

ApplinX Exercises

Developing a New ApplinX Application

Version 9.8

June 2015

This document applies to ApplinX Exercises Version 9.8.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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Document ID: APXE-APPDEV-98-20150624

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Developing a New Application

Exercise Objectives

In this exercise you will identify host screens and map host fields using ApplinX Administrator. The entities you will define in this exercise are part of the Insurance Demo application, and will serve as the basis for the other entities that will be created later in the training (Navigation Paths, Host Services and Procedures).

At the end of the exercise you will know how to:

Screen Identifiers Choose appropriate identification strings for ApplinX screens.

ApplinX Screen Groups. Bind related screens to ApplinX Screen Groups.

ApplinX screens Identify host screens as ApplinX screens.

Mapping fields Map host fields as ApplinX application fields (manually and automatically).

Map multiple application fields.

Mapping Single Dynamic Fields

Map host input fields as ApplinX GUI Transformations.

Application Map



Recommended reading in ApplinX documentation:

- Designing and Developing an Application>ApplinX Entities>Fields, Screens and Screen Groups.
- Reference Guide>ApplinX Entities>Screens, Fields and Mappings.



Accompanying movies:

- Identifying a Screen
- Mapping Fields and Mapping Multiple Fields
- Mapping Single Dynamic Mappings

1 Screens Identifiers



Review the following screen. Which of the following strings can qualify as identification strings and which are not recommended to be used as identification strings? Why?

17:16:57	TID ended Progr		-DEM	OCO- PASS		DEMO04 n Servic	7.07.08 USTS
Programs	Name	C Level	PF	Service De			
		1 2 3		Dataset M PDS Mainte	aintenan	ce UD	
		4 5 6 7 8 9		System Joh The Edito			D E
Enter Input:						HE	?
LU Name: DAM Devtype: 32 Lin/Col: 24 Host: DAM	79 VS / 80	Device:	DAEPRTB1	Suspe	l: = nd: < PA NO N	A1 Ca	

String	Recommended	Not Recommended	Why?
DEMO04			
27.07.08			
Suspended Programs			
COM-PASS-			
17:16:57			
-DEMOCO-			
Program Services			

Click here to display the solution.

2 Screen Identifiers - Solution

Solution Steps:

17:16:57 Sus	TID		-DEM	OCO- PASS	User DE Program S	MOO4	27.07.08 UST:
Programs	Name	1 2	PF	Dataset	Description Maintenance	uns	
		3 4 5 6 7 8 9		-	Job Queue cor	UQ UEDIT	D E
Enter Inpu	it:					HELP	
Devtype: 3 Lin/Col: 2	AEETCCO 279 VS 24 / 80 AEA	Device:	DAEPRTB1	Susp	all: = bend: < PA1 b: NO NO		

String	Recommended	Not	Why?
		Recommended	
DEMO04		~	This is the username of the current user. This changes according to the user, and therefore cannot serve as a constant identification string.
27.07.08		~	This is the current date. Again, it changes according to the actual date and is not a static constant string.
Suspended Programs	✓		This is part of the screen, which is unlikely to change and therefore can serve as a constant.
COM-PASS-	✓		This is the screen's title, which is usually a convenient constant to use as a unique identification string.
17:16:57		✓	This is the current time. Again, it changes according to the actual time and is not a static constant string.
-DEMOCO-	✓		This is the screen's title, which is usually a convenient constant to use as a unique identification string.
Program Services	✓		This is part of the screen, which is unlikely to change and therefore can serve as a constant.

3

Identifying Screen Groups



Exercise

In this exercise you will create screen groups. Identify the following six screen groups according to their common strings:

- AllGroup Contains all the screens in the Insurance Demo application except the Environment, Login, Splash and Menu screens. You can use the "Demo Insurance Solution" as an identifier.
- MenusGroup Contains all menu screens in the Insurance Demo application. You can use "Menu" as an identifying string.
- ProposalScreensGroup ContainsBrowseProposals screen.
- ProposalDetailsGroup Contains the 4 screens of the proposal details. Which Identifiers will you use?
- CustomerScreensGroup ContainsBrowseCustomers and BrowseCustomersAddresses screens.
- CustomerDetailsGroup Contains the 3 screens of the customer details. Which Identifiers will you use?



