requirements for the product, an error message is displayed and the shopper is not permitted to purchase the product. Refer to section 2.6.1 above.

5.4 Shopping Basket

5.4.1 Function

The shopping basket contains all of the items that the user wishes to purchase. In the "Shopping Basket" section the user can alter the contents of the basket (change quantities and delete items), return to "View Products" to add additional items to the basket or purchase the contents of the basket.

5.4.2 How to use

The shopping basket is displayed to the user in a tabular format containing the label, quantity, name, unit price and total price for each item.

The user can carry out the following task on the shopping basket:

a. Change item quantities

b. Remove items or empty the basket

c. Add additional items to the basket

d. Purchase the items in the basket

5.4.2.1 Changing item quantities

In order to change the quantity of an item, the quantity number in the basket table must be altered. The quantity number forms part of a standard HTML form (Refer to section 2.7.4 above). Once the user has modified the quantity, the "Update Basket" button must be selected in order to register the altered quantity in the system. Once this is carried out, all the values in the table are updated accordingly.

5.4.2.2 Removing items or emptying the basket

To remove an item from the basket select the "Remove Item" button next to the relevant item. The basket will then be updated and displayed accordingly.

To empty the entire basket contents select the "Empty Basket" button. The basket will be emptied and a relevant message will be displayed in place of the basket.

5.4.2.3 Adding additional items to the basket

To add additional items to the shopping basket, select the "View Products" option in the left-hand side menu bar. This will display the "View Products" section and the user can purchase products as described in section 5.3 above.

5.4.2.4 Purchasing the items in the basket

To purchase the items in the basket select the "Purchase" button. An invoice will then be generated based on the contents of the shopping basket. This invoice is displayed as an HTML page. The shopper is to

print out the invoice and mail the printed invoice along with appropriate payment to the Software Engineering Applications Laboratory.

On receipt of the payment, the SEAL will make the product available to the shopper in the Registered Products section of the system (see section 5.5 below)

5.4.3 Remarks

None

5.4.4 Error Messages

If the shopper attempts to purchase products without meeting the dependency requirements for the respective products, an error message is displayed in the shopping basket. Refer to section 2.6.1 above.

5.5 Registered Products

5.5.1 Function

The Registered Products section displays details about all the products that the user has purchased on the IS4. The section displays information needed to unlock the purchased products for usage. The section also allows the user to add or remove himself / herself from the mailing lists for the respective products. Furthermore the section enables the user to download available documentation for the purchased products.

5.5.2 How to use

On entering the section a list of all the purchased products registered for the specific user is displayed. The products are listed as HTML links. Selecting a link displays the details of the selected product.

The details of a product consist of information necessary to unlock a purchased product (Refer to section 7 below). Below this information are HTML form radio buttons allowing the user to select whether or not to be on the mailing list for the specific product. The default setting is "Yes". If the setting is modified, the "Update" button must be selected in order to modify the mailing list status in the systems database.

Below the "Update" button is a table containing a list of all available documentation for the specific product. The filename of the product is created as an HTML link and selecting this link causes the selected file to be downloaded.

When a link is selected a box appears giving the user the option to either view the file or to save it to disk. Select the option to save it to disk, then select a directory in which to save the file and then select the "Save" button.

Below the table containing the list of files is an HTML link, which when selected returns the user to the list of registered products.

5.5.3 Remarks

None

5.5.4 Error Messages

None

5.6 Feedback

5.6.1 Function

The Feedback section allows the user to provide feedback to the SEAL. The user can select from the following three types of feedback:

a. Customer complaint – this is a general complaint

b. Problem Report – a problem with a specific product

c. Improvement Recommendation – improvements required in a specific product

For each of the above types of feedback, the user can also select the product to which the feedback pertains.

Thereafter the system allows the user to input feedback information and submit it to the system.

5.6.2 How to use

On entering the section the user is presented with a menu allowing him / her to select the type of feedback (in the form of a drop down list) and the product to which the feedback pertains (also in the form of a drop down list). An "Enter" button is presented which allows the user to submit his / her selections. A "Clear" button allows the user to restore the form to its initial state.

After the "Enter" button is pressed, a form is presented to the user containing customised fields based on the type of feedback being provided. The fields in the form must be completed as appropriate. A "Submit" button allows the user to submit the details input in the form. A "Clear" button allows the user to clear the input information and restore the form to its initial state.

Once the "Enter" button is pressed, a thank you message is presented to the user. The user can then continue by selecting one of the options in the menu bar.

5.6.3 Remarks

None

5.6.4 Error Messages

When selecting the type of feedback and the relevant product or after submitting the feedback form, the following are possible error messages that will be displayed above the feedback type and product selection form:

a. You must provide a value for *<label>* - One of the required fields was left empty. Attempt to submit the information again while ensuring that all the required fields are completed appropriately.

b. "Your feedback could not be logged at this time because of a problem at the server. Please try again later." – An unknown error has occurred. Please try again at a later stage. If the problem persists, contact the system administrator as detailed in the "Information" section (refer to section 5.8 below)

5.7 User Information

5.7.1 Function

The User Information section is used to update the contact information provided in the Login section (see section 5.2 above). All information can be modified except for the username used to license the products and used to login to the store.

5.7.2 How to use

On entering the User Information section, the user is presented with an HTML form containing all of his / her data. Any of these items (except for the username) can be modified. The password must be entered even if it

is not being modified (in this case enter the current password as the old and new password).

Once all the information has been modified accordingly and the password entered in the relevant fields, the "Update" button below the form must be pressed. This will result in the updated information being stored in the system. A thank you message will be presented to the user. The user can then continue by selecting the required option from the menu bar.

5.7.3 Remarks

None

5.7.4 Error Messages

The following are possible error messages that will be displayed above the User Information form:

a. The password you provided was not correct. Please be sure to type the correct password. – The old password that was entered was not correct. Enter the old password again and ensure that it is entered correctly.

b. You entered two different passwords. Please be sure to type the same password twice. – The two instances of the new password were entered differently. Enter the new password again (twice) and ensure that both the instances are the same.

c. You did not provide a password. Please be sure to provide a password. – A new password was not entered. Enter the new password again (twice) and ensure that both the instances are the same.

d. You did not provide a *<label>*. Please be sure to provide a < label>. – One of the required fields was left empty. Complete the form again and ensure that all required information is present.

e. You are already registered with the IS4. You have been redirected to the Shopper Update page to update your information. - This is a message displayed to a user who selects to register as a new user when he / she is already logged in to the system (and therefore already registered as a user). This message indicates to such a user that he / she has not been presented with the form to register as a new user but rather been displayed with a form to update his / her current information.

5.8 Information

5.8.1 Function

The Information section provides information to users concerning the IS4.

The following information sub-sections are provided:

a. IS4 User Reference Manual – An on-line User Reference Manual for using the IS4 as well as a Microsoft W rd downloadable version

b. IS4 Security and Transaction Processing – Information regarding the security of the IS4 as well as the transaction processing mechanism used by the system

c. IS4 Contact Information – Information for contacting the IS4 manager and administrator.

5.8.2 How to use

When the Information section is selected a list is displayed containing HTML links to the sub-sections as details in the section above. Selecting one of these links results in the display of the sub-section's information as follows:

5.8.2.1 User Reference Manual

The shopper is presented with a link to download the User Reference Manual in Word 97 format. When the link is selected a box appears giving the user the option to either view the file or to save it to disk. Select the option to save it to disk, then select a directory in which to save the file and then select the "Save" button.

The shopper is also presented with the User Reference Manual on the web site in HTML format.

5.8.2.2 Security and Transaction Processing

Information is presented to the shopper regarding the security and transaction processing of the IS4.

5.8.2.3 Contact Information

The contact details of the IS4 Manager and Administrator are presented.

5.8.3 Remarks

None

5.8.4 Error Messages

None

5.9 Logout

5.9.1 Function

The Logout section logs the user out of the restricted area of the system and returns the user to the open access area.

5.9.2 How to use

Select the "Logout" button in the left hand side menu bar (refer to section 4 above)

5.9.3 Remarks

None

5.9.4 Error Messages

None

6 Transaction Processing and Security

Due to the financial nature of the IS4, security of the system and of the transaction processing mechanism has been a major concern since the conception of the system. Security has been designed into the system from the start.

A username and password pair that is selected by each user respectively protects all relevant sections of the IS4. The username, password and all other system information transmitted over the Internet is, is transmitted in an encrypted format.

The server itself on which the IS4 is located is situated behind a firewall and security precautions have been implemented to prevent unauthorised access to any information stored on the server.

Currently all transaction processing occurs outside the Internet based system, with the customer paying for purchases with cheques. The cheques are posted to the IS4 Manager. Once the cheque has been cleared, the purchased good are made available to the customer via the IS4.

In the near future the IS4 will make use of an implementation of the Secure Electronics Transactions (SET) standard for transaction processing. "Visa and MasterCard have jointly developed the Secure Electronic Transaction (SET) protocol as a method to secure payment card transactions over open networks. SET is being published as an open specification for the industry. This specification is available to be applied to any payment service and may be used by software vendors to develop applications. Advice and assistance in the development of this specification have been provided by GTE, IBM, Microsoft, Netscape, RSA, SAIC, Terisa, and VeriSign" [Secure Electronic Transaction Specification, Book 1 Business Description, Version 1.0, May 31 1997.]

With the SET standard implemented in the IS4, credit cards will be used for purchases. The credit card information input by a customer will however only be accessible to the banking institutions approving the transactions. The credit card information is highly encrypted during transmission between the banking institution and the customer. The merchant does not have access to the customer's credit card details and the credit card information cannot therefore be stored on the IS4 server.

6.1 Security precautions to be followed

Due to the shopper having access to his / her private information on the IS4, certain precautions are to be followed by the shopper in order to prevent unauthorised people from logging into the system and accessing this information.

a. The username and password selected by the shopper must be remembered by the shopper and must not be divulged to anyone. It is preferable not to store this information, but if necessary, this information must be stored in a secure location.

b. The password selected should be longer than 4 characters in length and should be a combination of numbers and letters. The password should not be an actual English word.

c. Log out of the IS4 after using the system.

d. After using the IS4, the shopper must clear the history of Web pages accessed that is stored by the web browser. This is particularly important if a publicly accessible web browser is used. (Refer to the Web browser's documentation for details on carrying out this task.)

e. The cache of web pages stored by the web browser must be cleared after using the IS4. This is particularly important if a publicly accessible web browser is used. (Refer to the Web browser's documentation for details on carrying out this task.)

7 Product Unlocking

All products available via the IS4 use the following mechanism for locking of the product and for preventing it's unauthorised usage, while still making the product easily available to authorised users.

The products are freely downloadable as described in section 5.3.2.3 above. The products can then be installed and run as described in the documentation for the respective products.

Prior to product purchase and registration each product can be run in a limited functionality mode. In order to unlock a product for use with full functionality, the product must first be purchased as described in section 5.4.2.4 above. Once a product has been purchased, it will be listed and its details will be available in the Registered Products section of the IS4 (see section 5.5 above) Contained in this section will be details necessary to unlock each of the purchased products respectively. Also available in this section will be the products' documentation available for downloading.

Each product contains a registration window (refer to the product's documentation) allowing the user to register the product. The registration window contains text boxes requiring the following information:

a. Registered Name

b. Copy number

c. Encryption key

The above three pieces of information must be read from the IS4's Registered Products section and typed into the relevant text boxes. The product will then be unlocked for full usage.

Note: The registration procedure need only be carried out once on a particular product.



QSI

Is4 Manager User Reference Manual

Technical Product

Version 1.00

Document Status: Approved

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Change History

Configuration Control

Project:	QSI
Title:	Manager Reference Manual
Doc. Reference:	C:\QSI\TP\SOFTWARE\QSI211.001.DOC
Created by:	B.Braude
Creation Date:	12 January 1998

Document History

Version	Date	Status	Who	Saved as:
0.01	98\01\12	Draft	BB	qsi211.001
1.00	98\06\02	Approved	BB	Qsi211.100.doc

Revision History

Version	Date	Changes
0.01	98\01\12	Created document using QST32430.100
1.00	98\06\02	Document approved

Management Authorisation

Version	Date	Status	Management Board Minute Reference
1.00	98\06\02	Approved	QSI 2053 section 2.4

Change Forecast

1 Scope

1.1 Introduction

The IS4 (Internet System for the Supply and Support of Software) is a system used by the Software Engineering Applications Laboratory (SEAL) for the supply and support of SEAL software products. The IS4 is an Internet based system allowing the user to view and purchase products. The user is also given the functionality to obtain the product and its documentation via the Internet. The system contains an interface allowing a store manager to administer the system. The interface allows the manager to view, edit, add and remove shoppers and products and also to monitor purchases, feedback and events.

1.2 Purpose

This document serves as a User Reference Manual for the manager interface of the IS^4 system.

1.3 Applicability

This document is applicable to the QSI project. This document serves as a User Reference Manual for the IS4 manager and does not discuss the use of the shopper interface. Details regarding shopper features and procedures have been excluded from this document.

1.4 Definitions

URM: User Reference Manual

SEAL: Software Engineering Applications Laboratory

IS^4 - Internet System for the Supply and Support of Software

1.5 Audience

- The manager for this project
- The developer(s) on this project
- Individuals who perform 2nd and 3rd party surveillance on SEAL QMS.

- Full-time members of SEAL Management Board.

1.6 Applicable Documents

1.6.1 Specifications

1.6.2 Standards

a. SEAL QMS Document Layout, Presentation and Typesetting Guide, QS 003, Revision 0.01, 1 April 1994

1.6.3 Procedures

1.6.4 Guidelines

1.6.5 Other Documents

1.7 Assumptions

1.8 Requirements Traceability

ISO 9001(1994) 4.4 Design Control

2 Introduction

2.1 Background

The IS4 manager interfaces serves as a back-end interface for monitoring and maintaining the IS4 system. The interface allows the system manager to add products to the system and to edit and remove products thereafter. The system also allows for the maintenance of product artefacts such as product files and documentation. The system allows the manager to add and edit shoppers and allows for the receiving of feedback from shoppers. The interface also allows the manager to communicate with the shoppers via an e-mail interface. All transactions carried out using the system may be monitored using the manager interface.

2.2 Features

a. The system provides secure on-line purchasing of software products

b. The system complies with all applicable ISO and IEC standards relating to the supply and support of software.

c. The manager interface allows for the monitoring and maintenance of all issues relating to the system

2.3 Hardware Requirements

a. The IS4 web server as detailed in QSI 232, IS4 High Level Design 1 – System and Database.

2.4 Software Requirements

a. Microsoft Internet Explorer version 3 or above.

2.5 Getting Started

a. Load the Web browser (refer to the specific browser's instructions)

b. Access the secure URL: https://is4.seal.ac.za/ssoft_mgr/default.asp (refer to the browser's instructions)

c. The user will now be viewing the main menu page for the IS^4 manager interface.

2.6 User Interface Terminology

2.6.1 Product Dependencies

a. Certain software products are only available for purchasing by a user, if the user already owns another software products. This would be best illustrated in the case of a version upgrade of a particular software product. The upgrade of the product would only be purchasable if the user already owns the previous version of the product. If the user did not own a previous version, the user would have to purchase the full product in the new version.

b. The dependencies of a particular product are listed below each product when purchasing.

2.6.2 Mailing lists

Mailing lists are lists that the IS4 webmaster / SEAL webmaster uses to send e-mail messages to a list of people. Users can add or remove themselves from the mailing lists in the shopper interface (refer to QSI 210, User Reference Manual). In the IS4 the following mailing lists exit:

a. A list containing all users who have registered with the IS4.

b. A list containing all users who have purchased products

c. A separate list for each product available on the IS4.

2.7 Application Window

2.7.1 HTML Page (web page)

A web page is the interface that is used to interact with the IS4 system. The web page is made up of HTML and is viewed over the Internet using a standard Web browser.

2.7.2 Browser controls

a. Browser controls are the controls that form part of the web browser used to access the IS4 User Interface.

b. Refer to the Browser instructions or help for information on the browser controls.

