NaturalONE

Sample Applications

Version 9.1.2

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ADABAS & NATURAL

This document applies to NaturalONE Version 9.1.2 and all subsequent releases.

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

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Preface

This documentation explains how to install and use the sample applications that are provided with NaturalONE. It is organized under the following headings:

Installing the Sample Applications	How to install the sample applications from the welcome page.
Hello World Application	The Hello World application is the preferred starting point for using NaturalONE. This is a simple sample which demonstrates a Natural project which implements a Hello World application by using Natural for Ajax.
Travel Approval Application	This sample demonstrates a Natural project which implements an Ajax application for a business travel approval system.
Natural for Ajax Demos	A collection of small Natural for Ajax samples which demonstrate how to use the different controls and how to bind them to Natural server-side processing.

1 About this Documentation

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Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
`Monospace font`	Identifies service names and locations in the format *`folder.subfolder.service`*, APIs, Java classes, methods, properties.
`Italic`	Identifies: Variables for which you must supply values specific to your own situation or environment. New terms the first time they occur in the text. References to other documentation sources.
`Monospace font`	Identifies: Text you must type in. Messages displayed by the system. Program code.
{ }	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols.
|	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the | symbol.
[ ]	Indicates one or more options. Type only the information inside the square brackets. Do not type the [ ] symbols.
...	Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis (...).

Online Information and Support

Software AG Documentation Website

You can find documentation on the Software AG Documentation website at **http://documentation.softwareag.com**. The site requires credentials for Software AG's Product Support site Empower. If you do not have Empower credentials, you must use the TECHcommunity website.

Software AG Empower Product Support Website

If you do not yet have an account for Empower, send an email to empower@softwareag.com with your name, company, and company email address and request an account.

Once you have an account, you can open Support Incidents online via the eService section of Empower at **https://empower.softwareag.com/**.

You can find product information on the Software AG Empower Product Support website at **https://empower.softwareag.com**.

To submit feature/enhancement requests, get information about product availability, and download products, go to **Products**.

To get information about fixes and to read early warnings, technical papers, and knowledge base articles, go to the **Knowledge Center**.

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- Access product documentation, if you have TECHcommunity credentials. If you do not, you will need to register and specify "Documentation" as an area of interest.
- Access articles, code samples, demos, and tutorials.
- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Link to external websites that discuss open standards and web technology.

Data Protection

Software AG products provide functionality with respect to processing of personal data according to the EU General Data Protection Regulation (GDPR). Where applicable, appropriate steps are documented in the respective administration documentation.

2 Installing the Sample Applications

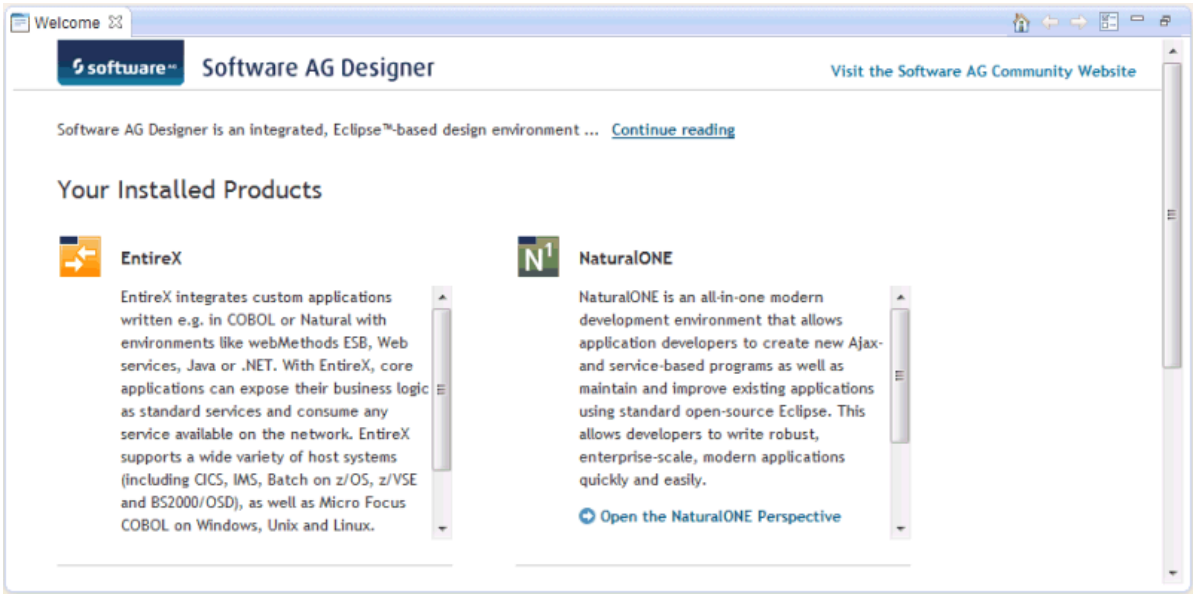
When you start the Software AG Designer for the very first time, you will see a so-called “Welcome” page. From this page, you can install several sample applications for NaturalONE. If the welcome page is not visible, you can open it as described below.

Important: Before installing a sample application, open the NaturalONE perspective and wait until the startup of the local Tomcat server has completed. When you start NaturalONE for the very first time, this will take some time. In the **Console** view, you can keep track of the Tomcat status.