Recommended reading in ApplinX User's Guide:

- Designing and Developing an Application>ApplinX Entities>Fields, Screens and Screen Groups.
- Reference Guide>ApplinX Entities>Screens, Fields and Mappings.

4

Identifying Host Screens



Exercise

In this exercise you will identify the host screens that will be used in training.



Note: The status bar will indicate that a screen has not yet been identified (UNKNOWN).



Accompanying movie: Identifying a Screen



Recommended reading in ApplinX User's Guide:

- Designing and Developing an Application>ApplinX Entities>Fields, Screens and Screen Groups.
- Reference Guide>ApplinX Entities>Screens, Fields and Mappings.

Identify each of the following ten screens:

Screen name: Environment

```
Terminal: DAEETA27
                       SSSSSSSSSSSSSS
                                               SOFTWARE AG
                    SSSSSSSSSSSSSSSS
                  SSSSSSSSSSSSSSSSSS
                                           Darmstadt-Eberstadt
                 SSSSSSS
                SSSSSSS
                                                 1 2 2 2 2 2 2 2 2 2 2 2 2
                SSSSSSS
                               SSSSSSS
                SSSSSSS
                               SSSSSSS
                SSSSSSS
                               SSSSSSS
                                                 13)3
                SSSSSSS
                               SSSSSSS
                                                 13131313
                SSSSSSS
                                                 12)2
                               SSSSSSS
                                                 13)3
                               SSSSSSS
                              SSSSSSS
                                                 1 3 3 3 3 3 3 3 3 3
                22222222222222222
                SSSSSSSSSSSSSSS
                SSSSSSSSSSSS
                                               Environment
DAEE Local Targets: DAEE(C)O DAE(E)CO DAEE(TMVS)
Other Targets: DAEX(VM) applid or LOGON APPLID(applid)
Desired Target: _
IP-addr: 10.64.21.84 :01850
Host:
```

■ Screen name: Login

14:32:46	TID	14	-DI	емосо-	User	13.07.08 ULGO
			COM-PLETE	System Logo	n	
	ror nints	on now	to change	your passwor	d, please read:	
http:/	/daemfwiki	i.eur.a	d.sag/twik	i/bin/view/Gi	smfPub/MfGenFaqPsw	d
User ID Password New passwor	:	-				
Group (RACF	"):					
Session rec	onnect:					
Enter-PF1 Cont	-PF2PF3 Enc		PF5P)	F6PF7PF	8PF9PF10PF	11PF12

