A MITEL
PRODUCT
GUIDE

Unify OpenScape Xpressions

Application Builder

User Guide
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Mitel

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Contents

History of Changes

Date	Changes	Reason
06/2012	First draft	
06/2012	MMCC and all ACD controls are no longer supported.	FRN5712
09/2012	Installation restriction added to Abschnitt , “Installing and configuring the Application Builder”.	CQ00221962
09/2012	Extension of Automated Attendant added to Abschnitt 6.3.9, “Name Dialing Control”.	FRN5515
2014-01-08	The name “Unify” has been introduced.	
2017-04-28	Added information in chapter 6.3.7 Time Profile Control that for transfer also a connection box is required in order to perform the forward	UCBE-11059
2017-05-04	Updated information in chapter 6.3.7 Time Profile Control. Added some more specific information	UCBE-11059
2021-07-09	Updated information in chapter 6.3.14 Connect Control Updated part about Connection Timeout (seconds) field,	UCBE-27400

1 Introduction

The Application Builder is an administrative application for creating interactive voice applications for different deployment scenarios. A voice application [1] can be used as voice dialog system, Automated Attendant or IVR (Interactive Voice Response) solution. It enables the automatic playback of prompts, entering telephone keys via DMTF and making voice entries by means of speech recognition as well as forwarding to other subscribers. For example, prompts may inform the caller and help to navigate in the application. Entries via keyboard and via speech recognition enable the caller to find his/her way through the application and to enter data and names. A prompt text may read like this:

"Welcome to the XY company. If you would like to be connected to one of our assistants and know the extension, please push 1. If you would like to be connected with our hotline, please push 2. If you would ..."

In this way callers can be routed to a suitable conversation partner or routine jobs can be performed as automated procedures. Examples of voice application deployment scenarios are simple information provided via phone, automated reservations and orders, automated telephone exchanges.

1.1 Creating Voice Applications

The Application Builder contains a graphic editor that allows the user to assemble and configure a model of a voice application in the form of a callflow (block diagram or flowchart) .

A callflow consists of functional blocks (so-called **controls**) and of the **connections** between the functional blocks. The control features may e.g. comprise: playing an audio file, executing a database query or setting up a telephone connection to a subscriber. The connections between the controls in the callflow indicate from which control a transition to another control is possible. When assembling a callflow the user determines which controls exist in the callflow and which controls are interconnected. Configuring means that the user may set control properties. For example, he/she can set for a control to play audio files, which audio files to play and in which sequence. Furthermore, variables can be defined for storing data and grammar files applied for speech recognition. A voice application may contain several callflow pages in the callflow.

Thus, the callflow does not contain any information about the execution of the model, e. g. how audio files are accessed and how these audio files are forwarded to a PBX so that a caller can listen to these files. The Application Builder is thus a designer for voice applications. The execution of a voice application is performed by the Vogue script, which is configured within a telematics APL. See Abschnitt 2.2, “Operating Requirements”, auf Seite 15.

1. In the course of our descriptions only application for short will be used.

The result delivered by the Application Builder is a folder with different XML definition files. These files comprise the data which define a voice application and differ from other voice applications. Besides the callflows of an application with all its control and connection properties the files also represent the configuration of the voice applications and the properties of the variables, prompts and grammar files used.

While the creation of an application may occur offline, the provision of an application and its execution must have a link to the server. The described folders and files are written in the XPR server database upon their provision as well as stored as compressed folder in the setup directory of the XPR server. Other Application Builder users can then import, view and edit existing voice applications.

1.2 Application Builder Features

The following table lists the Application Builder features:

- Creating and editing voice applications
  - Chaining different applications
  - Searching for specific characteristics and elements of all applications. For example, all applications that use a specific prompt can be displayed. In case of a successful search, the results also deliver the prompt position within the application.
  - Using bookmarks for indicating the most different positions in the application
  - Integrating prompts in the available languages
  - Supporting text-to-speech (TTS) for announcing text
  - Definition of variables to store and forward data and information
  - Importing Application Generator applications used so far in the Application Builder
- Creating and modifying callflows that represent the possible functionality within a voice application
  - Creating a callflow within a clearly structured graphical editor
  - Attaching notes to a call flow
  - Linking different call flows
- Language modification for GUI, documentation and online help after a program reboot

1.3 Features of an Application

An voice application created with the Application Builder may have the following features:

- Playing and re-recording of sound files
- Application-flow control by the caller using a menu and making entries via DTMF keys or voice
- Performing actions depending on date, weekday, national holidays and time considering the time zone (usage of time profiles)
- Branching in the menu navigation depending on statistic as well as dynamic values such as the waiting loop allocation status
- Forwarding to an extension inclusive return call initiation
- Speech recognition
- Creating and applying call flow rules using specific conditions
- Definition and flexible use of variables
- Sending documents of different formats
- Searching for contacts
- Selecting a supported language
- Database query
- Simple recognition of infinite loops
- Creating statistic raw data for reporting usage

1.4 Who should read this Manual

This manual addresses system administrators and Professional Service employees whose task it is to establish and maintain a voice application.

You need not have any programming knowledge to create a voice application. It is created and edited in the form of a callflow using the graphical user interface of an editor.

1.5 General Notes for this Manual

1.5.1 Manual Structure

This manual is divided in the following sections:

Kapitel 1, “Introduction”

This chapter contains general information about the Application Builder application and about the manual itself.

Kapitel 2, “Installing and configuring the Application Builder”

In this chapter you receive information about the installation and configuration of the Application Builder.

Kapitel 3, “First Steps with the Application Builder”

This chapter describes the functional Application Builder concept and provides a short overview of the GUI and the most important features.

Kapitel 4, “Example Scenario”

Here the reader learns in the form of a tutorial how to create applications with the Application Builder.

The remaining chapters serve as reference:

Kapitel 5, “User Interface”

This chapter contains the description of the menu and toolbar and explains in detail the features of the workspace and of the different views.

Kapitel 6, “Application Deployment and Controls”

Here you learn how to deploy an application, and the features as well as configuration options of the single controls are introduced.

Kapitel , “Time Zone Index”

1.6 Required Tools

During the OpenScape Xpressions installation and configuration the following Cycos manuals in electronic or printed format will be referred to:

- *OpenScape XpressionsServer Installation*
- *OpenScape XpressionsServer Administration*

1.7 Document Conventions

In this manual, we use the **XPR** acronym for the product name OpenScape Xpressions V7.

The following conventions are used in the manual to clearly distinguish the various types of information.

HINWEIS: A note in inserted in the text to draw your attention to a feature or to provide information that facilitates working with the program.

WICHTIG: Text indicated in this way signalizes high priority information. The corresponding details must be heeded to avoid damages to the system or loss of data.

Representation	Purpose
1. Click on **OK**.	The single operating instruction steps are numbered.
• First alternative – Second alternative	Alternative operational steps are represented by unnumbered lists.
Boldface	Menu names, menu entries, dialog buttons, dialog field names, buttons and tabs appear bolded.
`Courier` font	Path descriptions and file names are indicated in Courier font, e. g. `c:\Program Files\...` or `Example.txt`
<*Text in pointed brackets*>	Texts that may have individual contents are represented in pointed brackets, e. g. the specification C:\<*user directory*>\ may mean: C:\Mayer\ or C:\kkh\

Tabelle 1 Text Representation Conventions

1.8 Acronym Directory

The following table lists the acronyms used in this manual in alphabetic sequence.

Acronym	Meaning
ANI	Automatic Number Identification
APL	Access Protocol Layer
ASR	Automatic Speech Recognition
CCBS	Completion of Calls to Busy Subscriber
CCNR	Completion of Calls on No Reply
CVS	Concurrent Versions System
DLL	Dynamic Link Libraries
DNIS	Dialed Number Identification Service
DSN	Data Source Name
DTMF	Dual -Tone Multi-Frequency
GMT	Greenwich Mean Time
IP	Internet Protocol
ITU	International Telecommunication Union
IVR	Interactive Voice Response
LCID	Locale ID
MRS	Message Routing System
MSP	XPR Service Provider
NVS	Nachrichteverarbeitungssystem
ODBC	Open Database Connectivity
RCP	Rich Client Platform
SSML	Speech Synthesis Markup Language
SQL	Structured Query Language
TTS	Text-to-Speech
Vogue script	VoiceGuide Script
XML	eXtensible Markup Language

Tabelle 2 Acronyms

2 Installing and configuring the Application Builder

The Application Builder is installed via the OpenScape Xpressions server's setup routine or separately as client application.

In case of the OpenScape Xpressions server's setup routine you select the Application Builder upon choosing the components to be installed. The required files are copied to a desired directory. You can obtain further information about the setup in the corresponding section of the OpenScape Xpressions *Server Installation* manual.

The Application Builder is separately set up by executing the `setup.exe` file in path `XpressionsInstall\AddOn\Client\ApplicationBuilder` on the installation medium of the OpenScape Xpressions system. A wizard for performing the client installation is started.

WICHTIG: You must not perform the installation in the *C:\Program Files* directory. This applies for the operating systems Windows Vista, Windows 7 and Windows 2008 R2.

2.1 Hardware Requirements

HINWEIS: The required hardware environment must be provided in the setup location. Please obtain detailed information from the *OpenScape Xpressions Release Notice* service documentation.

2.2 Operating Requirements

Smooth operation of the Application Builder for configuring a voice application requires the following :

- Installation of the XPR server
  See the OpenScape Xpressions *Server Installation* manual,
- a PBX, appropriately configured,
- Binding of the Vogue script to a telematics APL (ISDN, IP or Dialogic APL) and the assignment of a number range (see Abschnitt 2.3, “Configuring a Vogue Script”, auf Seite 16).

We recommend the configuration of a Concurrent Version System (CVS) or similar systems for storing the files of the configured voice application or controlling the access to such files.

Depending on the usage scenario the following requirements may have to be met:

- the installation of a DB APL,
- the creation of a data source, so that the Application Builder can be used to perform database queries and extensions (see Abschnitt 2.4, “Configuring the Database Access”, auf Seite 21),
- the installation of speech recognition software so that a user can make entries via DTMF keys and voice,
- the installation and configuration of the Report APL and Report Schedule APL for processing statistical raw data of the Vogue script.

For further information on the installation and configuration of the XPR server please refer to the corresponding installation or administration manuals.

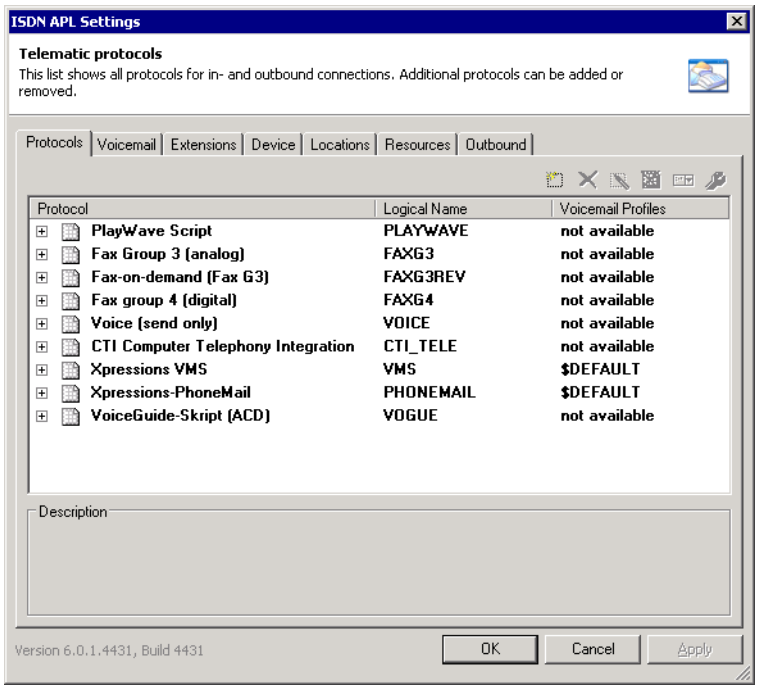
2.3 Configuring a Vogue Script

HINWEIS: The Vogue script is configured via the ISDN APL or IP APL configuration pages. For a detailed description of the ISDN APL and the other Telematic APLs please refer to the chapter Telematic APL in the OpenScape Xpressions *Server Administration* manual.

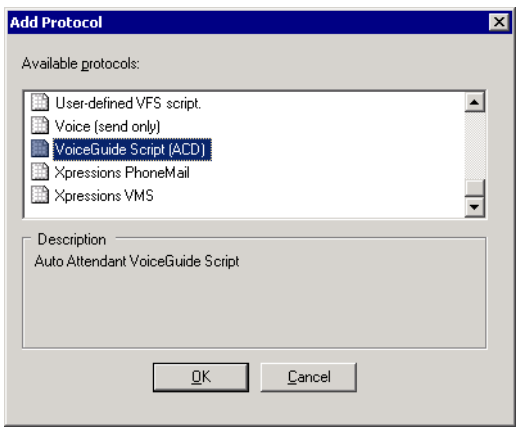
To configure a voice application you need a correctly configured Vogue script with a corresponding extension number range. With the help of this script you assign a phone number to your voice application.

How to configure a Vogue script:

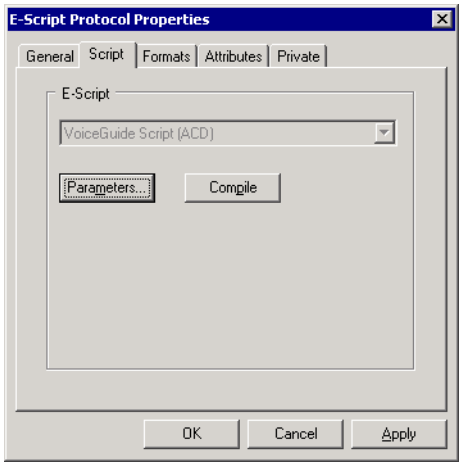
1. Start the XPR monitor and open the **ISDN APL Settings** dialog to perform the ISDN APL settings.



2. Switch to the **Protocols** tab.
3. Rightclick the list field. Select the **Add** option in the open context menu.
4. In the **Add Protocol** window select the **VoiceGuide Script** entry and click on the **OK** button.

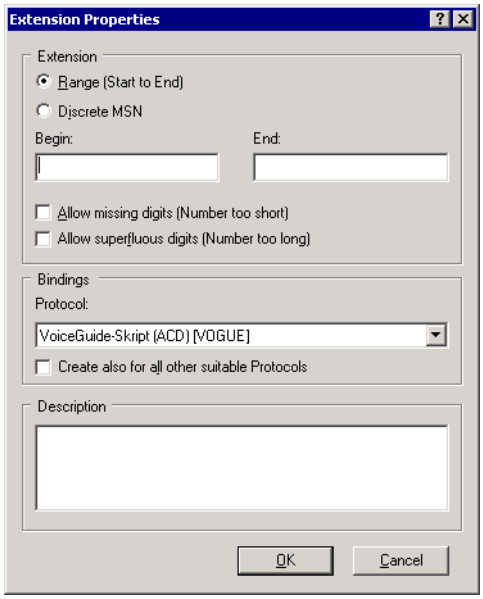


5. In the open **E-Script Protocol Properties** window select the **General** tab and enter “Vogue” in the **Name** field for the script to be created.
6. Verify that the E-script **VoiceGuide Script** has been selected on the **Script** tab. If no script exists here, check your server installation and reinstall the script.



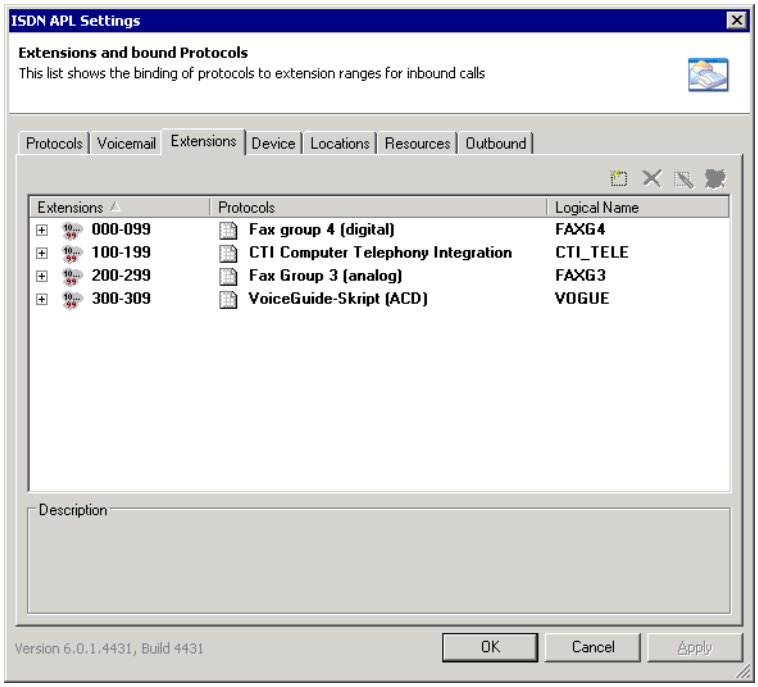
7. Click the **OK** button. The Vogue script appears as protocol in the list on the **Protocols** tab in the **ISDN APL Settings** window.

8. Switch to the **Extensions** tab to define an extension range.
9. Rightclick the list field and select the **Add** option in the context menu. The **Extension Properties** dialog opens.



10. Enter the start and end point of the extension range in the **Start** and **End** fields. In doing so please note that the extension range must not clash with the extension ranges of other protocols.
11. In the **Protocol** combo box you select the list entry **VoiceGuide Script [VOGUE]**.
12. Click the **OK** button to confirm your entries.

    The **VoiceGuide Script** with the associated extension range is listed on the **Extensions** tab.



13. Click on **OK** to save the performed settings.

HINWEIS: A proper configuration of the Vogue script is displayed if the Vogue script is listed on the **Extensions** tab.

2.4 Configuring the Database Access

HINWEIS: This connection is established with the help of an ODBC driver. It is sufficient to install this driver on the server only.

To be able to use the database read and write feature you must configure a connection between the Application Builder respectively the Vogue script and the respective databases. The driver is an ODBC driver. The following sections include the driver configurations for the setup of a connection to the MySQL, Microsoft SQL Server 2000 and Microsoft Access 2003 databases.

HINWEIS: At any rate, a user must have privileges of the database commands `Select`, `Insert` and `Update`.

Each driver configuration is operated via the **ODBC Data Source Administrator**. On a 64-bit computer, you need to start the **ODBC Data Source Administrator** in the version for 32-bit applications, because XPR is not a 64-bit application. You do this via **Start** >**Run** > %SystemRoot%\SysWOW64\odbcad32.exe.

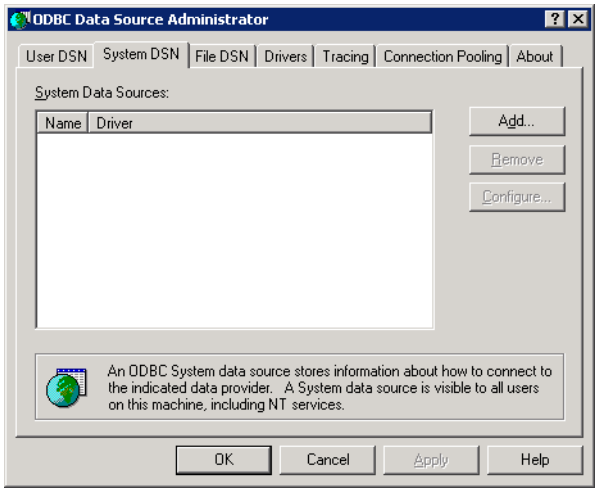
2.4.1 MySQL

HINWEIS: The instructions refer to MySQL version 4.1.8-nt-max or higher and the ODBC driver version 3.51.11.00 or higher.

Execute the following steps to correctly configure your ODBC driver for setting up the connection to a MySQL database.

1. On a 64-bit computer, you need to start the **ODBC Data Source Administrator** in the version for 32-bit applications, because XPR is not a 64-bit application. You do this via **Start** >**Run** > %SystemRoot%\SysWOW64\odbcad32.exe.

2. Select the **System DSN** tab.



HINWEIS: The **Help** button opens a help page for the MySQL ODBC driver containing detailed instructions to configure the advanced settings as well as further information.

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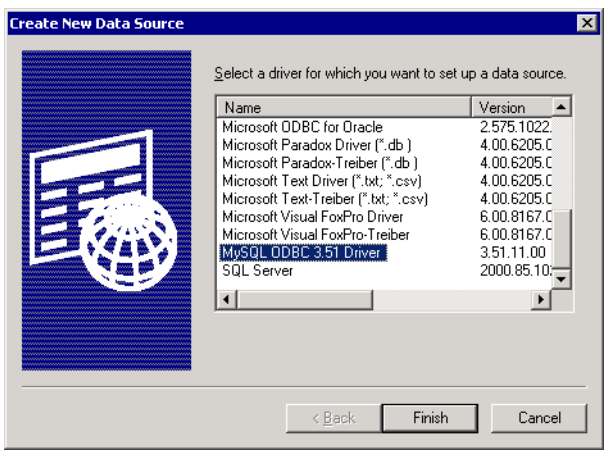
3. Click on **Add** to configure a new data source. The dialog **Create New Data Source** opens.

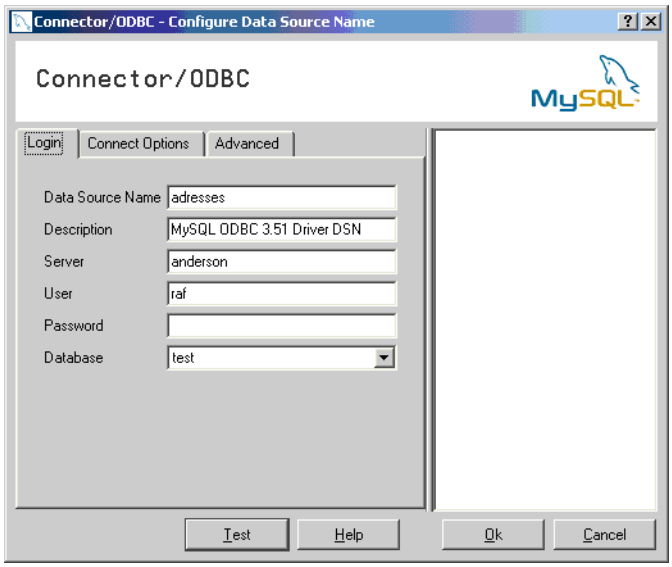
4. Select the X**MySQL ODBC Driver**X entry.



5. Click on the **Finish** button.

   The **ODBC Connector** of the MySQL driver starts and you can configure several settings to configure a data source in here. These settings are divided into the tabs **Login**, **Connect Options** and **Advanced**.

“Login” tab

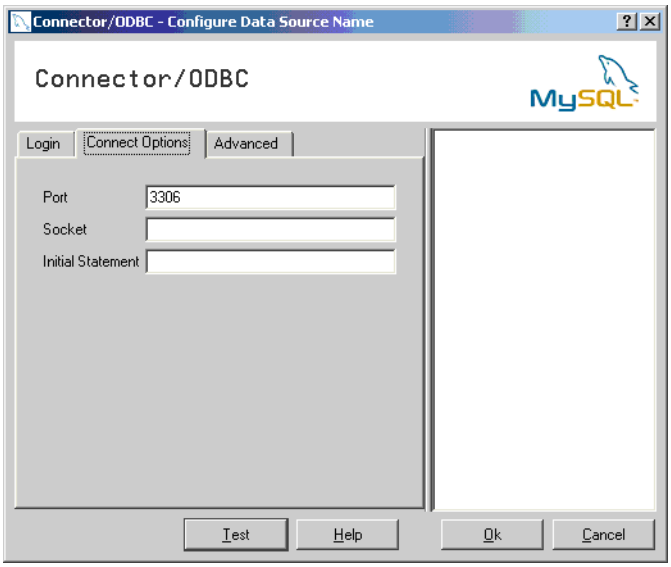


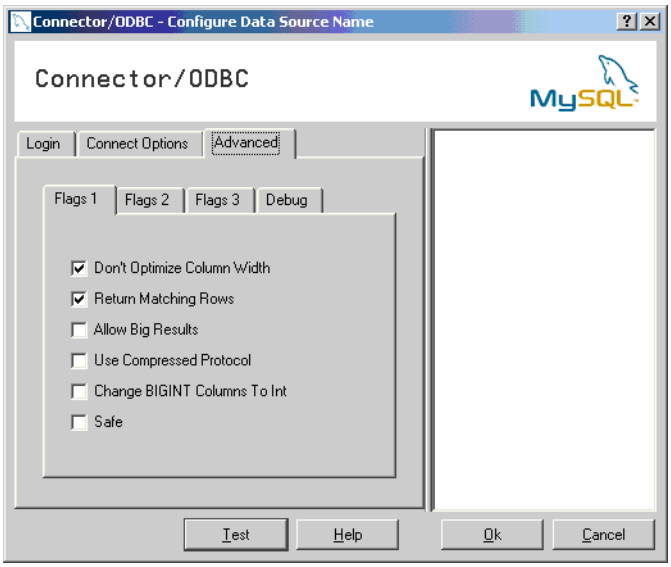
The fields of this tab serve the following purposes:

Field	Description
Data Source Name	You can define a name here for the database identification of future operation.
Description	Here you can also insert a description.
Server	In this field you define the server. You can either enter the server URL address, the IP address or the server name.
User	Enter a valid database user here.
Password	Enter the valid password of the database user.
Database	Select a database from the list.

Tabelle 3 Fields on the “Login” Tab

“Connect Options” and “Advanced” tab





The **Connect Options** tab defines the settings for the communication between the Vogue script and the database, whereas the **Advanced** tab provides some options via data exchange.

HINWEIS: In these two tabs you may confirm the predefined default settings. For a more detailed description of the individual fields of this tab please refer to the MySQL Database instructions you can open via the **Help** button.

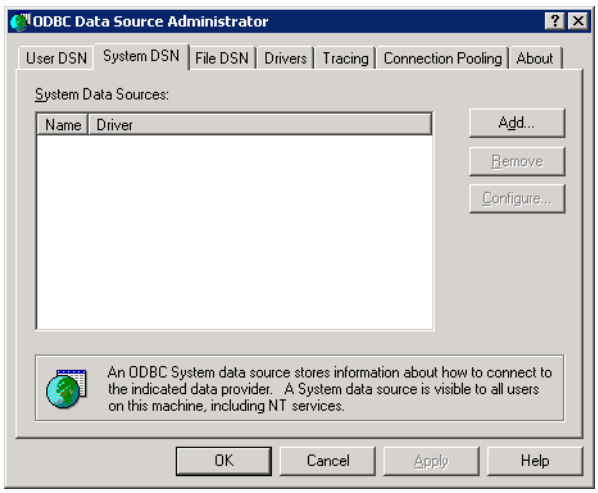
Finally, check your settings via the **Test** button. After a successful configuration click on the **OK** button to leave the configuration dialog.

The configured data source is now listed in the **Data Sources** list on the **User DSN** tab of the **ODBC Data Source Administrator**. You close this dialog with a click on **OK** . The Application Builder can now access the data source connection you have created.

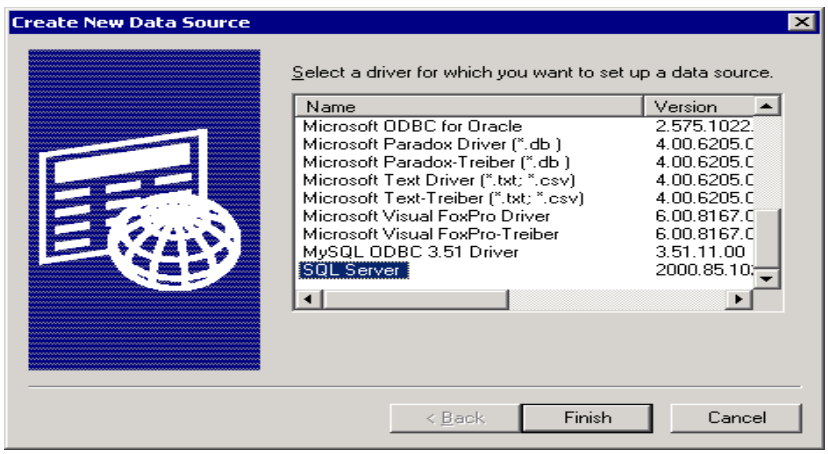
2.4.2 SQL Server 2000 and higher

Execute the following steps to correctly configure your ODBC driver for setting up the connection to a SQL server.

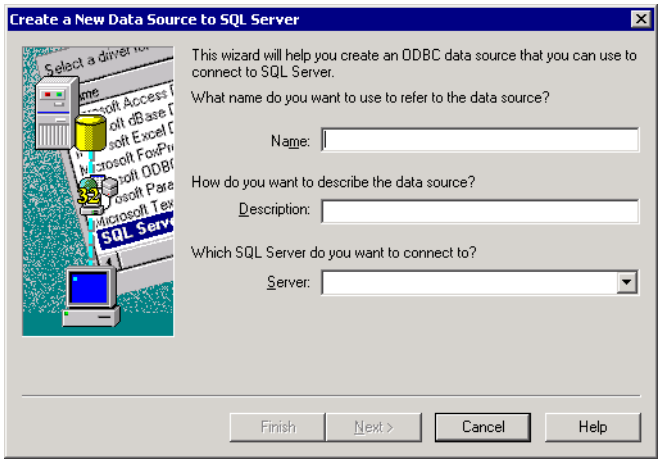
1. Execute the steps **Start > Settings > Control Panel > Administrative Tools > Data Sources (ODBC)** to start the **ODBC Data Source Administrator**.
2. Select the **System DSN** tab.



3. Click the **Add** button.
4. Select the **SQL Server** entry from the list and click on **Finish**.



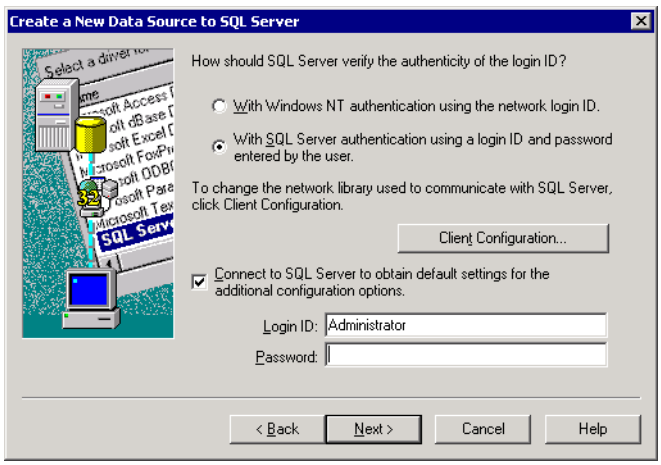
5. The **Create a New Data Source to SQL Server** dialog opens.



Enter a **name** for your data source here, perhaps a more detailed **description** before selecting a **server**.

6. Click on **Next**.

   The following dialog opens. Here you define the authentication for accessing the database.