To install a sample application

1 From the **Help** menu of Eclipse, choose **Welcome**.

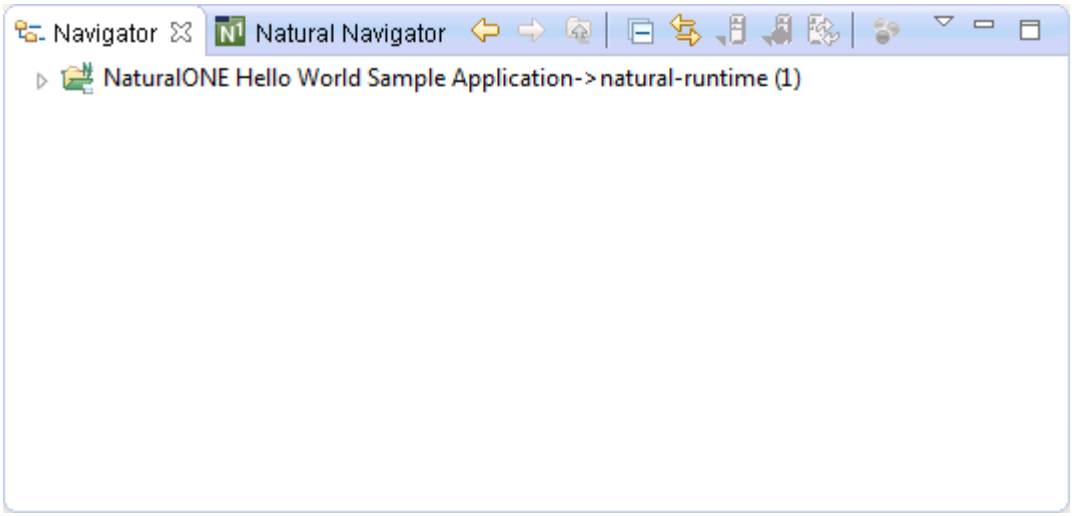
The welcome page appears.



2 In the NaturalONE list box, scroll down until you see the following links for the sample applications.

3 To install a sample application, click the corresponding link in the NaturalONE list box.

The sample application is copied to your workspace. The **Navigator** view is automatically shown, containing the new sample application as a new project. For example:



Tip: To get more space for the views of the Natural perspective, close the welcome page.

4 After installing a sample application, it is recommended that you rebuild the project using the **Clean** command from the **Project** menu.

If the **Build Automatically** command in the **Project** menu is currently not active, make sure that **Start a build immediately** is switched on in the **Clean** dialog box.

3 Hello World Application

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About the Sample Application

The Hello World application is the preferred starting point for using NaturalONE. This is a simple sample which demonstrates a Natural project which implements a Hello World application by using Natural for Ajax.

Installing the Sample Application

Install the sample application by clicking **Hello World application** on the welcome page. A new project named "NaturalONE Hello World Sample Application" will then be shown in the **Navigator** view. See also *Installing the Sample Applications*.

Starting the Sample Application

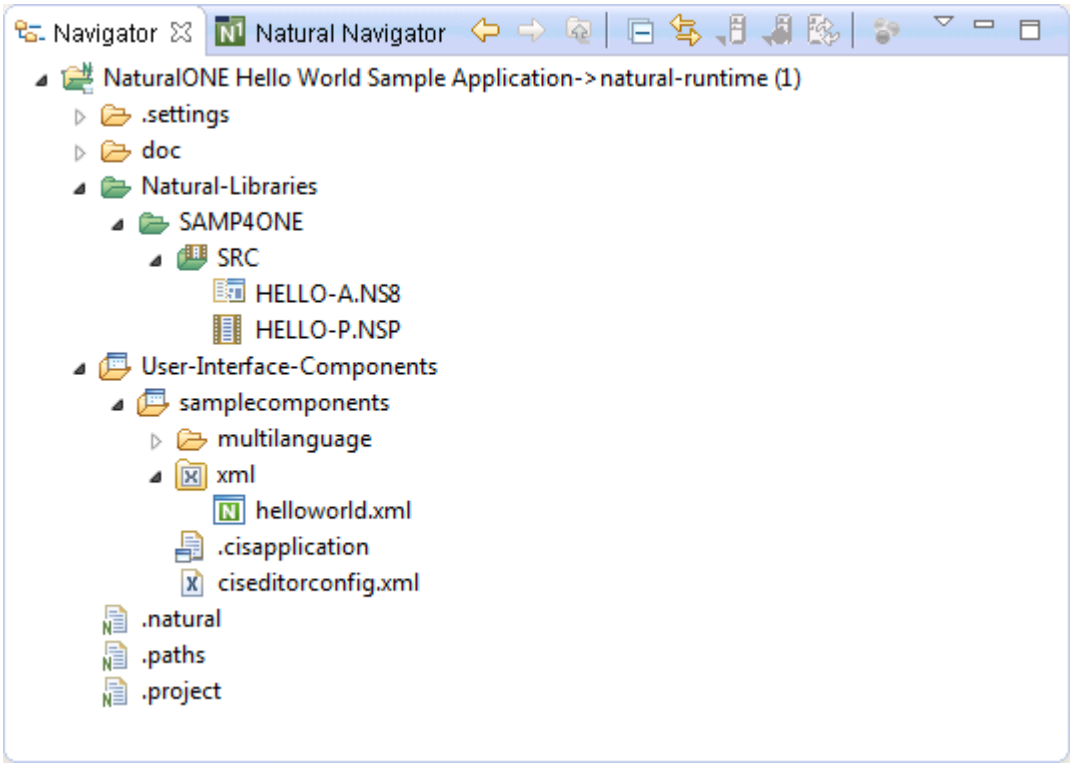
You start your first Natural application by executing the program `HELLO-P.NSP` in the `SAMPL4ONE` library.

To start the sample application

1 In the **Navigator** view, expand the project **NaturalONE Hello World Sample Application**.

Note: By default, the environment to which a Natural project pertains is shown next to the project name. For the sample applications, the environment name is "natural-runtime". This is the local Natural runtime which enables you to execute your applications without having to use a remote development environment. The number in parentheses which is also shown next to the project name indicates the number of Natural libraries in this project. This is part of the so-called label decoration.

The following screenshot shows the project structure.



There are two folders:

- **Natural-Libraries**
  Natural-Libraries contains the folder **SAMP4ONE**. This is the Natural library for this sample application.

  SAMP4ONE contains the folder **SRC**. This folder contains the Natural source files.

  HELLO-A.NS8 is the Natural adapter, that is, the Natural interface to the Ajax page.