2.7.3 HTML links

a. HTML links are controls in the Web page than when selected will display the selected item.

b. HTML links are indicated by BLUE or RED underlined text. Also images having a BLUE or RED border indicate an http link.

c. A BLUE border indicates that the user has not yet visited the destination link.

d. A RED border indicates that the destination link has been visited by the user.

e. Some of the images that form part of an HTML link are not colour codes. If one moves the mouse cursor over an http link, the cursor changes to a hand. This can be used to help identify http links.

f. To select a link click once with the left mouse button over the link.

2.7.4 Forms

a. Forms on a web site are a means for the user to input information into the system.

b. The user inputs in the form appropriately using the text boxes, check boxes, radio buttons and drop down lists. Text boxes are either single or multiple line boxes in which the user types text using the keyboard. Check boxes are small boxes that when clicked on using the left mouse button, places a small "X" in the box. This is used for selecting or de-selecting a specific option. Radio buttons operate in the same way as check boxes except that a round holder is used in place of a square one and also a black dot is used in place of the "X". Drop down lists are lists that drop down when the list is selected using the left mouse button. Drop down lists can be differentiated from text boxes by the arrow that is present on the right hand side of each drop down list. Once the list has dropped down the user can select an option by either moving down with the arrow keys or by selecting the required option with the mouse. Thereafter the drop down list closes with the selected option visible.

c. In order to move from one box to the next, either the TAB key is used or each field can be individually selected using the left mouse button.

d. If a user wishes to return to a field to modify information (before submitting it) the user can click on the field with the left mouse button and thereafter retype in the information.

e. When the user has completed the form there are either one or two button (see 2.7.5 below) options:

   i. Submit - this is used to submit the information into the system. This button is present in all forms. The button may be named differently in each form but the text indicates that this button is used to submit the entered information.

   ii. Clear - this is used to clear the form and restart. This button is not present in all forms.

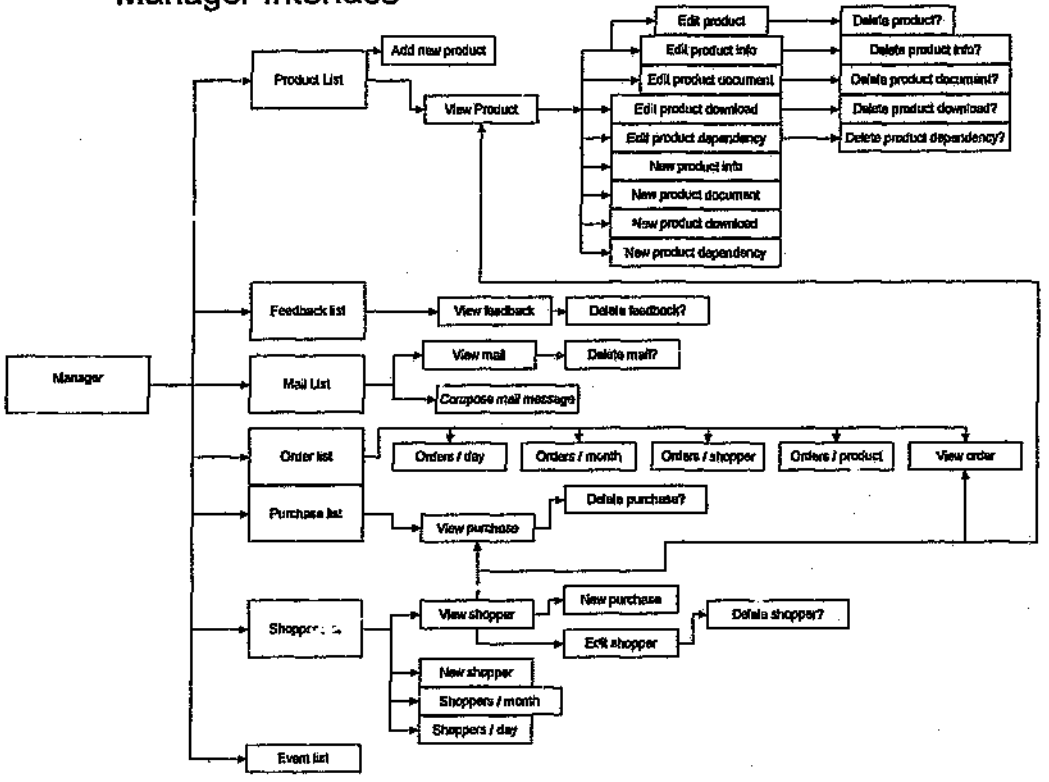
2.7.5 Buttons

a. Buttons function either as a html link (refer to 2.7.3 above), as a form button (refer to 2.7.4 above) or to control other processes. The exact task of each button is indicated where applicable in this document.

b. A button is operated by clicking the left mouse button once over the button.

3 System Interface Maps

Manager Interface



4 Footer bar

4.1 Function

The footer bar serves as the main navigation tool for users of the IS4 manager interface. The footer bar is always present at the bottom of the web page in the web browser. Any selection made from the footer bar is presented to the user as an HTML page.

The footer bar contains the following options:

a. Manager

b. Products

c. Feedback

d. Mail

e. Orders

f. Purchased Products

g. Shoppers

h. Events

4.2 How to use

In order to select one of the footer bar options, the user must click on the required option with the left mouse button.

4.3 Remarks

None

4.4 Error messages

None

5 Interface Sections

5.1 Manager

5.1.1 Function

The Manager section serves as the main menu section for the IS4 Manager Interface. From this section the user can select to enter any of the other sections in the Manager Interface. Furthermore the store manager can use this interface to close or reload the store. The manager is also presented with a link allowing him/her to access the Shopper Interface of the IS4.

5.1.2 How to use

The Manager section consists of HTML links (refer to section 2.7.3 above) or form buttons (refer to section 2.7.4 above) in a tabular format. The user must select the required option by clicking on it with the left mouse button.

If a Manager Interface section is selected, this section is then displayed (refer to the respective sections below).

If the user selects to close (or open) the store, the store status is changed and the selection button ("Open Store") is reversed (to "Close Store").

Selection of "Reload Store" results in the store being reloaded from the database and the Manager section of the Manager Interface is reloaded.

If the user selects to "Shop", the IS4 Shopper Interface is displayed to the store manager.

5.1.3 Remarks

None

5.1.4 Error Messages

None

5.2 Products

5.2.1 Function

The Products Section lists all the products in the system. The section allows for the addition and deletion of products.

The IS4 manager can view a product's details as well as the details of the product's entities (Information items, documentation, downloads and dependencies). The user can edit the product as well as any of its entities. Furthermore entities can be added or deleted.

5.2.2 How to use

On entering the Products Section the user is presented with a list of the products in the system. A drop down list is presented allowing the user to select the criterion for which to order the items. If the criterion is changed the user must press the "Update" button. This results in the products being re-listed based on the selected criterion.

5.2.2.1 Adding a new product

The user can select to add a new product by selecting the "Add New Product" HTML link. This results in an HTML form being displayed allowing the user to enter details for a new product. All the details must be entered as normal text in the text boxes. Where applicable drop down lists or radio buttons are presented. In these cases the user must select the appropriate option. Note: When entering the contract in the relevant field, the text must be formatted by included HTML tags within the text box (such as bold and / or line breaks).

Once all the information has been entered the "Add Product" button must be selected which results in the product being added to the system and the list of products being displayed.

Once the product has been added, the product image file must be copied into the correct directory as defined in section 5.2.2.8 below.

5.2.2.2 Viewing a product's details

In order to view a product's details the HTML link for the respective product listed must be selected. This results in an HTML page being displayed containing the product details as well as lists of the product's entities.

5.2.2.3 Editing a product

To edit the product details the "Edit Product" HTML link must be selected at the top of the page containing the product details (refer to section 5.2.2.2 above). This results in a form being displayed allowing the user to edit the product details. All the details must be entered as normal text in the text boxes. Where applicable drop down lists or radio buttons are presented. In these cases the appropriate option must be selected. Note:

When entering the contract in the relevant field, the text must be formatted by included HTML tags within the text box (such as bold and / or line breaks).

Once the product details have been edited the "Update Product" button at the bottom of the page must be selected.

If the details regarding the product image have been edited, the product image file must be copied into the correct directory as defined in section 5.2.2.8 below.

5.2.2.4 Deleting a product

From the list of products in the system the HTML link for the product required to be deleted must be selected. Thereafter the user must select to edit the product (refer to section 5.2.2.3 above). At the bottom of the form used to edit the product is a button marked "Delete Product". This button must be selected.

The user is then prompted whether he / she is sure that he /she wishes to delete the product and all entities related to the product. If "Delete" is selected, the product will be deleted and the updated list of products will be displayed. Alternatively the user can move back using the web browser controls in order not to delete the product.

Once the product has been deleted the product image file and all the product entities must be deleted from the directories as defined in section 5.2.2.8 below.

5.2.2.5 Adding a product entity

In order to add a product entity the required HTML link on the product details page (refer to section 5.2.2.2 above) must be selected. This results in an HTML form being displayed allowing the user to enter details for the entity. Thereafter the "Add" button must be pressed in order to add the entity to the product. The updated product details page is then displayed. If the entity being added is a product download or document, the actual file added must be copied into the correct system directory as defined in section 5.2.2.8 below.

5.2.2.6 Viewing or editing a product entity

Depending on the entity type, the user will be allowed to either view or edit the entity. The entities are listed on the product details page (refer to

section 5.2.2.2 above). The HTML link for the required entity must be selected. This results in an HTML page being displayed containing the entity details. If editing is allowed, the user may change the displayed data. The "Update" button must then be selected in order to update the entity details. The user will then be returned to the product details page. If updating is not required or permitted, the user must use the web browser controls to move back to the product details page.

If the entity updated is either a product document or download, the product files must be copied into the correct system directories as defined in section 5.2.2.8 below if necessary.

5.2.2 7 Deleting a product entity

In order to delete an entity, the user must select to edit the entity as described in section 5.2.2.6 above. At the bottom of the entity page a delete button is presented. Selection of this button results in the display of a prompt. The user is prompted whether he / she is sure that he /she wishes to delete the entity. If the "Delete" button is selected, the entity will be deleted and the product details page will be displayed. Alternatively the user can move back using the web browser controls in order not to delete the entity.

If the product entity deleted is either a document or download the actual file must be deleted from the system as defined in section 5.2.2.8 below.

5.2.2.8 Product entity directories

The following are the system directories used to store the files used by the IS4. The necessary files must be copied into the directories detailed below.

Type of file	HTML URL	Actual directory on the IS4
Image	/SSOFT_assets/product_images/	C:\Microsoft Commerce Server\Stores\SSOFT\Assets\product_images\
Download	/SSOFT_assets/downloads/	C:\Microsoft Commerce Server\Stores\SSOFT\Assets\downloads\
Document	/SSOFT_assets/documents/	C:\Microsoft Commerce Server\Stores\SSOFT\Assets\documents\

5.2.3 Remarks

None

5.2.4 Error Messages

When adding or editing a product or one of its entities, if a required piece of information is not entered or is not within the required range, an error message is displayed indicating such. The addition or editing function is then not carried out. The user must go back to the form using the web browser controls and rectify the indicated errors.

5.3 Feedback

5.3.1 Function

The Feedback Section lists all the feedback items received from shoppers. The interface allows the manager to select criteria for which to list feedback items.

The IS4 manager can view a selected feedback item's details. While viewing the details of a selected feedback item the user can link to either the Shoppers or Products section to view details about the shopper or product to which the feedback pertains. The user is given the option to delete a feedback item.

5.3.2 How to use

On entering the Feedback Section the user is presented with a list of the feedback items in the system based on default criteria. Drop down lists are presented allowing the user to select criteria (time period, product and sort order) for which to list the items. If the criteria are changed the user must press the "Update" button. This results in the feedback items being re-listed based on the selected criteria.

5.3.2.1 Viewing a feedback item's details

In order to view a feedback item's details the HTML link for the respective feedback item listed must be selected. This results in an HTML page being displayed containing the feedback details. The shopper ID and the product ID listed as part of the feedback details are listed as HTML links. In order to view details about the shopper or product to which the feedback pertains, the respective HTML link must be selected.

5.3.2.2 Deleting a feedback item

From the list of feedback items in the system, the HTML link for the item required to be deleted must be selected. This will result in the feedback item's details being displayed (refer to section 5.3.2.1 above). Below the feedback item's details is a button marked "Delete Feedback". This button must be selected.

The user is then prompted whether he / she is sure that he /she wishes to delete the feedback item. If "Delete" is selected, the feedback item will be deleted and the updated list of feedback items will be displayed (refer to section 5.3.2 above). Alternatively the user can move back using the web browser controls in order not to delete the feedback item.

5.3.3 Remarks

None

5.3.4 Error Messages

None

5.4 Mail

5.4.1 Function

The Mail Section lists all the mail items sent to shoppers. The interface allows the manager to select criteria for which to list the mail items.

The IS4 manager can view a selected mail item's details and delete the item if required.

The Mail section allows the manager to compose a mail message and send it to a selected group of registered shoppers.

5.4.2 How to use

On entering the Mail Section the user is presented with a list of the mail items in the system based on default criteria. Drop dowr. lists are presented allowing the user to select criteria (time period, mail group and sort order) for which to list the items. If the criteria are changed the "Update" button must be pressed. This results in the mail items being re-listed based on the selected criteria.

5.4.2.1 Sending a new message

The user can select to send a mail message by selecting the "New Message" HTML link. This results in an HTML form being displayed allowing the user to enter details for a new message. All the details must be entered as normal text in the text boxes. Where applicable drop down lists or radio buttons are presented. In these cases the user must select the appropriate option.

Once all the information has been entered the "Send Mail" button must be pressed which results in the message being sent and the list of mail items being displayed.

5.4.2.2 Viewing a mail item's details

In order to view a mail item's details the HTML link for the respective mail item listed must be selected. This results in an HTML page being displayed containing the mail item's details.

5.4.2.3 Deleting a mail item

From the list of mail items in the system the HTML link for the item required to be deleted must be selected. This will result in the mail item's details being displayed (refer to section 5.4.2.2 above). Below the mail item's details is a button marked "Delete Mail item". This button must be selected.

The user is then prompted whether he / she is sure that he /she wishes to delete the mail item. If "Delete" is selected, the mail item will be deleted and the updated list of mail items will be displayed (refer to section 5.4.2 above). Alternatively the user can move back using the web browser controls in order not to delete the mail item.

5.4.3 Remarks

None

5.4.4 Error Messages

When composing a new mail message, if the recipients and a message body are not entered, the mail message is not sent and the user is redirected to the mail composition form (refer to section 5.4.2.1 above). An error message indicating the error is displayed above the form. The mail message must be recomposed and the user must ensure that all the required fields are entered.

5.5 Orders

5.5.1 Function

The Orders Section lists orders received from shoppers. The interface allows the manager to select criteria for which to list the orders. From this list the manager can select to view the details of a selected order and approve selected orders as paid for.

Furthermore the manager can select to view order statistics per shopper, per product, per day or per month.

5.5.2 How to use

On entering the Orders Section the user is presented with a list of the orders in the system based on default criteria. Drop down lists are presented allowing the user to select criteria (time period, sort order and paid for status) for which to list the items. If the criteria are changed the "Update" button must be pressed. This results in the orders being re-listed based on the selected criteria.

5.5.2.1 Viewing an order's details and approving the order

In order to view an order's details the HTML link for the respective order listed must be selected. This results in an HTML page being displayed containing the order's details. If the order has not been registered as paid for, a button is present on the order form allowing the manager to register the order. Pressing of the button results in the status of the order being changed to "paid" and all the items in the order being registered as purchased products for the shopper.

5.5.2.2 Viewing orders per day

In order to view statistics relating to the orders received per day of the month the relevant HTML link at the top of the orders list page must be selected (refer to section 5.5.2 above). This results in an HTML page being displayed containing statistics per day of the month relating to orders received in the current month. Drop down lists are presented allowing the user to select a different month for which to list the statistics. If the criteria are changed the "Update" button must be pressed. This results in the statistics being re-listed based on the selected criteria.

5.5.2.3 Viewing orders per month

In order to view statistics relating to the orders received per month of the year the relevant HTML link at the top of the orders list page must be selected (refer to section 5.5.2 above). This results in an HTML page

being displayed containing statistics per month of the year relating to orders received in the current year. Drop down lists are presented allowing the user to select a different year for which to list the statistics. If the criteria are changed the "Update" button must be pressed. This results in the statistics being re-listed based on the selected criteria.