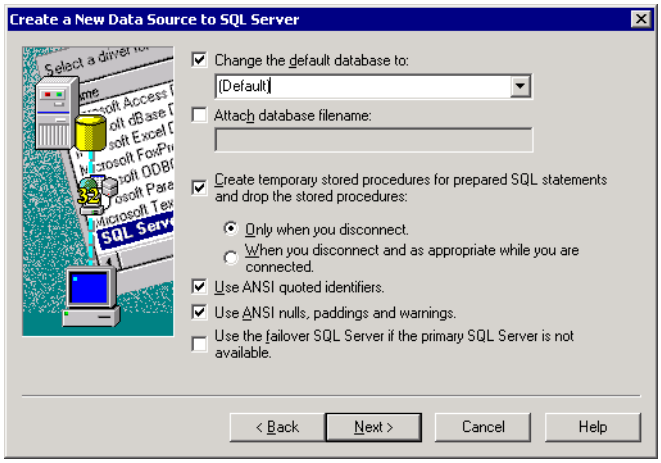


7. Select the radio button **With SQL Server authentication using a login ID and password entered by the user**.

8. Activate the checkbox **Connect to SQL Server to obtain default settings for the additional configuration options**. Then enter the **Login ID** and the associated **Password**.

9. Click on **Next**.

   A connection to the SQL server is set up, which is already a check as to whether a valid connection to the SQL server exists. The following dialog, which contains the copied SQL server settings, opens.

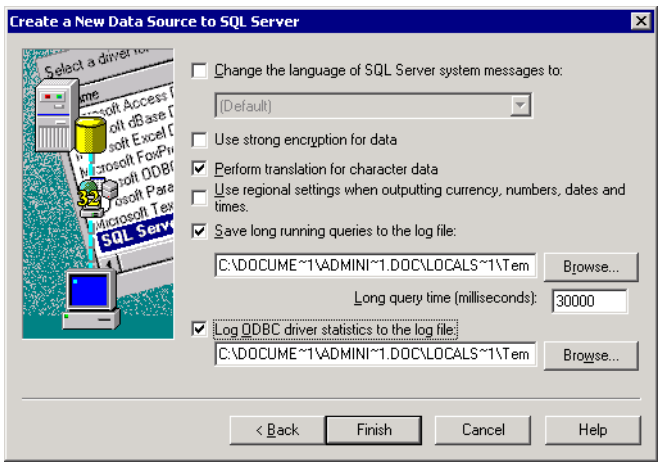


HINWEIS: For a more detailed description of the individual options please refer to the description in the **Help** menu.

Activate the desired checkboxes.

10. Click on **Next**.

    The following dialog, which features further copied SQL server settings, is displayed.

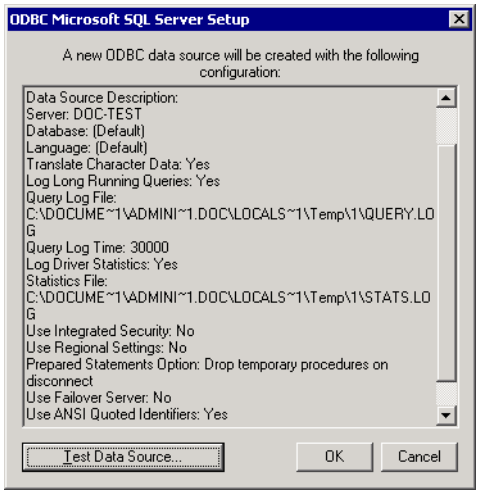


HINWEIS: For a more detailed description of the individual options please refer to the description in the **Help** menu.

Activate the desired checkboxes or copy the default settings.

11. Click on the **Finish** button.

    You will receive a summary of your new data source settings.



12. Check your settings and click on the **Test Data Source** button to check the configuration.
13. After a successful test click on **OK** to close the configuration dialog.

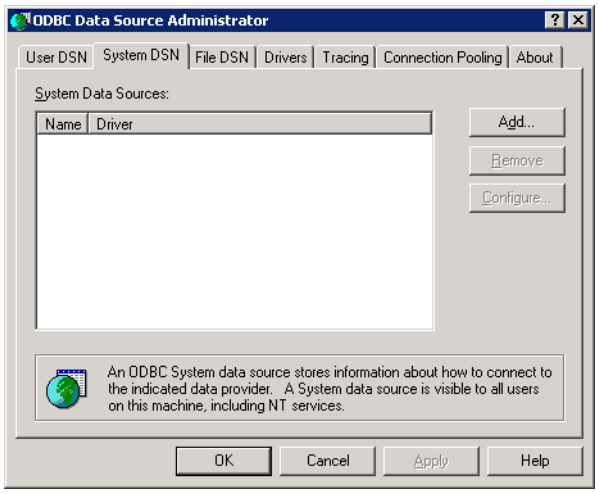
    The configured data source is now listed in the **Data Sources** list on the **User DSN** tab of the **ODBC Data Source Administrator**.
14. Click on **OK** to shut down the **ODBC Data Source Administrator**.

The Application Builder can now access the data source connection you have created.

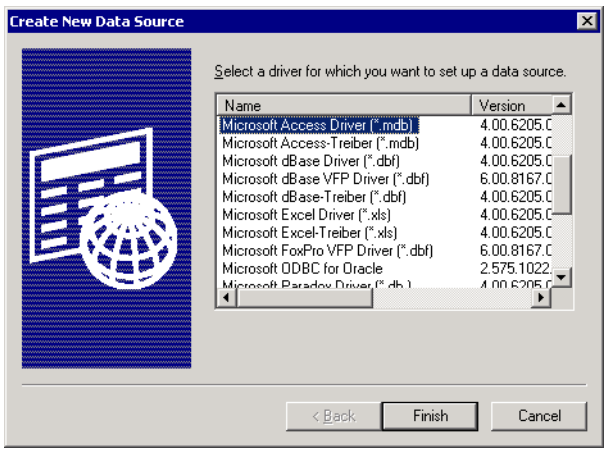
2.4.3 Microsoft Office Access 2003

This section explains the configuration of an SQL data source with the help of Microsoft Office Access 2003.

1. Execute the steps **Start > Settings > Control Panel > Administrative Tools > Data Sources (ODBC)** to start the **ODBC Data Source Administrator**.

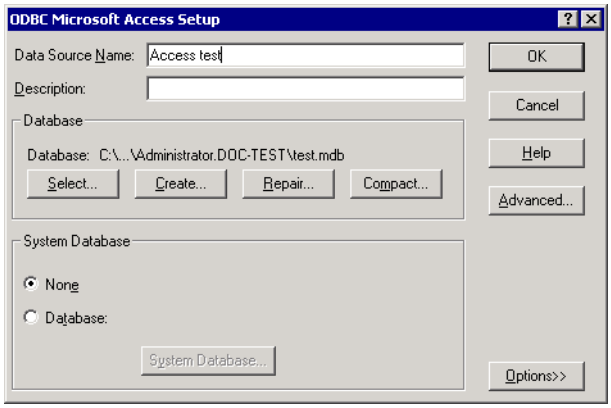


2. Select the **System DSN** tab.
3. Click the **Add** button.
4. Select the **Microsoft Access Driver** entry from the list and click on **Finish**.



5. The **ODBC Microsoft Access Setup** window opens.

HINWEIS: Click on the **Help** button to obtain more detailed and continuative information about the **ODBC Microsoft Access Setup**.



6. Enter a **Data Source Name** and optionally a **Description** for the data source.
7. Select a **Database**.
   - Click the **Select...** button to use an already existing database.
   - With a click on the **Create...** you can create a new database.

   HINWEIS: The database should be on the local server. If the database is at another position within the network, a connection to this position (mapping) must exist with write and read permissions.

8. Click on **OK** to copy the settings.

   The configured data source is now listed in the **Data Sources** list on the **User DSN** tab of the **ODBC Data Source Administrator**.
9. Click on **OK** to shut down the **ODBC Data Source Administrator**.

The Application Builder can now access the data source connection you have created.

3 First Steps with the Application Builder

The Application Builder is embedded in an eclipse framework by means of a Rich Client Platform (RCP). The Application Builder user guidance thus features the eclipse-typical views and editors for displaying or editing.

3.1 Functional Concept

The functional concept of the Application Builder can be defined as follows.

3.1.1 Workspace

A workspace serves as superordinate container, which includes and manages all created elements and configured properties. A workspace contains any number of applications as elements, which, in turn, contain any number of callflows that can be linked to each other as elements.

At the Application Builder start, a folder must be created as storage for the workspace at the start. In this folder all configurations of the single workspace components are locally stored in XML definition files. These files and their contents cannot be used for the execution of created voice applications yet. Only an explicit deployment copies the files to the OpenScape Xpressions server and allows an execution.

For the entire workspace, available languages, databases, prompts, grammar files and variables are configured:

Languages

Besides the licensed languages, further languages can be activated by means of their language codes and their locale ID. The languages are used for configuring prompts and grammar files.

Databases

Already existing databases can be connected, so that data can be read out of the database and be stored in the database.

Prompts

Prompts are either assigned to sound files or are created by defining text and a text-to-speech engine. Each sound file is to be assigned to an available language, while for each activated language a text can be specified for creation by means of a text-to-speech engine.

grammar files

Grammar files serve as basis for speech recognition and are assigned to an activated language each.

Variables

Variables are wildcards and storage location for data such as statistical codes, phone numbers or DTMF entries. The names are freely selectable.

HINWEIS: The properties and components set in the workspace are globally valid and applicable for the entire workspace, i.e. also for all applications available in this workspace. Application-specific language and database settings are not possible. Workspace-specific prompts, grammar files and variables can be exported to other workspaces, though.

3.1.2 Applications

Applications are designed as models of voice applications using the Application Builder. The application configurations are also locally stored in XML definition files. Not until the design is complete, applications can be compressed in the XPR database or in a file and exported to the XPR system for execution. Via one or several phone numbers assigned to the application the application and its call flows can be reached.

The properties and components configured in the workspace are “bequeathed” to every configured application and are thus immediately usable. Furthermore, prompts, grammar files and variables can be configured in each application and are only additionally available in the respective application. Application-specific language and database settings are not possible. Application-specific prompts, grammar files and variables can be copied to other applications, though.

The Vogue script must be installed and configured in a telematics APL for executing an application. The Vogue script is in charge of technically implementing the application. A phone number range is assigned to the Vogue script in the telematics APL. The application is assigned a phone number from this range and it can then be reached via this phone number.

3.1.3 Callflow

Any number of call flows can be modeled in each voice application. A graphical editor is used for this purpose. Each call flow consists of controls, which represent specific features. For example, controls exist for playing prompts, for selection in a menu, for entering DMTF keys or using time profiles. Each control can be used as often as you wish and be connected to other controls. Controls are connected according to specific events or conditions. For example, the connected control is

forwarded to after the successful playback of an announcement or selecting a menu option with a DTMF key. In addition it is possible to connect different call flows within an application.

The prompts, grammar files and variables configured in a workspace or application are used in the single control for the respectively possible functionality. Prompts are used as information greetings, grammar files as precondition for using speech recognition and variables for storing data.

The Application Builder can detect and represent syntactical errors in the workspace configuration, the applications and controls within call flows. While errors prevent the successful execution of an application and must therefore be rectified, warnings specify improvement options.

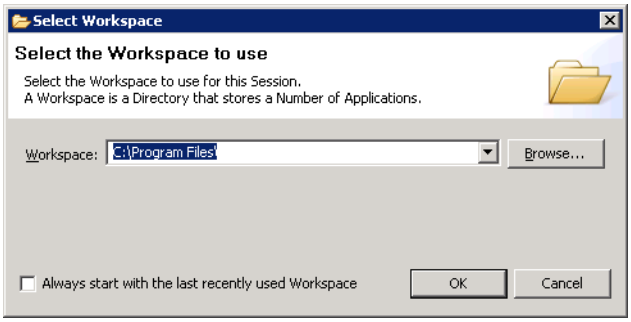
HINWEIS: The Application Builder cannot check the usefulness of a call flow design; this must be done by the user himself/herself.

The Application Builder can be operated offline, i.e. without connection to the OpenScape Xpressions server. When an application design is complete, there must, however, be a connection to the OpenScape Xpressions server for providing and executing this application. The workspace locally stored in files is stored in the OpenScape Xpressions server database as well as compressed in a file and copied to the OpenScape Xpressions server.

3.2 Starting the Application Builder

Start the Application Builder by either doubleclicking  on your screen or executing the `AppBuilder.exe` file in the Application Builder's setup directory.

When you start the Application Builder you need to select the directory for storing the workspace data.



The data and configuration settings of the workspace and of the applications is stored and also loaded in this directory.

Click on the **Browse...** button to select an existing directory or create a new folder.

WICHTIG: Make sure not to use the `workspace` subfolder of the Application Builder setup path. This folder contains superordinate meta data that must not be overridden or deleted.

HINWEIS: If you want the above dialog to be skipped and the Application Builder automatically be started with the workspace used last when you boot the program, activate the **Always start with the last recently used Workspace** checkbox.

You cannot set the language for the graphic user interface, documentation and online help of the Application Builder at the start, but via the settings dialog in the **Tools > Preferences ...** menu. See Abschnitt 5.1.6, “Tools”, auf Seite 83.

HINWEIS: A language reset for the GUI, documentation and online help does not take effect until the program is rebooted.

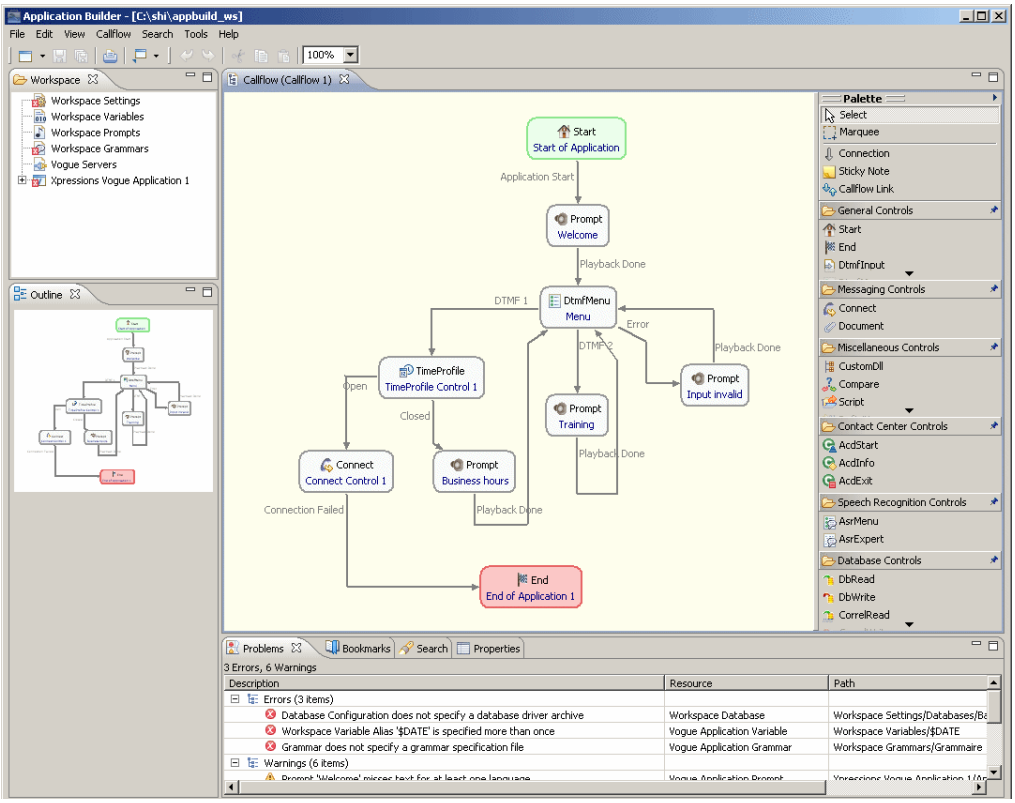
3.3 GUI Overview

The graphical user interface of the Application Builder features the following elements:

- Menu bar
  The single menu options of the menu bar are described in detail in Abschnitt 5.1, “Menu Bar”, auf Seite 69.
- Toolbar
  The single elements of the toolbar are represented in Abschnitt 5.2, “Toolbar”, auf Seite 94.
- Views
  You find a detailed description of the different views in Abschnitt 5.3, “Views”, auf Seite 95.
  - Workspace
    Abschnitt 5.3.2, “Workspace View”, auf Seite 99
  - Callflow editor with palette
    Abschnitt 5.3.3.5, “Callflow Editor”, auf Seite 156
  - Outline
    Abschnitt 5.3.4, “Outline View”, auf Seite 160
  - Problems
    Abschnitt 5.3.5, “Problem View”, auf Seite 160
  - Bookmark
    Abschnitt 5.3.7, “Bookmark View”, auf Seite 163
  - Search
    Abschnitt 5.3.8, “Search View”, auf Seite 165
  - Properties
    Abschnitt 5.3.6, “Properties View”, auf Seite 162
  - Help
    Abschnitt 5.3.9, “Help View”, auf Seite 167

The menu bar and toolbar are always displayed. The views can be optionally displayed and opened and closed as required.

The following figure shows e.g. the Application Builder GUI with some of its views. The **Problems**, **Bookmark**, **Search** and **Properties** views are combined in the form of tabs, so that only the **Problem view** is fully visible.


Application Builder - [C:\shi\appbuild_ws]
File Edit View Callflow Search Tools Help
100%
Workspace
Workspace Settings
Workspace Variables
Workspace Prompts
Workspace Grammars
Vogue Servers
Xpressions Vogue Application 1
Outline
Callflow (Callflow 1)
Start
Start of Application
Application Start
Prompt
Welcome
Playback Done
DtmfMenu
Menu
DTMF 1
DTMF 2
Error
Playback Done
TimeProfile
TimeProfile Control 1
Open
Closed
Prompt
Input invalid
Prompt
Training
Playback Done
Connect
Connect Control 1
Prompt
Business hours
Connection Failed
Playback Done
End
End of Application 1
Palette
Select
Marquee
Connection
Sticky Note
Callflow Link
General Controls
Start
End
DtmfInput
Messaging Controls
Connect
Document
Miscellaneous Controls
CustomDll
Compare
Script
Contact Center Controls
AcdStart
AcdInfo
AcdExit
Speech Recognition Controls
AsrMenu
AsrExpert
Database Controls
DbRead
DbWrite
CorrelRead
Problems
Bookmarks
Search
Properties
3 Errors, 6 Warnings
Description
Resource
Path
Errors (3 items)
Database Configuration does not specify a database driver archive
Workspace Database
Workspace Settings/Databases/Ba
Workspace Variable Alias '$DATE' is specified more than once
Vogue Application Variable
Workspace Variables/$DATE
Grammar does not specify a grammar specification file
Vogue Application Grammar
Workspace Grammars/Grammaire
Warnings (6 items)

4 Example Scenario

This section exemplifies the creation of a voice application from planning to testing the finished system to help you familiarize yourself with the operation and functionality of the Application Builder.

HINWEIS: Before you perform the following example make sure that the mandatory operation requirements are met. See Abschnitt 2.2, “Operating Requirements”, auf Seite 15.

4.1 Configuring a Voice Application

The following example displays the single steps for creating a voice application that offers a fully automated customers service by phone to the callers (customers).

At first, a concept with the demands to the voice application will first be formulated and the proceeding defined. Subsequently, the voice application will be configured step by step in the extension, application and controls areas and eventually tested before being put into operation.

4.1.1 Creating a Concept

Before you configure your voice application with the Application Builder, you should first create a concept and plan your system.

Please keep e.g. the following aspects in mind during your outline.

- What sort of service will be offered to the callers?
- How many and which options are to be provided to the caller?
- What does my menu structure look like?
- Which announcements are necessary?
- Are time-dependent announcements necessary?
- Which telephone numbers are provided?

With all these questions we need to find out which demands the voice application to be created must fulfill and to what extent they can be realized.

Requirements

The requirements in our example can be stated as follows:

- At first a greeting text is to be played to the caller. Afterwards it is possible for him/her to speak to an employee or listen to an announcement about the training program. So he/she enters 1 or 2 by keypad, thus needs to decide between the two options.
- If the caller wants to hear about the training courses, an announcement with the corresponding information is played. After the end of the announcement the caller is guided back to the menu.
- If the connection to an employee is desired, the time of the call must be checked first.
- If the call is outside working hours, an announcement played to the caller informs him/her about the working hours. Then he/she will be guided back to the menu.
- If the call takes place within working hours, the caller will be forwarded to a certain number of employees who are called one after another automatically.
- If the routing has been successful, the waiting loop is finished by hanging up.
- If the line is busy or nobody answers the call, the announcement is played to the caller that he/she should try again later. Then the connection will be closed.

The demands are thus defined, but not yet adjusted to the Application Builder functionality. In the next step a plan will be made up as to the implementation of the example concept in the Application Builder.

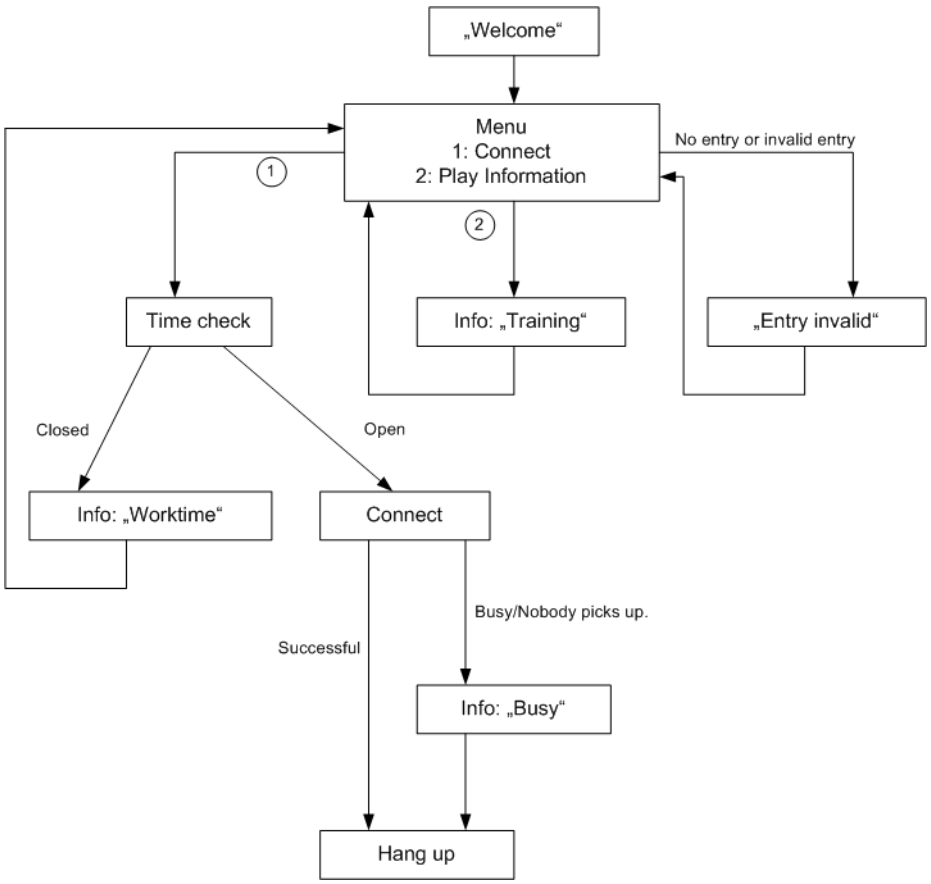
4.1.2 The Draft

After you have written down the course of the procedure, you should outline your draft. A draft is quite useful for representing the entire flow of your customer service over the telephone.

This draft is to contain a tree structure with a starting field and “branches” and “leaves”. Each of these leaves corresponds to an element or a control of the Application Builder.

Each Application Builder control represents a specific action in the voice application and has thus an individual function. For example, there is a control for playing back the greeting text, a control for checking the time and a control for forwarding to an employee.

Using the draft you can check whether the voice application structure has a closed form. This means that each tree branch in the draft must lead to a control that either finishes the call or routes to a further control. In our example each branch is either finished by hanging up or rerouted to the “Menu” control.



With the help of the designed concept and the draft as starting point the creation of the voice application is continued with the Application Builder.

4.2 Step-by-step Instructions

The following steps need to executed to create an operable voice application.

1. Create applications
   Abschnitt 4.2.1, “Creating Application and Callflow”, auf Seite 41
2. Create controls
   Abschnitt 4.2.2, “Defining Prompts”, auf Seite 46
3. Record test announcements
   Abschnitt 4.2.3, “Creating Controls”, auf Seite 48
4. Configure controls
   Abschnitt 4.2.4, “Configuring Controls”, auf Seite 52
5. Solve problems
   Abschnitt 4.2.5, “Solving Problems”, auf Seite 63
6. Test application
   Abschnitt 4.2.6, “Testing the Application”, auf Seite 64
7. Record announcements professionally
   Abschnitt 4.2.7, “Recording Announcements professionally”, auf Seite 68

The above steps will be described in the following sections in detail.

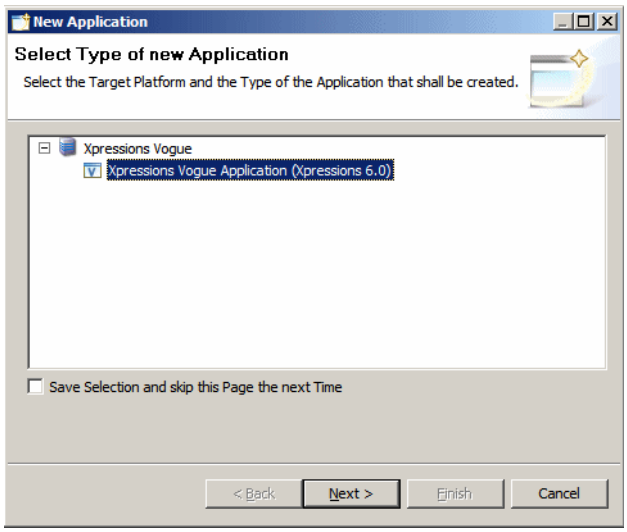
4.2.1 Creating Application and Callflow

The first step is to create an application. Without an application you cannot proceed, for example create controls or record greetings, since all steps and the following results must be assigned to an application.

4.2.1.1 Creating a new Application

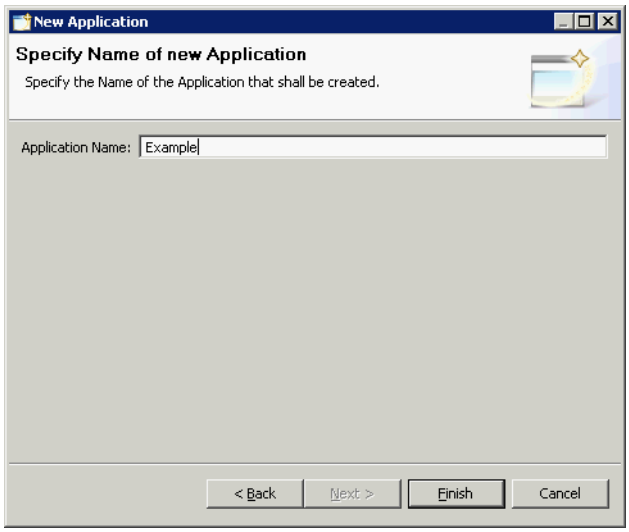
How to create a new application:

1. Click in the **File** menu on **New > Application**. The **New Application** dialog opens.

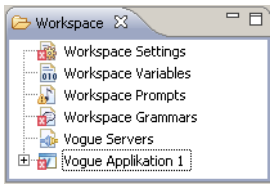


2. Select the **Xpressions Vogue Application** entry and click on **Next**.

3. Enter the desired application name and click on **Finish**.



The new application has been created and is listed in the workspace.



After you have created a new application you need to assign a callflow to this application.

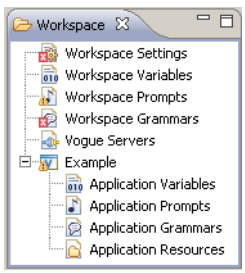
4.2.1.2 Creating a new Callflow

How to create a new callflow:

1. Rightclick the previously created application in the workspace.
2. Select the **New > Callflow** option. The **Create Callflow** dialog opens.
3. Enter the desired callflow name.

4. Click on **OK** to confirm you entry and to close the dialog.

   The new call flow has been created and appears in the workspace list.

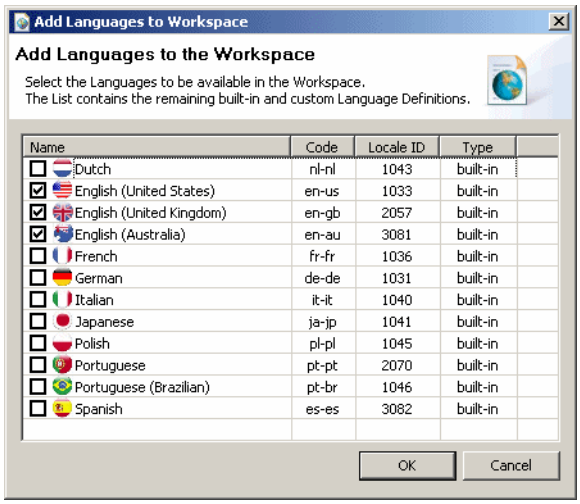


After you have assigned a callflow to the created application, defining the language for the workspace or application comes next.

4.2.1.3 Setting the Language

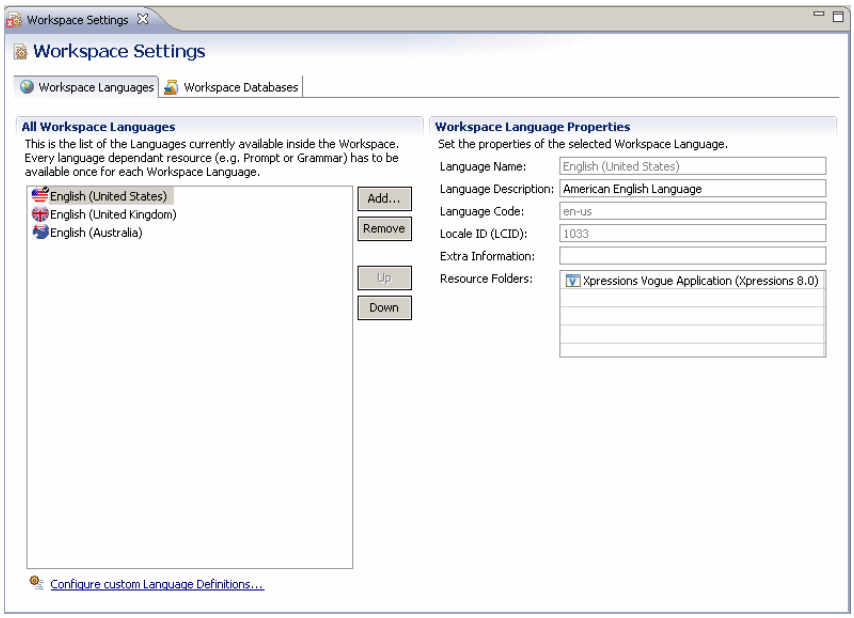
How to set the language for the workspace or application:

1. In the workspace, doubleclick the **Workspace Settings** option. On the right hand side, next to the workspace, the **Workspace Settings** tab opens.
2. Access the **Workspace Settings** tab. This tab shows all languages released for the workspace. The default set workspace language is red-highlighted.
3. Click on the **Add** button to select one or more further languages for the workspace. The **Add Language to Workspace** dialog opens.
4. Activate the checkbox of the desired and licensed language(s).