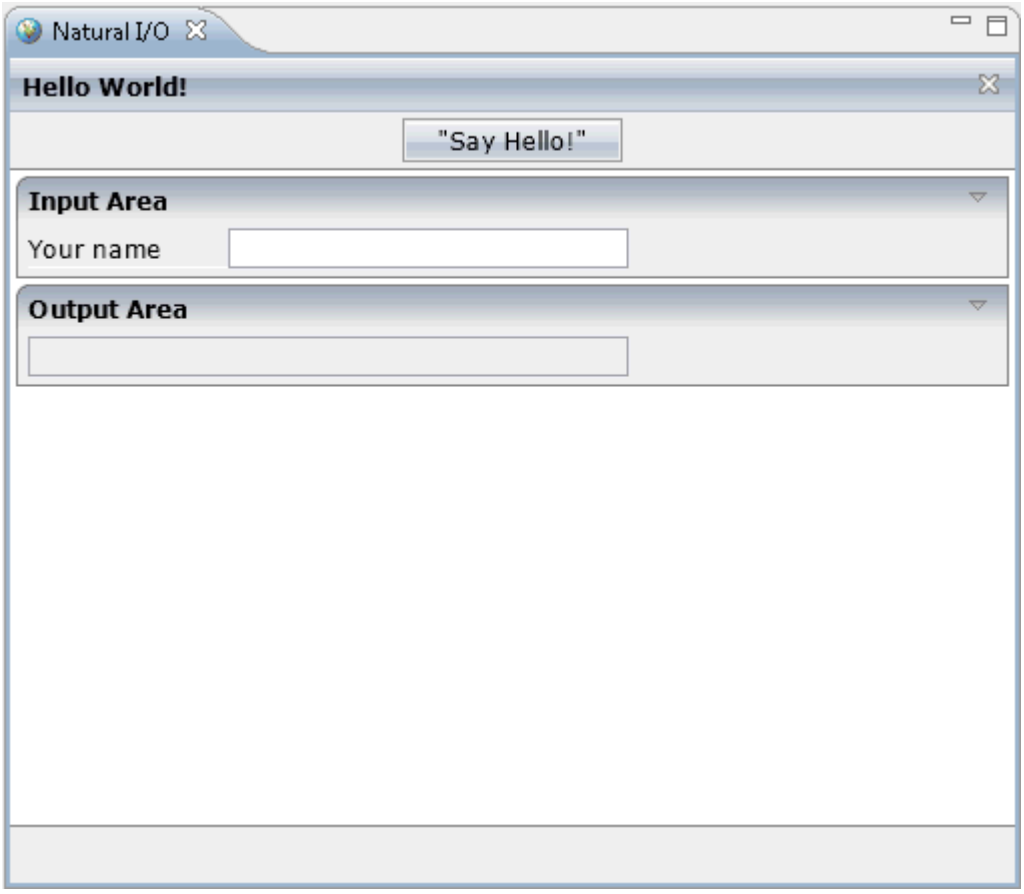
  HELLO-P.NSP is the Natural program which implements this simple Hello World application.
- **User-Interface-Components**
  User-Interface-Components contains the folder **samplecomponents** which in turn contains the folder **xml**.

  helloworld.xml contains the Ajax page layout. This page layout is defined with the Layout Painter, which is invoked from the context menu with **Open With > Layout Painter**.

  For detailed information about the Natural for Ajax technology, see *Natural for Ajax*.

2 Select the program **HELLO-P.NSP**, invoke the context menu and choose **Run As > Natural Application**.

The output is now shown.



3 Enter your name in the **Input Area** and choose the **Say Hello** button.

Your name is now shown in the **Output Area**.

4 Travel Approval Application

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About the Sample Application

The Travel Support System (this is the name that you can see on the screen when executing the application) is a small sample application for NaturalONE. As a sample application, its focus is to show NaturalONE functionality rather than being a full-fledged travel support application.

The Travel Support System (TSS) allows you to request and approve business trips. Flights, hotels and even more external information such as cell phone expenses or car rentals can be entered with the trip request. For the destination, weather information can be queried. A manager can do both, request own trips as well as approve trips that have been requested by employees. After the manager has approved single or multiple requests, the manager can print an itinerary or receive the itinerary as a PDF file.

The usage of the travel approval application is described below.

Prerequisites

In order to use the sample application, Adabas Version 6.1.9 or above must be installed and started.

Installing the Sample Application

Install the sample application by clicking **Travel Approval application** on the welcome page. A new project named "Travel" will then be shown in the **Navigator** view. See also *Installing the Sample Applications*.