5.5.2.4 Viewing orders per product

In order to view statistics relating to the orders received per product in a specific month the relevant HTML link at the top of the orders list page must be selected (refer to section 5.5.2 above). This results in an HTML page being displayed containing statistics per product relating to orders received in the current month. Drop down lists are presented allowing the user to select a different month for which to list the statistics. If the criteria are changed the "Update" button must be pressed. This results in the statistics being re-listed based on the selected criteria.

5.5.2.5 Viewing orders per shopper

In order to view statistics relating to the orders received per shopper in a specific month the relevant HTML link at the top of the orders list page must be selected (refer to section 5.5.2 above). This results in an HTML page being displayed containing statistics per shopper relating to orders received in the current month. Drop down lists are presented allowing the user to select a different month for which to list the statistics. If the criteria are changed the "Update" button must be pressed. This results in the statistics being re-listed based on the selected criteria.

5.5.3 Remarks

The orders listed are only for orders where goods have actually been purchased and transaction processing has been carried out. Goods purchased with zero cost are not recorded as an order and must be viewed in the Purchased Products section.

5.5.4 Error Messages

None

5.6 Purchased Products

5.6.1 Function

The Purchased Products Section lists the products that have been purchased by the respective shoppers. The interface allows the manager to select criteria for which to list the purchased products. From this list the manager can select to view the details of a selected purchase.

Furthermore the manager can update details relating to a purchase as well as delete a purchase.

5.6.2 How to use

On entering the Purchased Products Section the user is presented with a list of the purchased products based on default criteria. Drop down lists are presented allowing the user to select criteria (time period, product purchased and sort order) for which to list the items. If the criteria are changed the "Update" button must be pressed. This results in the purchased products being re-listed based on the selected criteria.

5.6.2.1 Viewing and / or editing a purchased product's details

In order to view and / or edit a purchased product's details the HTML link for the respective purchased product listed must be selected. This results in an HTML page being displayed containing the purchased product's details.

The mailing list status for the shopper for the particular product may be edited. If the status is changed (by selecting the appropriate radio button) the "Update Purchase" button must be selected. This results in the mailing list status being modified and the purchased product's updated details being displayed.

5.6.2.2 Deleting a purchased product item

From the list of purchased products in the system, the HTML link for the item required to be deleted must be selected. This will result in the purchased product's details being displayed (refer to section 5.6.2.1 above). Below the purchased product's details is a button marked "Delete Purchase". This button must be selected.

The user is then prompted whether he / she is sure that he /she wishes to delete the purchased product. If "Delete" is selected, the record of the product purchase will be deleted and the updated list of purchased products will be displayed (refer to section 5.6.2 above). Alternatively the

user can move back using the web browser controls in order not to delete the purchased product.

5.6.3 Remarks

None

5.6.4 Error Messages

None

5.7 Shoppers

5.7.1 Function

The Shoppers Section lists all the shoppers in the system. The user can select criteria for which to list shoppers. The section allows for the addition and deletion of shoppers.

The IS4 manager can view a shopper's details as well as the details of the shopper related entities (shopping basket, receipts and purchased products). The user can edit the shopper's details as well as add, delete and edit purchases for the shopper.

Furthermore the manager can view statistics for the shoppers signed up each day in a selected month or each month in a selected year.

5.7.2 How to use

On entering the Shoppers Section the user is presented with a list of the shoppers in the system based on default criteria. A drop down list is presented allowing the user to select the criteria for which to list shoppers (month of registration and order). If the criteria are changed the user must press the "Update" button. This results in the shoppers being re-listed based on the selected criteria.

5.7.2.1 Adding a new shopper

The user can select to add a new shopper by selecting the "Add New Shopper" HTML link. This results in an HTML form being displayed allowing the user to enter details for a new shopper. All the details must be entered as normal text in the text boxes. Where applicable drop down lists or radio buttons are presented. In these cases the user must select the appropriate option.

Once all the information has been entered the "Register" button must be selected which results in the shopper being added to the system and the list of shoppers being displayed.

5.7.2.2 Viewing a shopper's details

In order to view a shopper's details the HTML link for the respective shopper listed must be selected. This results in an HTML page being displayed containing the shopper's details as well as lists of the shopper's entities.

5.7.2.3 Editing a shopper's details

To edit the shopper's details the "Edit Shopper" HTML link must be selected at the top of the page containing the shopper's details (refer to section 5.7.2.2 above). This results in a form being displayed allowing the user to edit the shopper's details. All the details must be entered as normal text in the text boxes. Where applicable drop down lists or radio buttons are presented. In these cases the appropriate option must be selected.

Once the shopper's details have been edited the "Update Shopper" button at the bottom of the page must be selected. This results in the shopper's details being updated in the system and the shopper's detail page being displayed.

5.7.2.4 Deleting a shopper

From the list of shoppers in the system, the HTML link for the shopper required to be deleted must be selected. Thereafter the user must select to edit the shopper's details (refer to section 5.7.2.3 above). At the bottom of the form used to edit the shopper's details is a button marked "Delete Shopper". This button must be selected.

The user is then prompted whether he / she is sure that he /she wishes to delete the shopper and all entities related to the shopper. If "Delete" is selected, the shopper will be deleted and the updated list of shoppers will be displayed. Alternatively the user can move back using the web browser controls in order not to delete the shopper.

5.7.2.5 Viewing or editing a shopper entity

Depending on the entity type, the user will be allowed to either view or edit the entity. The entities are listed on the shopper details page (refer to section 5.7.2.2 above). The HTML link for the required entity must be selected. This results in an HTML page being displayed containing the

entity details. If editing is allowed, the user may change the displayed data. The "Update" button must then be selected in order to update the entity details. The user will then be returned to the shopper details page. If updating is not required or permitted, the user must use the web browser controls to move back to the shopper details page.

5.7.2.6 Deleting a shopper entity

In order to delete an entity, the user must select to edit the entity as described in section 5.7.2.5 above. At the bottom of the entity page a delete button is presented. Selection of this button results in the display of a prompt. The user is then prompted whether he / she is sure that he /she wishes to delete the entity. If the "Delete" button is selected, the entity will be deleted and the shopper details page will be displayed. Alternatively the user can move back using the web browser controls in order not to delete the entity.

5.7.2.7 Adding a shopper purchase

In order to add a shopper purchase the "Add Purchase" HTML link on the shopper details page (refer to section 5.7.2.2 above) must be selected. This results in an HTML form being displayed allowing the user to select which product to register the shopper as having purchased. Thereafter the "Add Purchase" button must be pressed in order to add the product to the shopper's purchases. The updated shopper details page is then be displayed.

5.7.2.8 Viewing shoppers per day

In order to view statistics relating to the shoppers registered in a specific month the relevant HTML link at the top of the shoppers list page must be selected (refer to section 5.7.2 above). This results in an HTML page being displayed containing statistics per day relating to shoppers registered with the system. Drop down lists are presented allowing the user to select a different month for which to list the statistics. If the criteria are changed the "Update" button must be pressed. This results in the statistics being re-listed based on the selected criteria.

5.7.2.9 Viewing shoppers per month

In order to view statistics relating to the shoppers registered in a specific year the relevant HTML link at the top of the shoppers list page must be selected (refer to section 5.7.2 above). This results in an HTML page being displayed containing statistics per month relating to shoppers registered with the system. Drop down lists are presented allowing the user to select a different year for which to list the statistics. If the criteria

are changed the "Update" button must be pressed. This results in the statistics being re-listed based on the selected criteria.

5.7.3 Remarks

None

5.7.4 Error Messages

When adding or editing a shopper, if a required piece of information is not entered or is not within the required range, an error message is displayed indicating such. The addition or editing function is then not carried out. The user must go back to the form using the web browser controls and rectify the indicated errors.

5.8 Events

5.8.1 Function

The Events Section lists events that have been incurred by shoppers interacting with the shopper interface. The interface allows the manager to select criteria for which to list the events. From this list the manager can select to view the details of the shopper that incurred the event.

5.8.2 How to use

On entering the Events Section the user is presented with a list of events based on default criteria. Drop down lists are presented allowing the user to select criteria (time period, page viewed, sort order and whether the shopper must have been logged in or not) for which to list the items. If the criteria are changed the "Update" button must be pressed. This results in the events being re-listed based on the selected criteria.

Where applicable, the shopper ID of the shopper that caused the event is created as an HTML link. Selecting this link results in the display of the shopper's details (refer to section 5.7.2.2 above)

5.8.3 Remarks

None

5.8.4 Error Messages

None

6 Transaction Processing and Security

Due to the financial nature of the IS4, security of the system and of the transaction processing mechanism has been a major concern since the conception of the system. Security has been designed into the system from the start.

A username and password pair that is selected by each user respectively protects all relevant sections of the IS4. The username, password and all other system information transmitted over the Internet is, is transmitted in an encrypted format.

The server itself on which the IS4 is located is situated behind a firewall and security precautions have been implemented to prevent unauthorised access to any information stored on the server.

Currently all transaction processing occurs outside the Internet based system, with the customer paying for purchases with cheques. The cheques are posted to the IS4 Manager. Once the cheque has been cleared, the purchased good are made available to the customer via the IS4.

In the near future the IS4 will make use of an implementation of the Secure Electronics Transactions (SET) standard for transaction processing. "Visa and MasterCard have jointly developed the Secure Electronic Transaction (SET) protocol as a method to secure payment card transactions over open networks. SET is being published as an open specification for the industry. This specification is available to be applied to any payment service and may be used by software vendors to develop applications. Advice and assistance in the development of this specification have been provided by GTE, IBM, Microsoft, Netscape, RSA, SAIC, Terisa, and VeriSign" [Secure Electronic Transaction Specification, Book 1 Business Description, Version 1.0, May 31 1997.]

With the SET standard implemented in the IS4, credit cards will be used for purchases. The credit card information input by a customer will however only be accessible to the banking institutions approving the transactions. The credit card information is highly encrypted during transmission between the banking institution and the customer. The merchant does not have access to the customer's credit card details and the credit card information cannot therefore be stored on the IS4 server.

6.1 Security precautions to be followed

Due to the store manager having access to critical information on the IS4, certain precautions are to be followed in order to prevent unauthorised people from logging into the system and accessing this information.

a. The username and password selected by the manager must be remembered and must not be divulged to anyone. It is preferable not to store this information, but if necessary, this information must be stored in a secure location.

b. The password selected should be longer than 4 characters in length and should be a combination of numbers and letters. The password should not be an actual English word.

c. Close the Web browser after using the IS4.

d. After using the IS4, the manager must clear the history of Web pages accessed that is stored by the web browser. This is particularly important if a publicly accessible web browser is used. (Refer to the Web browser's documentation for details on carrying out this task.)

e. The cache of web pages stored by the web browser must be cleared. This is particularly important if a publicly accessible web browser is used. (Refer to the Web browser's documentation for details on carrying out this task.)

7 Product Unlocking

All products available via the IS4 use the following mechanism for locking of the product and for preventing it's unauthorised usage, while still making the product easily available to authorised users.

The products are freely downloadable as described in QSI 210, Shopper User Reference Manual. The products can then be run as described in the documentation for the respective products.

Prior to product purchase and registration each product can be run in a limited functionality mode. In order to unlock a product for use with full functionality, the product must first be purchased as described in QSI 231, Shopper User Reference Manual or as in section 5.7.2.7 above. Once a product has been purchased, it will be listed and its details will be available in the Registered Products section of the IS4 Shopper Interface (see QSI 210, Shopper User Reference Manual). Contained in this section will be details necessary to unlock each of the purchased products respectively. Also available in this section will be the products' documentation available for downloading.

Each product contains a registration window (refer to the product's documentation) allowing the user to register the product. The registration window contains text boxes requiring the following information:

a. Registered Name

b. Copy number

c. Encryption key

The above three pieces of information must be read from the IS4's Registered Products section and typed into the relevant text boxes. The information must be submitted and the product will be unlocked for full usage.

Note: The registration procedure need only be carried out once on a particular product.



QSI

Product Test Specification 1- System And Database

Technical Product

Version 1.00

Document Status: Approved

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Change History

Configuration Control

Project:	QSI
Title:	Product Test Specification 1- System and Database
Doc. Reference:	C:\QSI\TP\SOFTWARE\QSI222.001.DOC
Created by:	B.Braude
Creation Date:	22 January 1998

Document History

Version	Date	Status	Who	Saved as:
0.01	98\01\22	Draft	BB	Qsi222.001.doc
1.00	98\06\06	Approved	BB	Qsi222.100.doc

Revision History

Version	Date	Changes
0.01	98\01\22	New document created using QST33010.100
1.00	98\06\06	Document approved

Management Authorisation

Version	Date	Status	Project Minute Reference
1.00	98\06\02	Approved	QSI 2053 section 2.4

Change Forecast

1 Scope

1.1 Introduction

The Product Test Specification outlines the tests to be performed on the IS4 to facilitate its acceptance. The specification outlines the tests to be performed on the overall IS4 system and on the general procedures for maintaining the IS4 system.

1.2 Purpose

The purpose of the Product Test Specification is to provide the tester with a formal description of the tests to be carried out in order to verify that the system performs in the manner specified.

The tests take the form of a set of instructions to be followed per test entity. The expected state of the system and or interface after each instruction has been carried out is documented together with the corresponding instruction. All non-conformances must be systematically noted.

1.3 Applicability

This test specification is applicable as a technical product for the IS4 as well as a technical product in the QSI SEAL project. The document is also applicable as a specification for the procedures for the client's acceptance review and testing. This Product Test Specification forms part of the IS4 Product Test Specification series as follows:

a. QSI 222, Product Test Specification 1 – System and Database

b. QSI 220, Product Test Specification 2 – Shopper Interface

c. QSI 221, Product Test Specification 3 – Manager Interface

1.4 Definitions

IS^4 – Internet System for the Supply and Support of Software

SEAL - Software Engineering Applications Laboratory

WWW - World Wide Web

FTP - File Transfer Protocol

ASP – Active Server Pages

IIS – (Microsoft) Internet Information Server

HTTP – Hypertext Transfer Protocol

HTML – Hypertext Markup Language

1.5 Audience

- The Product Manager.
- The Product Developers.
- Individuals who perform 2nd and 3rd party surveillance on SEAL QMS.
- Full-time members of SEAL Management Board.
- Product Tester and Maintainer.

1.6 Applicable Documents

1.6.1 Specifications

a. IS4 Administrator Procedures, QSI 310.

b. IS4 Shopper User Reference Manual, QSI 210

c. IS4 Manager User Reference Manual, QSI 211

1.6.2 Standards

a. SEAL QMS Document Layout, Presentation and Typesetting Guide, QS 003, Revision 0.01, 1 April 1994

1.6.3 Procedures

1.6.4 Guidelines

1.6.5 Other Documents

1.7 Assumptions

It is assumed that the reader is competent in the use of a PC, Windows 95/NT and a WWW browser.

1.8 Requirements Traceability

a. ISO 9001(1994) Clause 4.4 (Document Control)

b. ISO 9001(1994) Clause 4.10 (Inspection and Testing)

c. ISO 9001(1994) Clause 4.11 (Inspection, Test & Measurement Equipment)

d. ISO 9001(1994) Clause 4.12 (Inspection & Test Status)

2 Requirements

2.1 Organisation and Responsibility

The testing will be carried out within the SEAL and will be the responsibility of A.J.Walker as the project manager. B.Braude, the project developer, will be responsible for rectifying any problems discovered through testing.

2.2 Test Equipment and Test Environment

The following equipment is required to run the tests as documented in this specification:

a. A server running all the IS4 software as documented in QSI 232 and QSI 242, IS4 High Level Design 1 – System and Database and IS4 Low Level Design 1 – System and Database respectively.

b. A PC running the Microsoft Internet Explorer Web browser and connected to the IS4 either via the Internet or a private TCP/IP connection.

c. The IS4 Shopper User Reference Manual, QSI 210.

d. The IS4 Manager User Reference Manual, QSI 211.

e. The IS4 Administrator Procedures, QSI 310.