5. Click on the **OK** button to confirm your language selection and to close the dialog.

   The selected languages appear on the **Workspace Languages** tab:



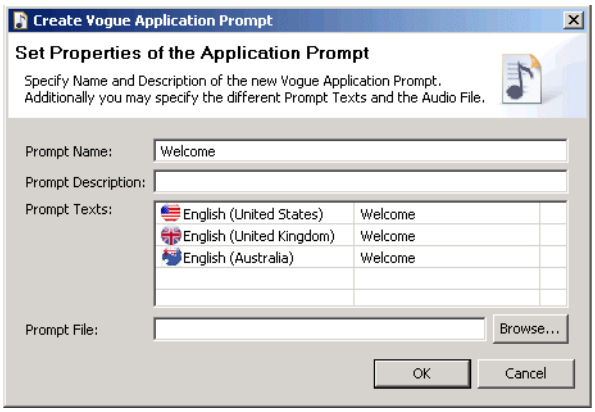
4.2.2 Defining Prompts

In this step you define the prompts that you require in the entire application.

HINWEIS: Prompts that you create in the **Application Prompts** dialog are valid for the entire application.

4.2.2.1 Creating Prompts

1. In the workspace, click on the plus sign to the left of the created application. The list of application setting options is displayed.
2. Doubleclick the **Application Prompts** option. On the right hand side, next to the workspace, the **Application Prompts** tab opens.
3. Click on the **Add** button to release or create prompts for usage in the application. The **Create Vogue Application Prompt** dialog opens.
4. Specify the **Prompt Name** and enter an optional **Prompt Description**.



5. Enter a **Prompt Text** in the desired language or select an already created **Prompt File** .

   - **Enter prompt text**
     This text will be output by an installed text-to-speech engine at runtime.
   - **Select prompt file**
     A prompt file is a sound file in the `*.wav` or `*.pcm` format. You find a detailed description of the instruction steps in Abschnitt 5.3.3.2, “Application Prompts”, auf Seite 144.

     Click on the **Browse...** button. The **Select Sound File** dialog opens. Select the desired sound file in the list of available sound files. If the desired sound file is not contained in the list, click on the **Import...** button.

In the opened **Import Sound Files** dialog click on the **Add...** button and select the files to be imported. Then click on **Next**. Select the checkbox of the desired language and confirm your selection with the **Finish** button.

6. Then click the **OK** button. The newly created prompt or the selected prompt file is listed in the left-hand section of the **Application Prompts** tab.

Each of the selected files or texts to be created are assigned to the language resources made available. In this way prompts can be assigned different sound files with the same content but in different languages, or prompts may feature texts with the same content but in different languages for output using a TTS engine.

Example: A welcome greeting exists in the languages: German, English and French and in three sound files. These three sound files are assigned to the “Welcome” prompt. Each of the sound files carries the same name, but is assigned to the respective language. Each sound file is stored in a language-specific folder in the application resources. That means, the sound file with German prompts is stored in a folder for German language sound files as well as, analog, sound files with English and French prompts are stored in the corresponding folder for English and French language prompt resources. The prompt now has three language-dependent sound files. Analog, a prompt can be assigned a welcome text in three mentioned languages. If the prompt is used in a control for announcing the welcome text, the Vogue script can play the respectively appropriate sound file independent from the application language or instruct the text-to-speech engine to put out the entered text. The application language is determined by the OpenScape Xpressions server language setting or by the control with the language selection function.

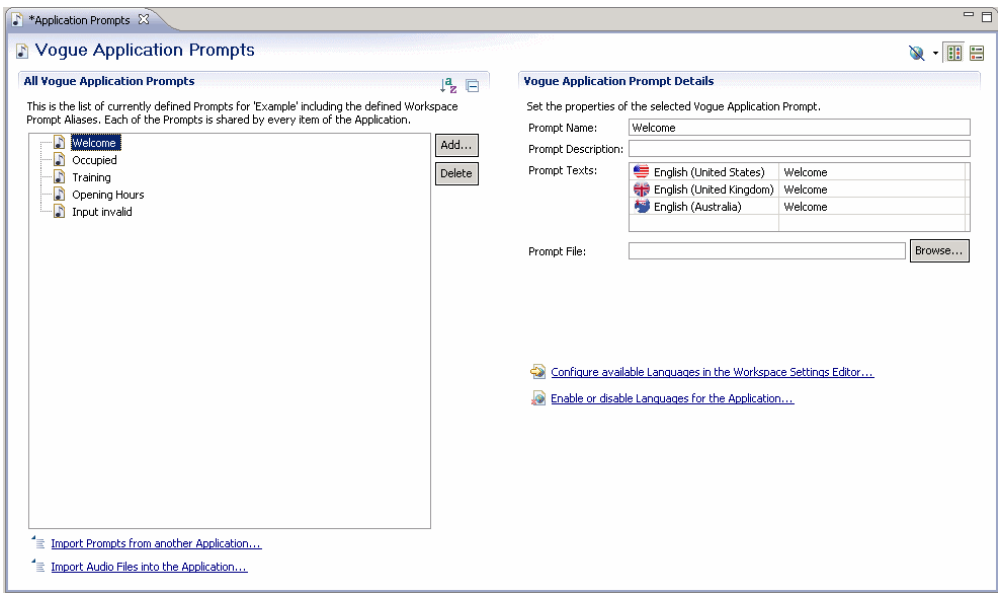
Create six prompts and name them as follows:

- “Welcome”: The caller hears a welcome text.
- “Menu”: The caller hears which menu options are available.
- “Occupied”: The user is asked to try again some time later and the connection is closed.
- “Training”: In this greeting the user receives information about training courses and is then routed back to the menu.
- “Opening Hours”: The caller is informed about the opening hours and then routed back to the menu.
- “Input invalid”: This greeting is played if the caller has pushed a key different from **1** or **2** .

Assign an arbitrary text to the prompts for transformation using text-to-speech.

HINWEIS: Verify that you have installed a text-to-speech engine compatible to the XPR Xsystem. See the OpenScape Xpressions *Server Installation* manual on this.

The created prompts appear in the list of available prompts in the left-hand section of the **Application Prompts** tab.



Before you close this tab, you need to save your entries or modifications with a click on in the toolbar.

HINWEIS: Tabs that contain unsaved entries or modifications are indicated with a star sign .

4.2.3 Creating Controls

HINWEIS: A description of how to create, modify and remove controls as well as a detailed introduction to the single control types is contained in Kapitel 6, “Application Deployment and Controls”.

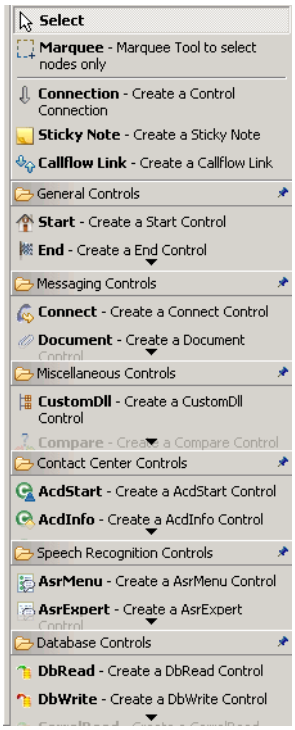
You need the following function blocks to implement the outlined draft with Application Builder:

- one Start control
- four Prompt controls to announce specific texts
- one DTMS Menu control for the coordination of the calls,
- one Time Profiles control for checking the opening hours,
- one Connect control for transferring the call to a certain phone number
- one End control to finish the call.

How to create the required controls:

1. In the workspace, doubleclick the callflow you have created.

   The callflow editor for designing the callflow opens. The deployable controls are in the palette at the right-hand margin of the GUI.

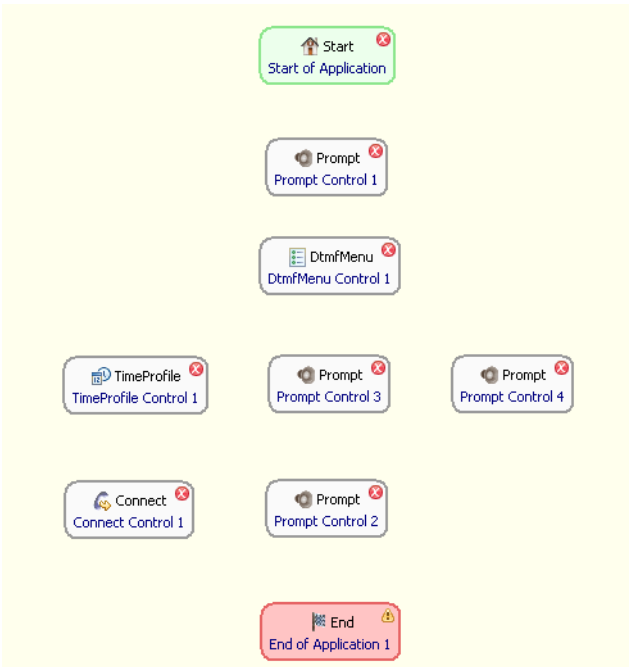


2. Select in the palette one of the above listed controls. The pointer changes: it contains an additional plus sign and a gray frame.
3. Place the mousepointer in the desired position in the callflow editor and push the left mousebutton. The control is now an element of the new callflow.

4. Repeat steps 2 and 3 for all controls that your require.

HINWEIS: You can create the controls in an arbitrary sequence. However, we recommend to consider the geometric order of the controls shown below.

The callflow editor displays approximately the following image.



5. Doubleclick a control, e. g. the **Time Profiles** control. The **Properties** dialog opens.
6. Enter the desired **Name** , e. g. “Time Check”, and click on the **OK** button.
7. Repeat steps 5 and 6 for all required controls.

   The following table contains a list of the controls required for the example scenario with the corresponding names in alphabetical order.

Control Type	Name
DTMF Menu	Menu
End	End of Application
Prompt	Input invalid
Prompt	Opening Hours
Prompt	Training
Prompt	Welcome
Start	Start of Application
Connect	Connect

Tabelle 4 Required Controls

Control Type	Name
Time Profiles	Time Check

Tabelle 4 Required Controls

HINWEIS: At this point, all required controls are only defined but not fully configured yet. The complete configuration of the controls is described in Abschnitt 4.2.4, “Configuring Controls”, auf Seite 52.

4.2.4 Configuring Controls

At this point, the controls you have created must be configured completely so that the application becomes operative. After configuration you assign to the controls what is to happen in case of a mistake, to which other control the respective function is to be connected and so on.

HINWEIS: When configuring the controls verify that all connections of a control are allocated, since you cannot deploy the application otherwise! The Application Builder will point to missing connections.

The following is a description of how to configure the various controls. You need to configure the prompt controls, the DTMF Menu, Time Profile, Connect, and End control.

HINWEIS: For further information on the single controls please refer to Kapitel 6, “Application Deployment and Controls”.

4.2.4.1 Configuring the Start Control

To configure the Start control , you need to connect it to the “Welcome“ prompt control.

1. Select the **Connection** option in the palette.
2. Click on the Start control and then on the prompt control “Welcome“. The connection between the two controls is displayed.

4.2.4.2 Configuring Prompt Controls

To configure the created prompt controls, you need to assign a prompt to each of them and connect each prompt control with other controls.

HINWEIS: You find a precise description of the Prompt control in Abschnitt 6.3.5, “Prompt Control”, auf Seite 211.

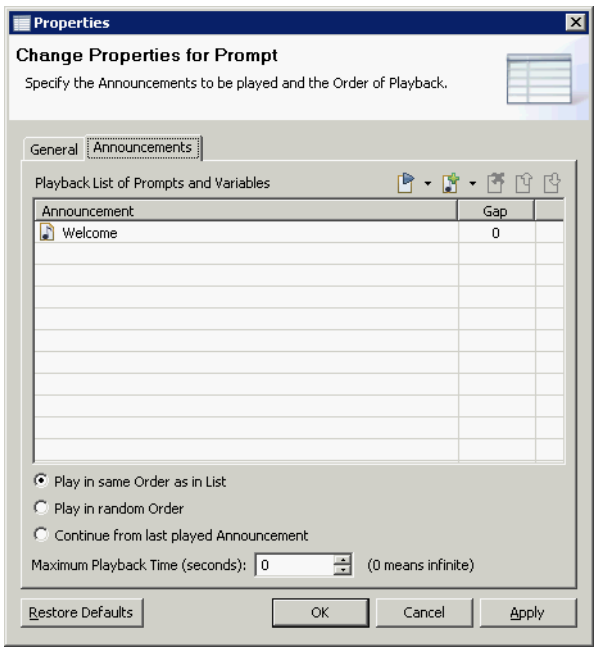
---

1. Doubleclick a prompt control. The **Properties** dialog opens.
2. Switch to the **Announcements** tab.

HINWEIS: Make sure that the **Announcements** tab lists the prompt you created in Abschnitt 4.2.2.1, “Creating Prompts”, auf Seite 46. Each control of type prompt must have been assigned a prompt.

---

3. Click on  to add a prompt. The list of available prompts is displayed in the opened **Select Prompts for Announcements List** window.
4. Activate the checkboxes of the desired prompt and confirm your selection with **OK**. The prompt appears on the **Announcements** tab.



5. Click on **OK** to close the **Properties** dialog.
6. Repeat steps 1 to 5 for all four prompt controls, so that one prompt is eventually assigned to each control of type Prompt.
7. Select the **Connection** option in the palette.
8. First click the respective prompt control and then on the connection target.

   After the prompts defaulted in the control have been successfully played, the call is forwarded to the next, connected control.

   You find the respective connections in the following table:

Name of the Prompt Control	Link with
Welcome	DTMF Menu Control

Tabelle 5 Connections of the Prompt Controls

Name of the Prompt Control	Link with
Training	DTMF Menu Control
Opening Hours	DTMF Menu Control
Input invalid	DTMF Menu Control

Tabelle 5 Connections of the Prompt Controls

4.2.4.3 Configuring the DTMF Menu Control

HINWEIS: You find a precise description of the DTMF Menu control in Abschnitt 6.3.4, “DTMF Menu Control”, auf Seite 208.

To configure the DTMF Menu control, you need to assign prompts to this control and connect it to other controls.

1. Doubleclick the DTMF Menu control. The **Properties** dialog opens.
2. Switch to the **Announcements** tab.
3. Click on  to add the Menu prompt already created in Abschnitt 4.2.2.1, “Creating Prompts”, auf Seite 46. The **Select Prompts for Announcements List** window opens .
4. Activate the checkbox of the desired prompt and confirm your selection with **OK**. The selected prompt appears on the **Announcements** tab.
5. Click on **OK** to close the **Properties** dialog.
6. Select the **Connection** option in the palette.
7. Click on the DTMF Menu control and then on the connection target, e. g. the Time Profiles control “Time Check”. The **Select Control Event** dialog opens.
8. Select the appropriate event in the event list, e. g. **DTMF 1** , and click on **OK**.
9. Repeat steps 7 and 8 for the desired connections.

   The following table shows which control the DTMF Menu control is connected to if a specific event occurs.

Event	Link with
DTMF 1	Time Profiles control “Time Check“
DTMF 2	Prompt control “Training“
Error	Prompt control “Input invalid“

Tabelle 6 Events and the corresponding Connections

4.2.4.4 Configuring the Time Profiles Control

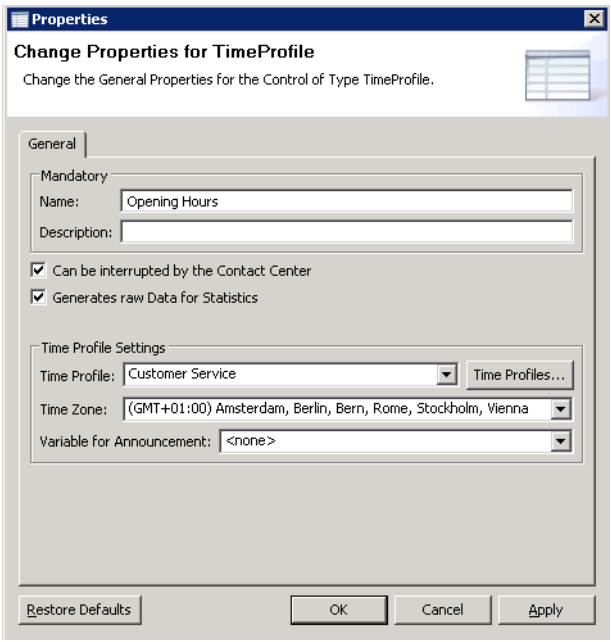
HINWEIS: You find a precise description of the Time Profiles control in Abschnitt 6.3.7, “Time Profile Control”, auf Seite 219.

Depending on the time of the call, you can use this control to divert the caller to different controls.

For the example application described here, a Time Profiles control is created that indicates the business hours to reach the desired conversational partner. If someone calls outside your business hours, the announcement “Business Hours”: *”You are calling outside our business hours. You can reach us from ... until.”.* If he/she calls during your business hours, his/her call will be forwarded to a Connect control.

How to configure the Time Profiles control:

1. Doubleclick the Time Profiles control. The **Properties** dialog opens.



2. Select an existing time profile in the **Time Profile** combo box or create a new time profile via the **Time Profiles...** button.

   A differentiation is made between calendar and day profiles. While calendar profiles define the yearly time range, time windows for single days are created in the day profiles.

HINWEIS: To create a new calendar profile you need to generate a day profile first, which can then be accessed by a calendar profile.

   See:
   Abschnitt 4.2.4.4, “Creating a day profile”, auf Seite 57,
   Abschnitt 4.2.4.4, “Creating a calendar profile”, auf Seite 59.

3. Connect the Time Profiles control in status “Open” to the Connect control.

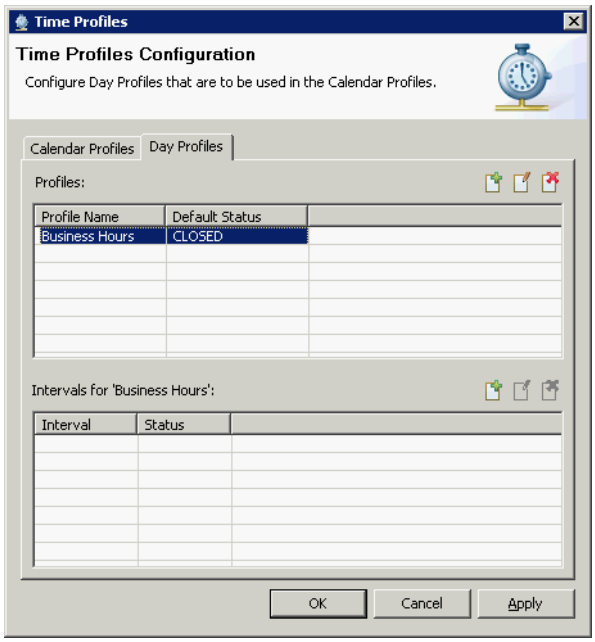
4. Connect the Time Profiles control in status “Closed” to the Prompt control “Opening Hours”.

Creating a day profile

HINWEIS: A day profile may adopt one of the following three statuses: “Open”, “Break”, “Closed”.

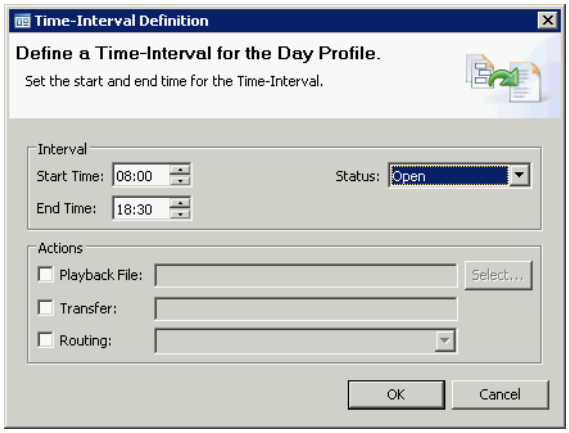
Execute the next steps to create a new day profile that is, for example, in status “Open” from 08:00 to 18:30:

1. In the **Time Profiles** dialog switch to the **Day Profiles** tab to create a day profile for the example scenario.



2. Click on  and enter a name for the new day profile (in our example “Business Hours”). The current status is “Closed”.

3. In the **Intervals for '<*name of the day profile*>'**section click on . The **Time-Interval Definition** dialog opens, in which you can define a period (Start Time, End Time) and the associated status.

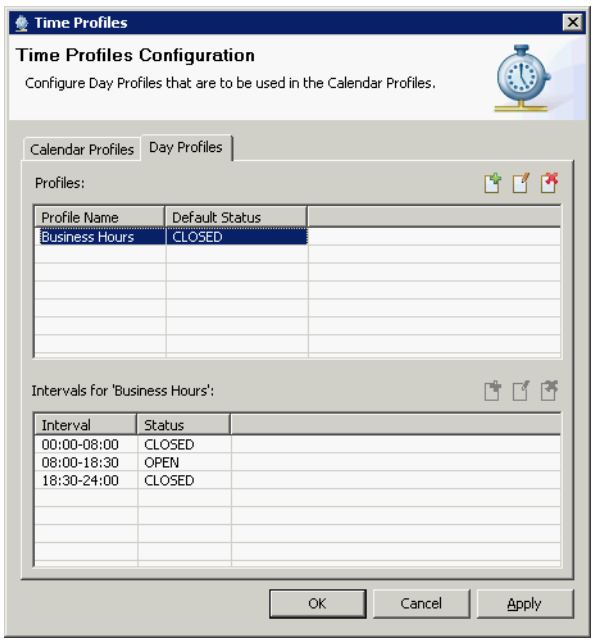


4. Specify as **Start Time** 8:00 and as **End Time** 18:30 as well as the **Open** status.

5. Click the **OK** button to close the dialog.

6. Repeat steps 4 and 5 with the periods 00:00 to 08:00 and 18:30 to 00:00 for status **Closed**.

7. The time intervals with the corresponding status appear in the list:

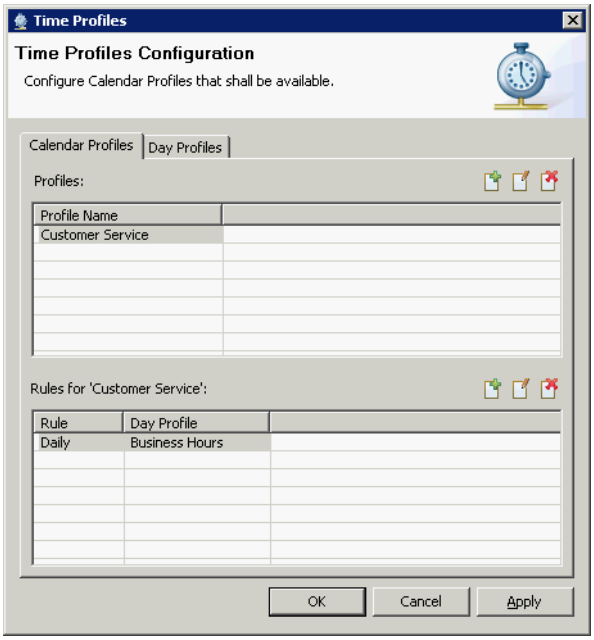


The time profile that is in status **Open** from e.g. 08:00 to 18:30 has been created.

Creating a calendar profile

Switch to the **Calendar Profiles** tab to create a new calendar profile.

1. Create a new calendar profile via .
2. Select the newly created calendar profile and click on to enter a meaningful name such as “Customer Service”.



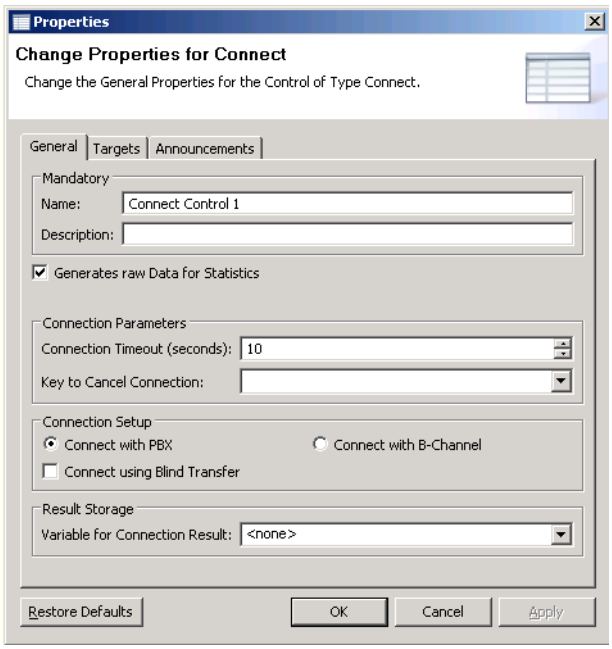
The configured day profile is automatically valid for each day with the set statuses.

4.2.4.5 Configuring the Connect Control

The task of this control is to dial the first number in a list of phone numbers after one or several greetings have been played, e. g. *“You will now be connected to the hotline. Please hold the line.”*.

How to configure the Connect control:

1. Doubleclick the Connect control to open the **Properties** dialog. The **General** tab is displayed by default.



   - The **Name** field displays the name “Connect Control 1”.
   - In the **Connection Timeout (seconds)** field you specify the duration of a dialing process. The 10-second specification means that the device of the dialed subscriber will ring for 10 seconds. If the callee does not answer the phone within this time, the next phone number in the list is dialed. If no further phone number is available, the control that is connected in case of an error (see the below **Connections** section) is forwarded to. Keep the 10-second default.

HINWEIS: The **Key to Cancel Connection** combo box and the **Connect using Blind Transfer** checkbox represent continuative options that are not crucial for the basic control functionality and need not necessarily be set here. For further information see Abschnitt 6.1, “Deployment of an Application”, auf Seite 177.

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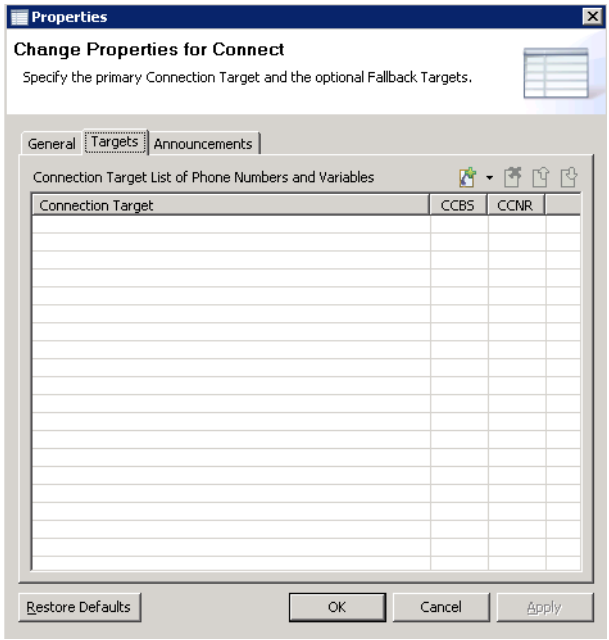
2. Switch to the **Targets** tab.



3. Click on  to add phone numbers. Select the entries from the pull-down list and they are placed with their names and connection numbers in the **Connection Target** field. The entries refer to your XPR address book, i.e. you can select the users defined in the XPR address book.

4. Arrange the phone numbers to be dialed here one after another. Click on  or  to move an entry in the list up or down. The first phone number in the list will be called first.

   If you want to delete an entry, click on  . The entry is removed from the list.

HINWEIS: The fields **CCBS** and **CCNR** are not crucial for the basic control functionality and need not necessarily be set here. You find more information on this in Abschnitt 6.3.14, “Connect Control”, auf Seite 252.

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5. If you want to assign an announcement to this control, switch to the **Announcements** tab. Create a new prompt and use it as is described in Abschnitt 4.2.2.1, “Creating Prompts”, auf Seite 46.

6. Click on **OK** to close the **Properties** dialog.

7. Select the **Connection** option in the palette.

8. Click on the Connect control and then on the End control.

   If all lines are busy or no employee answers the phone, the caller may hear the announcement *“Our staff is currently not available. Please try again later. Goodbye.“*. The connection is closed after the announcement.

The “Connect Control 1“ is fully configured.

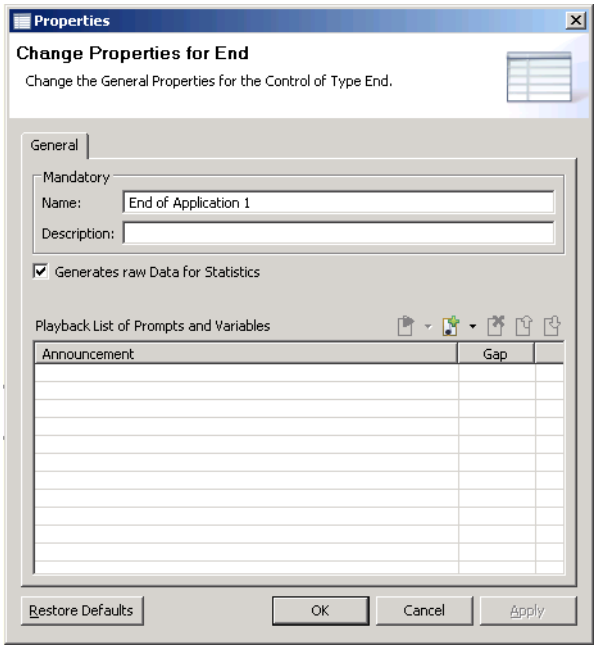
4.2.4.6 Configuring the End Control

HINWEIS: You find a detailed description of the End control in Abschnitt 6.3.2, “End Control”, auf Seite 201.

The End control finishes the call based on an event (e. g. “Connection failed”) that occurred internally in the “Connect Control 1“. An additional prompt is played that points to the end of the call (X*“Our coworkers are currently not available. Please try again later. Goodbye!”*.

How to configure the End control:

1. Doubleclick the End control to open the **Properties** dialog.



2. Click on . The **Select Prompts for Announcements List** window opens .

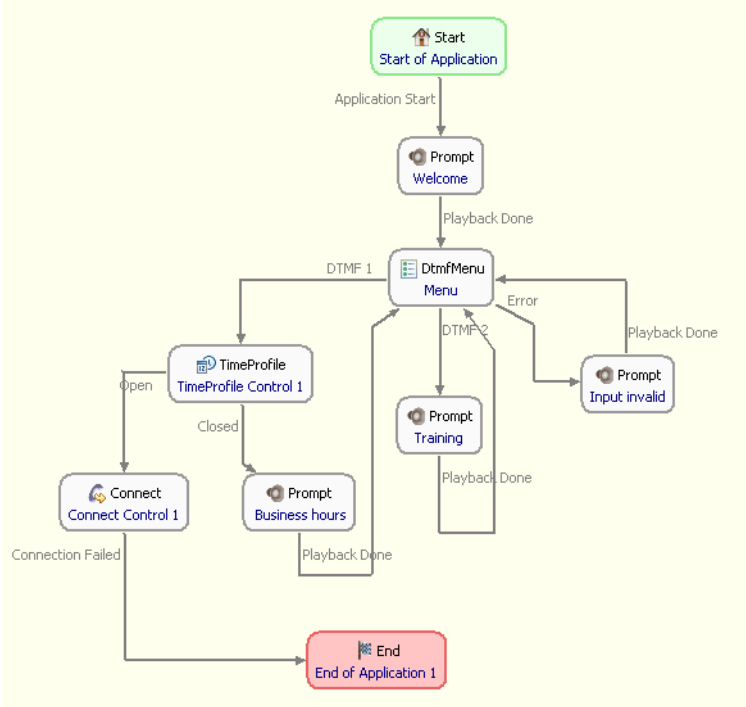
3. Activate the checkbox of the “Occupied“ prompt already created in Abschnitt 4.2.2.1, “Creating Prompts”.