Defining the Use of an External Web Browser

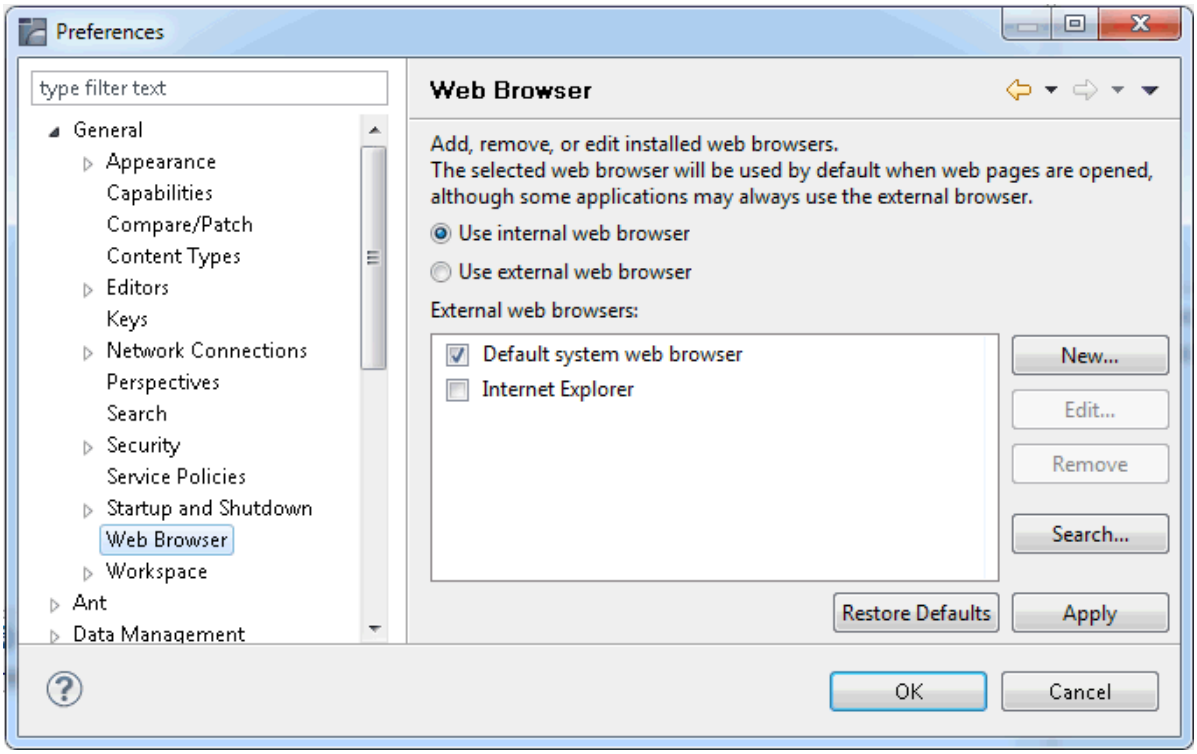
You will now make sure that the sample application is executed in an external web browser and not in the internal web browser.

To define the use an external web browser

1 From the **Window** menu, choose **Preferences**.

2 Expand the **General** node and select **Web Browser**.

The following page appears.



3 Select the **Use external web browser** option button and choose the **OK** button.

Starting the Sample Application

You start the sample application by executing the program `LOGIN.NSP` in the `TRAVEL` library.

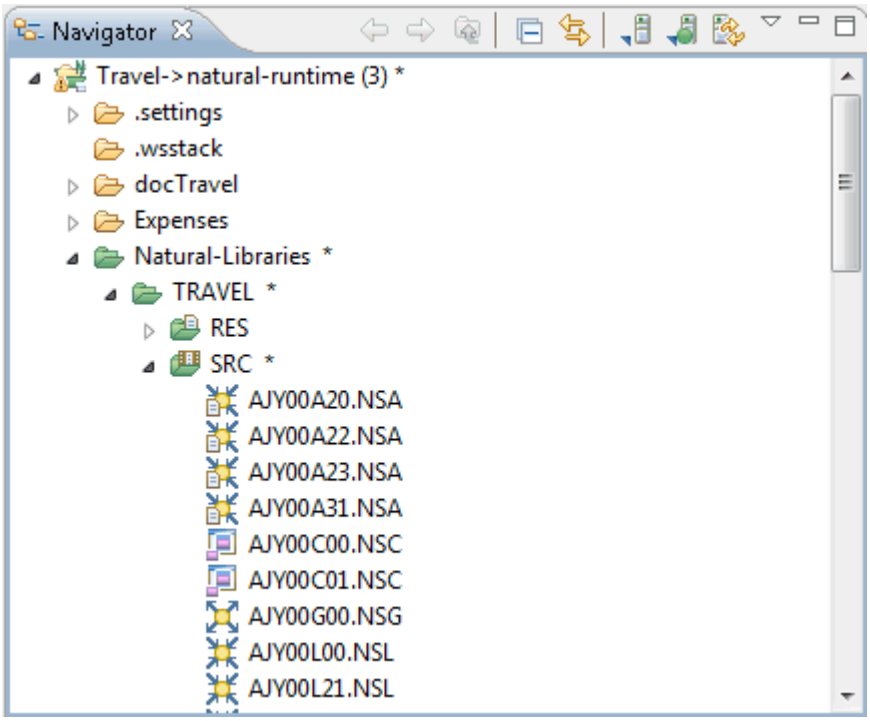
To start the sample application

1 In the **Navigator** view, expand the project **Travel**.

2 Expand the following nodes:

1. **Natural-Libraries**
2. **TRAVEL**
3. **SRC**

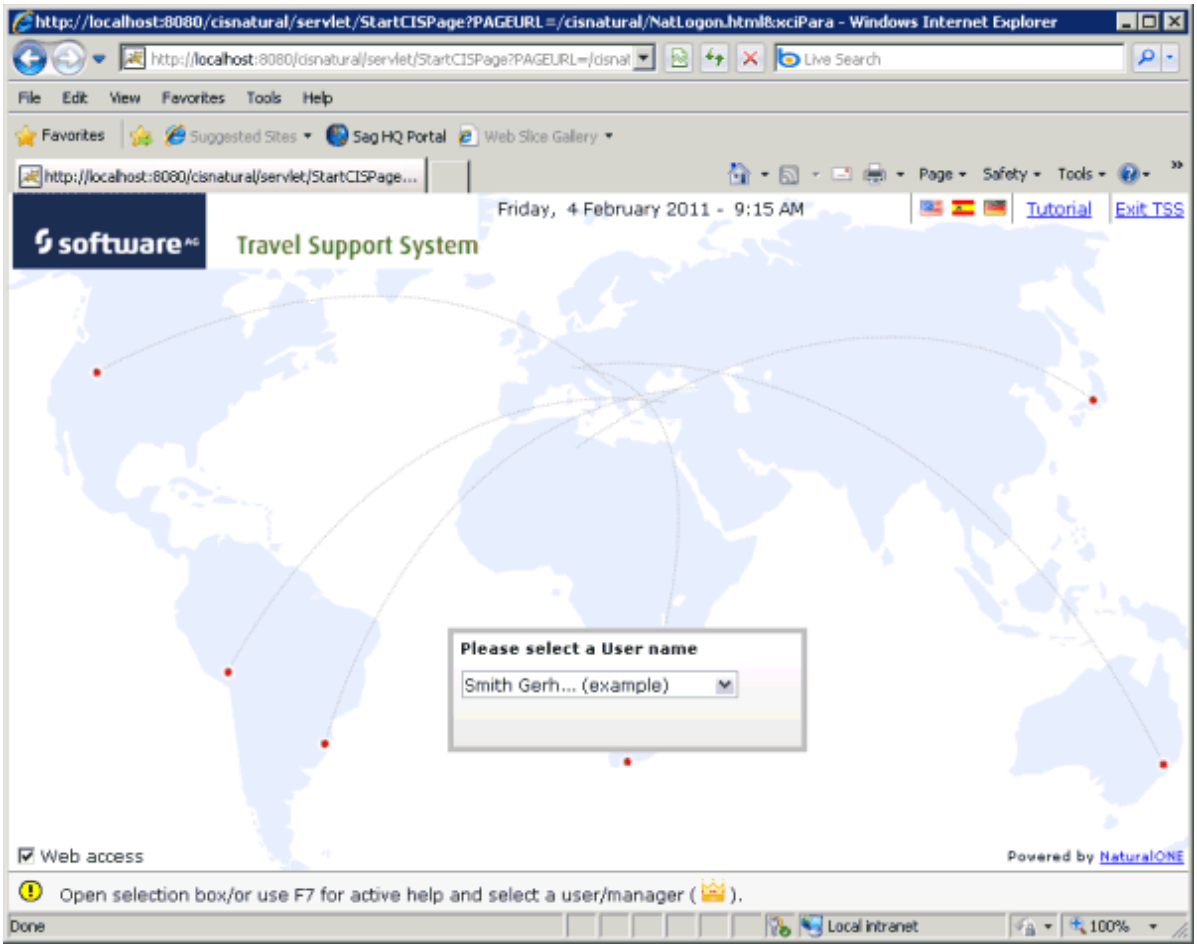
The tree should now look as follows:



3 Scroll down until you see the program name `LOGIN.NSP`.

4 Select `LOGIN.NSP`, invoke the context menu and choose **Run As > Natural Application**.

The sample application is executed. Since you have specified so in the preferences, it is executed in an external browser window.



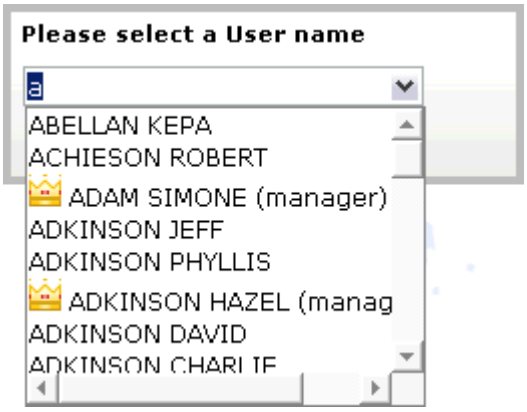
Logging in as an Employee for Requesting a Business Trip

You will now log in as an employee (with limited rights) and request a business trip.

To log in as an employee

1 In the **Please select a User name** dialog, type "A" over the name that is currently shown in the drop-down list box.

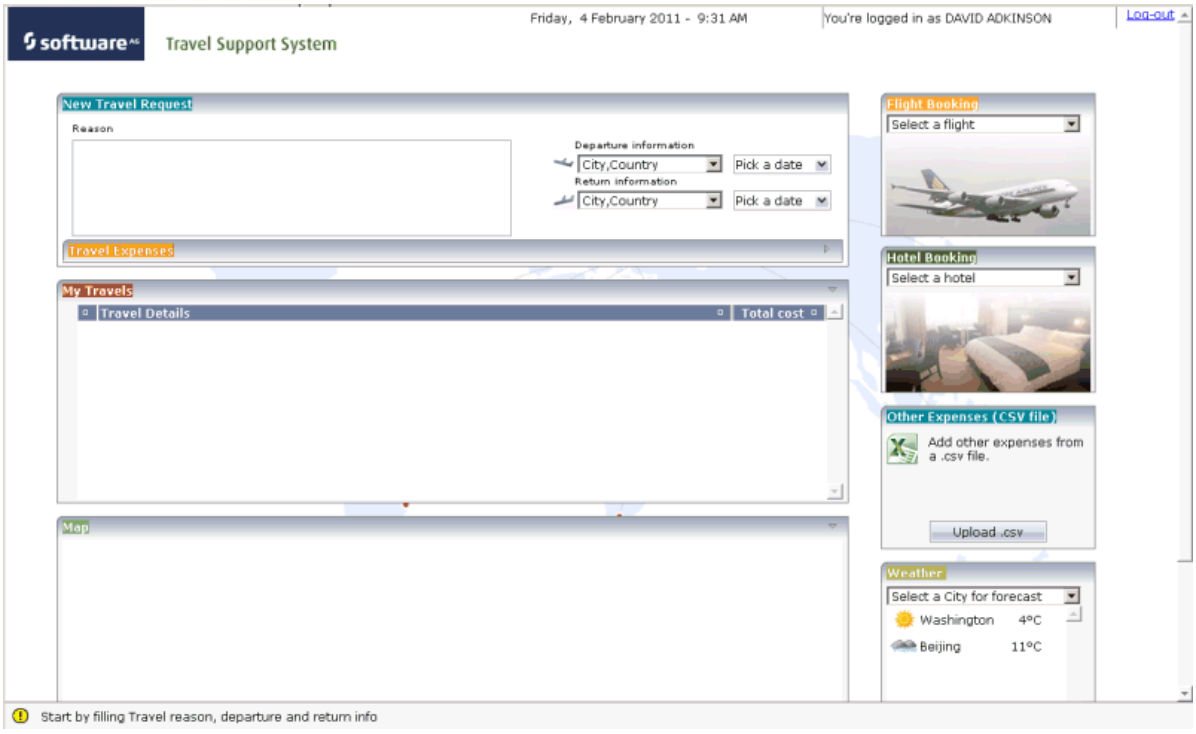
The drop-down list box opens, displaying the names of all employees and managers which start with the letter "A". This information comes from the Adabas demo database.