2.3 Level of Testing

2.3.1 Review and Inspection Method

Review meetings are to be held on a regular to review the product during the high level, low level, and coding design phases.

2.3.2 Verification Method

The test procedures outlined in this document are to be carried out on the fully running IS4 in order to verify that the system conforms to that specified in the IS4 Administrator Procedures. Furthermore procedures in this document aim to verify that all the components of the system interface correctly.

2.4 Restrictions of Testing

Test Procedures detailed correspond directly to functions listed in the IS4 Administrator Procedures. Underlying functionality is tested indirectly by these procedures.

2.5 Test Schedule

Before testing each function the pre-test equipment and environment must be verified to correspond to that specified under section 2.2 of this document.

Each entity test procedure should take no longer than 20 minutes to complete.

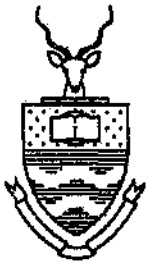
2.6 Test acceptance and Re-testing Criteria

a. The product will pass a test if the expected state of the program matches the observed state after each instruction has been executed.

b. If this is not the case, the defective function goes through a correction process and is then re-tested. This cycle will be repeated until the entity satisfies criteria section a. above.

3 Detailed Test Procedure

Refer to the Product Test Report Template 1 – System and Database, QSI 222-10.



QSI

Product Test Specification 2- Shopper Interface

Technical Product

Version 1.00

Document Status: Approved

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Change History

Configuration Control

Project:	QSI
Title:	Product Test Specification 2- Shopper Interface
Doc. Reference:	C:\QSI\TP\SOFTWARE\QSI220.001.DOC
Created by:	B.Braude
Creation Date:	22 January 1998

Document History

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0.01	98\01\22	Draft	BB	Qsi220.001.doc
1.00	98\06\06	Approved	BB	Qsi220.100.doc

Revision History

Version	Date	Changes
0.01	98\01\22	New document created using QST33010.100
1.00	98\06\06	Document approved

Management Authorisation

Version	Date	Status	Project Minute Reference
1.00	**98\06\02**	**Approved**	**QSI 2053 section 2.4**

Change Forecast

1 Scope

1.1 Introduction

The Product Test Specification outlines the tests to be performed on the IS4 to facilitate its acceptance. The specification outlines the tests to be performed on the IS4 Shopper Interface.

1.2 Purpose

The purpose of the Product Test Specification is to provide the tester with a formal description of the tests to be carried out in order to verify that the IS4 Shopper Interface performs in the manner specified.

The tests take the form of a set of instructions to be followed per test entity. The expected state of the system and or interface after each instruction has been carried out is documented together with the corresponding instruction. All non-conformances must be systematically noted.

1.3 Applicability

This test specification is applicable as a technical product for the IS4 as well as a technical product in the QSI SEAL project. The document is applicable as a specification for the procedures for the client's acceptance review and testing. This Product Test Specification forms part of the IS4 Product Test Specification series as follows:

a. QSI 222, Product Test Specification 1 – System and Database

b. QSI 220, Product Test Specification 2 – Shopper Interface

c. QSI 221, Product Test Specification 3 – Manager Interface

1.4 Definitions

IS^4 – Internet System for the Supply and Support of Software

SEAL - Software Engineering Applications Laboratory

WWW - World Wide Web

FTP - File Transfer Protocol

ASP – Active Server Pages

IIS – (Microsoft) Internet Information Server

HTTP – Hypertext Transfer Protocol

HTML – Hypertext Markup Language

1.5 Audience

- The Product Manager.
- The Product Developers.
- Individuals who perform 2nd and 3rd party surveillance on SEAL QMS.
- Full-time members of SEAL Management Board.
- Product Tester and Maintainer.

1.6 Applicable Documents

1.6.1 Specifications

a. IS4 Shopper User Reference Manual, QSI 210.

1.6.2 Standards

a. SEAL QMS Document Layout, Presentation and Typesetting Guide, QS 003, Revision 0.01, 1 April 1994

1.6.3 Procedures

1.6.4 Guidelines

1.6.5 Other Documents

1.7 Assumptions

It is assumed that the reader is competent in the use of a PC, Windows 95/NT and a WWW browser.

1.8 Requirements Traceability

a. ISO 9001(1994) Clause 4.4 (Document Control)

b. ISO 9001(1994) Clause 4.10 (Inspection and Testing)

c. ISO 9001(1994) Clause 4.11 (Inspection, Test & Measurement Equipment)

d. ISO 9001(1994) Clause 4.12 (Inspection & Test Status)

2 Requirements

2.1 Organisation and Responsibility

The testing will be carried out within the SEAL and will be the responsibility of A.J.Walker as the project manager. B.Braude, the project developer, will be responsible for rectifying any problems discovered through testing.

2.2 Test Equipment and Test Environment

The following equipment is required to run the tests as documented in this specification:

a. A server running all the IS4 software as documented in QSI 232 and QSI 242, IS4 High Level Design 1 – System and Database and IS4 Low Level Design 1 – System and Database respectively.

b. A PC running a standard Web browser and connected to the IS4 either via the Internet or a private TCP/IP connection.

c. The IS4 Shopper User Reference Manual, QSI 210.

2.3 Level of Testing

2.3.1 Review and Inspection Method

Review meetings are to be held on a regular to review the product during the high level, low level, and coding design phases.

2.3.2 Verification Method

The test procedures outlined in this document are to be carried out on the fully running IS4 in order to verify that the Shopper Interface conforms with the interface specified in the IS4 Shopper User Reference Manual.

2.4 Restrictions of Testing

Test Procedures detailed correspond directly to functions listed in the IS4 Shopper User Reference Manual. Underlying functionality is tested indirectly by these procedures.

2.5 Test Schedule

Before testing each function the pre-test equipment and environment must be verified to correspond to that specified under section 2.2 of this document.

Each entity test procedure should take no longer than 20 minutes to complete.

2.6 Test acceptance and Re-testing Criteria

a. The product will pass a test if the expected state of the program matches the observed state after each instruction has been executed.

b. If this is not the case, the defective function goes through a correction process and is then re-tested. This cycle will be repeated until the entity satisfies criteria section a. above.

3 Function Test Procedure

Refer to the Product Test Report Template 2 – Shopper Interface, QSI 220-10.



QSI

Product Test Specification 3-Manager Interface

Technical Product

Version 1.00

Document Status: Approve..

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2.5 Test Schedule 5

2.6 Test acceptance and Re-testing Criteria 5

3 Detailed Test Procedure.....6

Change History

Configuration Control

Project:	QSI
Title:	Product Test Specification 3- Manager Interface
Doc. Reference:	C:\QSI\TP\SOFTWARE\QSI221.001.DOC
Created by:	B.Braude
Creation Date:	22 January 1998

Document History

Version	Date	Status	Who	Saved as:
0.01	98\01\22	Draft	BB	Qsi221.001.doc
1.00	98\06\06	Approved	BB	Qsi221.100.doc

Revision History

Version	Date	Changes
0.01	98\01\22	New document created using QST33010.100
1.00	98\06\06	Document approved

Management Authorisation

Version	Date	Status	Project Minute Reference
1.00	**98\06\02**	**Approved**	**QSI 2053 section 2.4**

Change Forecast

1 Scope

1.1 Introduction

The Product Test Specification outlines the tests to be performed on the IS4 to facilitate its acceptance. The specification outlines the tests to be performed on the IS4 Manager Interface.

1.2 Purpose

The purpose of the Product Test Specification is to provide the tester with a formal description of the tests to be carried out in order to verify that the IS4 Manager Interface performs in the manner specified.

The tests take the form of a set of instructions to be followed per test entity. The expected state of the system and or interface after each instruction has been carried out is documented together with the corresponding instruction. All non-conformances must be systematically noted.

1.3 Applicability

This test specification is applicable a technical product for the IS4 as well as a technical product in the QSI SEAL project. The document is also applicable as a specification for the procedures for the client's acceptance review and testing. This Product Test Specification forms part of the IS4 Product Test Specification series as follows:

a. QSI 222, Product Test Specification 1 – System and Database

b. QSI 220, Product Test Specification 2 – Shopper Interface

c. QSI 221, Product Test Specification 3 – Manager Interface

1.4 Definitions

IS^4 – Internet System for the Supply and Support of Software

SEAL - Software Engineering Applications Laboratory

WWW - World Wide Web

FTP - File Transfer Protocol

ASP – Active Server Pages

IIS – (Microsoft) Internet Information Server

HTTP – Hypertext Transfer Protocol

HTML – Hypertext Markup Language

1.5 Audience

- The Product Manager.
- The Product Developers.
- Individuals who perform 2nd and 3rd party surveillance on SEAL QMS.
- Full-time members of SEAL Management Board.
- Product Tester and Maintainer.

1.6 Applicable Documents

1.6.1 Specifications

a. IS4 Manager User Reference Manual, QSI 211.

1.6.2 Standards

a. SEAL QMS Document Layout, Presentation and Typesetting Guide, QS 003, Revision 0.01, 1 April 1994

1.6.3 Procedures

1.6.4 Guidelines

1.6.5 Other Documents

1.7 Assumptions

It is assumed that the reader is competent in the use of a PC, Windows 95/NT and a WWW browser.

1.8 Requirements Traceability

a. ISO 9001(1994) Clause 4.4 (Document Control)

b. ISO 9001(1994) Clause 4.10 (Inspection and Testing)

c. ISO 9001(1994) Clause 4.11 (Inspection, Test & Measurement Equipment)

d. ISO 9001(1994) Clause 4.12 (Inspection & Test Status)

2 Requirements

2.1 Organisation and Responsibility

The testing will be carried out within the SEAL and will be the responsibility of A.J.Walker as the project manager. B.Braude, the project developer, will be responsible for rectifying any problems discovered through testing.

2.2 Test Equipment and Test Environment

The following equipment is required to run the tests as documented in this specification:

a. A server running all the IS4 software as documented in QSI 232 and QSI 242, IS4 High Level Design 1 – System and Database and IS4 Low Level Design 1 – System and Database respectively.

b. A PC running the Microsoft Internet Explorer Web browser and connected to the IS4 either via the Internet or a private TCP/IP connection.

c. The IS4 Manager User Reference Manual, QSI 211.

2.3 Level of Testing

2.3.1 Review and Inspection Method

Review meetings are to be held on a regular to review the product during the high level, low level, and coding design phases.

2.3.2 Verification Method

The test procedures outlined in this document are to be carried out on the fully running IS4 in order to verify that the Manager Interface conforms with the interface specified in the Manager User Reference Manual.

2.4 Restrictions of Testing

Test Procedures detailed correspond directly to functions listed in the IS4 Manager User Reference Manual. Underlying functionality is tested indirectly by these procedures.

2.5 Test Schedule

Before testing each function the pre-test equipment and environment must be verified to correspond to that specified under section 2.2 of this document.

Each entity test procedure should take no longer than 20 minutes to complete.

2.6 Test acceptance and Re-testing Criteria

a. The product will pass a test if the expected state of the program matches the observed state after each instruction has been executed.

b. If this is not the case, the defective function goes through a correction process and is then re-tested. This cycle will be repeated until the entity satisfies criteria section a. above.

3 Detailed Test Procedure

Refer to the Product Test Report Template 3 – Manager Interface, QSI 221-10.

Test Report Template 1 – System and Database

Tool Revision:	Product Test Spec. (222) Rev:	Test Scope:	
Tested conducted by:	Test start date:	Test end Date:	Test effort (Hrs):
Test report template version:	Test report record ID:	Test input datafile:	Test output datafile:

	Test Execution			Problem Clearance	
Action	Expected Observation	Pass (P) / Fail (F)	Comments	Resolution	Cleared on yy/mm/dd
1 Installation of the IS4 on a bare machine					
1.1 Follow the instructions detailed in QSI 310, section 3 to test the procedure for installing the IS4 system onto a bare machine.	The successful installation of the system on a bare machine (verified by point 1.2 below)				
1.2 Once the procedure has been completed, carry out the test procedures in QSI 220 and QSI 221 to ensure that the system operates as expected	The compliance with the expected observations as detailed in QSI 220 and QSI 221.				
2 IS4 Directory Structure					
2.1 No testing required	-	-	-	-	-
3 IS4 Server Backups					

3.1 This is tested as part of section 1 above	-	-	-	-	-
4 IS4 Server Restorations					
4.1 This is tested as part of section 1 above	-	-	-	-	-
5 IS4 Database Backups					
5.1 This is tested as part of section 1 above	-	-	-	-	-
6 IS4 Database Restorations					
6.1 This is tested as part of section 1 above	-	-	-	-	-

7 System Component Interactions – Shopper Actions

The actions and corresponding expected observations as detailed below do not contain specific instructions for carrying out these actions. These can be obtained from the respective User Reference Manuals. Alternatively these observations can be made in conjunction with the test procedures detailed in QSI 220 and QSI 221. Note: The observations will not appear instantaneously where expected. The web page where the observation is expected will have to be re-queried.

Action by shopper in the Shopper interface	Expected Observation by manager in the Manager interface	Pass (P) / Fail (F)	Comments	Resolution	Cleared on yy/mm/dd
7.1 Registering with the system	The shopper appearing in the list of shoppers in the system.				
7.2 Adding an item to the shopping basket	The item being visible in the respective shopper's basket.				
7.3 The shopper purchasing a product with zero value	The listing of the product under the respective shopper's list of purchased products				
7.4 The shopper purchasing the contents of the basket	No items being listed in the shopper's basket and an order listed for the shopper.				

7.5	The shopper modifying the mailing list status of one of the purchased products	The display of the mailing list status as modified for the respective purchased product				
7.6	The shopper entering feedback.	The display of the feedback item in the list of feedback items.				
7.7	The shopper modifying his / her personal information	The display of the modified shopper information in the shopper's details				
7.8	The shopper viewing any Web page in the system	The listing of the viewing of the page as an event.				

8 System Component Interactions – Manager Actions

The actions and corresponding expected observations as detailed below do not contain specific instructions for carrying out these actions. These can be obtained from the respective User Reference Manuals. Alternatively these observations can be made in conjunction with the test procedures detailed in QSI 220 and QSI 221. Note: The observations will not appear instantaneously where expected. The web page where the observation is expected will have to be re-queried.

Action by the manager in the manager interface	Expected Observation by shopper in the shopper interface	Pass (P) / Fail (F)	Comments	Resolution	Cleared on yy/mm/dd
8.1 Adding a new product	The new product being available in the list of products for purchasing (if the product is set to be available)				
8.2 Editing a product's details	The modified details being displayed for the product				
8.3 The addition, modification or deletion of product entities (documents, downloads, information items and dependencies)	The reflection of the changes in the display of the product details				

8.4	The approval of an order as "paid"	The purchased products being listed in the Purchased Products section				
8.5	The creation of a new shopper	The shopper being able to log into the shopper interface				
8.6	The modification of a shopper's information	The modified information being displayed in the User Information section				
8.7	The addition of a purchase for a shopper	The purchased product being listed under the shopper's list of purchased products.				
8.8	The composition and sending of a mail message	The receipt of a mail message by the shopper's who have selected to be on the respective mailing list.				
Test Summary						
Tests passed:			Tests Failed:			
Test overview report of the conducted test:						

Test Report Template 2 – Shopper Interface

System Revision:	Product Test Spec. (220) Rev:	Test Scope:	
Tested conducted by:	Test start date:	Test end Date:	Test effort (Hrs):
Test report template version:	Test report record ID:	Test input datafile:	Test output datafile:

	Test Execution			Problem Clearance	
Action	Expected Observation	Pass (P) / Fail (F)	Comments	Resolution	Cleared on yy/mm/dd
1 Interface Access					
1.1 Open the Web browser and enter "is4.seal.ac.za" for the URL.	The tester should be informed that he / she is now going to view pages over a secure connection.				
1.2 Select OK.	The display of the Welcome page of the IS4 Shopper Interface. The 'Open Menu' as described in the URM should be displayed on the left-hand side. A small padlock should be displayed in the browser frame indicating that a secure connection is in use.				
2 Open Menu bar					
2.1 Select each menu bar option respectively.	The display of the selected section.				
2.2 After each selection select the 'Back' option in the web browser.	The return to the Welcome section.				