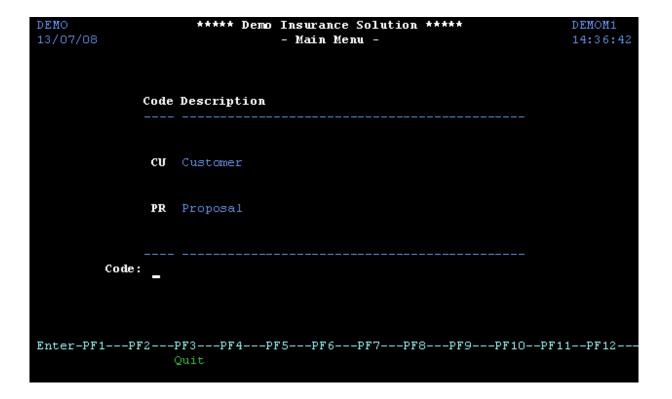
■ Screen name: Splash

```
COMULGO003-D Last access at 13:56:28 on 13.07.2008 Tid(DAEETA21) Sys(-DEMOCO-)
            -----> MESSAGE(S) FROM THE SECURITY SYSTEM <-----
CH70001I DEM003
                LAST ACCESS AT 13:56:28 ON SUNDAY, JULY 13, 2008
                        BROADCAST <--> -DEMOCO- <-----
                                            t h e
                    Wonderful World
                                  PPPPP
                                         LL
         00000
                 MM
                      MIN
                                                 EEEEEEE TTTTTTTT EEEEEEE
 CCCCCC 0000000 MM MMM MM
                                  PPPPPP LL
                                                 EEEEEEE TTTTTTTT EEEEEEE
             OO MM M MM
                                  PΡ
                                                            TT
                                                            TT
             OO MM
                      MM
                                         LL
                                                                 EEEEE
                                  PPPPPP
                                                 EEEEE
             OO MM
                      MM
                                  PPPPP
                                         LL
                                                 EEEEE
                                                           TT
                                                                 EEEEE
             OO MM
                      MM
                                         LL
                                  PP
                                                 EΕ
                                                                 EE
 CCCCCCC 0000000 MM
                      MM
                                  PP
                                         LLLLLL EEEEEE
                                                           TT
                                                                 EEEEEEE
 CCCCC
         00000 MM
                      MM
                                  PP
                                         LLLLLL EEEEEE
                                                           TT
                                                                 EEEEEEE
 APS272 HTP251
                         >>> Version 6.5.1 <<<
```

■ Screen name: Menu

17:16:57 Sus	TID pended Prog		-DEM(COM-	OCO- PASS	User DEM Program Se		27.07.08 USTS
Programs	Name	C Level	PF	Service De	scription	Programs	ID PF
		1 2 3			intenance enance		A B
		4 5 6 7 8		System Job The Editor	Queue	UQ UEDIT	D E
Enter Inpu	t:					HELP	?
Devtype: 3: Lin/Col: 2	AEETCCO 279 VS 4 / 80 AEA	Device:			l: = nd: < PA1 NO NO		

Screen name: Insurance Menu



■ Screen name: Browse Proposals

	ROPBNO /07/08	***		nsurance Sol owse Proposa	lution ***** als -	BPROPM01 14:37:44
A	Status	Proposal ID	Product	Start date	Policy Holder Name	Tot. Premium
_	RECEIVED	1	HOUSE	2004-05-01	von Grueningen, Rober	36.30
	REQUEST	2	HOUSE		Kantor, Edgar	176.04
	ACTIVE	3	HOUSE	2003-11-02	van Bosch, Lea	56.91
	IN-USE	4	HOUSE	2004-08-01	Chappell, Charles	58.91
	RECEIVED	5	HOUSE	2001-01-01	Grass, Mandy	20.40
	RECEIVED	6	HOUSE	1980-10-01	Rowling, Keith	213.26
	IN-USE	7	HOUSE	2000-01-01	Dragos, Istvan	17.22
	ACTIVE	8	HOUSE	2003-04-01	Krasnenko, Wladimir	161.61
	REQUEST	9	HOUSE	1992-02-01	Grass, Mandy	293.53
	RECEIVED	10	HOUSE	2004-02-01	Squirtle,Connor	68.68
	ACTIVE	11	HOUSE	1989-10-01	Higgins, Felix	127.85
	REQUEST	12	HOUSE	2005-04-01	Miller, John	198.03
	REQUEST	13	HOUSE	2005-05-05	Orlikowski,Adam	3.00
Ent	ter-PF1 Help		PF4PF5 Add	PF6PF	7PF8PF9PF10- Down	-PF11PF12

■ Screen name: Proposal Details

```
***** Demo Insurance Solution *****
DPROPDNO
                                                                      DPROPM01
13/07/08
                             - Modify Proposal -
                                                                      14:38:48
                                                                           1/4
Proposal ID .....: 4
----- Main data ------
Product code ....: IN-USE
                                     Total Premium .: 58.91
                                     External Calc. :
                                     Creator ....: XYZ
Creation date .: 2004-04-01
Origin Code ...: AGENT
Begin date ....: 2004-08-01 Maturity date ...:
Expiration date ..:
Policy holder ID .: 27
Policy holder name: Chappell, Charles
Agent ID .....:
Agent name .....:
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help Quit
Enter changes
```