4. Click on **OK** to close the **Select Prompts for Announcements List** window. The “Occupied” prompt is listed in the **Playback List of Prompts and Variables**.

5. Click on the **OK** button to close the **Properties** dialog, which marks the end of the End Control configuration.

4.2.4.7 Overview

After you have finished creating and configuring the single controls, the callflow editor should display the following image:



Since you can freely position the controls, this representation may vary from yours.

4.2.5 Solving Problems

This step is optional, but remember that only error-free applications can be deployed. Each error or warning is displayed in the **Problems** view. Each entry contains a **description** of the error or warning and specifies the **resource** and the **path** of the problem. For further details see Abschnitt 5.3.5, “Problem View”, auf Seite 160.

If you want to ensure that the problems view is up to date, select **File > Update problems**.

In the above example, the Time Profiles control error must first be corrected, before the newly created callflow and thus also the application can be exported or deployed for testing.

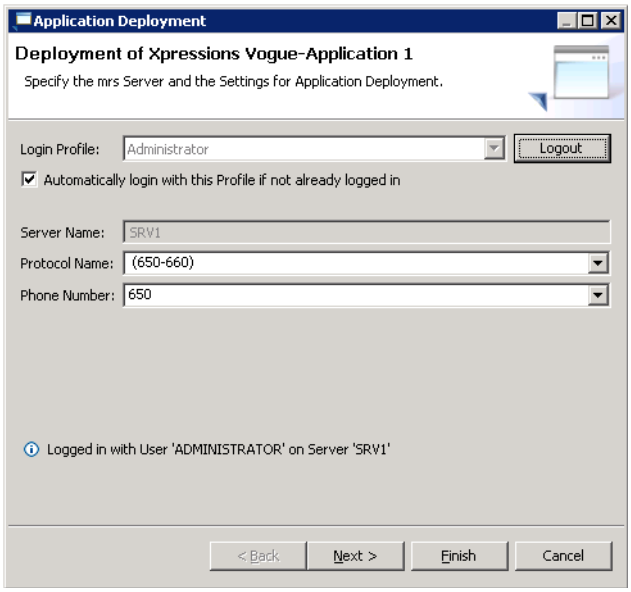
4.2.6 Testing the Application

HINWEIS: The created application can only be tested or deployed in perfect condition.

After you have created the example application and configured a telephony customer service, you can test this application for various scenarios. Pick up your flow draft again (Abschnitt 4.1.2, “The Draft”, auf Seite 38) to envision the different processes.

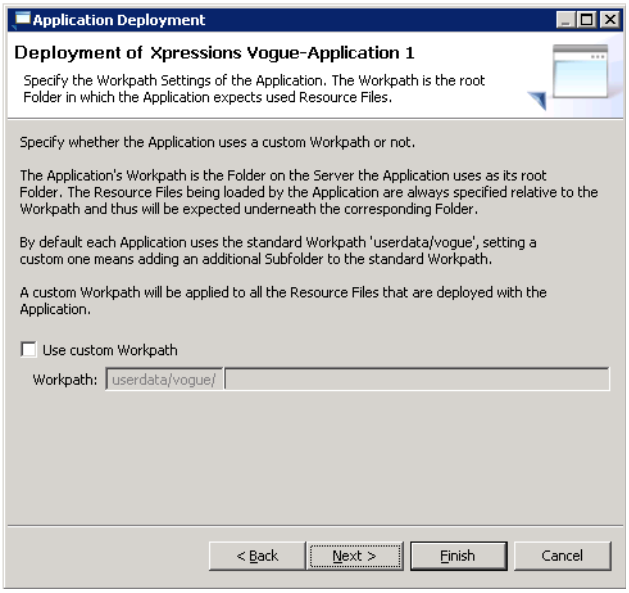
A test can be performed by triggering a deployment of an application. Execute the following steps (see also Abschnitt 6.1, “Deployment of an Application”, auf Seite 177):

1. Click on in the toolbar. The **Deployment Application** dialog opens.



2. Select the desired **Login Profile** from the list and click on the **Login** button. You are logged in to the XPR server.
3. Select the **Protocol Name** of the configured Vogue protocol and the configured **Phone Number**.

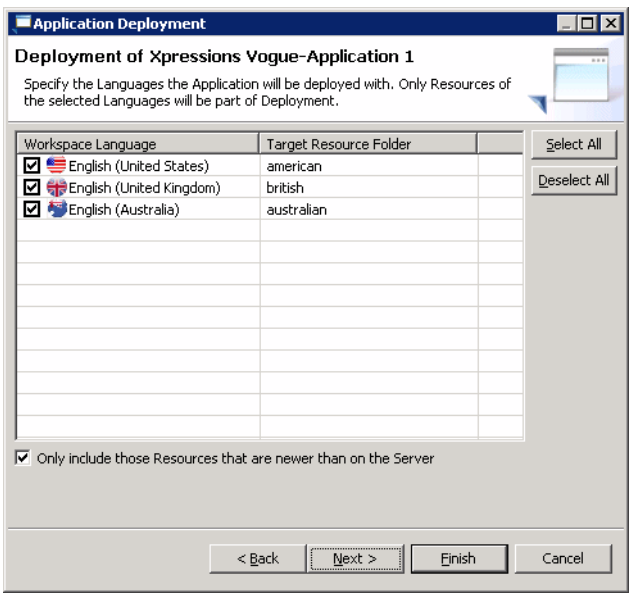
4. Click on **Next**. The following dialog appears:



Here you can determine if you want to use a user-defined or the default workfolder.

5. Deactivate the **Use custom Workpath** checkbox to indicate that you want to use the default workfolder.

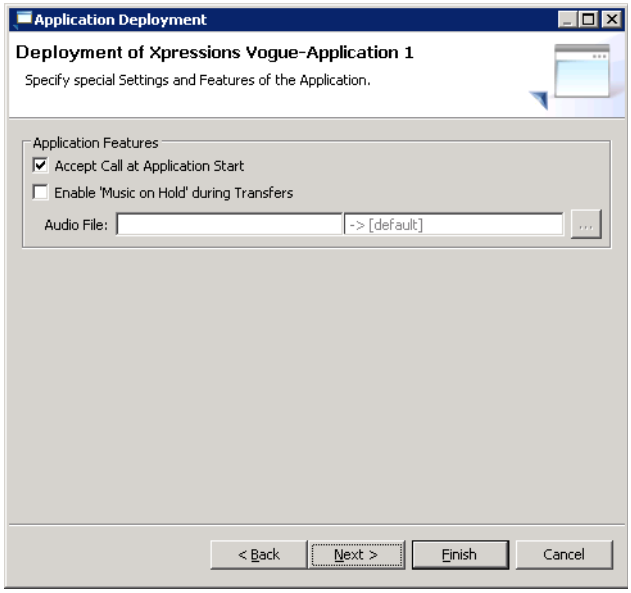
6. Click on **Next**. The dialog shown below opens.



Here you can select the languages with which the application is to be exported.

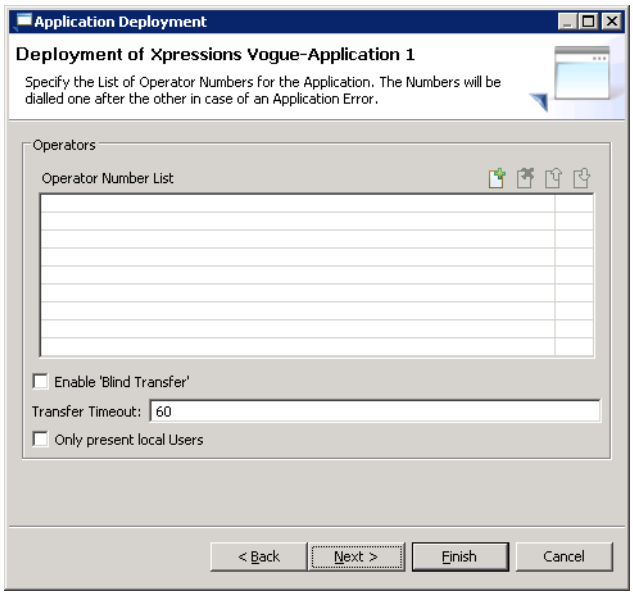
7. Activate the checkbox that associates the desired language or click on the **Select All** button to select all available.

8. Click on **Next** button to define the settings and functions of the application listed in the following dialog.



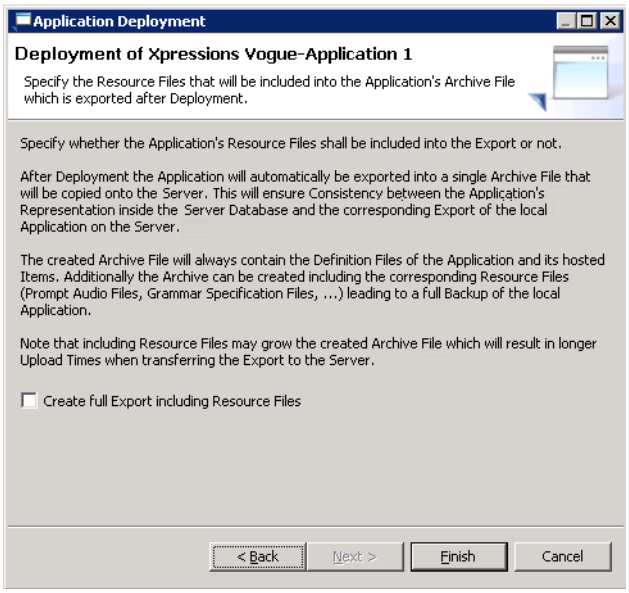
   If required, activate the desired checkbox. See also step 8 auf Seite 180.

9. Click on **Next**.



10. Select users from the XPR database to which the call is forwarded in case of an application error.

11. Click on **Next**. You reach the last dialog for providing the application.



For providing the application, the definition files of the application configuration and their call flows are compressed in a folder and exported to theOpenScape Xpressions *server*.

If the resource files such as sound files and grammar files are to be exported also, set the **Create full Export including Resource Files**. In this way you make sure that the Vogue script can efficiently access the resource files upon the application performance respectively that the application and its resource files are available to others for editing.

12. Click on the **Finish** button.
    You receive a message about the successful deployment of the application. The application can now be called via the set phone number.

Test scenario 1:

Call the number you have assigned to the customer service (in our case 500). Push key **2** of your telephone to be connected to the training program announcement. If the announcement is played correctly and you are taken back to the menu of the DTMF Menu control after the announcement playback, the application you have created works correctly in this part.

Test scenario 2:

Call during the business hours you have selected. Push key **1** of your telephone to be connected to an employee of the customer service. If the forwarding works, the application you have created works correctly in this part.

Test scenario 3

Call outside the business hours you have selected. Push key **1** of your telephone to be connected to an employee of the customer service. If the announcement with the information on the business hours runs and you are guided back to the menu afterwards, the application you created works correctly in this part.

4.2.7 Recording Announcements professionally

After you have tested the application successfully as described in Abschnitt 4.2.6, “Testing the Application”, auf Seite 64 and have found all announcements useful for your application, you should now have the announcements recorded professionally in a studio. We recommend professional recording services, since the quality of individually recorded messages may differ. The recommended format properties for announcements recorded in the `pcm` or `wav` file format read: 8 kHZ sample rate, 16-bit resolution, channel mono and linear coding.

For this example this last step is optional. However, it should become clear that this last step is mandatory for a specific voice application. You need to insert the professionally recorded greetings in each control respectively replace the prompts previously used.

5 User Interface

This section contains a detailed description of the single GUI items of the Application Builder and their functions:

- Menu bar (Abschnitt 5.1, “Menu Bar”, auf Seite 69)
- Toolbar (Abschnitt 5.2, “Toolbar”, auf Seite 94)
- Views (Abschnitt 5.3, “Views”, auf Seite 95)

5.1 Menu Bar

The menu bar is the only GUI item that cannot be freely positioned. It is anchored beneath the Application Builder's caption bar and comprises the following items:

- **File**
  Abschnitt 5.1.1, “File”, auf Seite 70,
- **Edit**,
  Abschnitt 5.1.2, “Edit”, auf Seite 78,
- **View**
  Abschnitt 5.1.3, “View”, auf Seite 79,
- **Callflow**
  Abschnitt 5.1.4, “Callflow”, auf Seite 80,
- **Search**
  Abschnitt 5.1.5, “Search”, auf Seite 80,
- **Tools**
  Abschnitt 5.1.6, “Tools”, auf Seite 83,
- **Help**
  Abschnitt 5.1.7, “Help”, auf Seite 87.

5.1.1 File

This menu has the following options:

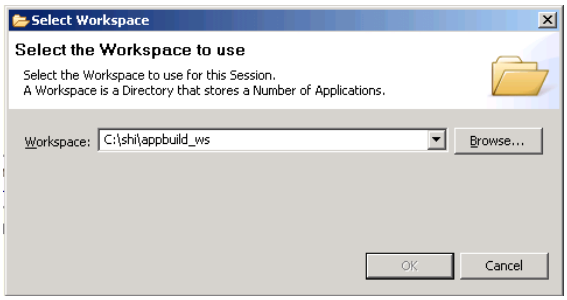
Menu option	Function
New > Application...	This menu option serves for creating a new application. Please obtain further information from Abschnitt 4.2.1.1, “Creating a new Application”, auf Seite 41. The user can select the application type on the basis of which an application is to be created. Several types for creating applications are possible in principle. So far, however, only the creation of the application type **Xpressions Vogue Application** is supported.
Close	This menu option closes the tab currently displayed in the editor area.
Close All	This option closes all tabs opened in the editor area.
Save	Use this menu option to save the current state of the tabs presently displayed in the editor area.
Save As...	Using this menu option you can save the state of the call flow currently opened in the editor area under a freely definable name.
Save All	Use this menu option to save the state of all tabs presently displayed in the editor area.
Rename	With this menu option you can rename the selected applications or call flows.
Update	This menu option refreshes the view of all areas with reference to the last modifications after saving or deploying an application. Modifications to applications are immediately executable but the problem view is not immediately updated. Errors and warnings are only put out with saving, updating or executing an application.
Refresh Problems	This menu option refers to the **Problems** view only. It updates the problems view according to the current state.
Print	The menu option enables printing the currently opened call flow. In the open **Print** dialog you can select a printer and set print options.
Switch Workspace	This menu option opens the depicted Select Workspace dialog to switch the workspace. 

Tabelle 7 Options of the “File” Menu

Menu option	Function
Importing a Workspace Element...	This feature comprises the **import** of a previously exported or provided **archive file** of an application. Please obtain further information from Abschnitt 5.1.1.1, “Importing a Workspace Element...”, auf Seite 72.
Exporting a Workspace Element...	This feature comprises the **Export** of a workspace element to an archive file. Up to now, only the export of applications as workspace element has been supported. You find more information on this in Abschnitt 5.1.1.2, “Exporting a Workspace Element...”, auf Seite 75.
Properties	Depending on the selected element (application, callflow or control), the element's properties are displayed when you enable this menu option: • **Application**: You receive general information about the selected application such as storage location, date of the last access, file size and type. You can also manage the language resources available for the application. • **Callflow**: You receive general information about the selected callflow such as storage location, date of the last access, file size and type. • **Control**: Since each control is to be distinguished according to its type, the configuration dialog of the corresponding control type opens. Here you do not only receive information but you can also immediately perform settings or change them.
Exit	This menu option terminates the Application Builder.

Tabelle 7 Options of the “File” Menu

5.1.1.1 Importing a Workspace Element...

This feature comprises the import of a previously exported or provided archive file of an application.

- When importing an application or a workspace element, the definition files that include the application configuration as well as the configuration of the resource used and the configured callflows and controls are stored either in a local storage location or on the XPR server in an archive file. On the XPR server the archive files are stored in the following directory:
  `<OpenScape Xpressions install>\userdata\vogue\`.

  You can optionally store the resource files themselves, such as prompt and grammar files, in the archive file.

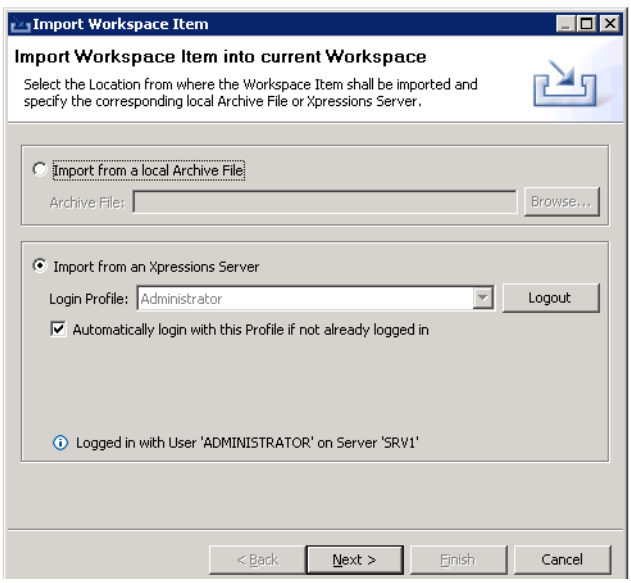
  See also Abschnitt 5.1.1.2, “Exporting a Workspace Element...”, auf Seite 75.

- When deploying an application, the definition of an application is stored in the XPR database and one of the above application archive files is optionally stored in the following directory:
  `<OpenScape Xpressions install>\userdata\vogue\`.

  See also Abschnitt 6.1, “Deployment of an Application”, auf Seite 177.

How to import an application or a workspace element:

1. Select the **Importing a workspace element...** option. The following dialog opens:



2. Select the desired radio button:

   - **Import from a local Archive File**
     , if you want to import an archive file from a local storage location. Click on the **Browser...** button to select the desired file.

- **Import from an Xpressions Server**
  , if you want to import an archive file from the XPR server.

  Select the **Login Profile** with which you want to log on to an XPR server . Then click on the **Login** button.

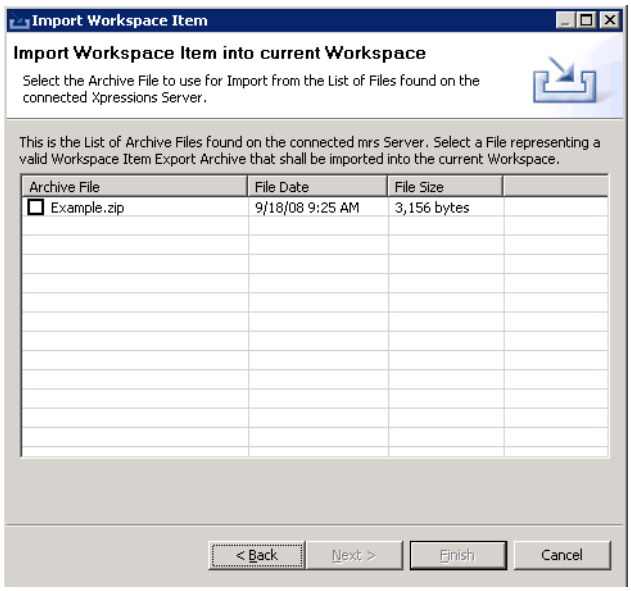
HINWEIS: If you want to log on to the XPR server automatically, activate the **Automatically log on with this profile if not already logged in** option.

HINWEIS: If you are already connected to an XPR server, the bottom area of the dialog displays a message indicated with . This message informs you with which user you are logged in and at which server.

Via the **Logout** button you can close the connection to the server and define another logon profile.

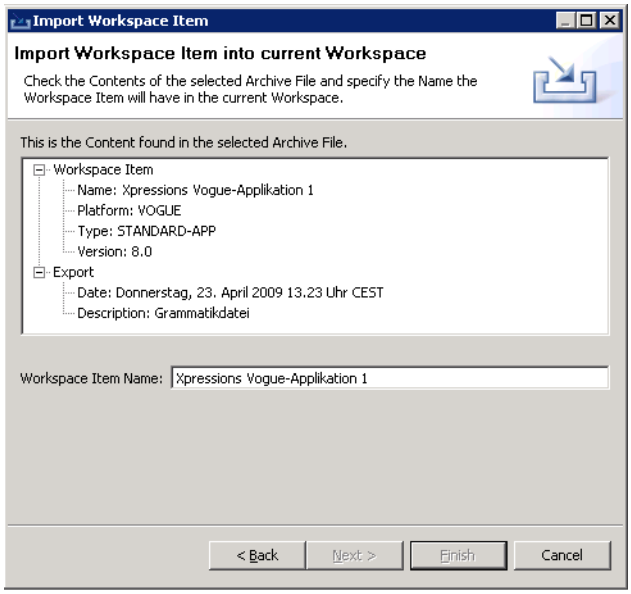
3. Click on **Next**. You have two options to proceed now:

   - If you import an application from a local archive file, you receive a description of the application to be imported in a dialog.
   - When you import an application from an XPR server, the following dialog that contains a list of the archive files stored on the XPR server is displayed first.



   Activate the checkbox of the desired archive file.

4. Click on **Next**. You now receive a rough overview of the archive file elements:



You are provided with specifications about the **Name**, **Platform**, **Type** and **Version** of the workspace element. In addition you are informed about the **Date** on which the archive file was exported or provided and you receive a short **Description** of the export that states whether or not the resource files are contained.

5. Click on the **Finish** button. The archive file is imported. You receive a notification about the successful or failed workspace element or application import.

5.1.1.2 Exporting a Workspace Element...

This feature comprises the export of a workspace element to an archive file. Up to now, only the export of applications as workspace element has been supported.

When exporting an application or a workspace element, the definition files that include the application configuration as well as the configuration of the resource used and the configured callflows and controls are stored either in a local storage location or on the XPR server in an archive file. On the XPR server the archive files are stored in the following directory: <*OpenScape Xpressions install*>\userdata\vogue\<Application.zip>.

You can optionally store the resource files themselves, such as prompt and grammar files, in the archive file.

How to export an application or a workspace element:

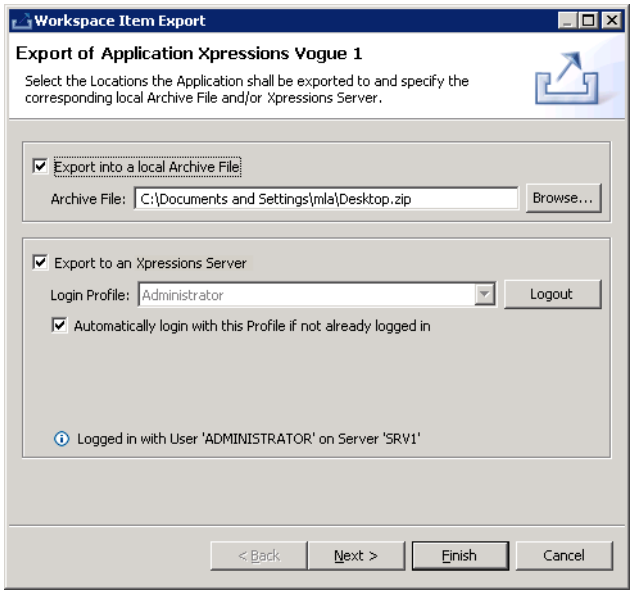
1. Select the **Exporting a workspace element...** option.

   If you have already created more than one application, the following dialog opens:

   Select the **Workspace Item** or the application that you want to export and then click on **OK**.

   The following dialog opens.

HINWEIS: If there is only one application in the workspace, step 1 is skipped and the **Export Workspace Item** dialog opens for the only existing application .



2. Activate the corresponding checkbox.

   - **Export into a local Archive File**
     If you want to export the application to an archive file at a local storage location, click on the **Browse...** button to define a local storage location as well as a name for the archive file.

   - **Export to an Xpressions server**
     If you want to export the application to an XPR server, you need to select a **Login Profile** for connecting the server and click on the **Login** button for logging on.

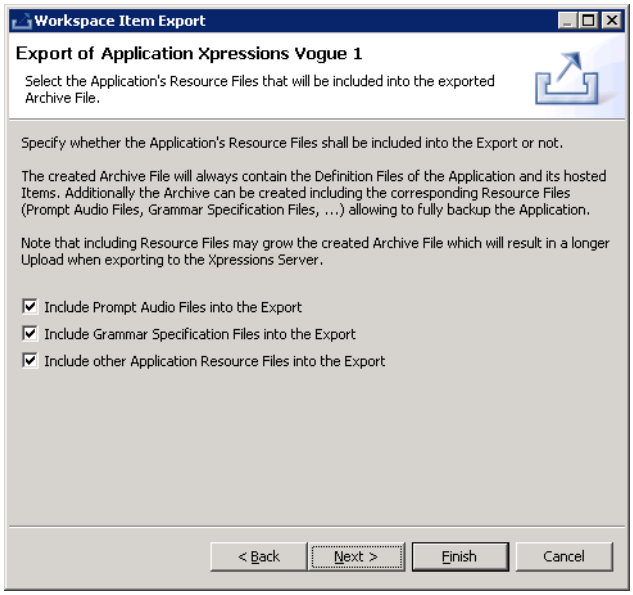
     HINWEIS: If you want to log on to the XPR server automatically, activate the **Automatically log on with this profile if not already logged in** option.

     Via the **Logout** button you can close the connection to the server and define another logon profile.

     HINWEIS: If you are already connected to an XPR server, the bottom area of the dialog displays a message indicated with ⓘ. This message informs you with which user you are logged in and at which server.

     ---

3. Click on **Next**. The following dialog opens:

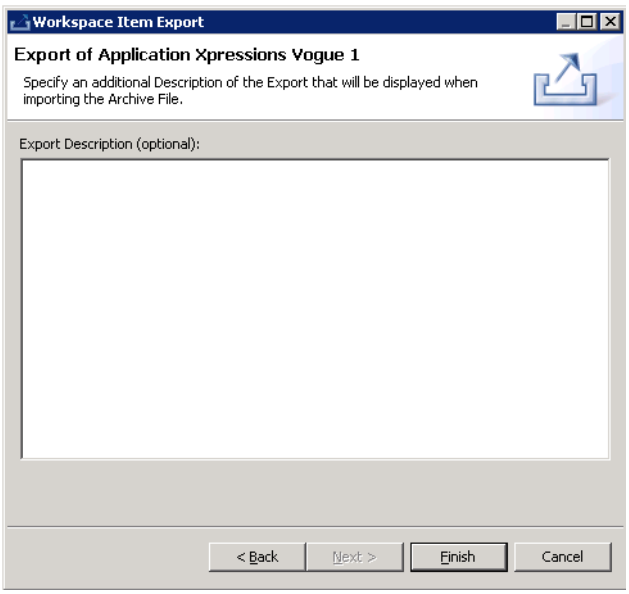


4. Determine whether resource files such as **Prompt Files**, **Grammar Files** and/or **other Application Resource Files** are also stored in the archive file and thus exported.

HINWEIS: Adding resource files requires an increased storage capacity and enhances the time required for the export depending on the data amount of the files.

---

5. Click on **Next**.



6. Add an optional comment to the export. You can see this comment when importing the archive file.
7. Start the export by clicking the **Finish** button. Then you receive a message about the successful export process.

5.1.2 Edit

This menu has the following options:

Menu option	Function
Undo	This menu option undoes the last performed modification to the callflow. This includes modifications in the properties windows of the controls. You can use this option repeatedly.
Redo	This menu option cancels the last undoing. It can be applied repeatedly.
Cut	A selected control, linkage or note in the callflow is copied with this command and deleted in its original place when being pasted somewhere else. You cannot cut a connection in the callflow since a connection is permanently assigned to a control.
Copy	A selected control, linkage or note in the callflow is copied with this command and left in its original place when being pasted somewhere else. You cannot copy a connection in the callflow since a connection is permanently assigned to a control. You can also copy callflows and applications.
Paste	Inserts a cut or copied control, linkage or note in the callflow or a copied application or a copied callflow in an arbitrary place. You cannot copy or cut and paste a connection in the callflow since a connection is permanently assigned to a control.
Delete	This menu option deletes the connection, note, linkage or control selected in the callflow. When a control is deleted, all connections starting from or ending at this control are also deleted. You can also delete selected callflows and applications.
Select All	This menu option selects all controls, notes and linkages available in the active callflow. Since connections are always permanently assigned to controls, they are selected, too.

Tabelle 8 Options of the “Edit” Menu

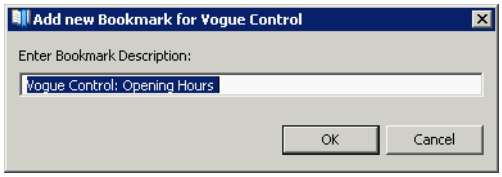
Menu option	Function
Add Bookmark	This menu option pastes a bookmark in the bookmark view for the currently opened control or callflow.  Bookmarks are represented in the bookmark view and can be selected from there (Abschnitt 5.3.7, “Bookmark View”, auf Seite 163) You cannot execute the **Undo** command for the add-bookmark feature.

Tabelle 8 Options of the “Edit” Menu

5.1.3 View

This menu has the following options:

Menu option	Function
Workspace	Activates or deactivates the workspace view.
Outline	Activates or deactivates the outline view.
Properties	Activates or deactivates the properties view.
Problems	Activates or deactivates the problem view.
Bookmark	Activates or deactivates the bookmark view.
Search	Activates or deactivates the search view.
Navigation	This menu option enables the selective activation of the **Problem View**, **Bookmark View**, **Workspace View** and **Editor** tabs. In addition, you can maximize or minimize the editor area for designing callflows with reference to the window size.
Reset Perspective	A perspective defines the arrangement of all freely positionable GUI elements of the Application Builder window. This menu option resets the Application Builder to the defaulted perspective.

Tabelle 9 Options of the “View” Menu

5.1.4 Callflow

This menu item is only displayed if a callflow is active in the editor area and features the following options:

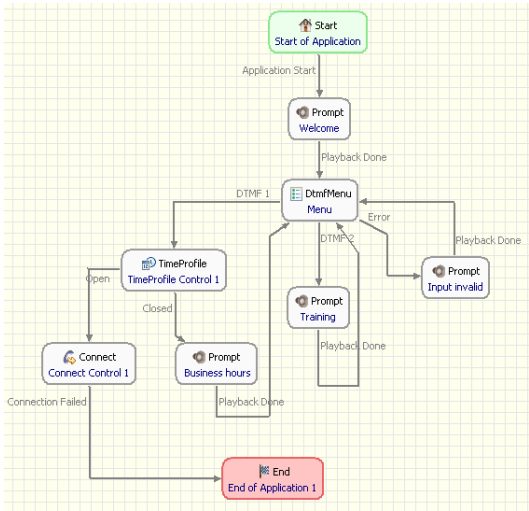
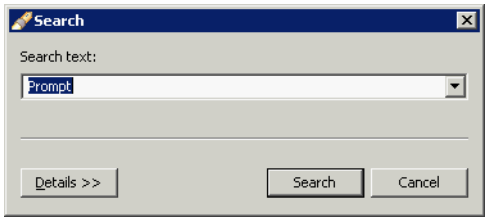
Menu option	Function
Show grid	This menu option lets you activate/deactivate the grid in the callflow editor. 
Show shadow	This menu option activates/deactivates the shaded display of a callflow's controls.
Show ruler	This menu option adds a ruler to the top left margin of the callflow editor or deactivates it.
Snap to geometry	When you activate this feature and position controls, lines are displayed in relation to other controls. In this way you can position controls precisely on the same level or in the same distance from each other.
Zoom in	This menu option is only executable when a callflow editor or a control in the callflow is selected. All elements in the current callflow are then displayed magnified.
Zoom out	This menu option is only executable when a callflow editor or a control in the callflow is selected. All elements in the current callflow are then displayed minimized.