2 Select the name "ADKINSON DAVID".

3 Choose the **Enter New Request** button.

The following screen appears. Here, you will enter your travel request.



Entering a Travel Request with Flight and Hotel Information

You will now enter and submit your travel request. This includes the following information:

- City and date for departure.
- City and date for return flight.
- Flight number.
- Hotel name.

To enter a travel request

1 In the **Reason** text box, enter the reason for your travel plans. For example:

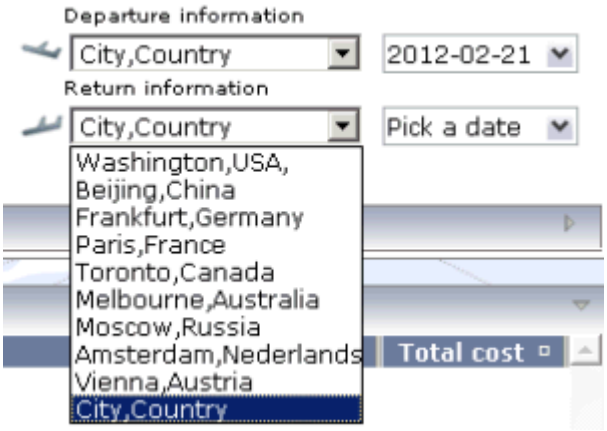
2 Under **Departure information**, open the drop-down list box.

3 Select **Toronto,Canada**.

4 Click on **Pick a date** which is shown to the right of the departure information.

5 In the resulting **Date Input** dialog, select the desired date for your flight to Toronto (for example, February 21, 2012).

6 Under **Return information**, open the drop-down list box.



7 Select **Beijing,China**.

8 Click on **Pick a date** which is shown to the right of the return information.

9 In the resulting **Date Input** dialog, select the desired date for your return flight from Beijing (for example, February 28, 2012).

You have now entered the basic information needed to make travel plans. Next, you will book a flight and a hotel.

10 Under **Flight Booking**, open the drop-down list box.

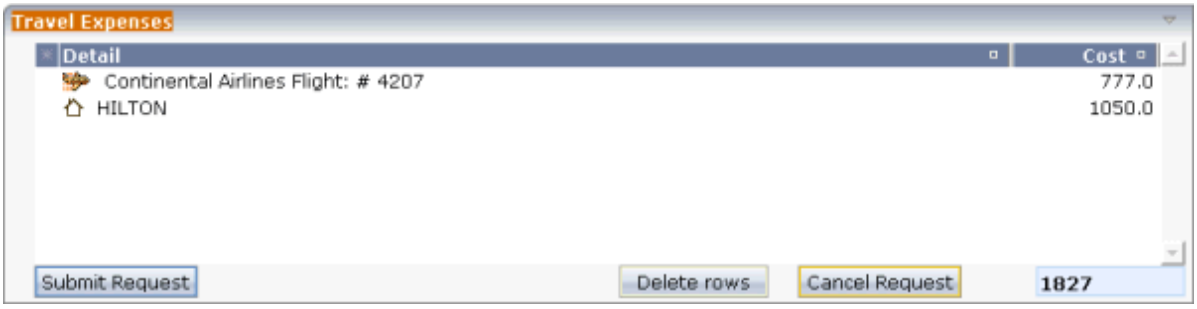
11 Select **Continental Airlines Flight: #4207**.

The selected flight is shown under **Travel Expenses**.

12 Under **Hotel Booking**, open the drop-down list box.

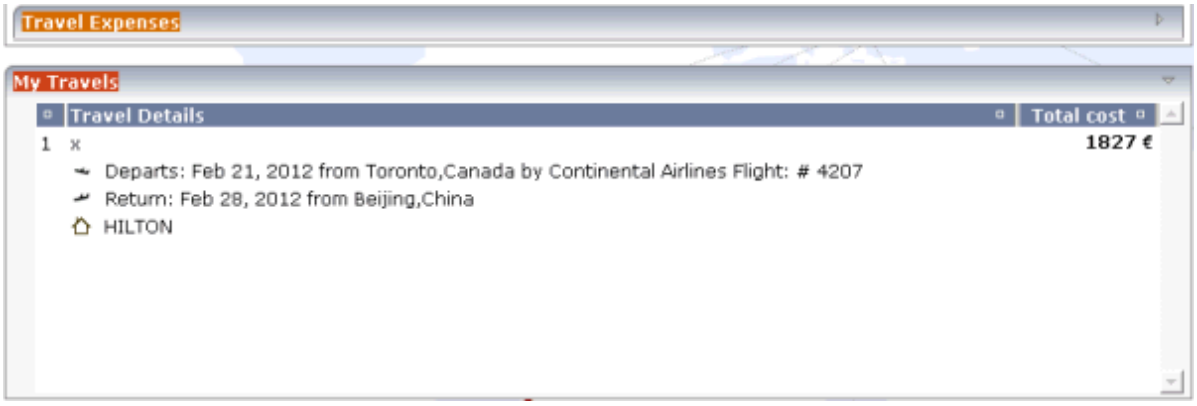
13 Select **HILTON,150**.

The selected hotel is also shown under **Travel Expenses**, including the costs (7 nights * 150 = 1050). The total cost has also been updated (1827).



14 Choose the **Submit Request** button.

The **Travel Expenses** area is closed, and the **My Travels** area shows the travel details.



At the bottom of the screen, you can see a message informing you that the travel request has been accepted (pending approval), and that you can now either create a new request or log out.