■ Screen name: Browse Customers

	USTBNO /07/08		**** Demo Insurance Solution **** - Browse Customers -				
A	Customer ID	Lastname	Firstname	Birthday	Sex	Туре	
	18	van de Wetering	Marco	1931-02-12	M		
	2	van Bosch	Lea	1988-06-21	F	I	
	22	von Grueningen	Robert	1930-08-09	M	I	
	1	Bachmann	Daniela	1960-03-04	F	I	
	3	Bloggs	Joseph	1974-04-04	M	I	
	4	Busley	Matthew	1920-08-20	M	I	
	27	Chappell	Charles	1989-04-16	M	I	
	6	Copperdale	Alice	1990-05-05	F	I	
	5	Dillenburg	Mike	1960-12-08	M	I	
	9	Dragos	Istvan	1911-04-19	M	I	
	101	Eisenstein	Armin	1969-03-14	M	I	
	14	Grass	Mandy	1969-07-01	F	I	
	16	Higgins	Felix	1980-03-11	M	I	
En	ter-PF1PF2-	PF3PF4PF5 Quit Add	PF6PF7- Up		PF10F		

■ Screen name: Browse Customers Addresses

BCUSTENO ***** 13/07/08				urance Solution se Customers –	****	BCUSTM11 14:42:00 2/2
A	Customer ID	Country	Zipcode	City	Street	House Nr
_	18	NL	3011 CB	Rotterdam	Baan	22
	2	D	64297	Darmstadt	Katharinenstr.	17
	22	D	10117	Berlin	Unter d. Linden	10
	1	D	23558	Luebeck	Mellinger Allee	30A
	3	GB	M24 4AD	Manchester	Deansgate	123
	4	GB	AF3 D3C	Manchester	Trafford Lane	97
	27	GB	S6C 3T2	London	Cromwell Street	12
	6	CAN	M3J 1P3	Toronto	W 22nd Street	603
	5	USA	NY 10771	New York	Broadway	8023
	9	H	1071	Budapest	Balaton Street	171
	101	D	20117	Hamburg	Kieler Str.	66
	14	AUS	QL 4000	Brisbane	King Edward Str	102
	16	USA	NY 10701	Yonkers	Creeque Alley	671
En	ter-PF1PF2	PF3PF Quit Ad		-PF6PF7PF8 Up Dot	BPF9PF10PF	11PF12

■ Screen name: Customer Details

```
**** Demo Insurance Solution *****
DCUSTDNO
                                                                            DCUSTM01
13/07/08
                               - Modify Customer -
                                                                            14:43:10
                                                                                 1/3
Customer ID ....: 4
Lastname ....: Busley
Firstname ....: Matthew
                    ----- Main data -----
Person type ....: I
Date of birth ...: 1920-08-
Sex ..... M
Marital status ..: MARRIED
Nationality ....: SCO
Occupation ....: 72001
Status ...... M
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
                   Quit
Enter changes
```

Mapping Fields

Mapping Single and Multiple Fields	. 1	2
Mapping Single Dynamic Fields	. 2	•

Mapping Single and Multiple Fields



Exercise

In this exercise, you will map host fields as ApplinX application fields. The fields you will map are important input or output host fields. The application fields you need to map are marked below on the screen shots of the screens you already identified in the **Identifying Host Screens** exercise. Each application field is marked in blue, with its name next to it.