*Tabelle 10 Options under the Menu Item **Callflow***

5.1.5 Search

This menu item only features the **Search...** option. It opens the search dialog and enables searching for a character string in all applications. The search result is displayed in the search view.



All names, descriptions and control properties are searched, e. g. also character strings that form a welcome text in a prompt control.

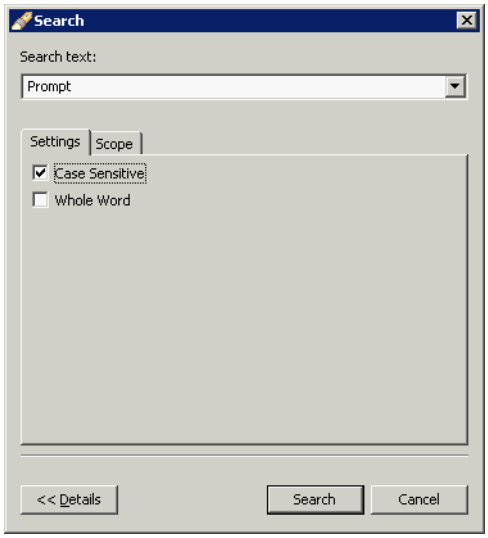
HINWEIS: The search feature is case sensitive. Using the characters ***** and **?** as wildcards in search items is not allowed.

- **Details >>**
  button
  This button expands the **Search** dialog with the **Settings** and **Scope** tabs, thus enabling a more detailed search. After you have clicked this button, it turns into **<< Details**. When you click this button, the above tabs are closed again.

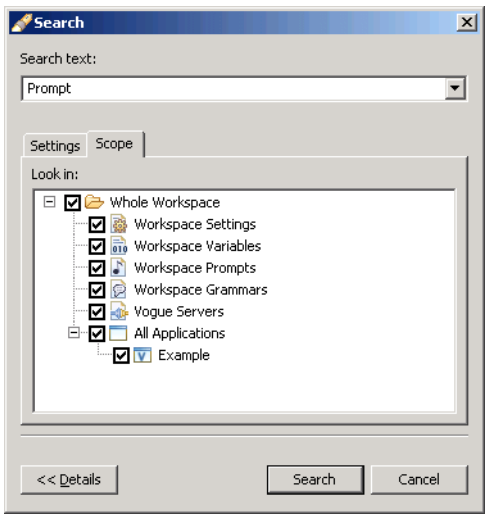
- **Settings** tab

  Case Sensitive
  Activate the associated checkbox if upper and lower case writing is to be heeded. If you enter an uppercase search item, only uppercase hits will be delivered.

  Whole Word
  Activate the associated checkbox if only whole words are to be accepted in the search. Otherwise, all terms starting with the search item will be put out. For example, if you enter an A as search item, all terms beginning with A will be put out as hit.



- **Scope**
  tab On this tab you set the search scope.

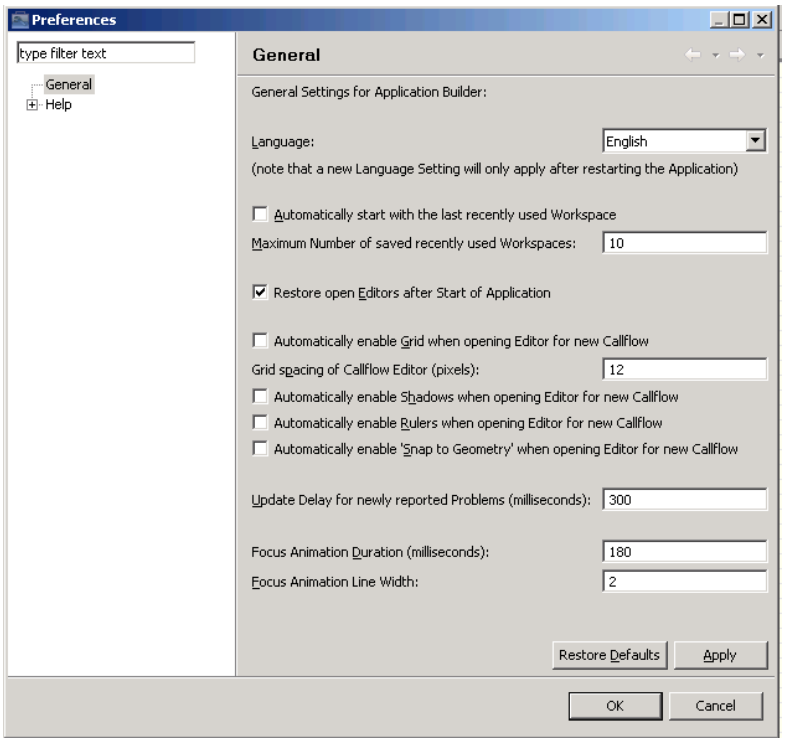


5.1.6 Tools

Under the **Tools** menu item you find the **Preferences...** option. This option opens a new dialog for performing general Application Builder settings. You can perform settings in three areas: **General**, **Help** and **Content**. With (**Back to <*area*>**) and (**Forward to <*area*>**) you can toggle the three areas. The following sections provide details about the setting options for the single areas.

5.1.6.1 Preferences > General

The **General** area lets you perform the following settings:



Option	Description
Language	This is the language used by the Application Builder. A modification will not take effect until a reboot.
Automatically start with the last recently used Workspace	This setting determines whether the workspace used last is to be deployed when starting the Application Builder. This option is active by default.
Maximum Number of saved recently used Workspaces	This is the number of workspaces used last to be registered by the Application Builder. The default value is 10.

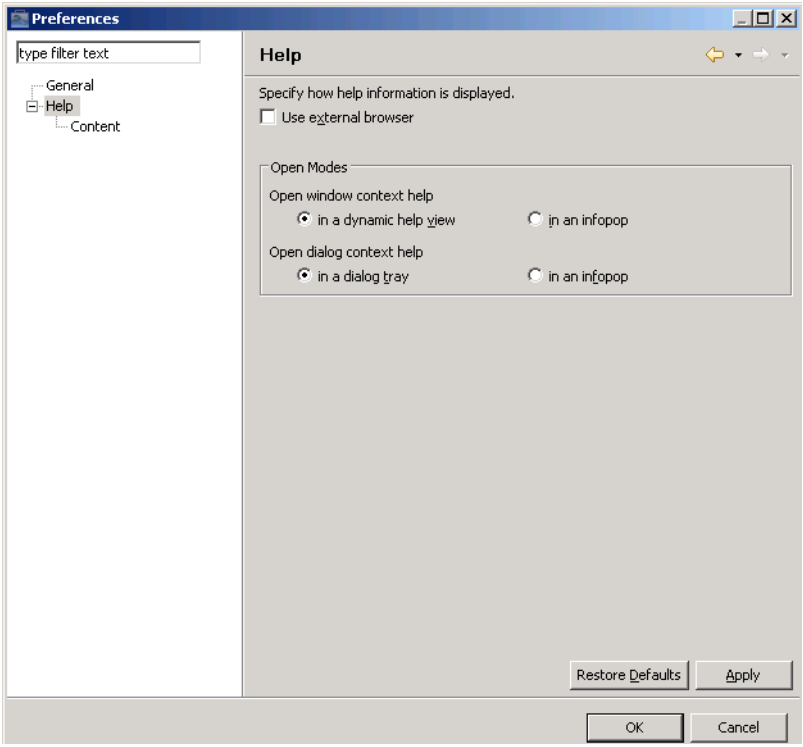
Tabelle 11 General Setting Options

Option	Description
Restore open Editors after Start of Application	This option is active by default and serves for automatically displaying all open editor areas of an application after a program reboot.
Automatically enable Grid when opening Editor for new Callflow	This setting defines whether the grid is to be automatically displayed when creating a new callflow.
Grid spacing of Callflow Editor (Pixel)	Grid spacing of the callflows in pixels. The default value is 12.
Automatically enable Shadows when opening Editor for new Callflow	When you activate this option, all controls are automatically displayed shaded upon the creation of a new callflow.
Automatically enable Rulers when opening Editor for new Callflow	Setting that automatically displays rules at the top and left editor margin when creating a new callflow.
Automatically enable 'Snap to Geometry' when opening Editor for new Callflow	Setting this checkbox automatically activates the auxiliary lines for the geometric arrangement of controls when creating a new callflow.
Update delay for newly reported Problems (ms)	This field determines the delay for displaying entries newly made in the **Problems** view. The default value is 300 milliseconds.
Focus Animation Duration (ms)	This setting defines the time in which the focus animation is displayed. Focus animation describes the red frame that appears in the problems view when you doubleclick an error entry. This animation serves highlighting purposes only and is terminated when you select the faulty element. The highest value is 999. The default value is 180 milliseconds. Entry "0" deactivates the function.
Focus Animation Line Width	This setting defines the line width of the focus animation's red frame. The highest value is 9. The default value is 2. The entry "0" deactivates the function.
Restore Defaults	This button resets all values to the defaulted ones.
Apply	This button copies the modified settings.

Tabelle 11 General Setting Options

5.1.6.2 Preferences > Help

In the **Help** area you perform settings to represent the Help function.



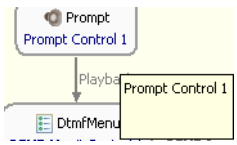
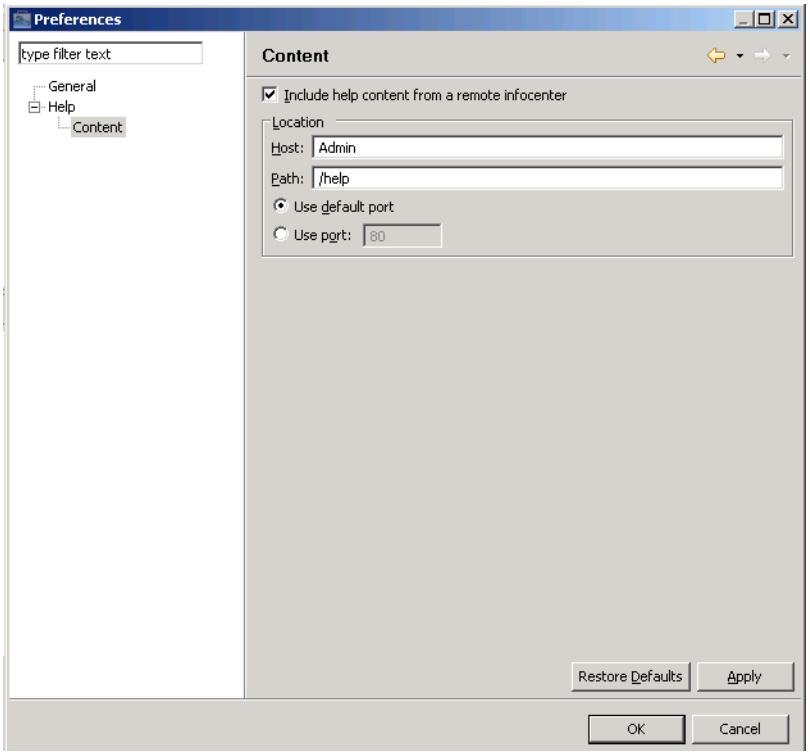
Option	Description
Use external browser	If this option's checkbox is ticked off, the help is opened in the defaulted browser. If this option is inactive, the help is displayed in an Application Builder window. You start the help display by selecting **Menu bar > Help > Help Contents**.
Open window context help	
in a dynamic help view	Selecting this radio button defines that the context sensitive help is displayed in the help view.
in an infopop	Selecting this radio button defines that the context sensitive help is displayed in an infopop. 
Open dialog context help	
in a dialog tray	Selecting this radio button displays the context sensitive help of dialogs in a dialog tray.
in an infopop	Selecting this radio button displays the context sensitive help of dialogs in an infopop.

Tabelle 12 Setting Options in the “Help” Area

5.1.6.3 Preferences > Help > Content

In this area you can use the following settings to specify where the help system is to be searched for.



Option	Description
Include help content from a remote Infocenter	If this checkbox remains deactivated, the computer is dynamically searched for by the help system.
Host	In this entry field you specify the computer name or its IP address.
Path	This option defines the directory path in which the help is stored.
Use default port	If this radio button is selected, default port 80 is used.
Use port	If this radio button is selected, a user-defined port number is used.
Restore Defaults	This button lets you restore default values or settings.
Apply	A click on this button saves the performed settings.

Tabelle 13 Setting Options in the “Content” Area

HINWEIS: If the help server already operates, a modified setting does not take effect until a reboot.

5.1.7 Help

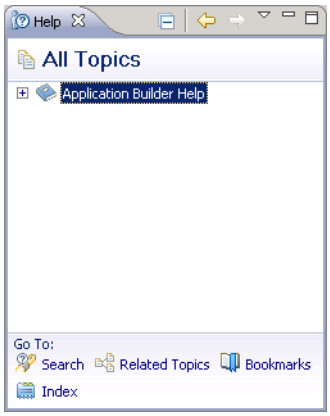
This menu item features the following options:

Option	Description
Help Contents	This menu option opens the Online help. Depending on the settings you have made in the **Tools > Preferences...** menu option this is done in an external browser or in an Application Builder window.
Dynamic Help	This menu option opens the help view with an overview of all topics. You find further information in Abschnitt 5.1.7.1, “Dynamic Help”, auf Seite 87.
Search	This menu option immediately opens the **Search** topic in the help view. Here you can enter a specific term as online help search item. You find further information in Abschnitt 5.1.7.2, “Search”, auf Seite 89.
About Application Builder	This menu option provides information about the Application Builder. You find more information in Abschnitt 5.1.7.3, “About Application Builder”, auf Seite 91.

Tabelle 14 Options of the “Help” Menu

5.1.7.1 Dynamic Help

A click on the **Dynamic Help** menu option opens be below help view in the form of a tab. It contains an overview of all topics.



Depending on the selected help page, the bottom margin shows different links:

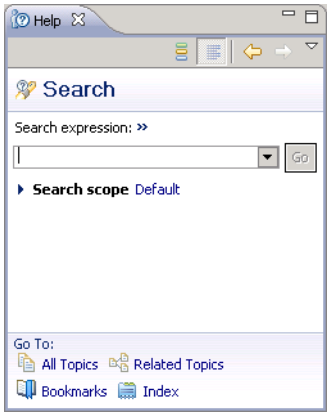
- **All Topics** leads to the help's table of contents.
- **Related Topics** shows the links that provide information about the desired element.

- **Bookmarks** displays the help pages that you have selected as bookmark.
- **Index** opens the keyword overview of the help.
- **Search** shows the page on which you can specify a search item for searching the help.

You can find further information about the help under Abschnitt 5.3.9, “Help View”, auf Seite 167.

5.1.7.2 Search

When you select the **Search** menu option you are directly taken to the search page of the help.

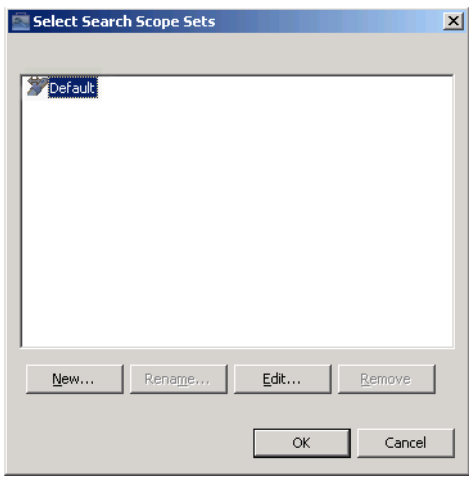


Enter the item to be searched for in the **Search expression** field and then click on **Go**. The hits and their number are displayed in the bottom section of the view.

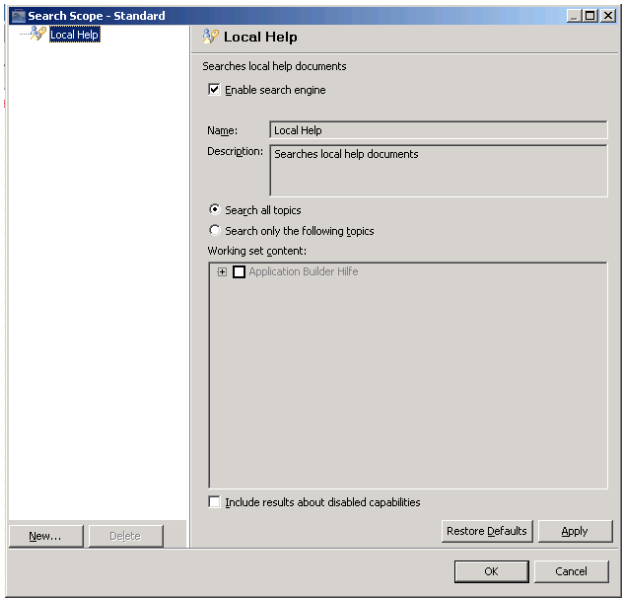
HINWEIS: The special characters ***** (arbitrary sequence), **?** (any character), **“”** (expression) and the Boolean operators **AND**, **OR** and **NOT** are allowed in search items.

Under **Search scope** you can configure the range in which the search is to be performed.

1. Click on the **Default** link to view or change the settings. The following dialog opens:



2. Select the **Default** entry and click on the **Edit...** button. The following dialog opens:



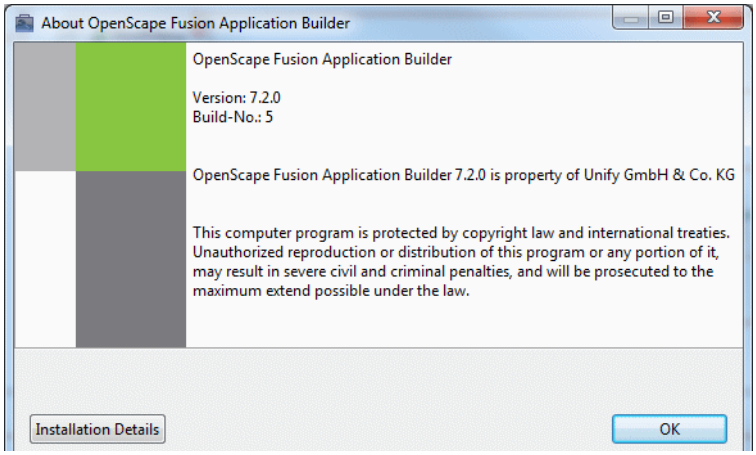
In this dialog you can determine whether to search the local help document . Activate the **Enable search engine** checkbox for this purpose. In addition, you can select one of the two radio buttons to define the topics to be searched.

– **Search all topics**

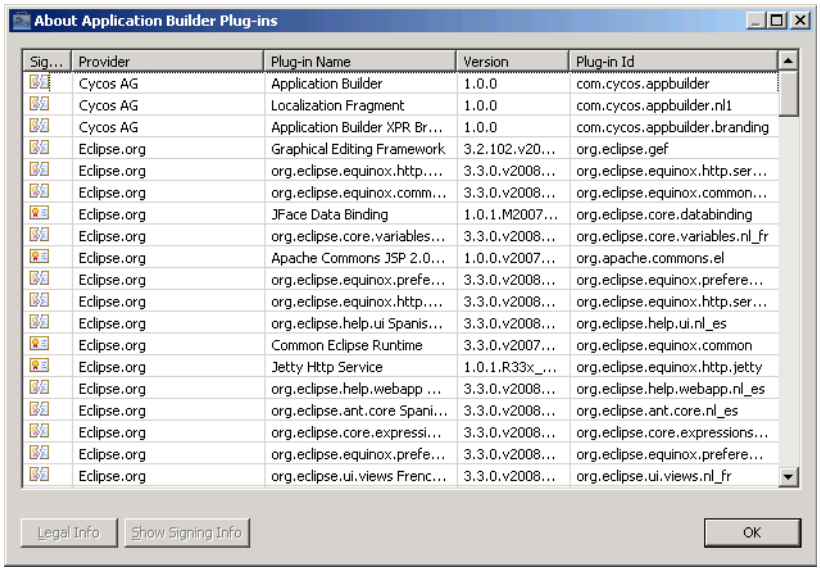
– **Search only the following topics**
Activate the checkbox of the desired **Working set content**. This activates the topic itself and all subordinate topics for the search.

5.1.7.3 About Application Builder

If you have selected the **About Application Builder** menu option, the following dialog opens that delivers information about the Application Builder.



- **Plug-in Details**
  Click on the **Plug-in Details** button to receive information about plug-ins. The **About Application Builder Plug-ins** dialog opens. It contains a list of all Application Builder plug-ins.

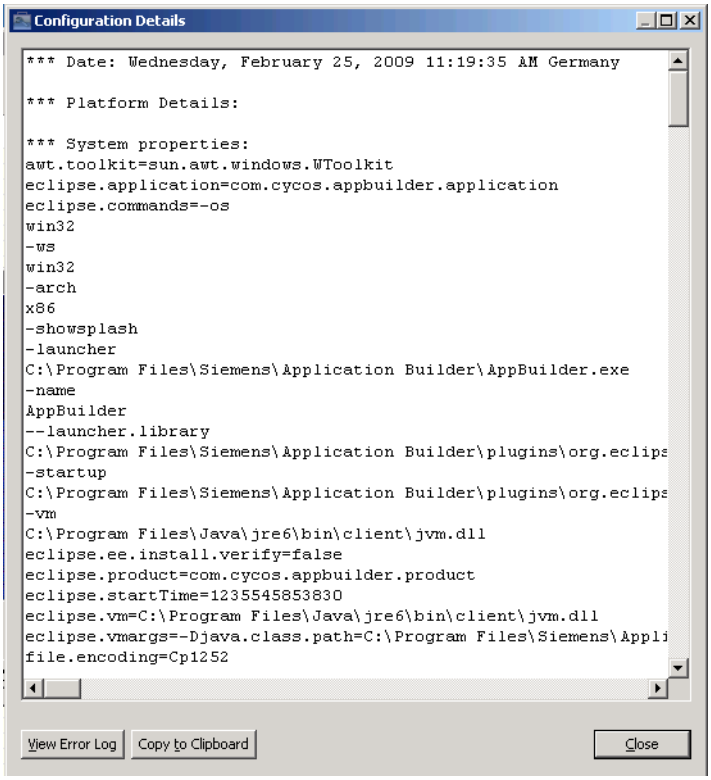


  Select an entry.

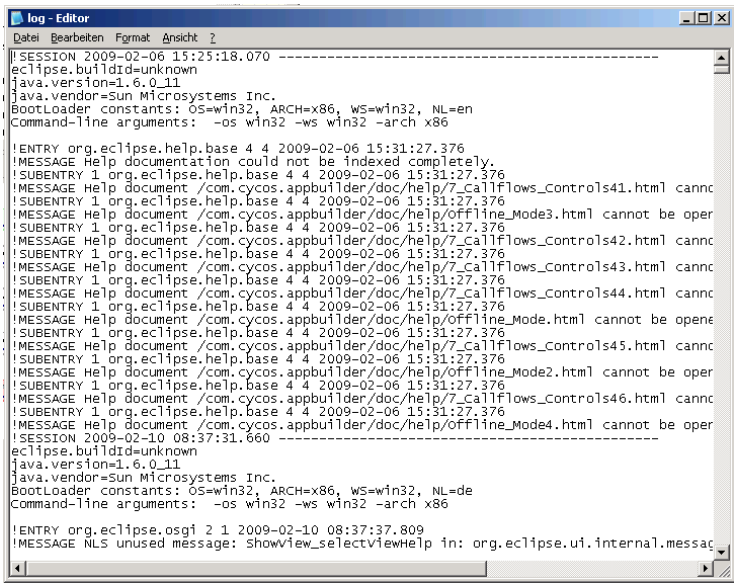
  – Then click on the **Legal Info** button to receive continuative information in the HTML format. In this case your default browser opens.

  – Via the **Show Signing Info** button you are provided with information about the certificate of the selected plug-in if it is signed.

- **Configuration Details**
  A click on the **Configuration Details** button opens the following window, which displays the entire Application Builder settings.



  – When you push the **View Error Log** button, a window opens to display the error log file. If required, a dialog is displayed for selecting a program to view the error log. We recommend to prefer the editor.



– Via the **Copy to Clipboard** button you copy the setting to the clipboard. From there you can paste the settings into other programs by pushing the `[Ctrl]+[V]` key combination, for example.

5.2 Toolbar

Except for the zoom feature the toolbar offers a selection of the features that are also available via the menu bar. For a detailed description of the features please also refer to the corresponding chapter on the menu bar.

Icon	Meaning
	Create new application
	Save opened callflow or performed settings
	Save all callflows or all performed settings
	Open dialog for printing the selected callflow
	Provide the currently selected application (**deployment**). Via the arrow icon you can choose from all available applications.
	Undo
	Cancel undo
	Cut the selected element and copy it to the clipboard
	Copy the selected element to the clipboard
	Paste the cut or copied element from the clipboard into the desired position.
100%	Zoom Increase the numerical value to magnify the representation of the controls in a callflow. Decreasing the numerical value effects a minimizing of the control representation. • Pick the **Width** value to select a pane big enough for displaying the callflow in its entire width. • Pick the **Hight** value to select a pane big enough for displaying the callflow in its entire hight. • Pick the **Page** value to display the callflow completely. If you have a mouse with wheel and the mousepointer is in this entry field, you can set the extract represented in the callflow view via the mousewheel. If the outline is active, the modification performed in the callflow extract will also be done in the draft.

Tabelle 15 Icons on the Toolbar

5.3 Views

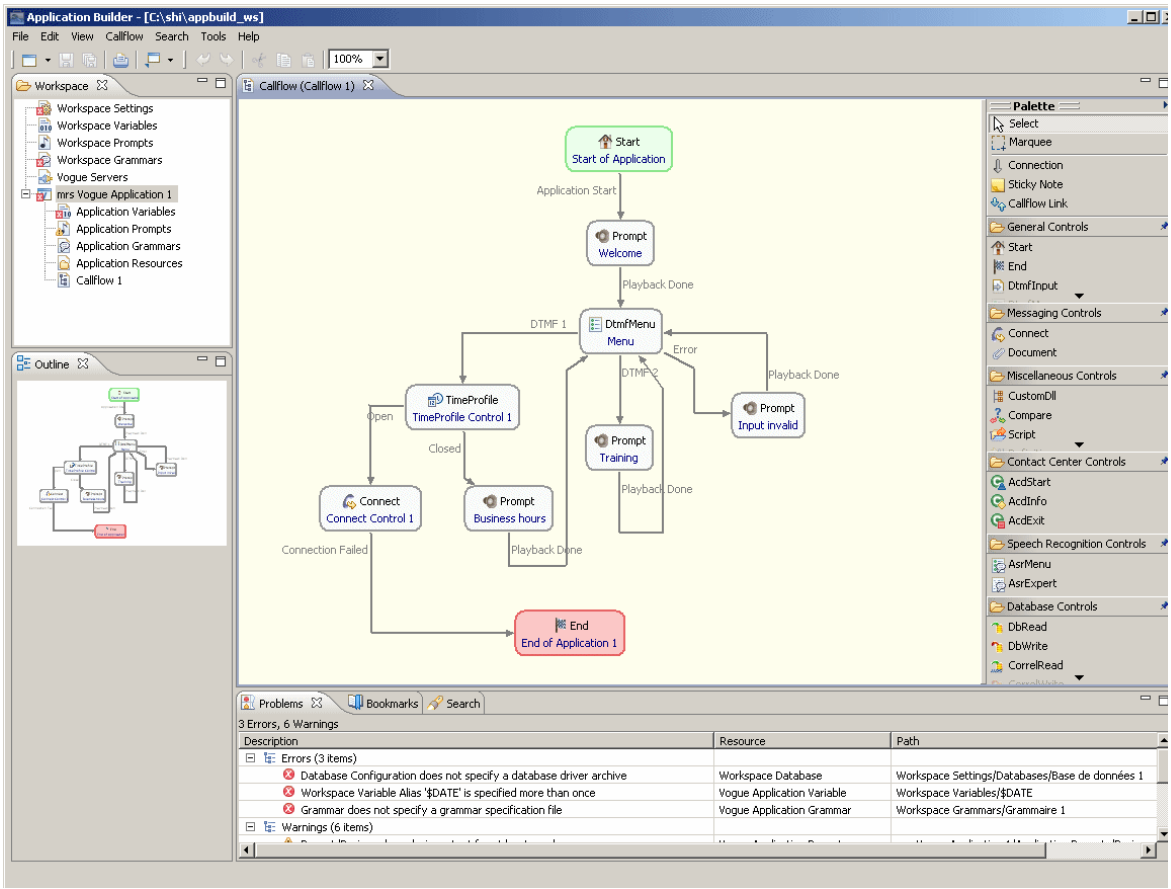
The Views term describes different tabs of the Application Builder GUI. Among these are:

- the **workspace**, which displays in a tree structure links for setting the entire workspace and also existing applications as well as their callflows (Abschnitt 5.3.2, “Workspace View”, auf Seite 99),
- the **outline view**, which represents a selected callflow in minimized format (Abschnitt 5.3.4, “Outline View”, auf Seite 160),
- the **problem view** for displaying notes and errors in the workspace or in an application (Abschnitt 5.3.5, “Problem View”, auf Seite 160),
- the **properties view** which displays the information of a selected control (Abschnitt 5.3.6, “Properties View”, auf Seite 162),
- the **bookmark view** which lists the created bookmarks (Abschnitt 5.3.7, “Bookmark View”, auf Seite 163),
- the **search view** for listing search hits and the associated results (Abschnitt 5.3.8, “Search View”, auf Seite 165),
- the **help view** for representing context-sensitive help information (Abschnitt 5.3.9, “Help View”, auf Seite 167),
- the **callflow editor** for creating and editing callflows. The editor includes a palette, which lists the available controls (Abschnitt 5.3.3.5, “Callflow Editor”, auf Seite 156),
- the **editor area** which displays the tabs of all workspace- and application-related settings, variables, prompts, grammars, resources as well as the callflow editor itself are displayed.

You can control the activation or deactivation of the single views via the **View** menu option. The callflow editor starts automatically upon opening a callflow.

5.3.1 Arranging the Views

The workspace, outline, problems, search and bookmark views are active and arranged by default as follows:



The user may customize the view arrangement.

Positioning a view within the Application Builder window

How to arrange the **outline view** e.g. from the above figure in a way that it uses the same space as the **workspace view**:

1. Click on the **outline** tab and keep the mousebutton pressed.
2. Drag the mousepointer into the **workspace view** until it adopts the representation of several tabs (🗗) and the **workspace view** receives an additional gray frame.
3. Release the mousebutton. The additional gray frame disappears and the **workspace view** and the **draft view** take the same space. With a click on one of the two tabs you determine which view is displayed.

If the mousepointer turns into a black arrow when you press the mousebutton, the **outline view** does not take the same space like the **workspace view** but the view is docked to the margin to which the arrow points. Also in this case an additional gray frame is displayed which indicates the space that the view to be shifted takes as soon as you release the left mousebutton.