3	Welcome					
3.1	Select the links to the SEAL Web site and to the University of the Witwatersrand's web site respectively. Then select the Back control on the web browser to return to the IS4 Welcome page.	For each selection the user should first be told that an insecure connection is about to be used. On selection of OK, the selected web site should be displayed. Once the back control is selected, the user must be informed that a secure connection is about to be used and the Welcome section must then be displayed.				
3.2	Select the link to the Information Section.	The display of the "About the IS4" page containing the menu of the information section.				
3.3	Select the browser back control	The return to the Welcome section.				
4	Login and Logout					
4.1	Select the Login option in the menu bar	The display of the page requiring a username and password.				
4.2	Select the link at the bottom to register as a new user	The display of the "New Shopper" registration form.				
4.3	Complete the form BUT leave one of the password fields blank. Then press the Register button.	The display of the registration form with an error message at the top				
4.4	Complete the form BUT enter 2 different passwords. Then press the Register button.	The display of the registration form with an error message at the top				

4.5	Complete the form but leave one of the required fields blank. Then press the Register button.	The display of the registration form with an error message at the top				
4.6	Complete the form properly. Then press the Register button.	The display of the Welcome section and the 'Closed Menu' on the left hand side.				
4.7	Select the Logout option in the menu bar	The display of the Welcome section and the 'Open Menu' on the left hand side.				
4.8	Select the Login menu bar option.	The display of the page requiring a username and password.				
4.9	Enter the username selected above without any password and select to Login.	The display of the page requiring a username and password with an error message at the to				
4.10	Enter the password selected above without any username and select to Login	The display of the page requiring a username and password with an error message at the top.				
4.11	Enter the username selected above with the incorrect password and select to Login.	The display of the page requiring a username and password with an error message at the top				
4.12	Enter the correct password with the incorrect username and select to Login.	The display of the page requiring a username and password with an error message at the top				
4.13	Enter the correct username and password and select to Login.	The display of the Welcome section and the 'Closed Menu' on the left hand side.				

5	Closed Menu Bar					
5.1	Select each menu bar option (except of the Logout option) respectively.	The display of the selected section.				
5.2	After each selection select the 'Back' option in the web browser.	The return to the Welcome section.				
5.3	Select the Logout option	The display of the Welcome section and the 'Open Menu' on the left hand side.				
6	View Products (0 price)					
6.1	Select the View Products menu option	The display of the list of available products				
6.2	Select one of the products that has its price set to 0.	The display of the product details page. The user must have only the options to login, view the contract or to download files.				
6.3	Select the Login option	The display of the page requiring a username and password.				
6.4	Enter a valid username and password pair and select to Login.	The display of the Welcome section and the 'Closed Menu' on the left hand side.				
6.5	Select the View Products menu option	The display of the list of available products				
6.6	Select the same product as selected above.	The display of the product details page with only the options to Purchase, View Contract and Download files.				

6.7	Select View contract	The display of the contract				
6.8	Select to return to the product page	The display of the product details page.				
6.9	Select to download files	The display of a page containing a list of files available for downloading.				
6.10	Select one of the files to download	The display of an option box asking whether to open the file or save it.				
6.11	Select to save the file and then select a location to where to save it. Then select to Save.	The saving of the file to the local harddrive.				
6.12	Select the link to return to the product page.	The display of the product page.				
6.13	Select Purchase	The display of the contract				
6.14	Select NOT to accept the contract	The display of the product page				
6.15	Select Purchase	The display of the contract				
6.16	Accept the contract	The display of the purchase confirmation page.				
6.17	On the purchase confirmation page select the "Registered Products" link	The display of the Registered Products page				
6.18	Select the 'Back' option in the web browser	The return to the purchase confirmation page.				

6.19	On the purchase confirmation page select the "Welcome page" link	The display of the Welcome page				
6.20	Select the 'Back' option in the web browser	The return to the purchase confirmation page.				
6.21	Select to Logout	The display of the Welcome section and the 'Open Menu' on the left hand side.				
7	View products (non-zero price)					
7.1	Select the View Products menu option	The display of the list of available products				
7.2	Select one of the products that has a non-zero price.	The display of the product details page. The user must have only the options to login, view the contract or to download files.				
7.3	Select the Login option	The display of the page requiring a username and password.				
7.4	Enter a valid username and password pair and select to Login.	The display of the Welcome section and the 'Closed Menu' on the left hand side.				
7.5	Select the View Products menu option	The display of the list of available products				
7.6	Select the same product selected above.	The display of the product details page with only the options to Add to Basket, View Contract and Download files.				
7.7	Select View contract	The display of the contract				
7.8	Select to return to the product page	The display of the product details page.				

7.9 Select to download files	The display of a page containing a list of files available for downloading.				
7.10 Select one of the files to download	The display of an option box asking whether to open the file or save it.				
7.11 Select to save the file and then select a location to where to save it. Then select to Save.	The saving of the file to the local harddrive.				
7.12 Select the link to return to the product page.	The display of the product page.				
7.13 Select Add to Basket	The display of the contract				
7.14 Select NOT to accept the contract	The display of the product page				
7.15 Select Add to Basket	The display of the contract				
7.16 Accept the contract	The display of the shopping basket.				
8 Shopping basket					
8.1 Select the Remove Item option	The display of the shopping basket without the item selected to be removed (or a message indicating that the basket is empty.)				
8.2 Select the View Products menu option	The display of the list of available products				
8.3 Select one of the products that has a non-zero price.	The display of the product details page with only the options to Add to Basket, View Contract and Download files.				

8.4	Select Add to Basket	The display of the contract				
8.5	Accept the contract	The display of the shopping basket.				
8.6	Select the Empty Basket option	The display of a message indicating that the basket is empty				
8.7	Select the View Products menu option	The display of the list of available products				
8.8	Select one of the products that has a non-zero price.	The display of the product details page with only the options to Add to Basket, View Contract and Download files.				
8.9	Select Add to Basket	The display of the contract				
8.10	Accept the contract	The display of the shopping basket.				
8.11	Change the item's quantity to 2 and then select the Update button	The display of the shopping basket with all quantities and values updated.				
8.12	Select Purchase	The display of an invoice with the correct details.				
9	Registered Products					
9.1	Select the Registered Products section in the menu bar.	The display of a list of purchased products for the user				
9.2	Select one of the purchased products	The display of the purchase and unlocking details for the product				
9.3	Change the e-mail notification option and select Update	The display of purchase details page with the updated mail list status.				

9.4	Select one of the documents to download	The display of an option box asking whether to open the file or save it.				
9.5	Select to save the file and then select a location to where to save it. Then select to Save.	The saving of the file to the local harddrive.				
9.6	Load the purchased product and attempt to unlock the product using the information provided on the purchased product details page.	The successful unlocking of the product.				
9.7	Select to return to the list of registered products	The display of the list of registered products.				
10	Feedback					
10.1	Select the Feedback section in the menu bar.	The display of a feedback menu allowing the user to select the type of feedback and the product for which to provide feedback				
10.2	Select to enter a Customer complaint and any product. Press the Enter button.	The display of another form with only a "comments" field.				
10.3	Enter a comment in the text box and press the Submit button	The display of a Thank you message				
10.4	Select the Feedback section in the menu bar.	The display of a feedback menu allowing the user to select the type of feedback and the product for which to provide feedback				

10.5	Select to enter a Problem Report and any product. Press the Enter button.	The display of another m with the following fields: a. Date problem was found b. Problem description c. Error messages displayed d. Please describe the steps to repeat the problem e. Operating system and version f. Processor g. Memory h. Comments				
10.6	Complete the form but do not enter a valid date. Press the submit button.	The Feedback menu with an error message indicating that date has not been entered				
10.7	Select to enter a Problem Report and any product. Press the Enter button.	The display of another form with the following fields: i. Date problem was found j. Problem description k. Error messages displayed l. Please describe the steps to repeat the problem m. Operating system and version n. Processor o. Memory p. Comments				

10.8	Complete the form and enter the date correctly. Press the submit button.	A . ank you message				
10.9	Select the Feedback section in the menu bar.	The display of a feedback menu allowing the user to select the type of feedback and the product for which to provide feedback				
	elect to enter an Improvement Recommendation and any product. Press the Enter button.	The display of another form with only a "comments" field.				
10.11	Enter a comment in the text box and press the Submit button	The display of a Thank you message				
11	User Information					
11.1	Select the User Information menu option in the menu bar	The display of a form containing the shopper's information				
11.2	Press the Enter button	The display of the form with an error message indicating that the password provided was not correct				
11.3	Enter the old password but do not enter a new one. Press the Enter button.	The display of the form with an error message indicating that a password was not provided.				
11.4	Enter the old password and 2 different new passwords. Press the Enter button.	The display of the form with an error message indicating that 2 different passwords were provided.				

11.5	Complete the form and enter the correct old password and 2 matching new passwords. Modify some of the information and also modify the mailing list status. Press the Enter button.	A thank you message.				
11.6	Select the User Information menu option in the menu bar	The display of a form containing the shopper's information as modified above.				
11.7	Select the Welcome section menu option in the menu bar	The display of the Welcome page.				
12	Information					
12.1	Select the Information option in the menu bar	The display of a page with a menu containing for different information topics relating to the IS4				
12.2	Select the User Reference Manual option	The display of the User Reference Manual in HTML format.				
12.3	Select the link to download the User Reference Manual	The display of an option box asking whether to open the file or save it.				
12.4	Select to save the file and then select a location to where to save it. Then select to Save.	The saving of the file to the local harddrive.				
12.5	Select the Information option in the menu bar	The display of a page with a menu containing for different information topics relating to the IS4				

12.6 Select the IS4 Security and Transaction processing option	The display of information relating to *Security* and *Transaction* processing				
12.7 Select the Information option in the menu bar	The display of a page with a menu containing for different information topics relating to the IS4				
12.8 Select the IS4 Contact Information option	The display of contact information for the IS4 Webmaster.				
12.9 Select the Welcome section menu option in the menu bar	The display of the Welcome page.				
Test Summary					
Tests passed:		Tests Failed:			
Test overview report of the conducted test:					

Test Report Template 3 – Manager Interface

Tool Revision:	Product Test Spec. (221) Rev:	Test Scope:	
Tested conducted by:	Test start date:	Test end Date:	Test effort (Hrs):
Test report template version:	Test report record ID:	Test input datafile:	Test output datafile:

Test Execution				Problem Clearance	
Action	Expected Observation	Pass (P) / Fail (F)	Comments	Resolution	Cleared on yy/mm/dd
1. Interface Access					
1.1 Open the Web browser and enter "https://is4.seal.ac.za/ssoft_mgr/" for the URL.	The tester should be informed that he / she is now going to view pages over a secure connection. The tester will then be prompted for the manager username and password.				
1.2 Enter the manager username and password and then select OK	The display of the Welcome page of the IS4 Manager Interface. A small padlock should be displayed in the browser frame indicating that a secure connection is in use.				
2. Welcome section					
2.1 Select each table option in the "Merchandising" and "Transactions" rows of the table.	The display of the selected section.				
2.2 After each selection select the 'Back' option in the web browser.	The return to the Welcome page.				

3. Footer Menu					
3.1 Select each footer menu option	The display of the selected section				
3.2 After each selection select the 'Back' option in the web browser.	The return to the Welcome page.				
4. Products					
4.1 Select the Products option in the Welcome page table	The display of the list of products in the system				
4.2 Select a sort order from the drop down list and select the "Update" button.	The display of the list of products in the order as selected.				
4.3 Select to add a new product	The display of a form requiring the product's details				
4.4 Press the Add Product button at the bottom of the page	The display of error messages indicating which fields have not been correctly completed.				
4.5 Select the Back button in the web browser	The display of the blank form requiring the product's details				
4.6 Complete the form and press the Add Product button.	The display of the list of products with the new product in the list.				
4.7 Select a product from the list by selecting the Hyper-linked SKU	The display of the product's details page.				
4.8 Select to edit the product by selecting the HTML link at the top of the page.	The display of a form with the product's details.				

4.9 Delete the contents of one or more required fields and press the Update Product button	An error message indicating that the fields require values.				
4.10 Select the Back button in the web browser	The return to the product's form containing all the product's details				
4.11 Modify the product's details and press the Update Product button	The display of the product details page with the updated information.				
4.12 Select the Add New Information Item link	The display of the Add New Information item form.				
4.13 Press the Add Product Information button	The display of error messages indication that required fields have not been completed.				
4.14 Click the back button in the web browser	The return to the Add New Information item form				
4.15 Complete the form and select the Add Product Information button	The display of the product details page with the information item added in the Information Items table.				
4.16 Select the HTML link for the *Information Item*	The display of the Edit Product *Information form*				
4.17 Delete one of the fields and select the Update Product Information button	The display of an error message indicating that a required field has not been completed				
4.18 Click the back button in the web browser	The display of the Edit Product Information form				
4.19 Edit the product information and select the Update Product Information button.	The display of the product details page with the information item updated as modified.				

4.20 Select the HTML link for the Information Item	The display of the Edit Product Information form				
4.21 Select the Delete Product Information button	The display of a prompt asking whether to delete the selected information item				
4.22 Select the Delete button	The display of the product details page without the deleted product information item.				
4.23 Select the Add New Document link	The display of the New Product Document form.				
4.24 Press the Add Product Document button	The display of error messages indication that required fields have not been completed.				
4.25 Click the back button in the web browser	The return to the New Product Document form				
4.26 Complete the form and select the Add Product Document button	The display of the product details page with the product document item added in the Product Documents table.				
4.27 Select the HTML link for the product document	The display of the Edit Product Document form				
4.28 Delete one of the fields and select the Update Product Document button	The display of an error message indicating that a required field has not been completed				
4.29 Click the back button in the web browser	The display of the Edit Product Document form				
4.30 Edit the product document information and select the Update Product Document button.	The display of the product details page with the product document item updated as modified.				

4.31 Select the HTML link for the product document item	The display of the Edit Product Document form				
4.32 Select the Delete Product Document button	The display of a prompt asking whether to delete the selected product document item				
4.33 Select the Delete button	The display of the product details page without the deleted product document item.				
4.34 Select the Add New Download link	The display of the New Product Download form.				
4.35 Press the Add Product Download button	The display of error messages indication that required fields have not been completed.				
4.36 Click the back button in the web browser	The return to the New Product Download form				
4.37 Complete the form and select the Add Product Download button	The display of the product details page with the product download item added in the Product Downloads table.				
4.38 Select the HTML link for the product download	The display of the Edit Product Download form				
4.39 Delete one of the fields and select the Update Product Download button	The display of an error message indicating that a required field has not been completed				
4.40 Click the back button in the web browser	The display of the Edit Product Download form				
4.41 Edit the product download information and select the Update Product Download button.	The display of the product details page with the product download item updated as modified.				

4.42 Select the HTML link for the product download item	The display of the Edit Product Download form				
4.43 Select the Delete Product Download button	The display of a prompt asking whether to delete the selected product download item				
4.44 Select the Delete button	The display of the product details page without the deleted product download item.				
4.45 Select the Add New Dependency link	The display of the New Product Dependency form.				
4.46 Select a dependency product and select the Add Product Dependency button. (The current product should not appear in the list of possible dependencies).	The display of the product details page with the product dependency item added in the Product Dependencies table.				
4.47 Select the HTML link for the product dependency item	The display of the Product Dependency page				
4.48 Select the Delete Product Dependency button	The display of a prompt asking whether to delete the selected product dependency item				
4.49 Select the Delete button	The display of the product details page without the deleted product dependency item.				
4.50 Select to edit the product by selecting the HTML link at the top of the page.	The display of a form with the product's details.				