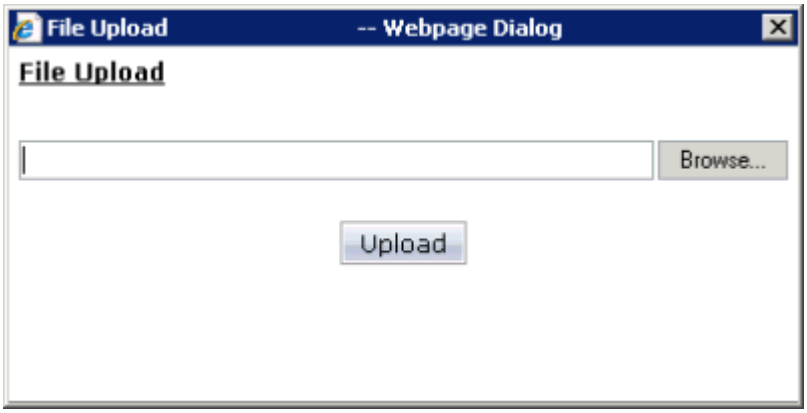
Adding Additional Expenses to Your Travel Request

You will now add additional expenses from a CSV file to your travel request. This is just for demonstration purposes and you will delete these expenses before you log out.

To add additional expenses

1 Under **Other Expenses**, choose the **Upload .csv** button.

The **File Upload** dialog appears.



2 Choose the **Browse** button.

3 In the resulting **Choose File to Upload** dialog, navigate to the location of your Eclipse workspace. Here, you can find the project directory that has been created for your travel application.

The demo CSV file which comes with the travel application is located in the *Expenses* folder of the project and has the name *expenses_trip1.csv*.

4 Select the file *expenses_trip1.csv* and choose the **Open** button.

The path to the selected file is shown in the **File Upload** dialog.

5 In the **File Upload** dialog, choose the **Upload** button.

The contents of the CSV file is shown under **Travel Expenses**.

You will now delete the two items that were added from the CSV file.

6 Select both lines (press SHIFT or CTRL to select the second line).

7 Choose the **Delete rows** button.

8 Log out by clicking on the **Log-out** link which is located at the top right of the screen.

The logon screen containing the **Please select a User name** dialog is shown again.

Logging in as a Manager for Approving Travel Requests

In order to approve the travel request you have just entered, you will now log in as a manager.

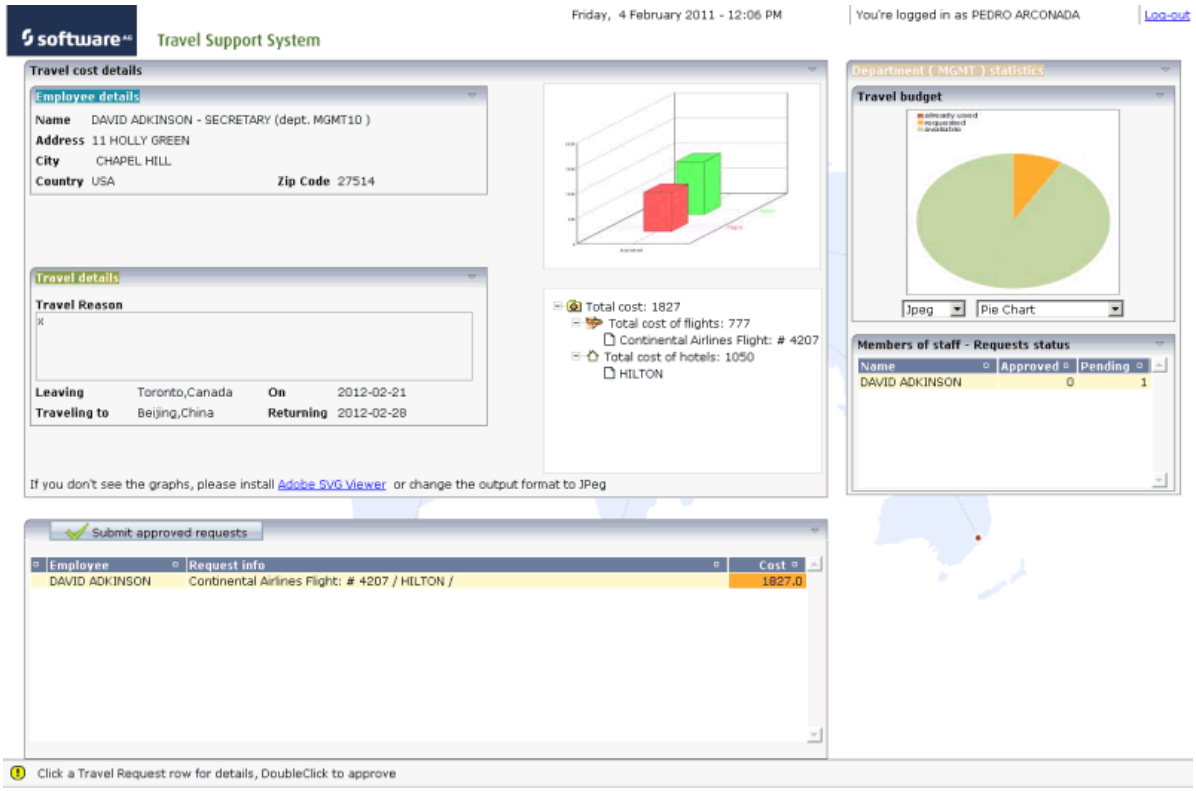
To log in as a manager

1 In the **Please select a User name** dialog, open the drop-down list box and select the name "ARCONADA PEDRO".

For this user, an **Approve Requests** button is shown which is only available to managers.

2 Choose the **Approve Requests** button.

The following screen appears, listing the travel requests that are waiting for approval.