Accompanying movies:

Mapping Fields and Mapping Multiple Fields



Recommended reading in ApplinX User's Guide:

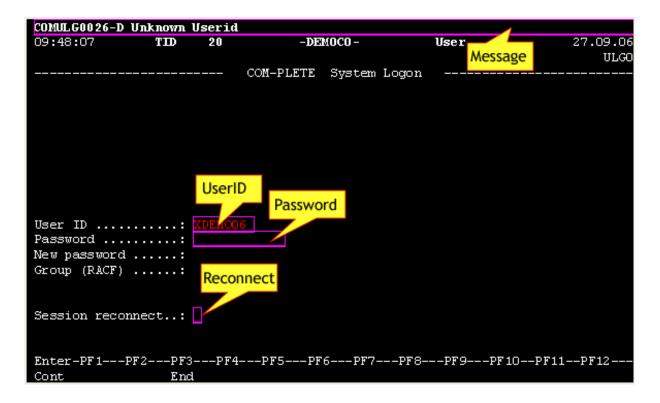
- Designing and Developing an Application>ApplinX Entities>Fields, Screens and Screen Groups.
- Reference Guide>ApplinX Entities>Screens, Fields and Mappings.
- Screen Group AllGroup this group contains all the screens of the application so whatever we map here applies to all or most of the screens. We will map two fields here that often appear on the screens of our application: the time indication in the upper right corner of the screen, and the message line in the last row of the screen. Let's see an example on the screen InsuranceMenu:



Screen name: Environment



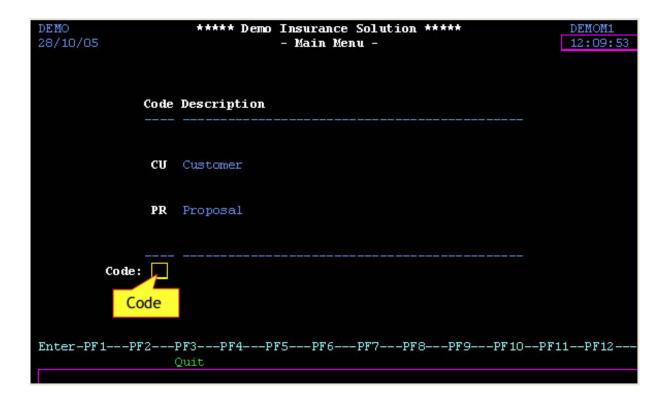
■ Screen name: Login



Screen name: Menu

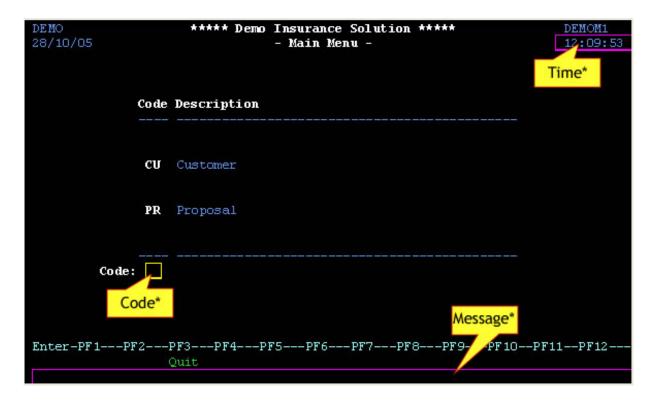
COMUMP0002-D 10:32:03 Suspe	Program not TID nded Program	8	-DEM(COM-1	PASS	User Ph Mess	age	9.04.05 USTS
Programs	Name C	Leve l	PF	Service Desc	ription	 Programs	ID PF
		1 2 3		Dataset Main PDS Maintena		UDS UPDS	А В
		4 5 6		System Job Q The Editor SPF	ueue	UQ UEDIT SPF	D E F
		7 8 9		Command			
Enter Input:						HELP	?
LU Name: DAE Devtype: 3279 Lines : 24 Columns: 80	∍Vs i	HC TID: Device: Key:	DAEPRTE2	Recall: Suspend: Jump:	< PA1		OO1 UPPER