4.51 Select the Delete Product button	The display of a prompt asking whether to delete the selected product and all of its entities.				
4.52 Select the Delete button	The display of the list of products in the system without the deleted product.				
4.53 Select the Manager link in the page footer	The display of the Manager interface Welcome page.				
5. Feedback					
5.1 Select the Feedback option in the Welcome page table	The display of the list of feedback items received during the current month				
5.2 Modify the time period in the drop down lists and select the Update button	The display of the list of feedback items received during the selected period.				
5.3 Select a specific product for which to view feedback items and select the Update button	The display of the list of feedback items relating to the selected product				
5.4 Change the sort order in the relevant drop down list and select the Update button	The display of the list of feedback items ordered according to the selected criterion.				
5.5 Select the Feedback ID (in the form of an HTML link) of one of the feedback items	The display of the feedback item's details				
5.6 Select the Shopper ID (in the form of an HTML link) in the feedback item's details	The display of the shopper's details page				
5.7 Select the Back button in the web browser	The return to the feedback item details page				

5.8 If relevant, select the SKU (in the form of an HTML link) of the applicable product listed in the feedback item details	The display of the relevant product's details page				
5.9 Select the Back button in the web browser	The return to the feedback item details page				
5.10 Select the Delete Feedback button	The display of a prompt asking whether to delete the selected feedback item.				
5.11 Select the Delete button	The display of the list of feedback items received during the current month				
5.12 Select the Manager link in the page footer	The display of the Manager Interface Welcome page.				
6. Mail					
6.1 Select the Mail option in the Welcome page table	The display of the list of mail items sent during the current month				
6.2 Modify the time period in the drop down lists and select the Update button	The display of the list of mail items sent during the selected period.				
6.3 Select a specific group to which mail items were sent and select the Update button	The display of the list of mail items relating to the selected group				
6.4 Change the sort order in the relevant drop down list and select the Update button	The display of the list of mail items ordered according to the selected criterion.				
6.5 Select the Mail ID (in the form of an HTML link) of one of the mail items	The display of the mail item's details				

6.6 Select the Delete Mail Item button	The display of a prompt asking whether to delete the selected mail item.				
6.7 Select the Delete button	The display of the list of mail items sent during the current month				
6.8 Select the New Message link at the top of the page	The display of an HTML form allowing for the input of a mail message				
6.9 Select the Send Mail button without completing the form	The display of the form with error messages at the top				
6.10 Complete the form and press the Send Mail button	The display of the list of mail items sent during the current month				
6.11 Select the Manager link in the page footer	The display of the Manager interface Welcome page.				
7. Orders					
7.1 Select the Orders option in the Welcome page table	The display of the list of orders received during the current month				
7.2 Modify the time period in the drop down lists and select the Update button	The display of the list of orders received during the selected period.				
7.3 Select a specific status relating to whether or not the order has been paid for and select the Update button	The display of the list of orders compliant with the selected status				
7.4 Change the sort order in the relevant drop down list and select the Update button	The display of the list of orders ordered according to the selected criterion.				

7.5 Select to list products that have not been paid for and then select the Update button	The listing of the unpaid orders received during the selected time period.				
7.6 Select the Order ID (in the form of an HTML link) of one of the orders that have not been paid for.	The display of the order's details				
7.7 Press the Paid button on the order details page	The display of the order with the status changed to "paid".				
7.8 Select the Orders option in the footer bar	The display of the list of orders received during the current month				
7.9 Select to list products that have been paid for and then select the Update button	The listing of the paid for orders received during the current month.				
7.10 Select the Order ID (in the form of an HTML link) of one of the orders that have been paid for.	The display of the order's details without the "Paid" button and with the status set to "Paid"				
7.11 Select the Orders option in the footer bar	The display of the list of orders received during the current month				
7.12 Select the option to view the number of orders received each day in a selected month	The listing of order statistics for each day on which orders were received in the current month				
7.13 Modify the time period in the drop down lists and select the Update button	The listing of order statistics for each day on which orders were received in the selected month				
7.14 Select the Orders option in the footer bar	The display of the list of orders received during the current month				

7.15 Select the option to view the number of orders received each month in a selected year	The listing of order statistics for each month in which orders were received in the current year				
7.16 Modify the time period in the drop down list and select the Update button	The listing of order statistics for each month in which orders were received in the selected year				
7.17 Select the Orders option in the footer bar	The display of the list of orders received during the current month				
7.18 Select the option to view the orders received per product	The listing of order statistics for each product for the current month				
7.19 Modify the time period in the drop down lists and select the Update button	The listing of order statistics for each product for the selected month				
7.20 Select one of the product's SKU (in the form of an HTML link)	The display of the product's details page.				
7.21 Select the Orders option in the footer bar	The display of the list of orders received during the current month				
7.22 Select the option to view the orders received per shopper	The listing of order statistics for each shopper for the current month				
7.23 Modify the time period in the drop down lists and select the Update button	The listing of order statistics for each shopper for the selected month				
7.24 Select one of the shopper's Ids (in the form of an HTML link)	The display of the shopper's details page.				

7.25 Select the Orders option in the footer bar	The display of the list of orders received during the current month				
7.26 Select the Manager link in the page footer	The display of the Manager interface Welcome page				
8. Purchased Products					
8.1 Select the Purchased Products option in the Welcome page table	The display of the list of products purchased during the current month				
8.2 Modify the time period in the drop down lists and select the Update button	The display of the products purchased during the selected period.				
8.3 Select a specific product for which to list products purchased and select the Update button	The display of the list of the selected product purchased during the selected time period				
8.4 Change the sort order in the relevant drop down list and select the Update button	The display of the list of products purchased ordered according to the selected criterion.				
8.5 Select the Purchase ID (in the form of an HTML link) of one of the purchased products listed	The display of the purchase details				
8.6 Select the SKU (in the form of an HTML link)	The display of the product's details page				
8.7 Press the Back button in the web browser	The display of the purchase details				
8.8 Select the shopper ID (in the form of an HTML link)	The display of the shopper's details				

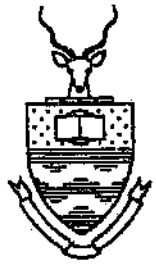
8.9 Press the Back button in the web browser	The display of the purchase details				
8.10 Change the mailing list status in the purchase details page and press the update button	The display of the purchase details with the updated mailing list status				
8.11 Select the Delete Purchase button	The display of a prompt asking whether to delete the selected purchase				
8.12 Press the Delete button	The display of the shopper's details page with the deleted purchase absent from the shopper's list of purchases				
8.13 Select the Manager link in the page footer	The display of the Manager interface Welcome page.				
9. Shoppers					
9.1 Select the Shoppers option in the Welcome page table	The display of the list of shoppers who have registered with the system during the current month				
9.2 Modify the time period in the drop down lists and select the Update button	The display of the shoppers registered during the selected period.				
9.3 Change the sort order in the relevant drop down list and select the Update button	The display of the list of shoppers ordered according to the selected criterion.				
9.4 Select to Add a New Shopper	The display of a form requiring the shopper's details				
9.5 Press the Register button at the bottom of the page	The display of error messages indicating which fields have not been correctly completed				

9.6 Select the Back button in the web browser	The display of the blank form requiring the shopper's details				
9.7 Complete the form and press the Register button	The display of the list of shoppers with the new shopper in the list.				
9.8 Select a shopper from the list by selecting the Hyper-linked shopper ID	The display of the shopper's details page.				
9.9 Select to edit the shopper's details by selecting the HTML link at the top of the page.	The display of a form with the shopper's details.				
9.10 Press the Register button	An error message indicating that the password is missing				
9.11 Select the Back button in the web browser	The return to the shopper's form containing all the shopper's details				
9.12 Modify the shopper's details, input the password where required and press the Register button	The display of the shopper's details page with the updated information.				
9.13 Select the Add New Purchase link	The display of the Add New Purchase form.				
9.14 Select a purchase to add and then select the Add Purchase button	The display of the shopper's details page with the purchase listed under the shopper's purchases				
9.15 Select the HTML link for the purchase item in the table	The display of the purchase details				

9.16 Change the mailing list status of the purchase and press the Update Purchase button	The display of the purchase details with the mailing list status displayed as modified				
9.17 Select the Delete Purchase button	The display of a prompt asking whether to delete the purchase				
9.18 Select the Delete button	The display of the shopper's details page				
9.19 Select the Shoppers option in the footer bar	The display of the list of shoppers registered with the system during the current month				
9.20 Select the option to view the number of shopper signed up each day in a selected month	The listing of shopper statistics for each day on which shoppers were registered in the current month				
9.21 Modify the time period in the drop down lists and select the Update button	The listing of shopper statistics for each day on which shoppers were registered in the selected month				
9.22 Select the Shoppers option in the footer bar	The display of the list of shoppers registered with the system during the current month				
9.23 Select the option to view the number of shoppers signed up each month in a selected year.	The listing of shopper statistics for each month in which shoppers were registered in the current year				
9.24 Modify the time period in the drop down list and select the Update button	The listing of shopper statistics for each month in which shoppers were registered in the selected year				
9.25 Select the Manager link in the page footer	The display of the Manager Interface Welcome page.				

10. Events					
10.1 Select the Events option in the Welcome page table	The display of the list of events during the current month				
10.2 Modify the time period in the drop down lists and select the Update button	The display of the list of events during the selected period.				
10.3 Select a page for which to view events and select the Update button	The listing of events relating to the selected page				
10.4 Change the sort order in the relevant drop down list and select the Update button	The display of the list of events ordered according to the selected criterion.				
10.5 Select whether to view events for shoppers logged in, logged out or both and then select the Update button	The display of the list of events matching the selected criterion				
10.6 Select to view events for shoppers logged in and then select the Update button	The listing of events that have been caused by shoppers who have been logged in.				
10.7 Select the Shopper ID in the form of an HTML link	The display of the shopper's details page				
10.8 Select the Back option in the web browser	The display of the list of events according to the selected criteria				
10.9 Select the Manager link in the page footer	The display of the Manager interface Welcome page.				
11. Close / Open Store					

11.1 Press the Close Store button on the Welcome page	The display of the Welcome page with the store status changed to closed and the button label changed to Open Store				
11.2 Press the Open Store button on the Welcome page	The display of the Welcome page with the store status changed to open and the button label changed to Close Store				
12. Reload Store					
12.1 Press the Reload Store button on the Welcome page	The display of the Welcome page				
13. Shop					
13.1 Click on the "Shop" HTML link on the Welcome page	The display of the Shopper Interface				
13.2 Click on the Back button in the web browser	The return to the Manager interface				
Test Summary					
Tests passed:		Tests Failed:			
Test overview report of the conducted test:					



QSI

Is4 Administrator Procedures

Technical Product

Version 1.00

Document Status: Approved

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Change History

Configuration Control

Project:	QSI
Title:	IS4 Administrator Procedures
Doc. Reference:	C:\QSI\TP\SOFTWARE\QSI310.001.DOC
Created by:	B. Braude
Creation Date:	25 July 1997

Document History

Version	Date	Status	Who	Saved as:
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1.00	98\04\22	Approved	BB	QSI310.100.doc

Revision History

Version	Date	Changes
0.01	97\07\25	Document created using qsi002.100
0.02	98\01\13	Document updated on server re-installation
1.00	98\04\22	Document approved

Management Authorisation

Version	Date	Status	Management Board Minute Reference
1.00	98\04\22	Approved	QSI 2051 section 2.3b

Change Forecast

1 Scope

1.1 Introduction

The IS4 is to be used to supply and support SEAL software products using the Internet. The IS4 is to be based on a single server. The system functions normally without any administrative intervention. However due to the possibility of the system not functioning normally due to hardware failures, administrative procedures are to be followed in order to ensure the integrity of the system and to enable the full recovery of the system in the event of a failure.

1.2 Purpose

The purpose of this document is to serve as a guide for the administrator(s) of the IS4. The document details procedures for the administration of the system and the server. The document is to be used as a guide for the normal running and maintenance of the system and server as well as a guide for disaster recovery.

1.3 Applicability

The document is applicable as a technical product of the QSI (1997_06) project and is applicable as a technical product for the IS4.

1.4 Definitions

SEAL - Software Engineering Applications Laboratory

WWW - World Wide Web

FTP - File Transfer Protocol

OLTP - On-line Transaction Processing

LAN - Local Area Network

ISO - International Standards Organisation

IEC - International Electrotechnical Commission

TC - Technical Committee

JTC - Joint Technical Committee

SC - Sub-committee

IS4 - Internet System for the Supply and Support of Software.

1.5 Audience

The following comprise the audience for this document:

a. The developer of this product.

b. The manager of this product development.

c. Members of the SEAL OQ project.

d. Members of the SEAL Management Board

e. Head of Department of Electrical Engineering

f. Individuals who perform internal and external audits on projects undertaken within the SEAL Quality Management System.

1.6 Applicable Documents

1.6.1 Specifications

1.6.2 Standards

a. SEAL QMS Document Creation Template, QS 002, Revision 0.02, 3 October 1994

b. SEAL QMS Document Layout, Presentation and Typesetting Guide, QS 003, Revision 1.00, 3 October 1994

1.6.3 Procedures

1.6.4 Guidelines

1.6.5 Other Documents

1.7 Assumptions

1.8 Requirements Traceability

2 Hardware

2.1 Hardware present

The IS4 server contains the following hardware configuration:

1 * Mini tower case with 230W power supply

1 * Gigabyte, GA586TX, 512K Burst Cache motherboard

1 * Intel P200 Processor with on board fan

2 * 72 pin, EDO, 32 MB, 60ns RAM chips totallir g 64MB RAM

1 * Adaptec 2940 PCI SCSI adapter

1 * S3 Trio 65 MPEG PCI VGA Card

1 * 1.44MB 3.5" Stiffy Drive

1 * Western Digital 4.3 GB SCSI Hard Drive

1 * 15" 1024x768 Non-Interlaced .28 DX1595 MAG Monitor

1 * 104 Key ACK295 Keyboard

1 * Microsoft 2 button PS2 mouse

3 Installation of the IS4 on a bare machine

3.1 Windows NT4 Server

3.1.1 Necessary material

a. CD case with 4 Microsoft Backoffice CDs

b. Microsoft NT4 Server set-up disks 1 – 3

c. Microsoft Windows NT Server – Basics and Installation manual

3.1.2 Procedure

a. Insert the "Windows NT Setup Boot Disk" into the stiffy drive of the machine and turn on the machine.

b. When prompted insert "Setup Disk2" and press Enter.

c. A "Welcome to Setup" screen will appear. Select the second option "To set up Windows NT now, press ENTER" by pressing Enter.

d. When prompted press Enter to detect mass storage devices.

e. When prompted insert "Setup Disk3" and press Enter.

f. A screen will appear indicating that an Adaptec SCSI controller and an IDE CD-ROM have been detected. Press Enter to continue.

g. You will be warned about an existing operating system on the computer's hard disk. Press C to continue.

h. When asked to enter the "Windows NT Server CD-ROM" insert the Microsoft BackOffice CD 1, close the CD tray and press Enter.

i. A license agreement will be presented on the screen. Press "Page Down" to the bottom and then press F8 to accept.

j. A list of detected hardware components will be presented. Accept the list by pressing Enter.

k. The list of harddrives (containing 1 harddrive) will be presented. Select the hard drive and then press C to partition the harddrive. Select 1 partition being 2200MB in size. Then select the remaining harddrive space and press C to create a second partition of the remaining size.

l. Select the first partition a press Enter to install. The partition must be formatted as an NTFS partition.

m. When prompted to enter a location where to install NT on the harddrive select the default option (\WINNT). Press Enter

n. Press Enter to allow Setup to perform an "exhaustive secondary examination of your hard disk". Thereafter Setup will copy files to the harddrive

o. When prompted to do so, remove the CD-ROM and stiffy disk from the respective drives and press Enter to restart the computer.

p. When prompted to do so, insert the Microsoft BackOffice CD-ROM 1 into the CD-ROM drive and press Enter.

q. When promted about "Gathering information about your computer" select Next

r. When prompted input "SEAL" for "name" and "SEAL" for "organisation". Press Enter.

s. For CD-KEY enter 419-0001526. Then press Enter.

t. For Licensing modes select "Per Server" for 9999 concurrent connections. Select Next.

u. For Computer name input "IS4" and then select Next.

v. For Server type select "Stand-alone server" and then select Next

w. Select an administrator account, confirm it and then select Next.

x. Do not create an emergency repair disk. This can be created at a later stage.

y. When prompted to select components, select all components (all boxes white with black tick inside). Then select Next.

z. Select Next again.

aa. When asked about network participation select "This computer will participate on a network" and select the "wired to the network" option. Press Next

bb. Select to install Microsoft Internet Information Server. Then press Next.

cc. When asked to select a network adapter select "Search". A Realtek adapter will be detected. Select it and then click Next.

dd. For network protocols, select all protocols (the unnecessary ones will be removed later on in these procedures.) Select Next

ee. For Network services, select all the default services and then select Next.

ff. Click Next to install the selected components.

gg. When prompted to enter the Ethernet Adapter ID select Skip.

hh. When asked if you wish to use DHCP, select Yes.

ii. When asked to select which services to show bindings for, simply select Next.

jj. When prompted, select Next to start the network.

kk. Select to make the computer a member of the "SEAL Group" workgroup and then select Next.

ll. Select Finish.

mm. For Date and Time properties, Select "Harare, Pretoria" for the time zone. Set the date and time and then continue.

nn. For display properties, select an 800 by 600 pixel desktop area and then select OK.

oo. Files will then be copied onto the system. When prompted, select to restart the computer. Remove the CD from the tray as the machine restarts.

pp. Once the machine has rebooted into NT, open the NT Explorer and right mouse click on the D drive. Select "format". Change to the NTFS file system and select "Start". Once it is complete close the format window.

qq. Select Start – Settings – Control Panel.

rr. Select Tape Devices

ss. Select OK to install the driver.

tt. When asked to enter the "Windows NT Server CD-ROM" insert the Microsoft BackOffice CD 1, close the CD tray and press Enter.

uu. Select OK

vv. Select OK to close the Tape Devices window.

ww. Remove the CD from the tray.