Positioning a view outside the Application Builder window

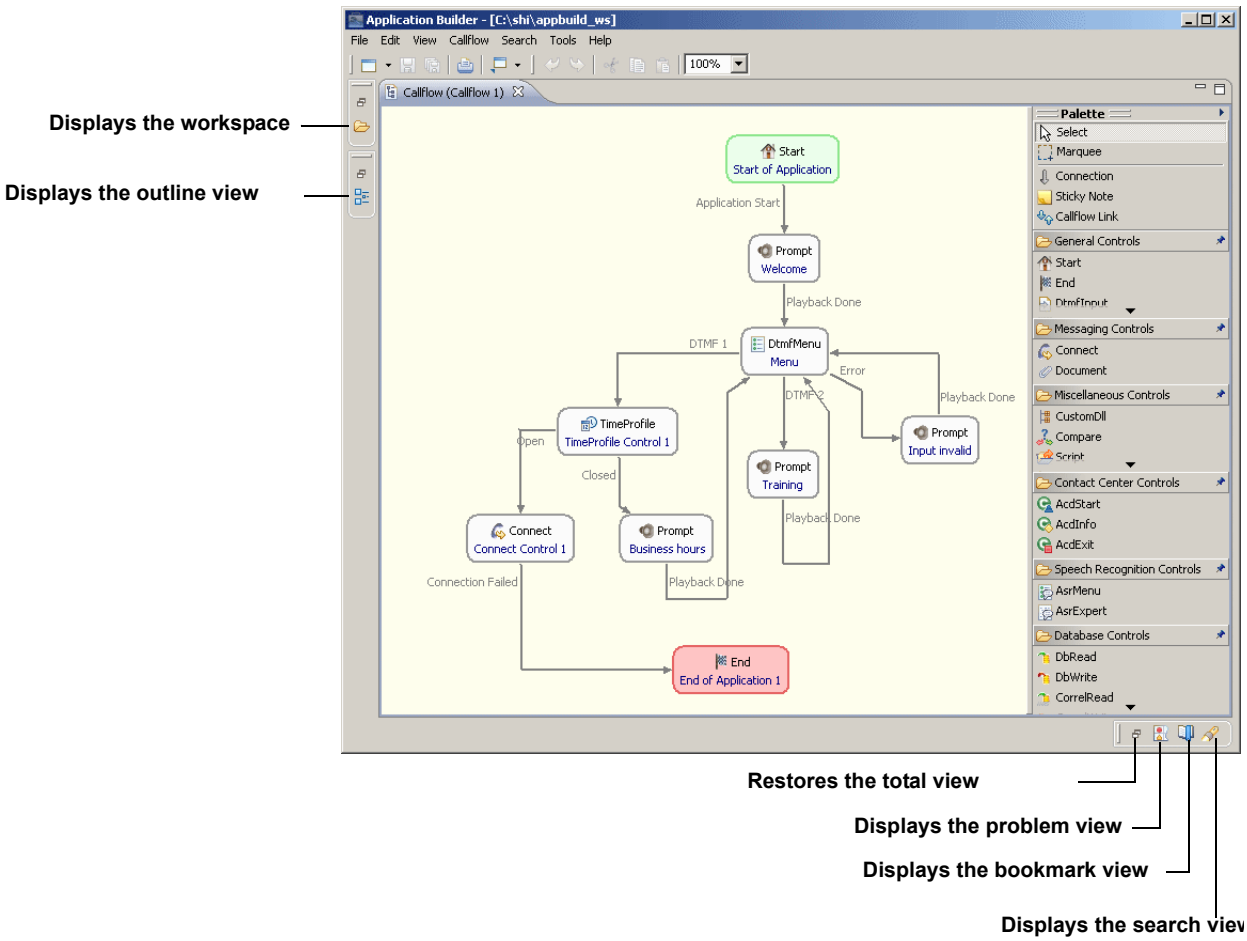
You can also drag a view out of the Application Builder window when you keep the mousebutton pressed. The mousepointer then adopts the shape of nested squares. Here as well an additional gray frame shows the space that the view takes as soon as you release the mousebutton. The window created in this way is entirely independent from the size and position of the Application Builder window.

Minimizing/maximizing views

Each view features the  icons top right in the caption bar, which are displayed when the view is neither minimized nor maximized. A click on the left of the two icons minimizes the view, and a click on the right one maximizes the view. Some views have additional icons in their caption. These icons will be explained with the respective view.

The depicted example shows the Application Builder window when the callflow editor is maximized. All other views are minimized and docked to the bottom left margin in the form of toolbars. With a click on one of the icons listed in Tabelle 16 the associated view is displayed again. Click on the  icon to restore the previous total view.

HINWEIS: The minimized callflow editor or editor area appears as toolbar on the right margin of the Application Builder window.



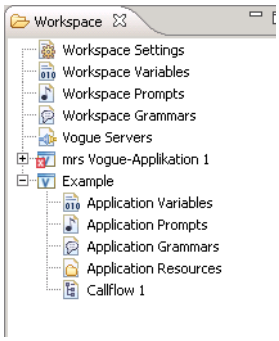
The following table contains a list of all icons used for indicating the minimized views:

Icon	Meaning
	Workspace
	Editor area or callflow editor
	**Properties** view
	Outline View
	Bookmark view
	Problem view
	Search view

Tabelle 16 View Icons

5.3.2 Workspace View

The workspace view represents configuration options for the entire workspace and also the configured applications as well as their associated callflows. The view appears in a tree structure:



For the entire view you can select the following entries:

- **Workspace settings** for configuring the available language resources and database connections (Abschnitt 5.3.2.1, “Settings in the Workspace”)
- **Workspace variables** for creating and editing wildcards (Abschnitt 5.3.2.2, “Workspace-spanning Variables”)
- **Workspace prompts** for integrating and creating announcements (Abschnitt 5.3.2.3, “Workspace-spanning Prompts”)
- **Workspace grammars** for activating rules and assignments for speech recognition to use text-to-speech (Abschnitt 5.3.2.4, “Workspace-spanning Grammars”)
- **Vogue server** for logging on to the XPR server, configuring this logon, creating a Vogue script and importing existing applications from the Application Builder
  Abschnitt 5.3.2.5, “Vogue Server Settings”).

For each newly created application the entries for configuring variables, prompts, grammars, and resources are created. The configuration of these variables, prompts, grammars, and resources is only valid in the respective application. Furthermore, the callflows created in an application are displayed.

For each workspace entry a specific icon is displayed.

Icon	Meaning
	**Workspace settings**
	**Workspace** or **application variables**
	**Workspace** or **application prompts**
	**Workspace** or **application grammars**
	**Vogue server** settings
	**Xpressions Vogue application**
	**Callflow**

Tabelle 17 Workspace Icons

If errors or warnings exist in an entry's settings, the icon is furnished either with the error icon or with the warning icon . For example, indicates that the Vogue application is faulty, and marks a callflow for which warnings exist. When you select the corresponding entry, the errors or warnings are displayed in the **Problem view**.

5.3.2.1 Settings in the Workspace

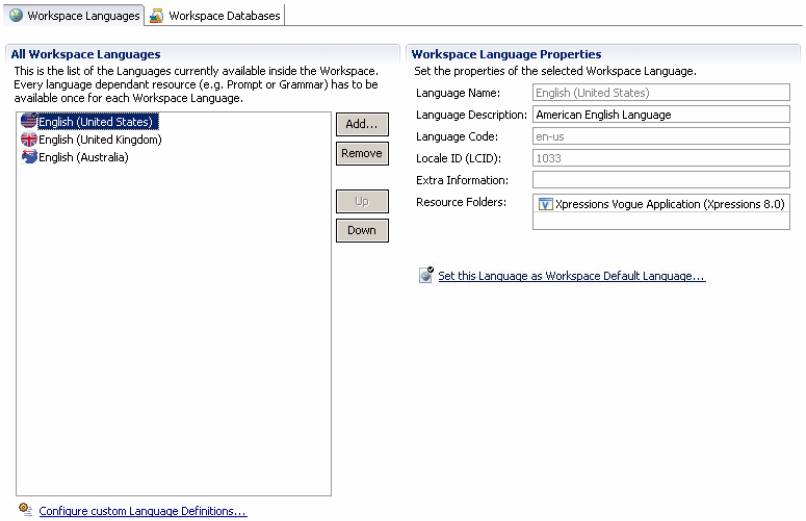
When you doubleclick the **Workspace Settings** entry in the workspace view, the **Workspace Settings** tab for defining and configuring the workspace-spanning languages and databases to be used opens in the editor area.

On the **Workspace Settings** tab you find two more tabs.

“Workspace Languages” tab

You need to define at least one language for each workspace and application. Only for the language set here you can select language-dependent resources such as prompts or grammar files. Only for the languages specified here you can use e.g. a text-to-speech system for creating prompts from text.

On the left hand side of the tab you see a list of **All** available **Workspace Languages** by default. As soon as you have selected one of the listed languages, the **Workspace Language Properties** appear on the right hand side.



- **Adding a built-in Language**

  How to add a built-in language:

  1. Click on the **Add...** button. The following dialog opens in which you receive all possible language resources for selection.

  This dialog features the following columns:

Field	Description
Name	The **Name** serves as unique identifier of a language resource.

Tabelle 18 Columns in the “Add Languages to Workspace” Dialog

Field	Description
Code	The **Code** describes the values of the CultureInfo class defined by Microsoft, which contain the cultural properties of a country. These properties contain the name of the culture, the writing system, the calendar used as well as the date format and sorted character strings. The code consists of a two-digit culture code in small letters according to ISO 639 linked to a language and also of a two-digit fractional culture code in small letters linked to a country or region.
Locale ID	The **Locale ID** or **LCID** (locale identifiers) for short describes a unique code of a language resource introduced by Microsoft, which is also used e.g. by your operating system. Using this ID the operating system can adjust the specific properties of the representation and information output such as date and currency specifications or weekday names.
Type	The **Type** column indicates for each language resource whether the language is **predefined**, i.e. was installed via the XPR system or whether it is a **user-defined** language.

Tabelle 18 Columns in the "Add Languages to Workspace" Dialog

HINWEIS: Please note that you can only use licensed language resources.

2. Activate the checkbox of the desired language(s) and confirm your selection with the **OK** button. The selected language appears indicated in the **All Workspace Languages** list and the **properties of the** added **workspace language** are displayed. The following language properties are available:

Property	Description
Language Name	See Tabelle 18 auf Seite 101.
Language Description	Optional description of the selected language
Language Code	See Tabelle 18 auf Seite 101.
Locale ID	See Tabelle 18 auf Seite 101.
Extra Information	The optional information displayed here can be used by a target platform for identifying the workspace language. Vogue does not use this information.
Resource Folders	The **Resource Folder** describes the folder in which the prompts and grammar files configured for the workspace or an application are stored according to the associated language. For each language already assigned by the XPR system a folder name is already predefined. For each user-defined language a folder name must be specified in the right column.

Tabelle 19 Properties of the Workspace Language

Via the **Set this Language as Workspace Default Language...** link you can define the selected language as language for all prompt, grammar and resource files.

- **Removing a built-in language**

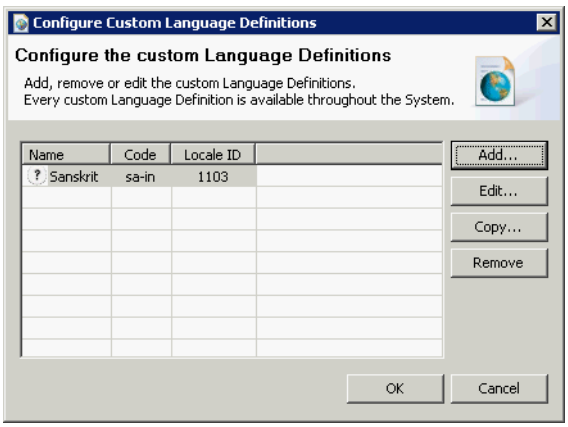
  How to remove a built-in language from the list of workspace languages:

  1. Select the language to be removed.
  2. Click on the **Remove** button. The language is removed from the list of workspace languages.

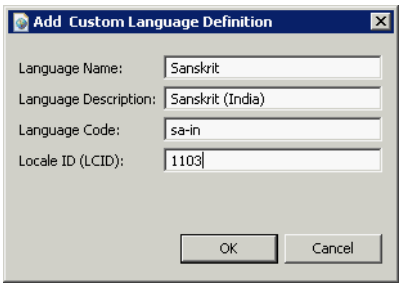
- **Creating a custom language**

  How to create and use a custom language:

  1. Click on the **Configure custom Language Definitions...** link. The dialog of the same name appears.



  2. Click on the **Add...** button. The **Add Custom Language Definition** dialog opens.



  3. Specify for the new language a **Language Name**, the **Language Code** and the **Locale ID**. You can obtain the **language code** and the **locale ID** from the Microsoft internet pages.

     The language code for American Spanish is `es_us`. This is the language of Spanish native speakers in the US.

  4. Click the **OK** button. The language you have newly created is added to the list of custom language definitions.

5. Close the **Configure Custom Language Definitions** dialog via the **OK** button. You can now add the new custom language as described in Abschnitt 5.3.2.1, “Adding a built-in Language”, auf Seite 101.
6. Specify for the added user-defined language the **resource folder** name. See Tabelle 19 auf Seite 102.

- **Editing a custom language**

  How to edit the settings of a custom language:

  1. Click on the **Configure custom Language Definitions...** link. The dialog of the same name appears.
  2. Select a custom language from the displayed list.
  3. Click on the **Edit...** button. The **Edit Custom Language Definition** dialog opens.
  4. Perform the desired modifications.
  5. Click the **OK** button. The performed modifications have been copied.

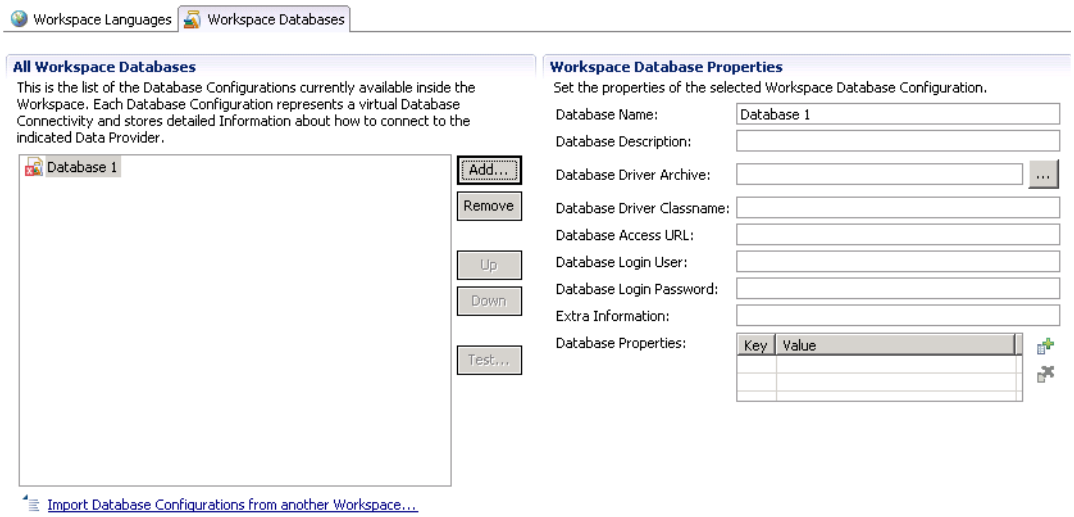
- **Removing a custom language**

  How to remove a custom language:

  1. Click on the **Configure custom Language Definitions...** link. The dialog of the same name appears.
  2. Select the desired language.
  3. Click on the **Remove** button. The language is removed from the list of custom languages.

“Workspace Databases” tab

The connection of a database enables the querying and expansion of this database via a configured application. The database configuration corresponds to configuring a virtual database connection. The information you receive here enables connecting a database provider.

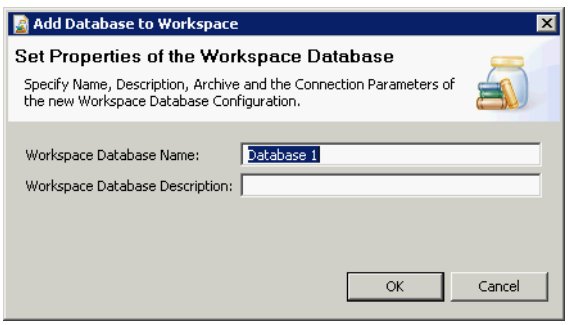


On the left hand side of the tab you see a list of **All** available **Workspace Databases** by default. As soon as you have selected one of the listed databases, the **Workspace Database Properties** appear on the right hand side.

- **Creating a new database connection**

  How to create and configure a new database connection:

  1. Click the **Add...** button to open the following dialog.



  2. Specify the **Workspace Database Name**. You can optionally enter a **Workspace Database Description**.
  3. Click the **OK** button. The database is listed on the **Workspace Databases** tab.
  4. Define the **properties of the** selected **workspace database**.

Property	Description
Database Description	This is an optional description of the database.

Tabelle 20 Properties of the Workspace Databases

Property	Description
Database Driver Archive	This archive must be a Java archive that contains the drivers for the database type to be used.
Database Driver Classname	This is the Java class name that corresponds to the driver from the specified archive (e. g. `com.mysql.jdbc.Driver`) and that is instantiated when accessing the data provider.
Database Access URL	The URL specifies the local path or the path in a network, via which you can reach the driver archive.
Database Login User	This is the user ID for accessing the database.
Database Login Password	This is the associated user password.
Extra Information	The optional information displayed here can be used by a target platform (e. g. Vogue) for identifying the workspace database.
Database Properties	Here you can assign specific values to keys or remove such assignments.
Database Name	It serves as unique identifier of the database.

Tabelle 20 Properties of the Workspace Databases

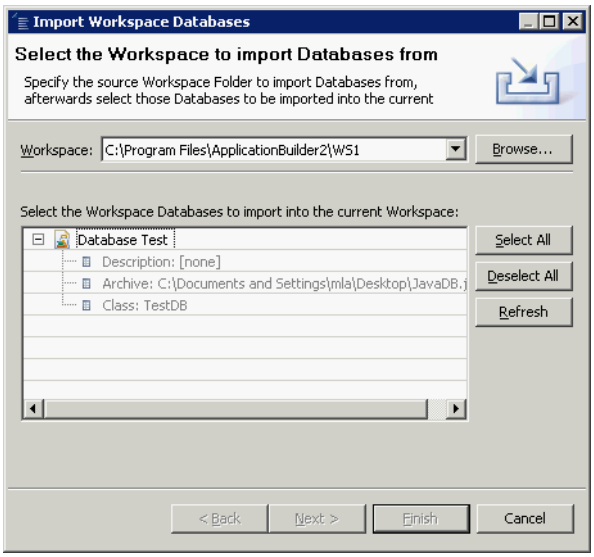
5. Test a configured database via the **Test...** button and by entering a request in the SQL default. This test will show whether a connection to the desired database has successfully been established.

HINWEIS: Data can only be queried. Modifying or adding data is not possible.

- **Importing database configurations from another workspace**

  How to import the settings for connecting a database to the Application Builder from another workspace:

  1. Click on the **XImport Database Configurations from another Workspace...** link. The following dialog opens:

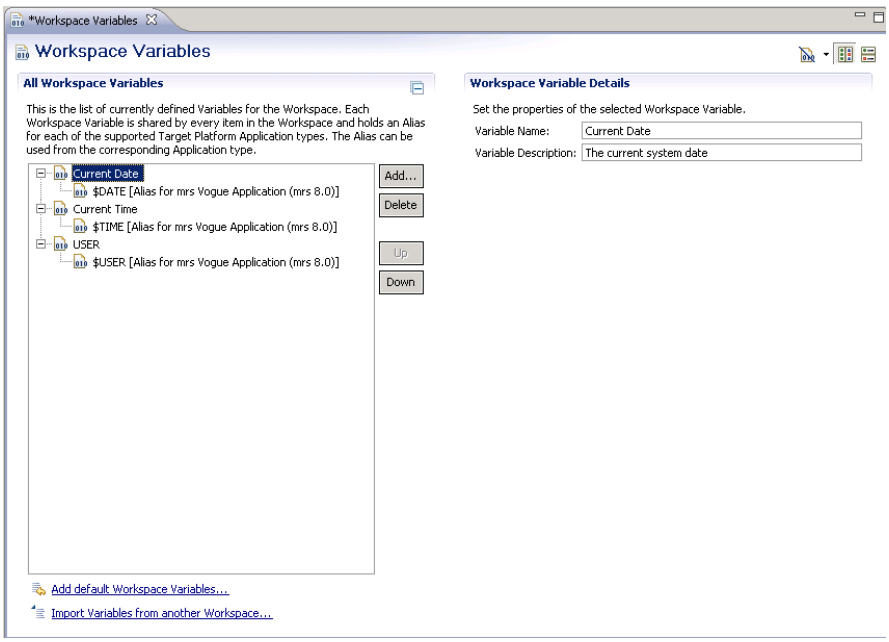


  2. Select the corresponding workspace from the selection list or via the **...** icon. All database configurations are automatically installed and displayed with properties.
  3. Select the desired configuration and click on **Finish**. The imported database configuration is integrated in the **All Workspace Databases** list.

     To import all database configurations of another workspace, click on **Select All** and then on **Finish**.

5.3.2.2 Workspace-spanning Variables

If you doubleclick the **Workspace Variables** entry in the workspace view, the tab for defining and configuring the workspace-spanning variables opens in the editor area.

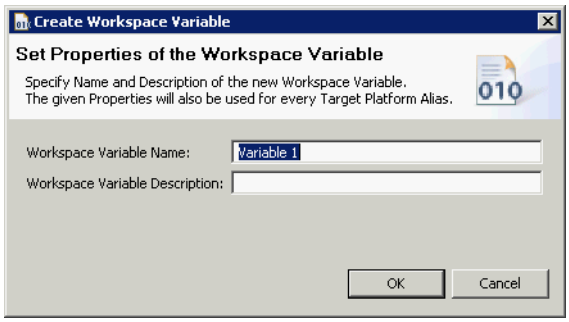


In contrast to application-spanning variables, workspace-spanning variables are valid in the entire workspace and can be used across the application. Workspace-spanning variables are also displayed in the list of application-spanning variables with the supplement `[workspace variables alias]`.

Defining a new variable

How to define a new variable:

1. Click on the **Add...** button. The **Create Workspace Variable** dialog opens.



2. Specify the **Workspace Variable Name**.
3. Enter an optional **Workspace Variable Description**.

4. Click the **OK** button. The new variable is itemized in the **All Workspace Variables** list. The name is automatically transformed in the `$<NAME>` format and describes the application alias of the newly created workspace variable.

With the **Delete** button you can remove workspace variables from the workspace.

Use the **Up** or **Down** buttons to move a selected variable up or down the list.

Editing workspace-spanning variables

If you want to edit the **variable name** or the **variable description** of already created workspace-spanning variables, select the corresponding variable in the **Workspace Variable Details** area and modify the values of the created fields.

Setting the application alias of workspace-spanning variables

If you click on the plus sign that precedes a variable, the application alias of this variable opens. When you select this alias, you can edit the **Variable Name** and the **Variable Description** copied from the workspace variable in the **Vogue Application Variable Details** area. The parameter **Variable is write-protected** may adopt the Boolean values **true** or **false** . It defines whether or not a variable can be modified after its creation. This settings are applied for using the variable in an application. This means, the **Variable Name** specified here is displayed in an application.

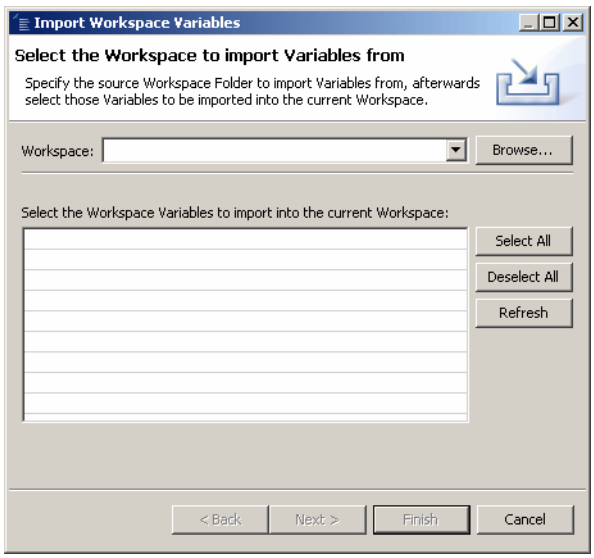
HINWEIS: The content of write-protected variables can thus not be modified when these variables are used in an application. You can, however, assign a value to the variables in a Definition control so that the variables' content is not empty. The assignment can exclusively be carried out in a Definition control.

Adding default workspace variables

Click on the **Add default Workspace Variables...** link if you need the variables `Current Date` and `Current Time`. The variables are integrated in the list of workspace-spanning variables. The aliases for these variables for Xpressions Vogue applications are `$DATE` and `$TIME` and are write-protected.

Importing variables

1. Click on the **Import Variables from another Workspace...** link. The **Import Workspace Variables** dialog opens, in which you can select the corresponding workspace via the **Browse...** button.



   All variables of the other workspace are automatically displayed with their properties.

2. Select the desired variable and click on **Finish**. The imported variable is itemized in the **All Workspace Variables** list.

Importing all variables of another workspace

To import all variables of another workspace, click on **Select All** and then on **Finish**. The imported variables are integrated in the **All Workspace Variables** list.

With a click on the **Deselect All** button you undo all variable selections.

Further features

The **Workspace Variables** tab features at the top right margin three more icons the functions of which are explained in the below table.

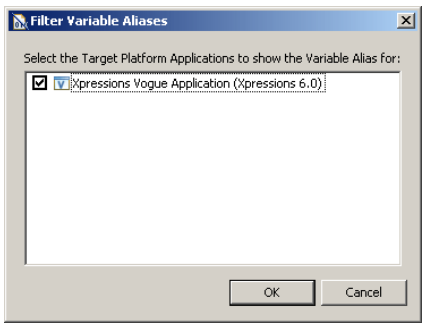
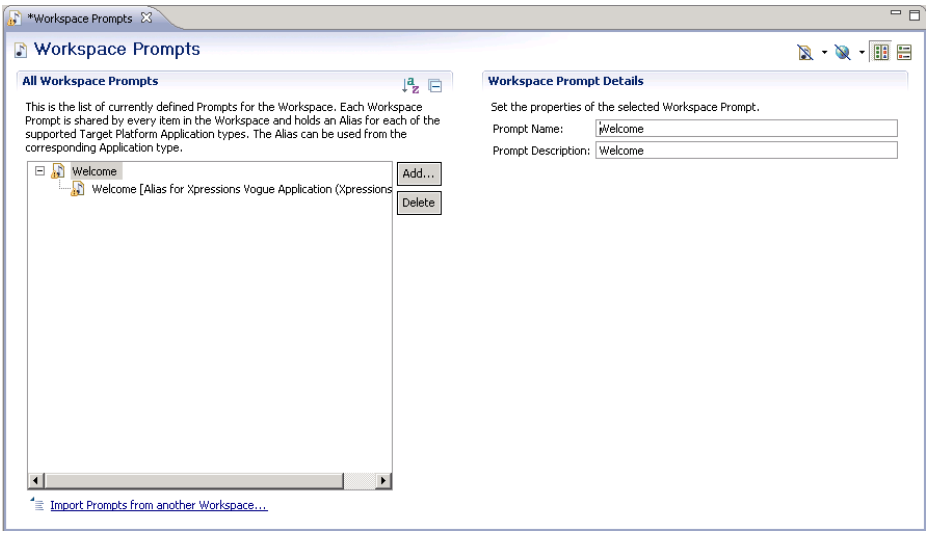
Icon	Function
	This icon serves for filtering the variable display. By enabling this icon you can determine for which applications a variable alias is to be displayed. The following dialog opens:  Activate the checkbox of the desired application and then click on the **OK** button. Only the variable aliases of the selected application are listed.
	This icon is active by default. In the icon's active state the areas **All Workspace Variables** and **Vogue Application Variable Details** or **Workspace Variable Details** are positioned next to each other. The area **All Workspace Variables** is found in the left half of the tab.
	When you activate this icon, the areas **All Workspace Variables** and **Vogue Application Variable Details** or **Workspace Variable Details** are positioned on top of each other, with the area **All Workspace Variables** always being in the upper half of the tab.

Tabelle 21 Further Functions of the “Workspace Variables” Tab

On the top right margin of the **All Workspace Variables** area you find the  icon. A click on this icon displays only the variables defined for the workspace in the **All Workspace Variables** list. The respective aliases can be displayed again via their plus sign.

5.3.2.3 Workspace-spanning Prompts

If you doubleclick the **Workspace Prompts** entry in the workspace view, the tab for defining and configuring the workspace-spanning prompts opens in the editor area. Prompts or announcements are either sound files or texts used in controls for various functions and transformed using a text-to-speech system. For example, announcements, user-guidance prompts or information can be announced.

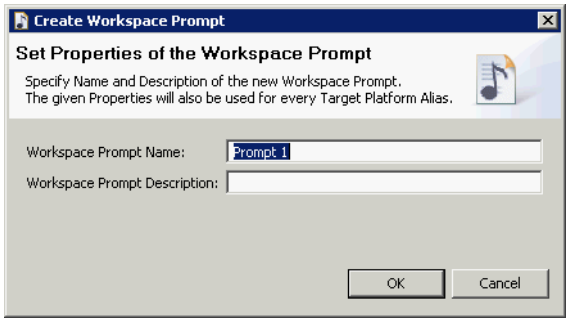


In contrast to application-spanning announcements, workspace-spanning announcements are valid in the entire workspace and can be used across the application. Workspace-spanning announcements are also displayed in the list of application-spanning announcements. See Abschnitt 5.3.3.2, “Application Prompts”, auf Seite 144.

Creating a new prompt

How to create a new announcement for the workspace:

1. Click on the **Add...** button. The **Create Workspace Prompt** dialog opens.



2. Define the **Workspace Prompt Name**.
3. You can optionally enter **Workspace Prompt Description** .
4. Click the **OK** button. The newly created prompt is itemized in the **All Workspace Prompts** list on the **Workspace Prompts** tab. This newly added prompt is empty, i.e. no sound file has been assigned to it yet or it still does not have a text for using text-to-speech.

Assigning an announcement to a prompt

How to link a prompt to a sound file or to enter a text for the text-to-speech conversion:

1. Click on the plus sign of the corresponding prompt. The application alias of this prompt opens.
2. Select this entry. In the **Vogue Application Prompt Details** area of the tab you are provided with further setting options.

Setting details of the Vogue Application Prompt

HINWEIS: Please note that prompts can only be used for the available and configured languages. Languages are configured in the **Workspace Settings** on the **Workspace Languages** tab. See Abschnitt 5.3.2.1, “Settings in the Workspace”.

- **Prompt Texts**
  In the **Prompt Texts** field you can enter a text for each configured language. This text is transformed in an announcement by means of TTS if the prompt is used in an active application. This requires a successfully installed TTS system.