■ Screen Group: MenusGroup



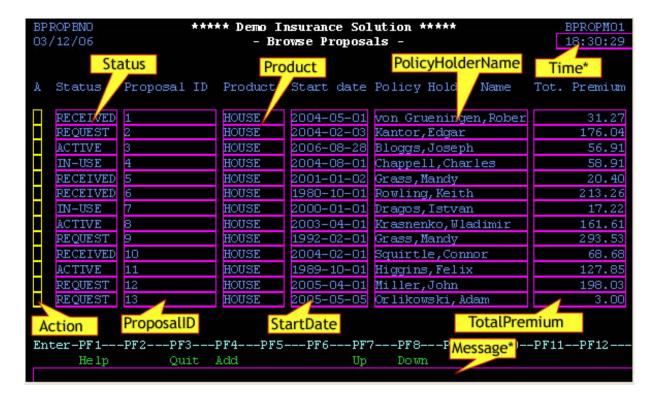
Screen name: Insurance Menu

Note: The Time and Message mappings are mapped as a result of mapping the fields in the screen group AllGroup and the Code is mapped as a result of mapping the field in the screen group MenusGroup.



Note that the Time and Message fields are mapped as a result of mapping the fields in the screen group AllGroup

Screen name: Browse Proposals

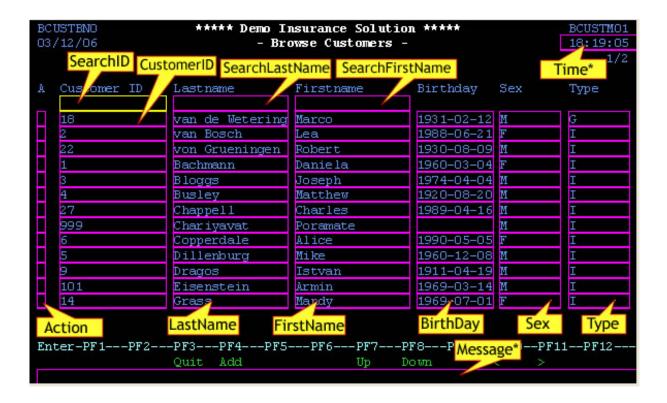


- *Inherited fields.
- Screen name: Proposal Details

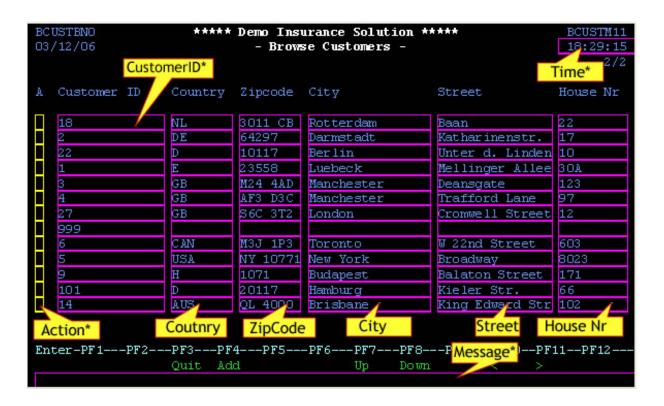
```
DPROPDNO
                     ***** Demo Insurance Solution *****
01/05/06
                             - Modify Proposal -
                                                                    Time
Proposal ID .....: 3
                 StatusCode
                                  Main data
Status code
                                      Total Premium .: 56.91
Product code ....:
                                      External Calc. :
                                                           ExternalCalc
Begin date ....:
Maturity date ....:
                                      Creation date .: 2004
                        ProductCode
Expiration date ..:
                                      Origin Code ...:
Policy holder ID .: 2
Policy holder name: van Bosch,Lea
Agent ID ..... 19
Agent name .....: Michels, Maarten
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8-
                                                    --P Message*
                 Quit
     Help
Enter modifications
```

■ Screen name: BrowseCustomers. This screen includes mappings that are specific to this screen and also mappings that are inherited from the CustomerScreensGroup screen group. The mappings with an * indicate that they should be defined for the CustomerScreensGroup screen group, and the mappings that do not have an * should be defined specifically for the Browse-Customers screen.