3.2 Windows NT4 Service Pack 3

3.2.1 Necessary Material

CD case with 3 Microsoft Site Server CDs

3.2.2 Procedure

a. Insert Site Server disk 1 into the CD-ROM tray. Site Server will autostart.

b. Enter the following information when prompted: User Name – "SEAL", Organisation – "SEAL", CD-KEY – 69158-040-0019387. Select Next.

c. Click Yes to accept the license agreement.

d. Select "Getting Started" from the menu.

e. Select "NT4.0 Service Pack 3".

f. When prompted, insert Site Server disk 3 into the CD-ROM tray and select OK.

g. A web page will be presented. Scroll down and select the "Install Service Pack" link under the Windows NT Service Pack heading.

h. When prompted select to open the file.

i. When prompted select Next

j. Select Yes to accept the license agreement.

k. Select to install the service pack and select Next

l. Select not to create and uninstall directory and then select Next

m. Select Finish. The files will then be copied to the computer.

n. When prompted, press OK to restart the computer. As the computer restarts, remove the CD from the tray.

3.3 Internet Explorer 3.02

3.3.1 Necessary Material

CD case with 3 Microsoft Site Server CDs

3.3.2 Procedure

a. Insert Site Server disk 1 into the CD-ROM tray. Site Server will autostart.

b. Enter the following information when prompted: User Name – "SEAL", Organisation – "SEAL", CD-KEY – 69158-040-0019387. Select Next.

c. Click Yes to accept the license agreement.

d. Select "Getting Started" from the menu.

e. Select "Internet Explorer 3.02"

f. When prompted, insert Site Server disk 3 into the CD-ROM tray and select OK.

g. Select Yes to accept the license agreement. Files will then be copied onto the computer.

h. Select Yes to select which optional Internet components are installed.

i. Select all the components listed (tick in white box) and then select OK. Files will then be copied onto the computer.

j. When prompted, press Yes to restart the computer. As the computer restarts, remove the CD from the tray.

3.4 Microsoft Active Server Pages

3.4.1 Necessary Material

CD case with 3 Microsoft Site Server CDs

3.4.2 Procedure

a. Insert Site Server disk 1 into the CD-ROM tray. Site Server will autostart.

b. Enter the following information when prompted: User Name – "SEAL", Organisation – "SEAL", CD-KEY – 69158-040-0019387. Select Next.

c. Click Yes to accept the license agreement.

d. Select "Commerce"

e. Select "Active Server Pages"

f. When prompted, insert Site Server disk 3 into the CD-ROM tray and select OK.

g. When prompted, select "I Agree" to accept the license agreement.

h. Select Next

i. Select "Yes" to stop the Internet services that are currently running.

j. Select to install all the options (tick in white box) and then select next

k. Leave the directories as default and select Next. Files will then be copied to the computer and the application will be installed.

l. Select OK when prompted. When asked to restart the Internet services, select Yes.

m. Exit from the Site Server installation menu by selecting the X in the upper right corner.

3.5 Microsoft SQL Server

3.5.1 Necessary Material

CD case with 4 Microsoft Backoffice CDs

Microsoft SQL Server Setup Manual

3.5.2 Procedure

a. Insert the Microsoft BackOffice CD 1 into the tray.

b. Run E:\setup.exe where E is your CD ROM drive.

c. Select "Continue"

d. Select OK

e. Insert the following information when prompted: Name – SEAL, Company – SEAL, CD-Key – 419-0001526

f. The list of available products to install will be presented. Select "Microsoft SQL Server 6.5" and then select OK.

g. Remove the Microsoft BackOffice CD 1 and insert the Microsoft BackOffice CD 2 into the CD tray and press OK.

h. Select "Continue"

i. Insert the following information when prompted: Name – "SEAL", Company – "SEAL", Product ID – "419-0001526" and then press "Continue".

j. If all the information is correct, press "Continue" again.

k. For installation options select "Install SQL Server and Utilities" and then press "Continue".

l. Selec 'er Server" licensing and select "Add Licenses".

m. Under quantity input "1000" and select OK

n. Select that you agree to the terms and agreements (tick in white box) and then select OK

o. Select "Continue"

p. Select that you agree to the terms and agreements (tick in white box) and then select OK

q. Accept the default drive (C:) and directory (\mssql) settings and select Continue.

r. For the Master device accept the default options except change the device size to "50". Select "Continue".

s. Select to install the SQL Server Books Online on a hard disk and then select "Continue".

t. For installation options, select "Sets" and select "850 Multilingual". Select OK. Select "Orders" and select "Alternate dictionary order case-insensitive". Select OK. Select "Networks" and select "TCP/IP Sockets" as well as "Named Pipes". Select OK. Select (cross in white box) the "Auto Start SQL Server at boot time" and "Auto Start SQL Executive at boot time" options. Select "Continue".

u. For SQL Executive Log On Account select "Install to log on as Local System account". Select "Continue".

v. For TCP/IP Socket number leave the de: ult number as is (1433) and select "Continue". The files will then be cc pied onto the computer.

w. When the installation is complete, press the button to exit to Windows NT.

x. Another Setup window will automatically start for the installation of SQL Server 6.5 service pack 1. Press "Continue". Files will be copied onto the computer.

y. Text boxes will be presented for the SA Password. Select a password, remember it and then enter it.

z. When prompted press the button to exit to Windows NT.

aa. A message will appear informing that BackOffice has finished installing the selected applications. Select OK. The Microsoft BackOffice installation screen will be presented. Press Close.

bb. Remove the CD from the tray. Select Start – Shutdown to restart the machine.

3.6 Microsoft SQL Server Service Pack

3.6.1 Necessary Material

CD case with 3 Microsoft Site Server CDs

3.6.2 Procedure

a. Insert Site Server disk 1 into the CD-ROM tray. Site Server will autostart.

b. Enter the following information when prompted: User Name – "SEAL", Organisation – "SEAL", CD-KEY – "69158-040-0019387". Select Next.

c. Click Yes to accept the license agreement.

d. Select "Commerce"

e. Select "SQL Server 6.5 Service Pack"

f. Select "Continue"

g. When asked for the SA password, enter the password as entered in 3.5.2 y above and select Continue. Files will be copied onto the computer.

h. When prompted, press the button to exit to Windows NT.

i. Click the X in the top right corner to close the Microsoft BackOffice installation menu.

j. Remove the CD from the tray. Select Start – Shutdown to restart the machine.

3.7 Configuring SQL Server

3.7.1 Necessary Material

Most recent good backup.

3.7.2 Procedure

a. Click Start – Programs – Microsoft SQL Server 6.5 – SQL Enterprise Manager.

b. If a "Register Server" screen does not appear, select "Register Server" from the "Server" menu.

c. In the server text box type "IS4"

d. For login ID type "sa" and enter the sa password selected above.

e. Click Register then click Close.

f. In the Server Manager window click on the + sign next to the IS4 server name. The server tree will expand. Click the + sign next to databases. The databases tree will expand. Right click on the Tempdb database and select Edit.

g. Select the "Databases" tab and then select "Expand".

h. In the "Data Device" box select "Master" and in the "Size" box type "20".

i. Click "Expand Now"

j. Right click on the Tempdb database and select Edit. Select the "Options" tab.

k. Select (tick in white box) the "Truncate Log on Checkpoint" option. Select OK.

l. In the Server Manager window click on the + sign next to the IS4 server name. The server tree will expand. Right click on "Backup Devices" and select "New Backup Device"

m. Type in the name "Masterback". For type select "Disk Backup Device". Leave the location as default ("C:\mssql\backup\"). Select "Create".

n. In the Server Manager window click on the + sign next to the IS4 server name. The server tree will expand. Click on the + sign next to

"Databases". A list of databases will expand. Right click on the Master database and select "Backup/Restore".

o. In the Database Backup/Restore window select "Master" as the database to be backed up. Select "Entire Database" from the list of options. Select "Masterback" as the backup device. Select "Initialise device" and select "No expiration date". Click the "Schedule" button and then select OK to accept the volume label.

p. In the Schedule Backup window select "Recurring" at the bottom of the window. Select the "Change" button.

q. In the Task Schedule window select "Daily" and set the backup to occur once at 10:00PM. Set the start date to be the current date and select "No End Date". Select OK.

r. Select OK in the Schedule Backup window.

s. Select to Close the Database Backup/Restore window.

t. In the Server Manager window click on the + sign next to the IS4 server name. The server tree will expand. Right click on "Database Devices" and select "New Device".

u. In the New Database Device window type "Commercedata" for the name and enter "10" for the size. Then select "Create Now".

v. In the Server Manager window click on the + sign next to the IS4 server name. The server tree will expand. Right click on "Database Devices" and select "New Device".

w. In the "New Database Device" window type "Commercelog" for the name and enter "5" for the size. Then select "Create Now".

x. In the Server Manager window click on the + sign next to the IS4 server name. The server tree will expand. Right click on "Databases" and select "New Database".

y. In the "New Database" window type "Commercedb" for the name. In the "Data Device" box select "Commercedata". Verify that the value of "10" is present in the "Size" box next to the Data Device box. In the "Log Device" box select "Commercelog" and verify that "5" is displayed in the adjacent size box. Select "Create Now".

z. In the Server Manager window click on the + sign next to the IS4 server name. The server tree will expand. Right click on "Backup Devices" and select "New Backup Device"

aa. Type in the name "Commerceback". For type select "Disk Backup Device". Leave the location as default ("C:\mssql\backup\"). Select "Create".

bb. In the Server Manager window click on the + sign next to the IS4 server name. The server tree will expand. Click on the + sign next to "Databases". A list of databases will expand. Right click on the "Commercedb" database and select "Backup/Restore".

cc. In the "Database Backup/Restore" window select "Commercedb" as the database to be backed up. Select "Entire Database" from the list of options. Select "Commerceback" as the backup device. Select "Initialise device" and select "No expiration date". Click the "Schedule" button and then select OK to accept the volume label.

dd. In the "Schedule Backup" window select "Recurring" at the bottom of the window. Select the "Change" button.

ee. In the "Task Schedule" window select "Daily" and set the backup to occur once at 10:00PM. Set the start date to be the current date and select "No End Date". Select OK.

ff. Select OK in the "Schedule Backup" window.

gg. Select to Close the "Database Backup/Restore" window.

hh. In the Server Manager window click on the + sign next to the IS4 server name. The server tree will expand. Click on the + sign next to "Databases". A list of databases will expand. Right click on the "Commercedb" database and select "Backup/Restore".

ii. In the "Database Backup/Restore" window select "Commercedb" as the database to be backed up. Select "Transaction log" from the list of options. Select "Commerceback" as the backup device. Ensure that "Initialise device" is NOT selected. Click the "Schedule" button and then select OK to accept the volume label.

jj. In the "Schedule Backup" window rename the task to "Backup - Commercedb-transaction-log". Select "Recurring" at the bottom of the window. Select the "Change" button.

kk. In the "Task Schedule" window select "Daily" and set the backup to occur every 1 hour. Set the start date to be the current date and select "No End Date". Select OK.

ll. Select OK in the "Schedule Backup" window.

mm. Select to Close the "Database Backup/Restore" window.

nn. Close the SQL Enterprise Manager.

3.8 Commerce Server

3.8.1 Necessary Material

CD case with 3 Microsoft Site Server CDs

3.8.2 Procedure

a. Insert Site Server disk 1 into the CD-ROM tray. Site Server will autostart.

b. Enter the following information when prompted: User Name – "SEAL", Organisation – "SEAL", CD-KEY – "69158-040-0019387". Select Next.

c. Click Yes to accept the license agreement.

d. Select "Commerce"

e. Select "Commerce Server"

f. Select "Continue"

g. When prompted, ensure that the following information is entered, Name – "SEAL", Organisation – "SEAL". Select OK and then select OK again to confirm the choice.

h. Select OK to accept the product ID.

i. When prompted accept the default drive and folder (c:\Microsoft Commerce Server) by selecting OK.

j. When prompted select a "Custom" installation.

k. Select to install all components except all the starter stores. Press Continue. The files will be copied onto the computer.

l. When told that Commerce Server was set-up successfully, select OK.

m. Click the X in the upper right corner of the "Site Server Master Setup" window to close it.

n. Remove the CD from the tray.

3.9 Personalization Server

3.9.1 Necessary Material

CD case with 3 Microsoft Site Server CDs

3.9.2 Procedure

a. Insert Site Server disk 1 into the CD-ROM tray. Site Server will autostart.

b. Enter the following information when prompted: User Name – "SEAL", Organisation – "SEAL", CD-KEY – "69158-040-0019387". Select Next.

c. Click Yes to accept the license agreement.

d. Select "Site Creation and Content Publishing"

e. Select "Personalization System"

f. Select "Personalization System"

g. Select Next

h. Select Yes to accept the license agreement.

i. When prompted, ensure that the following information is entered, Name – "SEAL", Organisation – "SEAL". Select Next.

j. Accept the default directory (c:\mps) by selecting Next.

k. Accept the virtual root (C:\InetPub\MPS) by selecting Next.

l. When prompted to select components, select only the SendMail component. De-select all the others. Select Next.

m. Click Yes to stop the Internet services.

n. Enter "seal.ac.za" for the hostname of the SMTP server.

o. Accept the "Personalization System" default folder and select Next to continue.

p. Select Next to confirm the set-up information.

q. When told that the installation failed to install the perform counters, click OK.

r. On the Setup Complete window, de-select to view the "Personalization System Start Page" and then click Finish.

s. Click the X in the upper right corner of the "Site Server Master Setup" window to close it.

t. Remove the CD from the tray.

3.10 IS4 Custom Software

3.10.1 Necessary Material

Most recent good backup of the IS4.(Refer to section 5 below)

3.10.2 Procedure

3.10.2.1 Creating a ODBC DSN

a. Select Start – Settings –Control Panel.

b. Select 32bit ODBC

c. Select the "System DSN" tab and then the Add button.

d. Select the "SQL Server" driver and then the Finish button.

e. For the Data Source name enter "Commerceserv". For Description enter "Commerce Server Database". For Server select "local". Do not select the "Use Trusted Connection" option. Then click the "Options" button.

f. For Database name enter "Commercedb". Leave the language name as default.

g. De-select "Generate Stored Procedure for Prepared Statement" and leave the 2nd and 3rd options selected. Do not select "Convert OEM to ANSI characters".

h. Select OK.

i. Select OK again and then close the Control Panel window.

3.10.2.2 Creating a Foundation Store

a. Select Start – Programs – Commerce Server 2.0, Host Administrator.

b. Select the "Create a Store Foundation" button.

c. Select Next

d. When prompted enter "SSOFT" for short name and "SEAL Software" for the Display name.

e. For a database driver select "SQL Server" and then select Next.

f. For the "Choose a Data Source Name" page enter the following information, DSN – "Commerceserv", Database – "Commercedb", User Name - "sa", Password – enter the sa password as entered in 3.5.2 y above. Select Next.

g. For the "Management Account" page select to create a new Windows NT account. Then select Next.

h. On the "Create an NT Account" page enter the following, Full name – "SSOFT Manager", Username – "manager", password and confirm password – select a password. Select Next.

i. Select Finish.

j. When the "Store Creation Complete" page is presented, close the Web browser.