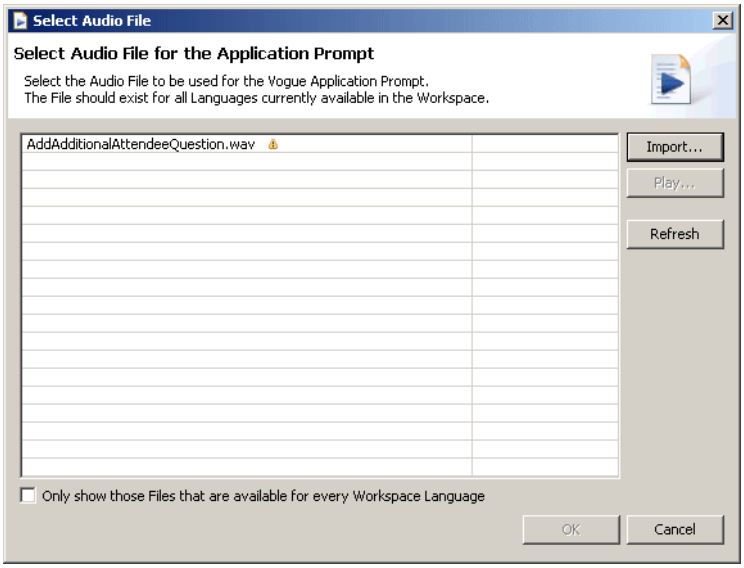
  In addition, the use of definitions in the XML-based SSML is supported. This serves for creating announcements in prompts with the help of TTS. But instead of specifying a continuous text for announcement output, the text playback can be adjusted with the help of a special notation. For example, phone numbers may be announced digit by digit and slowly, thus for everybody to understand. Specify the desired entry in SSML for using SSML as text.

  In the following example a specified number is announced as phone number:
  “`<say-as interpret-as=”phone number”>012387654</say-as>`”

  The user guide of the supported speech recognition system (Nuance Recognizer) on the supplied setup medium of the languages for implementing TTS provides a list of all possible definitions in SSML. You can obtain further information about SSML from the web pages of the W3C institution.

- **Prompt File**
  In the **Prompt File** field you can assign already existing audio files of the format `*.wav` or `*.pcm` to the prompt. Proceed as follows:

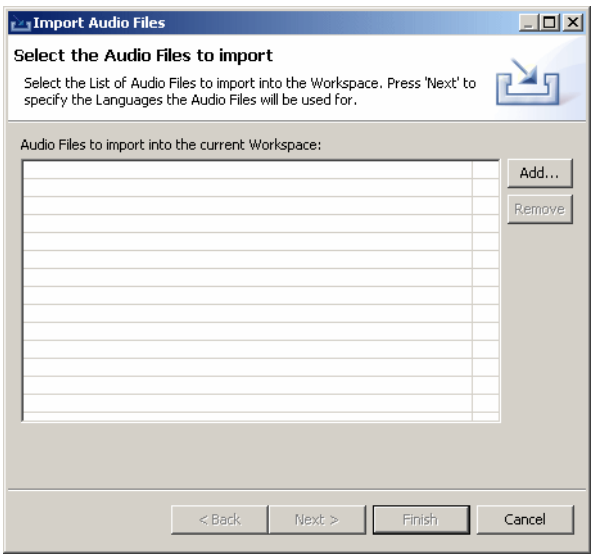
1. Click on the **Browse...** button. The **Select Audio File** dialog opens.



   If you want to insert a file already used, proceed with step 2. If you want to add a new audio file, skip to step 3.

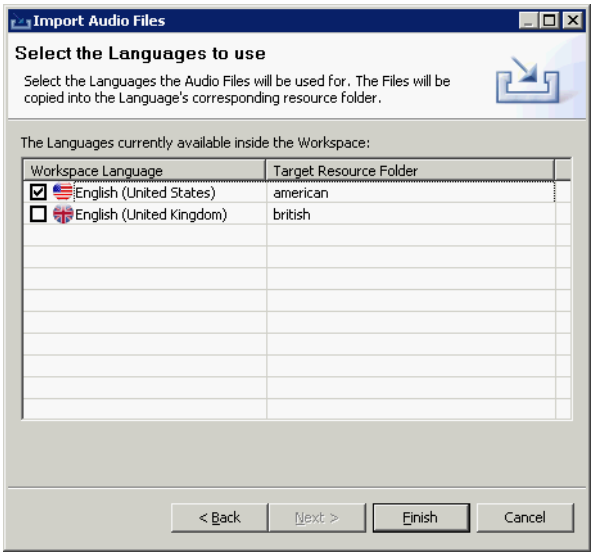
2. Select the desired file and click on **OK**. The selected **Prompt File** and the languages in which it is available are itemized in the **Vogue Application Prompt Details** list.

3. Click on the **Import...** button. The **Import Audio Files** dialog opens.



4. Click on the **Add...** button. Select the desired audio file in the opened dialog and click on the **Open** button. The desired audio file is integrated in the list of audio files to be imported.

5. Select the audio file just added and click on **Next**.



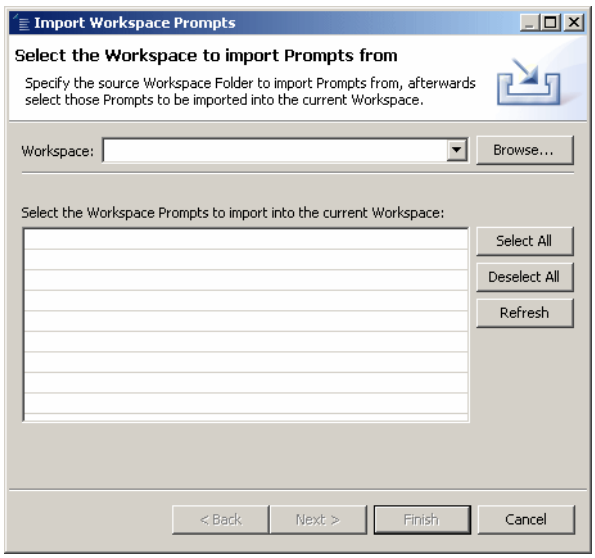
6. Activate the checkbox of the language for which the prompt file is to be used. If the prompt is to be available in several languages and the corresponding audio files with the different languages are available, activate the checkboxes of the desired languages.
7. Click on the **Finish** button. The audio file is itemized in the list of available files in the **Select Audio File** dialog.
8. Select the newly integrated audio file and click on **OK**. The audio file is automatically copied to the resource folder of the prompts for the corresponding language.

HINWEIS: The audio file must always have the same name for all available languages, so that it can be stored in the corresponding resources folder for the respective language.

Importing prompts

How to use prompts of another workspace in the current workspace:

1. Click on the **Import Prompts from another Workspace...** link. The following dialog opens:



2. Select the corresponding workspace from the selection list or via the **Browse...** button. All prompts of the other workspace are automatically displayed with their properties.
3. Select the desired prompt and click on **Finish**. The prompt to be imported from the other workspace is integrated in the current workspace and appears in the **All Workspace Prompts** list.

Importing all prompts of another workspace

To import all prompts of another workspace, click on the **Select All** button. All prompts of the other workspace are selected. With a click on the **Finish** button, the imported prompts are itemized in the **All Workspace Prompts** list on the **Workspace Prompts** tab.

Enabling the **Deselect All** button undoes all prompt selections.

Further features

The **Workspace Prompts** tab features at the top right margin four more icons the functions of which are explained in the below table.

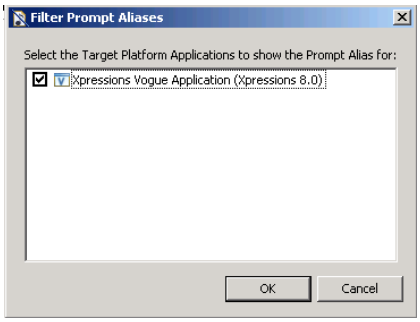
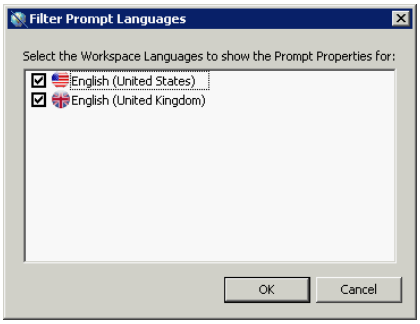
Icon	Function
	This icon serves for filtering the prompt display. By enabling this icon you can determine for which applications a prompt alias is to be displayed. The following dialog opens:  Activate the checkbox of the desired application and then click on the **OK** button. Only the prompt aliases of the selected application are listed.
	This icon lets you filter the prompts on the basis of the assigned languages.  Activate the checkbox of the desired language and then click on the **OK** button. Only the properties of the desired languages are displayed.
	This icon is active by default. In the icon's active state the areas **All Workspace Prompts** and **Vogue Application Prompt Details** or **Workspace Prompt Details** are positioned next to each other. The area **All Workspace Prompts** is found in the left half of the tab.
	When you activate this icon, the areas **All Workspace Prompts** and **Vogue Application Prompt Details** or **Workspace Prompt Details** are positioned on top of each other, with the area **All Workspace Prompts** always being in the upper half of the tab.

Tabelle 22 Further Functions of the “Workspace Prompts” Tab

HINWEIS: Via the **Configure available Languages in the Workspace Settings Editor...** link you reach the **Workspace Settings** tab. You can now add further workspace languages or remove already used ones. See Abschnitt 5.3.2.1, “Settings in the Workspace”, auf Seite 100.

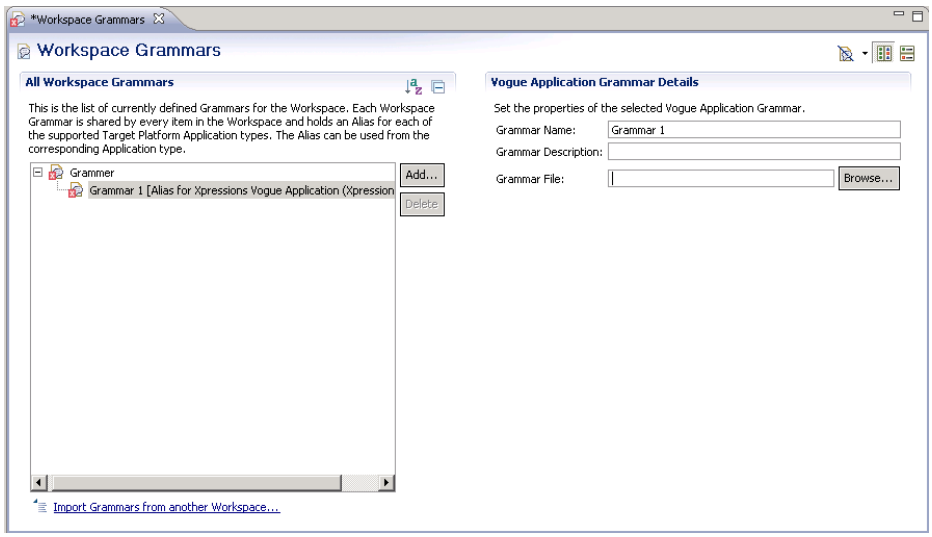
At the top right margin of the **All Workspace Prompts** area the following two icons are available:

Icon	Function
	With the help of this icon you can sort all prompts defined for the workspace alphabetically ascending or descending.
	A click on this icon displays only the prompts defined for the workspace in the **All Workspace Prompts** list. The respective aliases can be displayed again via the plus sign of a prompt.

Tabelle 23 Further Functions of the “All Workspace Prompts” Area

5.3.2.4 Workspace-spanning Grammars

If you doubleclick the **Workspace Grammars** entry in the workspace view, the tab for configuring the workspace-spanning grammar files opens in the editor area. A grammar file contains assignments and rules for speech recognition.



Adding a new grammar

How to create a new grammar for the workspace:

1. Click on the **Add...** button. The **Create Workspace Grammar** dialog opens.

2. Specify the **Workspace Grammar Name**. You can optionally enter a **Workspace Grammar Description**.

3. Click on **OK** and the grammar appears in the **All Workspace Grammars** list.

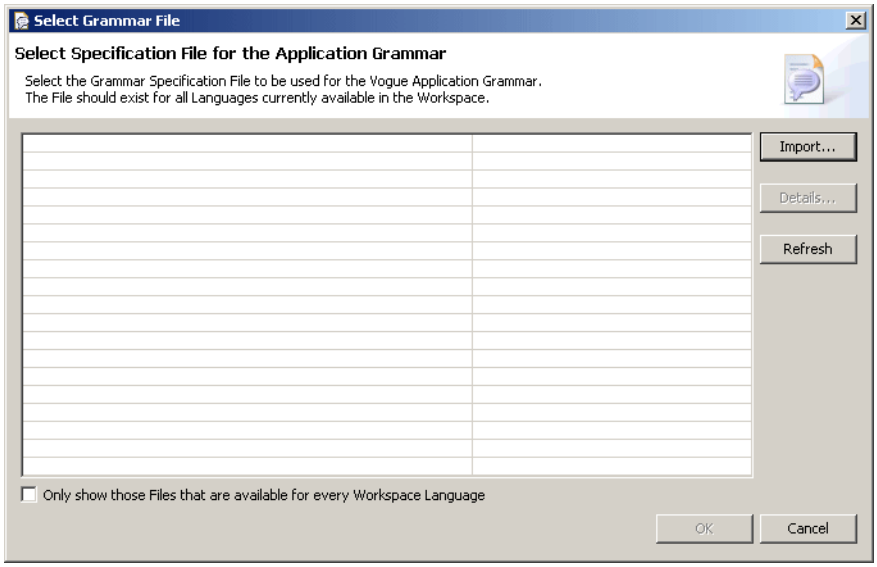
   This newly added grammar is empty, i.e. no grammar file has been assigned to it yet. To link a grammar to a grammar file, click on of the corresponding grammar. A subordinate entry, namely the application alias of the grammar, is displayed. When you select this entry, you are provided with further setting options in the **Vogue Application Grammar Details** area of the tab.

Adding a grammar file

HINWEIS: You need to assign already existing grammar files to grammars. Please note that grammar files can only be used for the available and configured languages. Languages are configured in the workspace settings on the workspace languages tab. See Abschnitt 5.3.2.1, “Settings in the Workspace”.

In the **Grammar File** field of the **Vogue Application Grammar Details** area you can add a file of the format *.`grxml` for each grammar.

1. Click on the **Browse...** button. The following dialog opens.

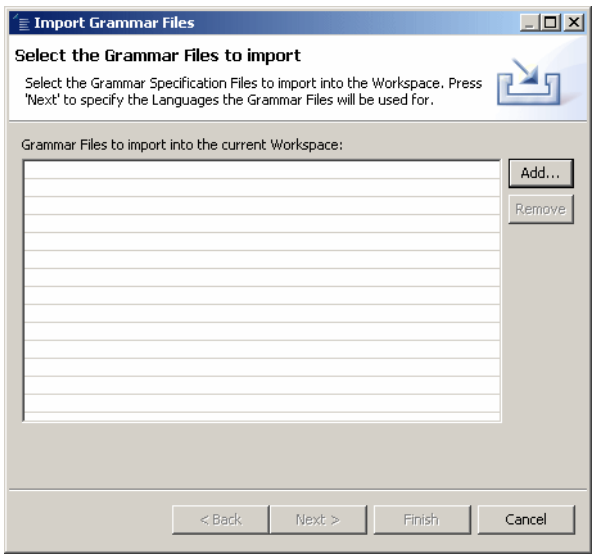


   The grammar files are listed that were already configured in the workspace. These listed grammar files must not match all languages set for the workspace, though. Via the **Only show those Files that are available for every Workspace Language** option you can make sure that the displayed grammar files are applicable for all configured languages.

   If you want to insert a grammar file already used, proceed with step 2. If you want to add a new grammar file, skip to step 3.

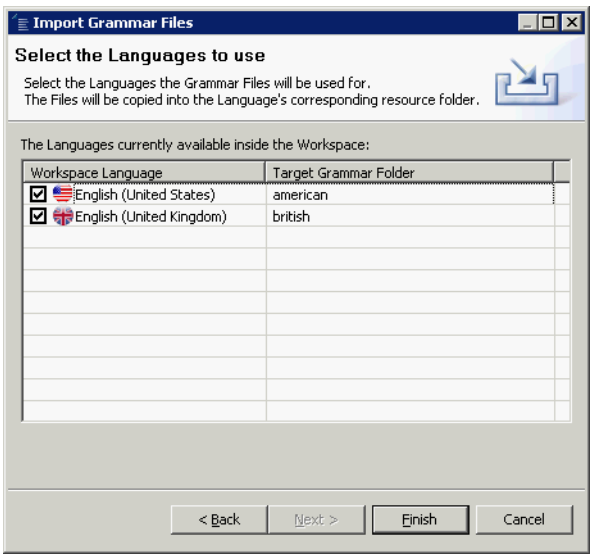
2. Select the desired grammar file and click on **OK**. The selected grammar file and the languages for which it is to be used are itemized in the **Vogue Application Grammar Details** list.

3. Click on the **Import...** button. The **Import Grammar Files** dialog opens.



4. Click on the **Add...** button. Select the desired grammar file in the opened dialog and click on the **Open** button. The desired grammar file is integrated in the list of audio files to be imported.

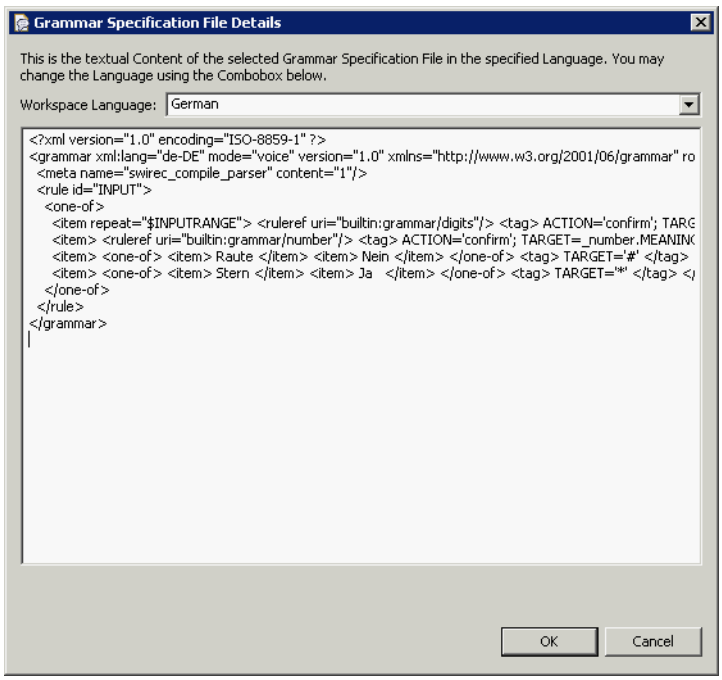
5. Select the grammar file just added and click on **Next**. The following dialog opens:



6. Activate the checkbox of the language for which the grammar file is to be used. If the grammar is to be available in several languages and the corresponding grammar files with the different languages are available, activate the checkboxes of the desired languages.

7. Click on the **Finish** button. The grammar file is itemized in the list of available files in the **Select Grammar File** dialog and can now be selected for a grammar to be used.

   Via the **Details** button you receive a view of the XML code of a grammar file.



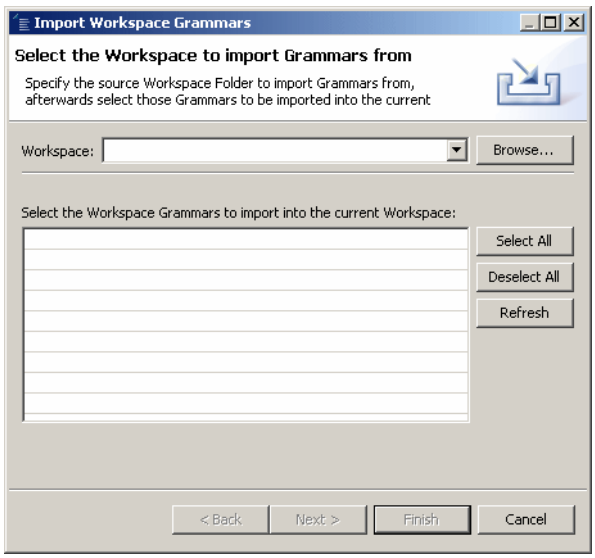
8. Select the newly integrated grammar file and click on **OK**. The grammar file is automatically copied to the resource folder of the grammars for the corresponding languages. You are taken back to the **Workspace Grammars** tab.

HINWEIS: The grammar file must always have the same name for all available languages, so that it can be stored in the corresponding resources folder for the respective language.

Importing grammars

How to import grammars from another workspace:

1. Click on the **Import Grammars from another Workspace...** link. The following dialog opens:



2. Select the corresponding workspace from the selection list or via the **Browse...** button. All grammars of the other workspace are automatically displayed with their properties.
3. Select the desired grammar and click on **Finish**. The grammar to be imported from the other workspace is integrated in the current workspace and appears in the **All Workspace Grammars** list.

Importing all grammars of another workspace

To import all grammars of another workspace, click on the **Select All** button. All grammars of the other workspace are selected. With a click on the **Finish** button, the imported grammars are itemized in the **All Workspace Grammars** list on the **Workspace Grammars** tab.

Enabling the **Deselect All** button undoes all grammar selections.

Further features

The **Workspace Grammars** tab features at the top right margin three more icons the functions of which are explained in the below table.

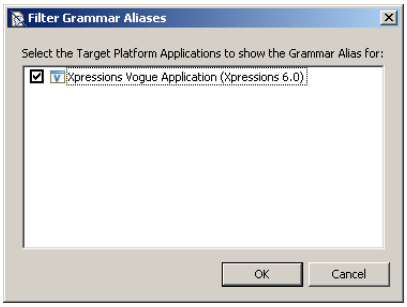
Icon	Function
	This icon serves for filtering the grammar display. By enabling this icon you can determine for which applications a grammar alias is to be displayed. The following dialog opens:  Activate the checkbox of the desired application and then click on the **OK** button. Only the grammar aliases of the selected application are listed.
	This icon is active by default. In the icon's active state the areas **All Workspace Grammars** and **Vogue Application Grammar Details** or **Workspace Grammar Details** are positioned next to each other. The area **All Workspace Grammars** is found in the left half of the tab.
	When you activate this icon, the areas **All Workspace Grammars** and **Vogue Application Grammar Details** or **Workspace Grammar Details** are positioned on top of each other, with the area **All Workspace Grammars** always being in the upper half of the tab.

Tabelle 24 Further Functions of the “Workspace Grammars” Tab

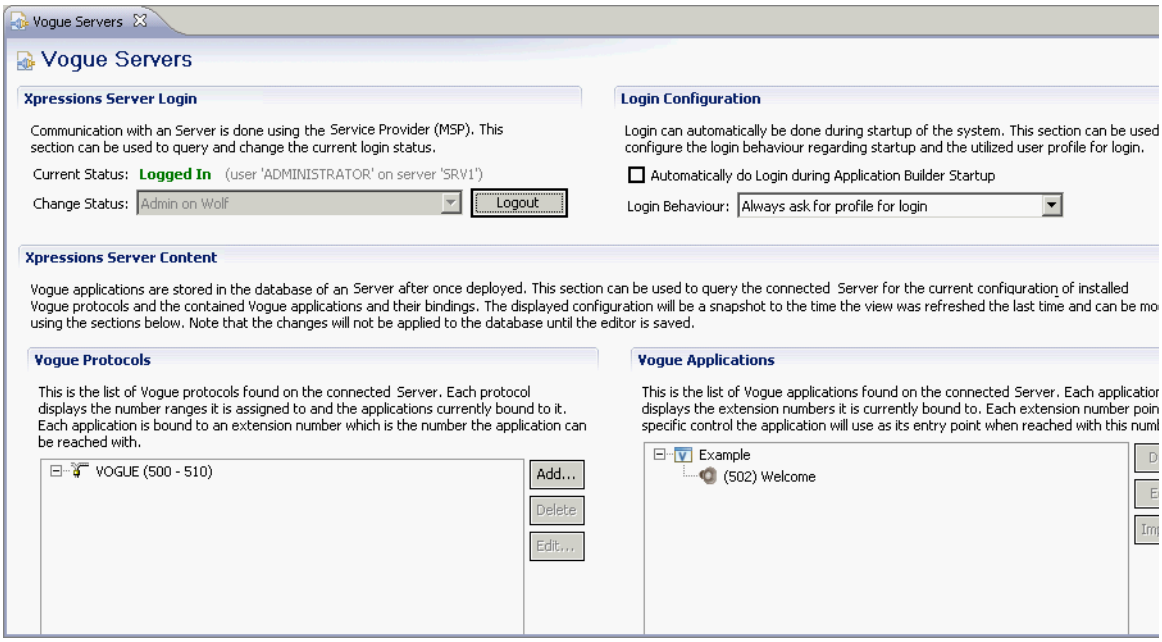
At the top right margin of the **All Workspace Grammars** area the following two icons are available:

Icon	Function
	With the help of this icon you can sort all grammars defined for the workspace alphabetically ascending or descending.
	A click on this icon displays only the prompts defined for the workspace in the **All Workspace Grammars** list. The respective aliases can be displayed again via the plus sign of each grammar.

Tabelle 25 Further Functions of the “All Workspace Grammars” Area

5.3.2.5 Vogue Server Settings

When you doubleclick the **Vogue Server** entry in the workspace view you can edit the settings for connecting an XPR server.



This tab features the following five areas:

- Xpressions Server Login
- Login Configuration
- Xpressions Server Content
- Vogue protocols
- Vogue applications

Xpressions Server Login

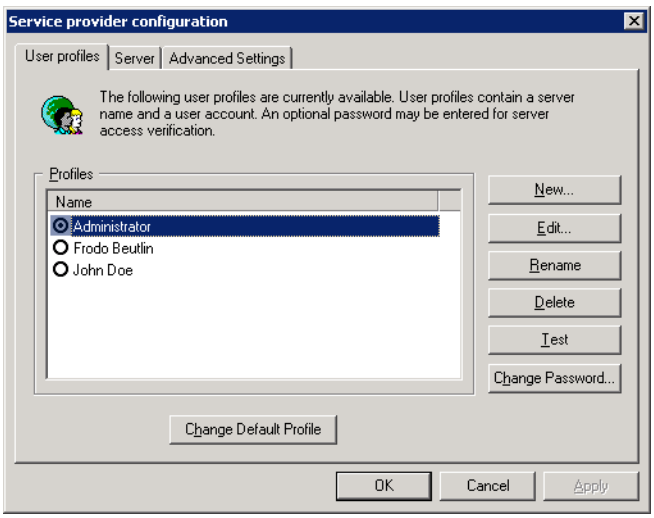
The **Xpressions Server Login** area shows your current user status on the XPR server and lets you modify it as well.

1. In the **Change Status** list select the desired user profile for logging on to the XPR server.
2. Click **Login**. **Current Status** “Logged In “ in green writing confirms a successful login. The **Login** has been replaced with the **Logout** button. **Current Status** “Logged Out” in red writing indicates that the user is no longer logged on to the XPR server.

Login Configuration

In this area you can configure the login behavior and the user profile for the login.

With a click on  at the top right margin, the following dialog for configuring a service provider starts.



The available **Profiles** are listed. The profile highlighted with a dot is the default profile.

In this dialog can define and edit the user profiles for different servers for logging on to the XPR server.

Click the **New...** button to create a new profile. Specify the **Profile Name**, the **User ID**, the **Server** and the **Password** for the server access. User ID and password must allow access to the server. You receive further information about this dialog in the “XPR Service Provider (MSP)” section of the OpenScape Xpressions *Server Administration* manual.

In the **Login Configuration** area you can activate a checkbox to determine that the Application Builder automatically connects to the XPR server at the application start. In a combo box you can also specify the user profile for this login. Determine the desired **Login Behavior** .

- **Always ask for profile for login**
  The system asks for a profile before the login.
- **Always log in with default profile**
  The default profile defined in the service provider is used for logging in.
- **Always log in with specified profile**
  The currently specified profile is always.

Xpressions Server Content

In the **Xpressions Server Content** area click on  at the top right margin to update the configurations of the Vogue protocols of the server or of the created applications. Since modifications to the Vogue protocols configuration and to Vogue applications are not stored in the database until they are saved, the displayed information in the **Vogue Protocols** and **Vogue Applications** sections are only momentary. An update will update the configurations and information in the Vogue protocols and applications. You can alternatively execute **File > Update** in the menu bar or push the **F5**key.

HINWEIS: Please note that modifications in the **Vogue Protocols** and **Vogue Applications** areas must be save first. An update resets the state of these sections to the state last saved. Unsaved information will get lost.

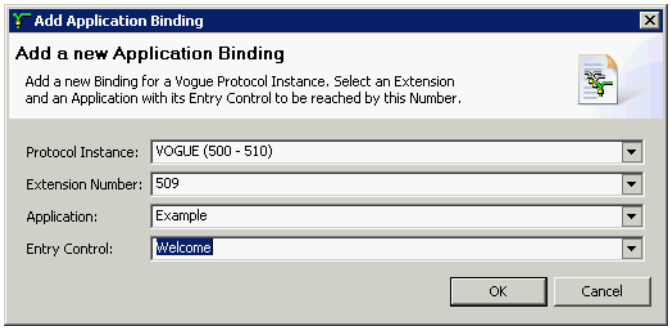
Vogue protocols

The **Vogue Protocols** area displays a list of Vogue protocols on the XPR server to which the Application Builder is connected. For each protocol the associated number range and application is displayed. You find a description of how to configure the VOGUE script in Abschnitt 2.3, “Configuring a Vogue Script”, auf Seite 16.

Each application must be bound to a phone number. This phone number is the number via which an application can be called. When deploying an application it must be assigned a phone number of the Vogue script phone number range. The control that follows the Start control is automatically used as **Entry control**.

You can assign further phone numbers and Entry controls to already deployed applications (see Vogue applications).

1. Click on **Add...** to open the following dialog:



2. Select the **Protocol Instance** of the Vogue script.
3. You can assign another phone number to the application in the **Extension Number** field so that the application can be reached via another phone number. The new phone number must not have been assigned to another application already.
4. Determine the **Application**.
5. Select another **Entry Control** . As a rule only the control that follows the Start control can be used to make sure that the application is run through in the desired sequence. As alternative, you can select here any other control used in the application as **Entry Control**. This option thus allows skipping specific controls in the application's callflow by dialing a permanent extension.
6. Click the **OK** button. The newly set phone number and the associated application are itemized in the Vogue protocols list.

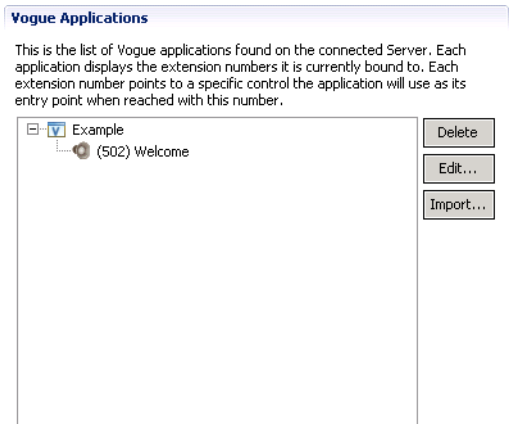
You can use the **Delete** button to remove an entry from the **Vogue Protocols** list.

The **Edit...** button opens a dialog, in which you can perform modifications to the **Extension Number**, the **Application** and the **Entry Control**.

Vogue applications

The **Vogue Applications** section lists the applications that exist on the connected XPR server. These are either exported as archive file or have been written in the database with their definition. For each application the phone number is displayed to which the application is connected. To each phone number an Entry control is assigned to which the call is forwarded when this phone number is called. Only those applications are represented that are found on the connected XPR server.