^{*}Inherited fields.



Screen name: BrowseCustomersAddress.



Mapping Single Dynamic Fields

Exercise Objectives

In the following exercise you will use dynamic field mappings to define all the fields in a particular application screen. Mapping a field according to its leading label enables recognizing and mapping fields that may appear in different positions, but preserve the same leading label. This is particularly useful in the following cases:

- The application has fields that are dynamically drawn on the screen.
- Host applications are sometimes changed and items can be moved. Using dynamic field mappings, the fields will continue to be mapped and identified and the application will not be affected.
- Using dynamic field mappings enables more flexibility when using Screen Groups, as Screens which include the same field, can be associated with the same Screen Group even when the field is located in a different position.



Accompanying movies:

Mapping Single Dynamic Fields



Recommended reading in ApplinX User's Guide:

- Designing and Developing an Application>ApplinX Entities>Fields, Screens and Screen Groups.
- Reference Guide>ApplinX Entities>Screens, Fields and Mappings.



Exercise

Let's assume that the Modify proposal host screen is changed frequently. In order to preserve field mappings, map all the fields using the dynamic mapping feature (see image below).

```
DPROPDNO
                      ***** Demo Insurance Solution *****
                                                                            DPROPMO1
27/07/08
                               - Modify Proposal -
                                                                            17:17:56
                                                                                  1/4
Proposal ID ..... 3
                   ----- Main data -----
Status code ....: ACTIVE Product code ....: HOUSE
                                         Total Premium .: 56.91
                                         External Calc. :
                                        Creator ....: HBU
Creation date .: 2004-04-01
Origin Code ...: AGENT
Begin date .....: 20
Maturity date ....:
Expiration date ..:
Policy holder ID .: 2
Policy holder name: van Bosch,Lea
Agent ID ..... 19
Agent name .....: Michels, Maarten
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help
                 Quit
Enter changes
```



Solution Steps:

For the solution, refer to CompositeDemo, ModifyProposal1 screen located in the proposal directory.

6 Application Map

Enable Map Step Recording	24	4
Approve Steps		
Test the Map you Defined		

The Application Map view displays thumbnails of the application screens which the user navigated through, while working with the application. ApplinX saves the navigation through these screens including the steps between each screen such as the action key pressed and the fields sent. The application map can be used in Path Procedures and from the Base Object/Web framework, to navigate to a specific screen, using the NavigateTo method.

In this exercise you will:

Recommended reading: Designing and Developing an Application>ApplinX Entities> Application Map.

Enable Map Step Recording

In the ApplinX Designer, enable recording map steps (Application Properties>Navigation node). This will allow ApplinX to record steps as you navigate through the host application, creating a map of host screens.

Approve Steps

Approve the steps that select a menu option go to the following screen.

After a map was created by ApplinX, the steps recorded by ApplinX will need to be approved for use by the map. All new steps recorded, are in a "pending" state and will not be used, until the developer either approves them or decides not to approve them. For example, one wouldn't want to approve a login step containing your username and password, which was recorded while you were navigating through the host application. You would, however, like to approve steps that select a menu option to go to the next screen.



Editing Map Steps

Test the Map you Defined



Exercise

Test the map by clicking on the relevant icon in the Application Map toolbar.



Solution Steps:

The screen navigation defined in the Application Map can be tested to ensure that the navigation behavior is as expected. This is done in the Session View, using the Application Map toolbar. The toolbar enables selecting a screen to which you expect to be able to navigate to from the current screen and then attempting to navigate to this screen. If the Application Map is correctly defined, then ApplinX will successfully navigate to the selected screen. If the Application Map does not have the relevant steps defined to reach the screen you selected, a pop-up message will inform you of this.



Note: The Application Map toolbar is not displayed when working offline.