3.10.2.3 Restoring the Store Software

a. Insert the last good backup into the tape drive.

b. Select Start – Programs – Administrative Tools – Backup.

c. Double click on the backup set required.

d. In the directory tree open "C:\Microsoft Commerce Server\Stores" and select (X in white box) SSOFT.

e. Also open "C:\InetPub\wwwroot" and select the file "default.asp" on the right hand side.

f. Select Restore.

g. In the "Restore Information" window, do not select "Restore Local Registry". Do however select "Restore File Permissions" and "Verify after backup". Leave all the other options as default. Select OK.

h. Select Yes if asked if you want to replace any files.

i. When told that the operation was completed successfully, select OK.

j. Close the "Backup" window by clicking the X in the top right corner.

k. Select Start – Programs – Microsoft Internet Server - Internet Service Manager

l. Select the WWW service and select "Service Properties" from the "Properties" drop down menu.

m. Select the "Directories" tab.

n. Select the "Enable default document" option and enter "default.asp" in the text box.

o. Select Apply

p. Select OK

q. Close the Internet Service Manager.

3.10.2.4 Restoring the master database

a. Insert the last good backup into the tape drive.

b. Select Start – Programs – Administrative Tools – Backup.

c. Double click on the backup set required.

d. In the directory tree open "C:\MSSQL\Backup" and select (X in white box) "Masterback.dat".

e. Select "Restore".

f. In the "Restore Information" window, do not select "Restore Local Registry". Do however select "Restore File Permissions" and "Verify after backup". Leave all the other options as default. Select OK.

g. Select Yes if asked if you want to replace any files.

h. When told that the operation was completed successfully, select OK.

i. Close the "Backup" window by clicking the X in the top right corner.

j. Select Start – Programs – Microsoft SQL Server 6.5 – SQL Service Manager.

k. Double-click on the red light to stop the SQL service.

l. Select Start – Programs – Command Prompt

m. At the command prompt type "sqlservr /c /dc:\mssql\data\master.dat /m"

n. Select Start – Program – Microsoft SQL Server 6.5 – SQL Enterprise Manager.

ii. In the Server Manager window click on the + sign next to the IS4 server name. The server tree will expand. Click on the + sign next to the "Databases" label. Right click on the "Commercedb" database and select "Backup/Restore".

jj. Select the "Restore" tab in "Database Backup/Restore" Window.

kk. Select the "Commercedb" database in the Database drop down list. Select the "From Device" button.

ll. Select the "Commerceback" device. In the Backup Information list select the required backup and then select the "Restore Now" button. Thereafter select each subsequent transaction log backup (in sequence) and select "Restore Now". Repeat this until the backup and all subsequent transaction log backups have been restored.

mm. Close the Backup/Restore window.

nn. Close the SQL Enterprise Manager.

3.10.2.6 Restoring SEAL dll

a. Insert the last good backup into the tape drive.

b. Select Start – Programs – Administrative Tools – Backup.

c. Double click on the backup set required.

d. In the directory tree open "C:\WINNT\System32\Inetsrv\asp\cmpnts\" and select (X in white box) "seal.dll"

e. Select "Restore".

f. In the "Restore Information" window, do not select "Restore Local Registry". Do however select "Restore File Permissions" and "Verify after backup". Leave all the other options as default. Select OK.

g. Select Yes if asked if you want to replace any files.

h. When told that the operation was completed successfully, select OK.

i. Close the "Backup" window by clicking the X in the top right corner.

j. Open Start – Programs – Command Prompt

k. Type "cd c:\winnt\system32\inetsrv\asp\cmpnts" at the command prompt and press Enter.

l. Type "regsvr32 seal.dll"

m. Click OK when a message appears saying "DllRegisterServer in seal.dll succeeded." If a message appears indicating that a dll could not be found, restore the respective dll from the tape in the same manner as described above. The dll will be in the "\winnt\system32" directory. Then repeat the point above to register the dll.

n. Type exit to close the "Command Prompt" window.

3.11 SSL Certificate

3.11.1 Necessary Material

Last good backup containing a valid SSL certificate in the form of a key backup file.

3.11.2 Procedure

a. Select Start – Programs – Administrative Tools – Backup.

b. Double click on the backup set required.

c. In the directory tree open "C:\qsi\tp\software\certificate\" and select (X in white box) "is4cert.xxx.key" where xxx is the current certificate version.

d. Select "Restore".

e. In the "Restore Information" window, do not select "Restore Local Registry". Do however select "Restore File Permissions" and "Verify after backup". Leave all the other options as default. Select OK.

f. Select Yes if asked if you want to replace any files.

g. When told that the operation was completed successfully, select OK.

h. Close the "Backup" window by clicking the X in the top right corner.

i. Open Start – Programs – Microsoft Internet Server – Internet Service Manager.

j. Select "Key Manager" from the "Tools" drop down menu.

k. In the "Key Manager" select Import Key – Backup File from the "Key" drop down menu.

l. Select the backup file "c:\qsi\tp\software\certificate\is4cert.key"

m. For the password enter "sealis4" and select default for server connection.

n. Close the "Key Manager" by clicking the X in the top right corner.

o. In the Internet Service Manager select the WWW service by clicking it once.

p. Select Properties – Stop Service.

q. Select Properties – Start Service

r. Double-click on the WWW service to open the service properties window.

s. Select the "Directories" tab

t. For the "C:\Microsoft Commerce Server\Stores\SSOFT\Assets", "C:\Microsoft Commerce Server\Stores\SSOFT\Manager" and "C:\Microsoft Commerce Server\Stores\SSOFT\Shop" directories respectively double-click on the directory to view the "Directory Properties". Select the "Require Secure SSL Channel" option and then select OK.

3.12 Backup system

3.12.1 Necessary Material

Most recent good backup of the IS4.(Refer to section 5 below)

3.12.2 Procedure

a. Open Start – Settings – Control Panel

b. Select Services

c. Scroll down and select the "Schedule" service.

d. Click the "Startup" button

e. Select "Automatic" and then click OK.

f. Click "Start" to start the service.

g. Click Close to close the "Services" window.

h. Close the Control Panel by clicking the X in the top right corner.

i. Open Start- Programs – Command Prompt.

j. At the prompt enter the following lines of information, and press Enter after entering each line:

- "At 2:00 /every:Sunday "c:\winnt\backup\sunday.bat""
- "At 2:00 /every:Monday "c:\winnt\backup\monday.bat""
- "At 2:00 /every:Tuesday "c:\winnt\backup\tuesday.bat""
- "At 2:00 /every:Wednesday "c:\winnt\backup\wednesday.bat""
- "At 2:00 /every:Thursday "c:\winnt\backup\thursday.bat""
- "At 2:00 /every:Friday "c:\winnt\backup\friday.bat""
- "At 2:00 /every:Saturday "c:\winnt\backup\saturday.bat""

k. Type "exit" to close the Command Prompt

l. Insert the last good backup into the tape drive.

m. Select Start – Programs – Administrative Tools – Backup.

n. Double click on the backup set required.

o. In the directory tree open "C:\winnt\" and select (X in white box) "backup".

p. Select "Restore".

q. In the "Restore Information" window, do not select "Restore Local Registry". Do however select "Restore File Permissions" and "Verify after backup". Leave all the other options as default. Select OK.

r. Select Yes if asked if you want to replace any files.

s. When told that the operation was completed successfully, select OK.

t. Close the Backup window by clicking the X in the top right corner.

4 IS4 Directory Structure

4.1 C- Drive

Note: This table does not contain all the directories and subdirectories on the hard drive but only those considered useful in the administration of the server:

Level 1	Level 2	Level 3	Level 4	Level 5	Description
InetPub					The directory for storing all Internet accessible files (except for the IS4 store)
	Wwwroot				The root directory for all WWW pages
	Ftproot				The root directory for all FTP files
Microsoft Commerce Server					The Microsoft Commerce Server application and the files for the IS4 store.
	Docs				Microsoft Commerce Server documentation
	SDK				The Commerce Server software development kit.
	Server				The application software
	Setup				The Commerce Server setup files
	Stores				The stores that make use of the Commerce Server
		SSOFT			The IS4 SEAL Software Store
			Assets		All images, documents and downloadable files used in the store.
			Config		Store configuration files
			Manager		All files comprising the store's Manager Interface

			Shop		All files comprising the store's Shopper Interface
			SQL		A SQL directory used by the Commerce Server (not used for development.)
MPS					Microsoft Personalization Server software
MSSQL					Microsoft SQL Server 6.5 software and data.
	Backup				Backup files of databases.
	Data				Database information files
Program Files					The directory used to store all applications (except those specifically listed in other directories in this tabel)
QSI					The QSI project directory structure as structured on the SEAL server.
Temp					A temporary directory.
Winnt					The Windows NT operating system directory
	Backup				A directory containing all the backup batch files and old log files.
	System32				
		InetServ			
			ASP		
				Cmpnts	The directory used to store all custom built Active X dlls (seal.dll)

4.2 D-Drive

Note: This table does not contain all the directories and subdirectories on the hard drive but only those considered useful in the administration of the server:

Level 1	Level 2	Level 3	Level 4	Level 5	Description

5 IS4 Server backups

5.1 Daily and weekly and monthly backups

a. There are 5 backup tapes.

b. The tapes are rotated weekly on a Friday.

c. The server performs a full backup on Friday night at midnight.

d. Every midnight except for the Friday night the IS4 server performs a differential backup.

e. Each differential backup backs up all files changed since the last full backup (as opposed to an incremental backup which backs up all files changed since the last incremental backup)

f. Each tape, except for one, is used for 1 week during a particular month (assuming a 4 week month). The tapes then get rotated so that a different tape is excluded each month.

g. Based on the above point each tape is used 4 times (for a week long duration) during a 5 month period. Thereafter the rotation scheme restarts.

h. The result is a set of backups complete for 3 weeks at any time and there is also a 3 month (11 weeks to be exact) rotating backup at all times.

Tape	Week
1	1
2	2
3	3
4	4
2	5
3	6
4	7

Tape	Week
6	8
3	9
4	10
5	11
1	12
4	13
5	14
1	15
2	16
5	17
1	18
2	19
3	20
Return to week 1	

5.1.1 Detailed procedure

a. On Friday insert the scheduled tape into the tape drive.

b. The following Friday the tape is automatically ejected. Remove the tape and replace it with the next scheduled tape.

5.2 Six monthly backups

a. The six monthly backups are kept as permanent records.

b ... six monthly backups make use of the weekly backup rotation, except that tapes are removed from the cycle and kept as permanent six monthly backups.

c. For each 5 month rotation cycle as discussed in the section above, a tape is removed permanently from circulation and replaced with a new one.

d. During the first 5 month cycle tape 1 is removed from circulation, during the second 5 month cycle tape 2 is removed from circulation and so on. The numbering will then return to tape 1 after 25 months.

e. The relevant tape is removed from circulation when it is kept as a 3 month backup (see section above.) After the 3-month period, a new tape is inserted in place of the original 3-month backup that is now being kept as a permanent six-month backup.

5.2.1 Detailed procedure

a. When a tape, designated to be a 6-month backup, is removed for the three-month period it must be renamed according to the Backup Naming Conventions as detailed below. The renaming is only a physical label renaming and not an electronic renaming on the tape.

b. A new tape is to be taken and renamed with the name of the original tape in the point abov

c. The original tape, now designated a 6-month backup, must be stored as a permanent record.

d. When the circulated tape is scheduled to be returned into circulation, the new blank tape must be returned into circulation.

5.3 Backup Naming Conventions

5.3.1 Tape Naming

a. The weekly tapes are named "IS4 tape X W" where X is a number between 1 and 5 and W denotes a weekly tape.

b. The six monthly tapes are named "IS4 tape X L" where X is an incremental number starting from 1 and L denotes a long-term tape.

5.3.2 Backup Descriptions

a. The full backups carried out on a weekly period are named "IS4 Normal scheduled"

b. The differential backups carried out daily are named "IS4 Differential scheduled".

6 IS4 Server File Restorations

In the event of a critical failure of the system (hard-drive failure), the system is to be restored as described in section 3 above. However in the event of only a few files needing to be restored (accidental deletion or a few corrupt files) the following procedure can be used to restore the selected files.

a. Insert the last good backup tape (Refer to section 5 above)

b. Run Start – Programs – Administrative Tools – Backup

c. Select the required backup set and then select "Catalogue" from the "Operations" drop down menu.

d. Double click on the required backup in the right hand side frame of the window. A directory tree will be displayed.

e. Select the files or directories to be restored (X in white box) and then select "Restore".

f. In the "Restore Information" window, do not select "Restore Local Registry". Do however select "Restore File Permissions" and "Verify after backup". Leave all the other options as default. Select OK.

g. Select Yes if asked if you want to replace any files.

h. When told that the operation was completed successfully, select OK.

i. Close the Backup window by clicking the X in the top right corner.

7 IS4 Database backups

a. The "Master" and "Commercedb" databases are backed up daily at 10pm to backup files (configured in section 3.7 above). These files are named "masterback.dat" and "Commerceback.dat" respectively and are saved in the "/mssql/backup" directory on the server's C-drive.

b. Within each day, every hour the transaction log from the "Commercedb" database is written to the "Commerceback.dat" backup file. Each hourly transaction log backup is appended to the previous transaction log backups and to the daily database backup.

c. Each daily database backup overwrites the current database and transaction log backups.

d. The daily backup is then in turn backed up onto the tape during the daily tape backup as detailed in section 5 above.

8 IS4 Database restorations

In the event of a critical failure of the system (hard-drive failure), the system is to be restored as described in section 3 above. However in the event of only the database needing to be restored (accidental deletion or corrupt information) the following procedure can be used to restore the selected information. The time of database restoration must first be decided upon. Based on the tape and database backup procedures as detailed in sections 5 and 7 above, either the current database backup on the server or a database backup written to tape must be used. Thereafter the transaction log backups must be used to bring the restored information to within an hour of the required time.

a. If restoration from tape is first required, restore "C:\MSSQL\Backup\Commerceback.dat" by following the procedure in section 6 above.

b. Select Start – Program – Microsoft SQL Server 6.5 – SQL Enterprise Manager.

c. In the Server Manager window click on the + sign next to the IS4 server name. The server tree will expand. Click on the + sign next to the "Databases" label. Right click on the "Commercedb" database and select "Backup/Restore".

d. Select the "Restore" tab in the "Database Backup/Restore" window.

e. Select the "Commercedb" database in the "Database" drop down list. Select the "From Device" button.

f. Select the "Commerceback" device. In the Backup information list select the required backup and then select the "Restore Now" button. Thereafter select each subsequent transaction log backup (in sequence) and select "Restore Now". Repeat this until the backup and all subsequent transaction log backups have been restored.

g. Close the Backup/Restore window.

h. Close the SQL Enterprise Manager.

9 System failure analysis

Problem	Hardware and software repair	Estimated down time	Information recovery procedure	Maximum period of information loss (depends on time of failure)	Notes
System software corruption	Reinstall parts or all of the server software	1 – 12 hours	N/A – database intact	None	Manual manipulation of database data may be required in the event of the failure occurring midway through a process.
Data corruption	N/A	0	Install last good backup and transaction log	1 hour	
Power failure (after UPS runs out and shuts down)	N/A	Until power returns	N/A – database intact	None	Manual manipulation of database data may be required in the event of the failure occurring midway through a process.
Hardware failure (not harddrive)	Replace hardware component	1 – 24 hours	N/A – database intact	None	Manual manipulation of database data may be required in the event of the failure occurring midway through a process.
Harddrive failure	Replace harddrive and reinstall all software	24 – 48 hours	Install last good backup	24 hours	

Problem	Hardware and software repair	Estimated down time	Information recovery procedure	Maximum period of information loss (depends on time of failure)	Notes
Server destruction (fire, theft)	Replace hardware and reinstall all software	48 hours	Install last good backup from last good tape	1 week.	