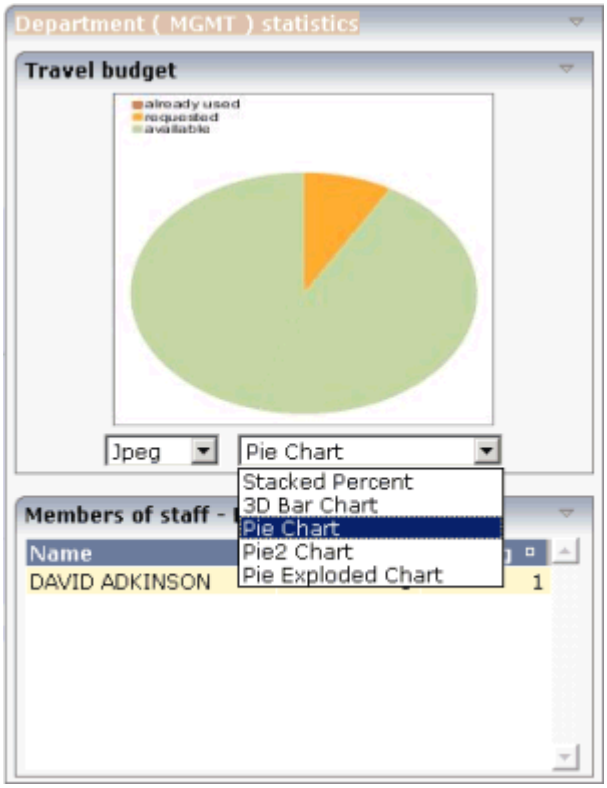


Approving a Travel Request

After you have logged in as a manager, you can approve travel requests.

To approve a travel request

1 Under **Department (MGMT) statistics**, open the drop-down list box for the different types of pie charts.

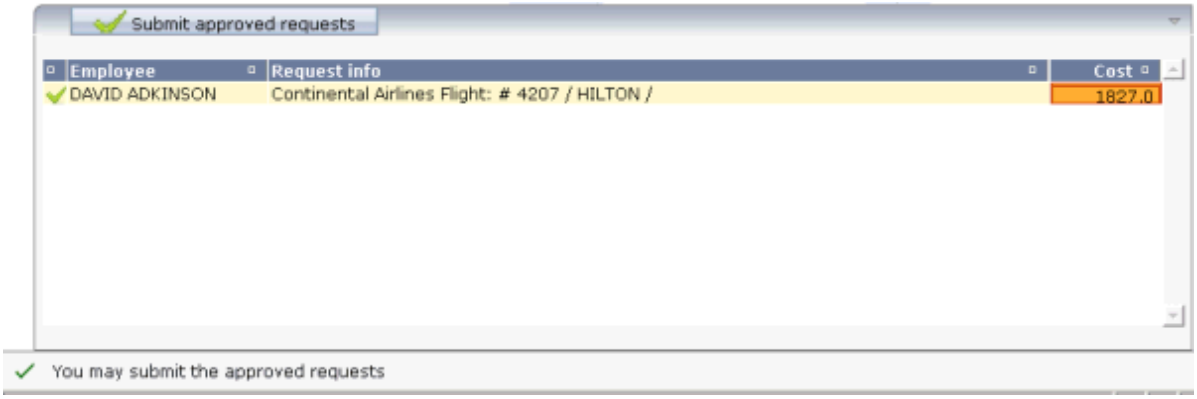


2 Select **Pie Exploded Chart**.

A different chart is shown, indicating the total travel budget that is available for the department, and how much of the budget is currently requested.

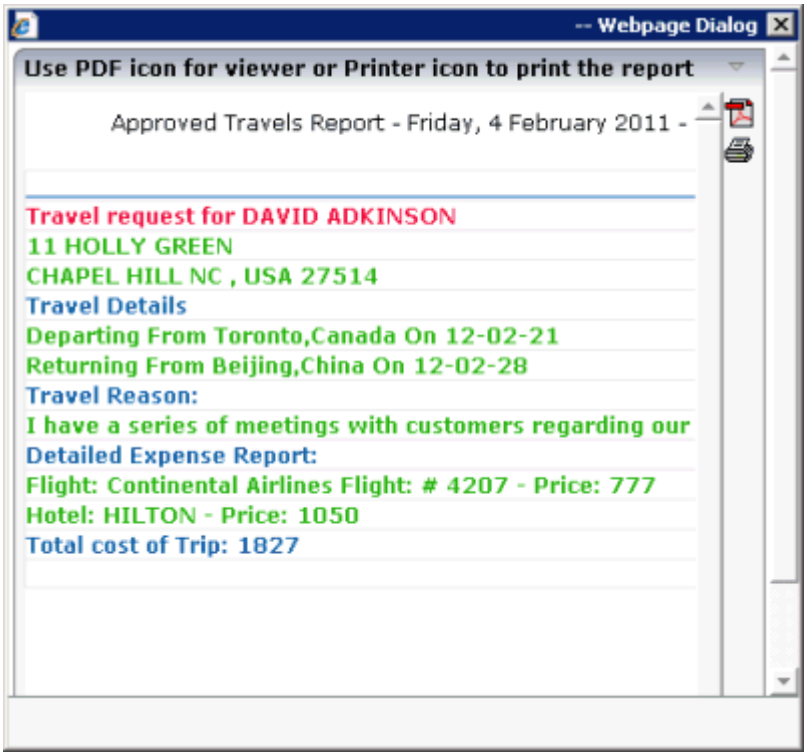
3 In the table at the bottom left of the screen (below the **Submit approved requests** button), double-click the row containing the employee name "DAVID ADKINSON".

A check mark is now shown in front of the row, and a message is shown at the bottom of the screen informing you that you may submit the approved requests.



4 Choose the **Submit approved requests** button.

The following dialog appears, containing the travel details for David Adkinson.



5 Click on the PDF icon ( ) at the top right of the dialog.

When appropriate PDF viewing software such as Adobe Reader is installed, the PDF output is shown and you can print it.

5 Natural for Ajax Demos

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About the Natural for Ajax Demos

The Natural for Ajax demos show you how to use the different controls and write the corresponding Natural server-side processing. When you start one of the samples, a corresponding description is shown which explains the sample and provides implementation hints.

Installing the Natural for Ajax Demos

Install the samples by clicking **Natural for Ajax Demos** on the welcome page. A new project named "NaturalAjaxDemos" will then be shown in the **Navigator** view. See also *Installing the Sample Applications*.

Starting the Natural for Ajax Demos

You can start the main program which lets you select single samples by executing the program `MENU-NJX.NSP`.

You can also start single samples directly by executing the corresponding program, for example, `CALCUL-P`.