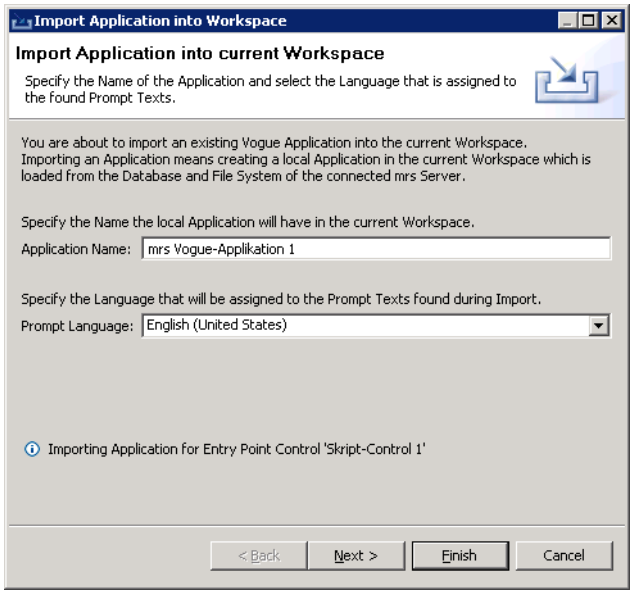
When changing from the Application Generator to the Application Builder, the applications that have already been created by the Application Generator are displayed here. These must be found in the database of the connected XPR server. Applications developed with the Application Generator can be imported and also graphically implemented as callflow, so that also the former Application Generator applications can still be used. So that you do not confuse the import of Vogue applications of the Application Generator with the import of applications created with the Application Builder (see Abschnitt 5.1.1.1, “Importing a Workspace Element...”), we will in the following use the term “download” instead of “import”, since the Vogue applications are loaded on your local computer from the XPR server.



1. For downloading either select the application or the callflow entered under the application and click on the **Import...** button. When you select the application please note that callflows of this application are downloaded without connected **Entry Control**. If you select a callflow the specified Entry control will be downloaded as well.

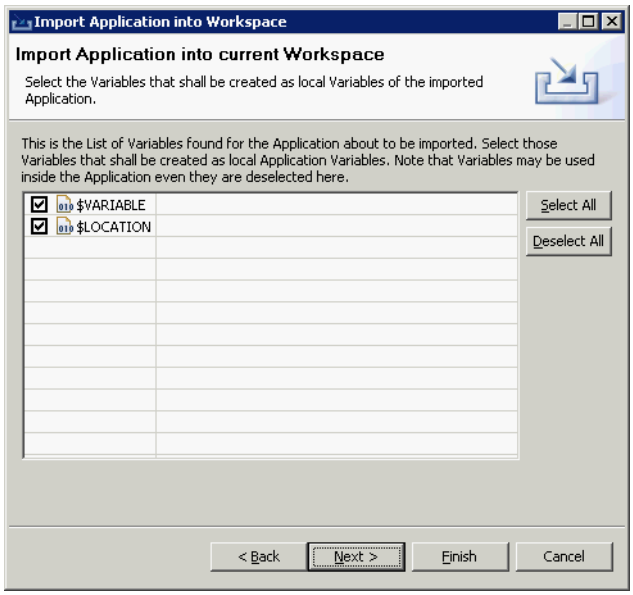
   HINWEIS: You can shorten the Vogue application downloading process by clicking **Finish** in each of the following dialogs. This will copy the default settings for the configurable options that will follow in the dialogs (all found resources will be downloaded for the specified default language).

   The following dialog opens:



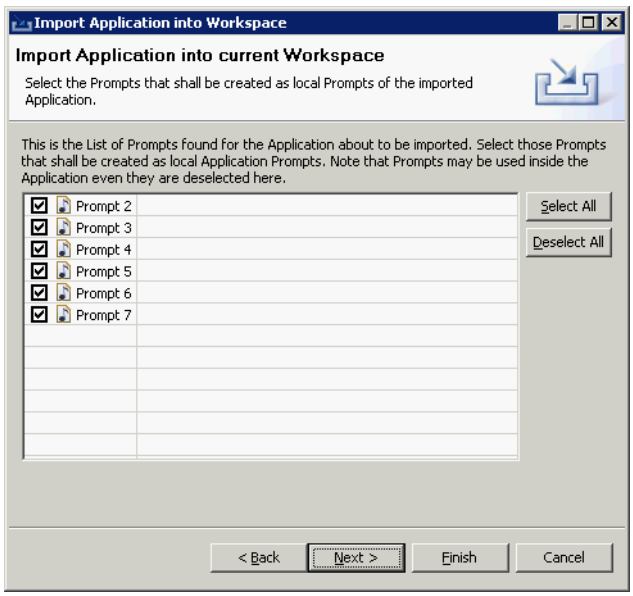
2. Determine the **Application Name** and the **Prompt Language** that is assigned to found prompts. Since the prompts used in Application Builder applications can only be configured for one language, you need to specify only one. The language must have previously been activated in the workspace settings. See Abschnitt 5.3.2.1, “Settings in the Workspace”.

3. Click on **Next**. The application to be downloaded is read out as regards the variables used. These variables are listed.



4. Activate the checkboxes of the variables to be downloaded. If you want to download all available variables, use the **Select All** button.

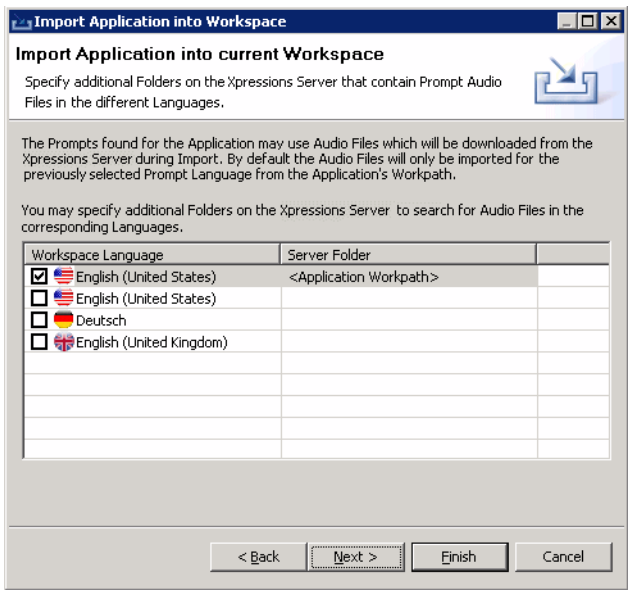
5. Click on **Next**. The application to be downloaded is read out as regards the prompts used. These prompts are listed.



6. Activate the checkboxes of the prompts to be downloaded. If you want to download all prompts used, click on the **Select All** button to mark them.

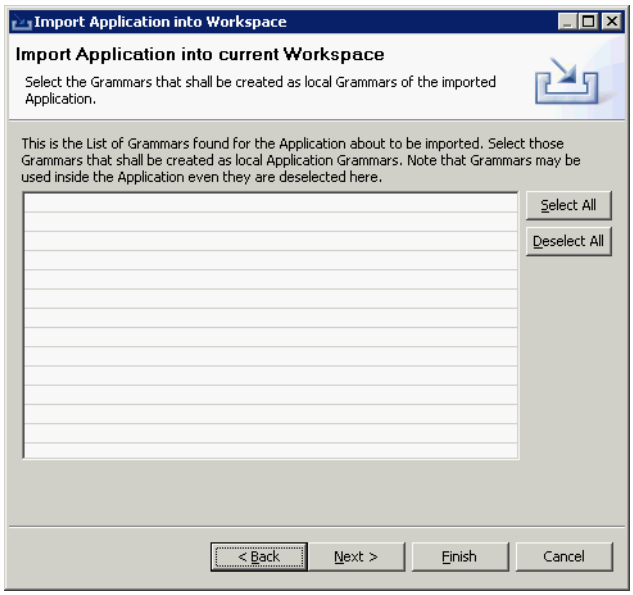
In the Application Builder, prompts can have audio files in different languages, so that the same prompt with the same content can be played in different languages. First, the audio files in the default language defined in step 2 and found in the application workpath are searched for.

7. Click on **Next**. The following dialog appears:



8. Specify further directories that contain sound files of the same name for other languages. When downloading, these directories will be searched for audio files the names of which resemble the audio files of the default language in the application workpath. These will then be stored as resources in subfolders of their workspace in the Application Builder depending on their language.

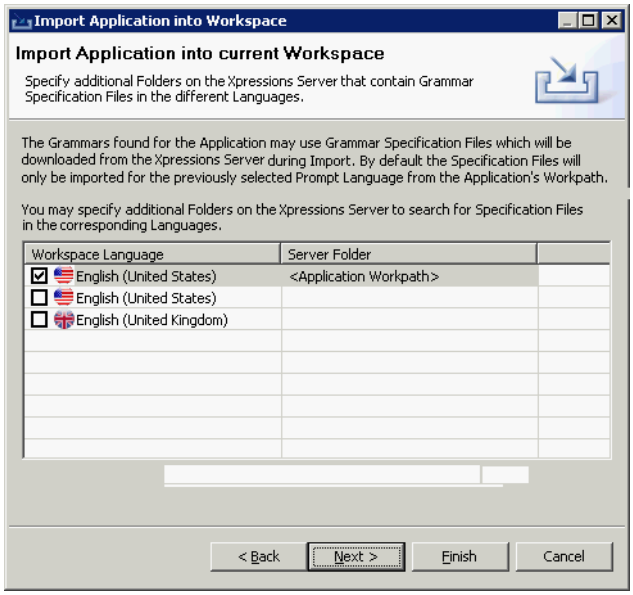
9. Click on **Next**. The application to be downloaded is read out as regards the **grammars** used. These grammars are listed.



10. Select the grammars to be downloaded. If you want to download all grammars used, click on the **Select All** button to mark them.

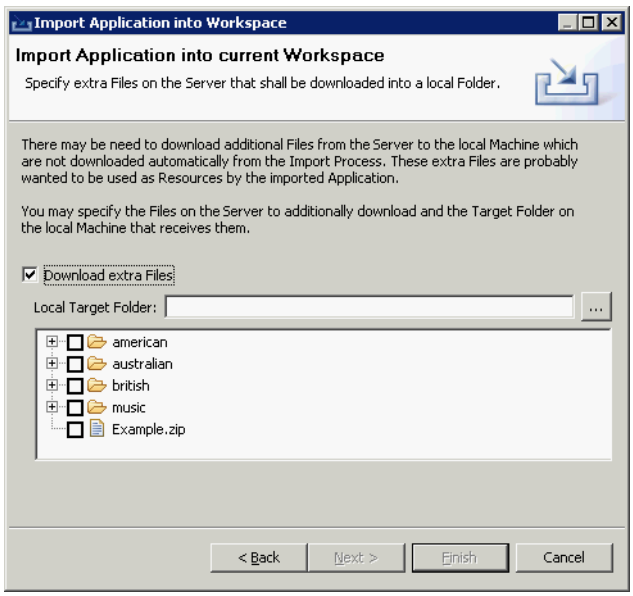
    In the Application Builder, grammars can have specification files in different languages, so that the same grammar with the same content can be used in different languages.

11. Click on **Next**. The following dialog opens.



12. Specify further directories that contain grammar specification files of the same name for other languages. First, the grammar files in the default language defined in step 2 and found in the application workpath are searched for. When downloading, these directories will be searched for grammar files the names of which resemble the grammar files of the default language in the application workpath. These will then be stored as resources in subfolders of their workspace in the Application Builder depending on their language.

13. Click on **Next**.

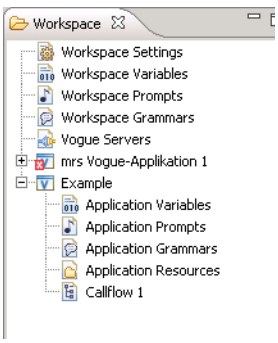


14. Select further resource files such as documents for usage in the Document control or configuration files for usage in the ASR Menu control. For this purpose, the subfolders and files for Vogue applications are listed on the XPR server. You can select any files and also entire folders. For using this feature you need to checkmark the **Download extra Files** option. When downloading additional files, you need to determine a target folder for these resource files.
15. Click on the **Finish** button. The download process starts. You receive a message when downloading is complete.

5.3.3 Xpressions Vogue Applications

Xpressions Vogue applications are created and configured in the Application Builder workspace.

HINWEIS: The first Xpressions Vogue application of a workspace is always created via the **File > New > Application...** menu bar. See Abschnitt 4.2.1.1, “Creating a new Application”, auf Seite 41.



Rightclick an application in the workspace to open the application's workspace. The following options are available:

- **New** enables the creation of a new application or callflow.
- **Copy** copies the selected application with all its settings to the clipboard.
- **Paste** creates a copy of the selected application.
- **Delete** removes the selected application from the workspace.
- **Rename** changes the application's name.
- **Export Element...** serves for exporting an application to an archive file. You find more information on this in Abschnitt 5.1.1.2, “Exporting a Workspace Element...”, auf Seite 75.
- **Properties** represents a summary of the general and lingual application settings. You receive general information such as storage location, date of last access, file size and application type and you can manage language resources available for the application.

The **Application Variables**, **Application Prompts** and **Application Grammars** are to be configured almost analog to the areas in the workspace of the same name. The settings in these sections are, however, only valid for the respective application. You can configure the following elements for configured applications:

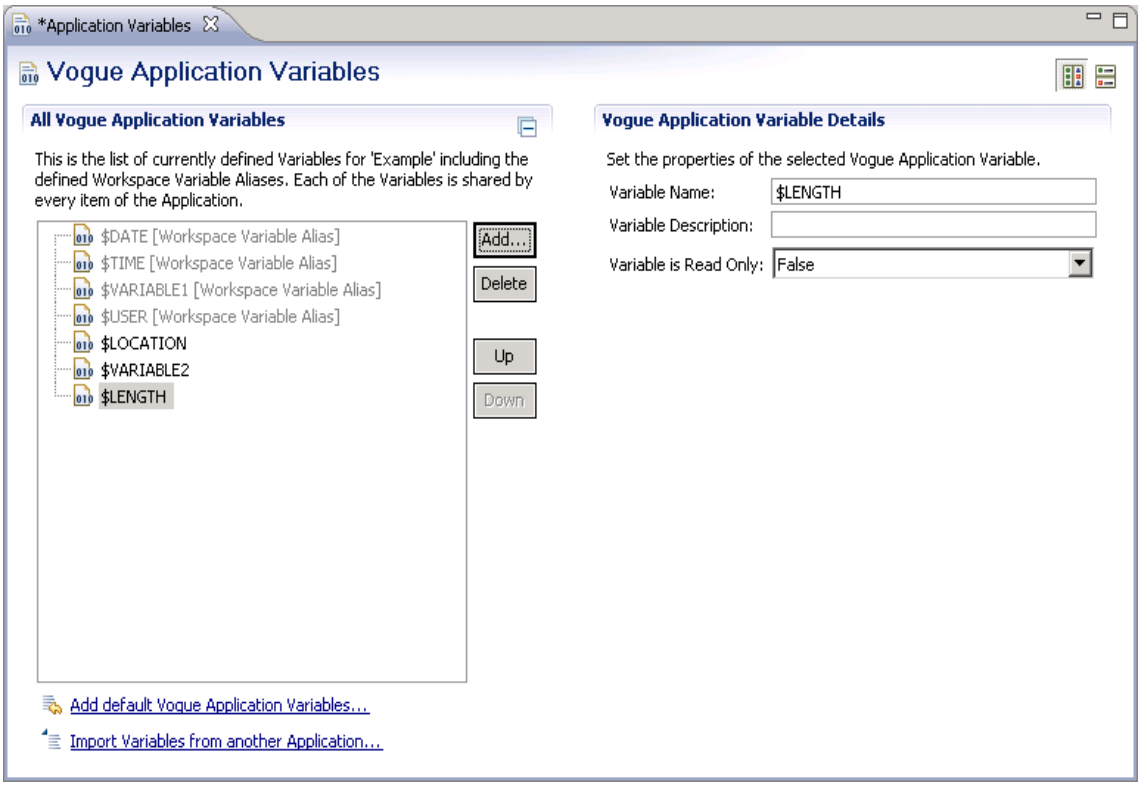
- Application variables
  (Abschnitt 5.3.3.1, “Application Variables”, auf Seite 140)

- Application prompts
  (Abschnitt 5.3.3.2, “Application Prompts”, auf Seite 144)
- Application grammars
  (Abschnitt 5.3.3.3, “Application Grammars”, auf Seite 149)
- Application resources
  (Abschnitt 5.3.3.4, “Application Resources”, auf Seite 154)

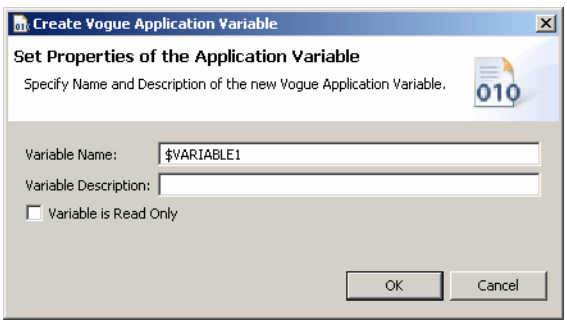
The following descriptions only consider the differences to the workspace-spanning settings.

5.3.3.1 Application Variables

The list in the **All Vogue Application Variables** area of the **Application Variables** tab contain variables configured in the Workspace Variables area. These variables appear in gray writing and cannot be edited here. You can, however, modify the properties of a selected variable that was configured as workspace variable via the **Edit this Alias in the Workspace Variables Editor...** link. You reach the **Workspace Variables** tab. See Abschnitt 5.3.2.2, “Workspace-spanning Variables”.



Click on **Add...** to reach the following dialog:



For each newly created application variable you need to specify the **Variable Name** in the $<*NAME*> format and, optionally, a **Variable Description**. In addition you can define whether this variable should be **write-protected**.

With the **Delete** button you can remove application variables from the application.

Use the **Up** or **Down** buttons to move a selected variable up or down the list.

In the **Vogue Application Variable Details** area you can edit already configured application variables as regards the **Variable Name** settings, the **Variable Description** and the write-protection.

The write-protection is active if the **True** value is set in the **Variable is Read only** field. The **False** value deactivates the write-protection. The write-protection is active by default.

HINWEIS: The content of write-protected variables can thus not be modified when these variables are used in an application. You can, however, assign a value to the variables in the Definition control so that the variables' content is not empty. This assignment can exclusively be carried out in the Definition control.

Adding default variables

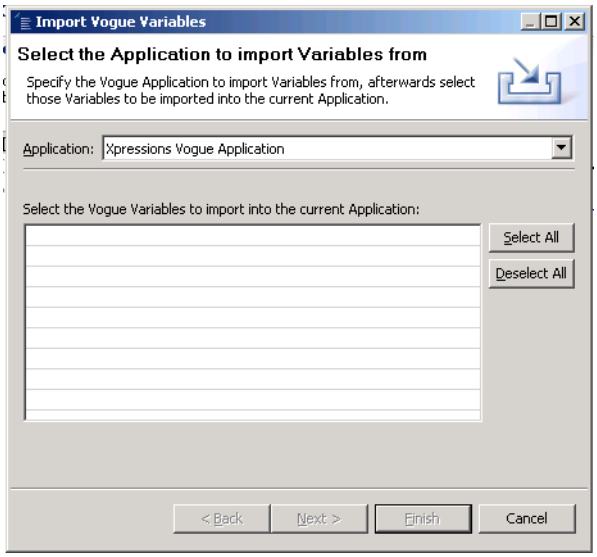
Via the **Add default Vogue Application Variables...** link the following variables of the application are automatically assigned:

- `$CALLER`: is calling number that has not reached the system (ANI)
- `$CALLED`: describes called number with which the system was reached (DNIS)
- `$REDIRECTED`: stands for the forwarded (originally called) number with which the system was reached
- `$CALLID` is the ID of the calls that has reached the system.

Importing variables

Via the **Import Variables from another Application** link you can add further variables from other existing applications analog to the import of variables from other workspaces:

1. Click on the **Import Variables from another Workspace...** link. The following dialog opens:



2. First select the X**Application**X from which the variables are to be imported. When you have selected an application, the available variables are automatically displayed.

3. Select one or several variables and click on **Finish**. The imported variables are integrated in the **All Vogue Application Variables** list on the **Application Variables** tab.

Further features

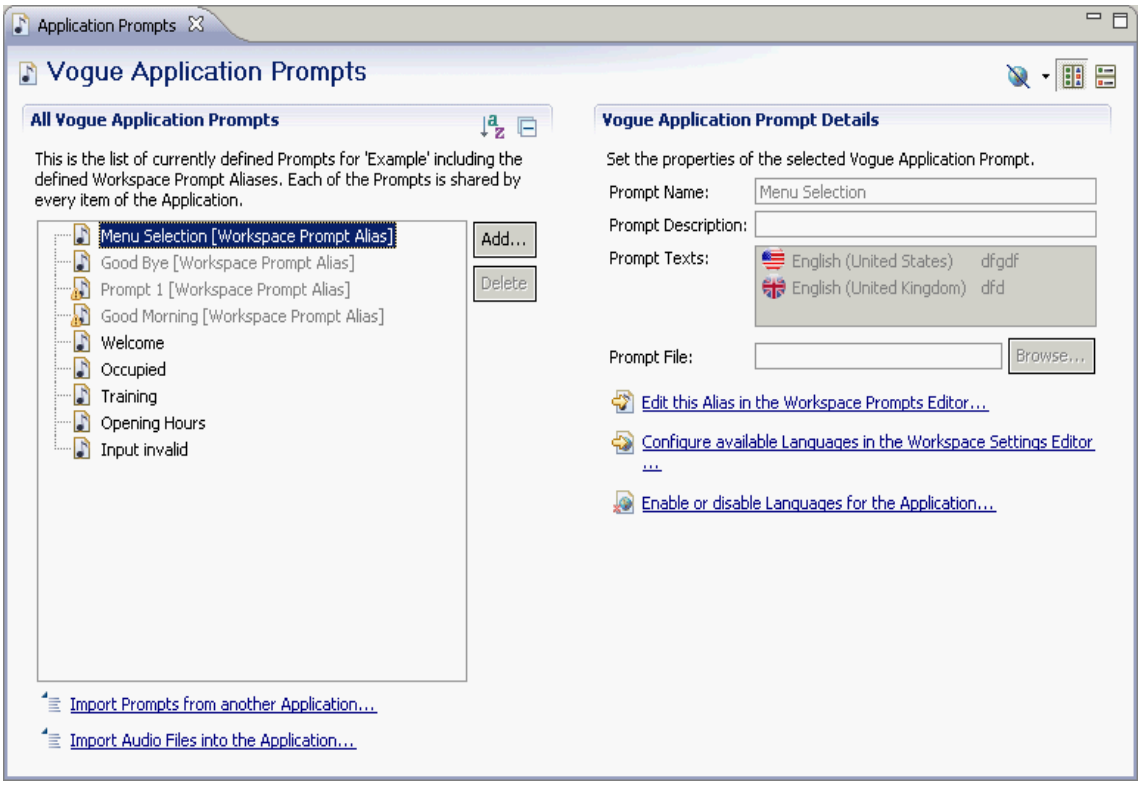
The **Application Variables** tab features at the top right margin two more icons the functions of which are explained in the below table.

Icon	Function
	This icon is active by default. In the icon's active state the areas **All Application Variables** and **Vogue Application Variable Details** are positioned next to each other. The area **All Vogue Application Variables** is found in the left half of the tab.
	When you activate this icon, the areas **All Vogue Application Variables** and **Vogue Application Variable Details** are positioned on top of each other, with the area **All Vogue Application Variables** always being in the upper half of the tab.

Tabelle 26 Further Functions of the “Application Variables” Tab

5.3.3.2 Application Prompts

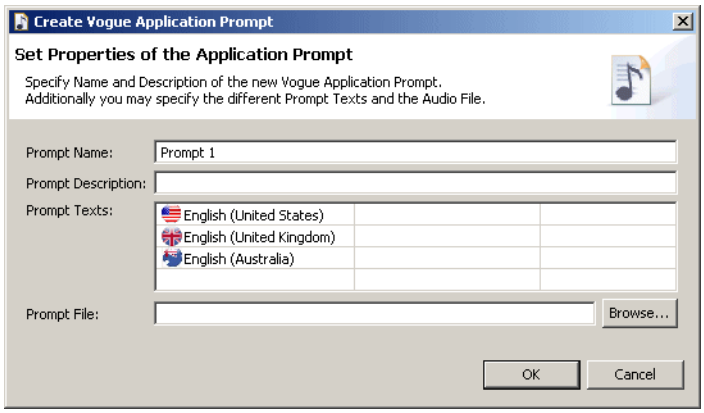
The list in the **All Vogue Application Prompts** area on the **Application Prompts** tab contains already configured workspace prompts, if you have previously created them. These prompts appear in gray writing and cannot be edited here. You can, however, modify the properties of a selected prompt that was configured as workspace prompt via the **Edit this Alias in the Workspace Prompt Editor...** link. You reach the **Workspace Prompts** tab. See Abschnitt 5.3.2.3, “Workspace-spanning Prompts”.



Creating a new application prompt

HINWEIS: To configure new prompts proceed as already described in Abschnitt 5.3.2.3, “Creating a new prompt”, auf Seite 113.

Click on **Add...** and define a **Prompt Name**, an optional **Prompt Description** and a **Prompt File** for the prompt.



For each prompt at least one **Prompt File** must be selected using the **Browse...** button. Execute step 1 to step 8 as described in Abschnitt 5.3.2.3, “Workspace-spanning Prompts”, auf Seite 112.

Editing an application prompt

You can edit an already configured prompt by selecting it with the left mouse-button and modifying the fields in the **Vogue Application Prompt Details** area. You can edit the **Prompt Name**, **Prompt Description**, **Prompt Texts** and **Prompt File** field settings. You can specify continuous text, but also use definitions in SSML as prompt text.

HINWEIS: You find a list of all possible definitions in SSML in the user guide of the supported speech recognition system, e.g. RealSpeak Telecom Software Development Kit on the supplied DVD for installing the languages to enable text-to-speech.

Configuring Languages in the workspace settings editor

To edit the language settings, click on the **Configure available Languages in the Workspace Settings Editor...**. You reach the **Workspace Languages** tab. See Abschnitt 5.3.2.1, “Settings in the Workspace”.

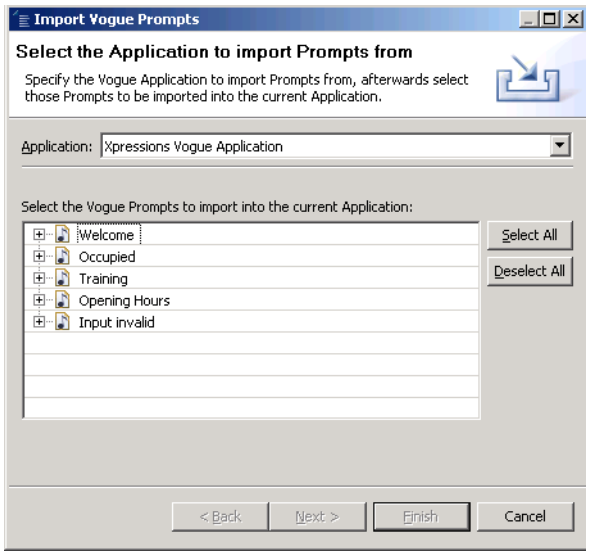
Activating/deactivating languages for the application

To activate or deactivate languages for the application, click on the **Enable or disable Languages for the Application...** link. You reach the configuration dialog **Settings for <*application name*>**. In there select the languages to be activated with a tick or remove the tick to disable the languages.

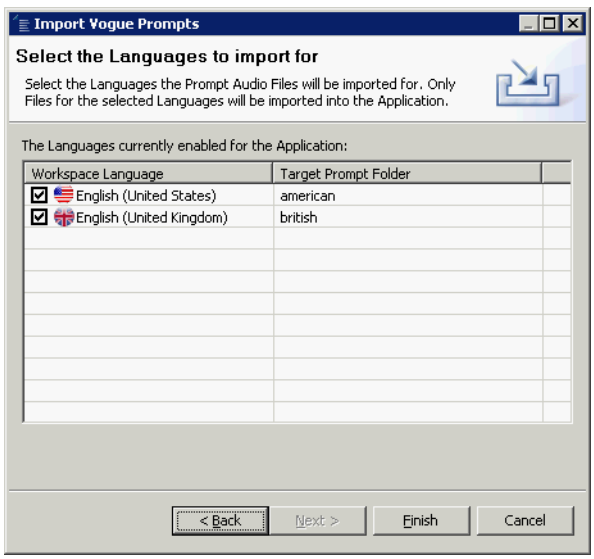
Importing prompts

Via the **Import Prompts from another Application** link you can add further prompts from other existing applications analog to the import of prompts from other workspaces:

1. Click on the **Import Prompts from another Workspace...** link. The following dialog opens:



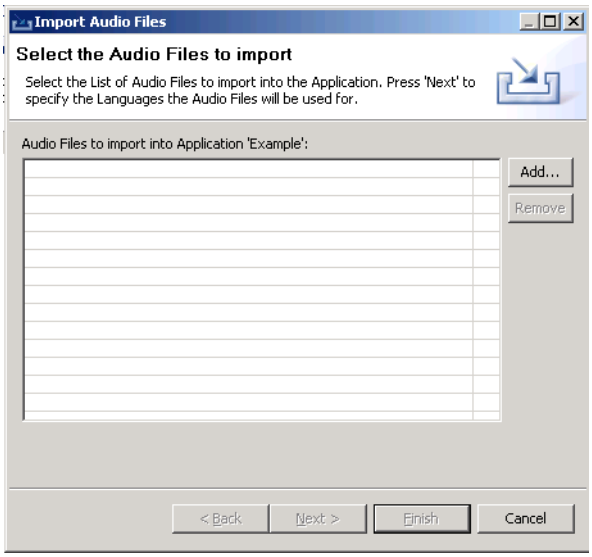
2. Select the **Application** from which the prompts are to be imported. The available prompts are automatically displayed.
3. Select one or several prompts and click on **Next**.
4. In the next dialog specify for which available language the prompt to be imported is to be used.



5. Click on the **Finish** button. The imported prompts are integrated in the **All Vogue Application Prompts** list on the **Application Prompts** tab.

Importing audio files in the application

Via the **Import Audio Files into the Application...** link you can import audio files of the `X*.pcm`X or `*.wav` formats in the application. Only these sound files thus integrated in the application can be assigned to a prompt.



This is the same dialog that can be opened by the following action:

- Click on the **Import...** button in the **Select Audio File** dialog (see step 1 auf Seite 115)
- Click on the **Add...** button for creating an application prompt, then click on the **Browse...** button and eventually click on the **Import...** button (see Abschnitt 5.3.3.2, “Creating a new application prompt”, auf Seite 144)
- Select an application prompt, click on the **Browse...** button and click on the **Import...** button

Proceed as described from step 4 to step 6 auf Seite 116. Finally, click on the **Finish** button. The **Import Audio Files** dialog closes. The audio file has been imported and is now available for prompts in the set languages.

Further features

The **Application Prompts** tab features at the top right margin three more icons the functions of which are explained in the below table.

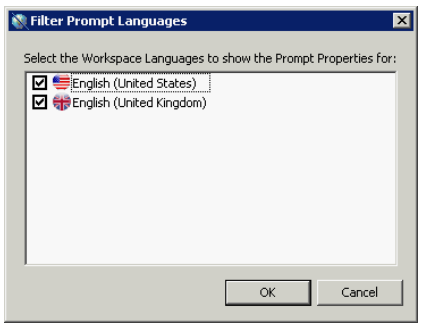
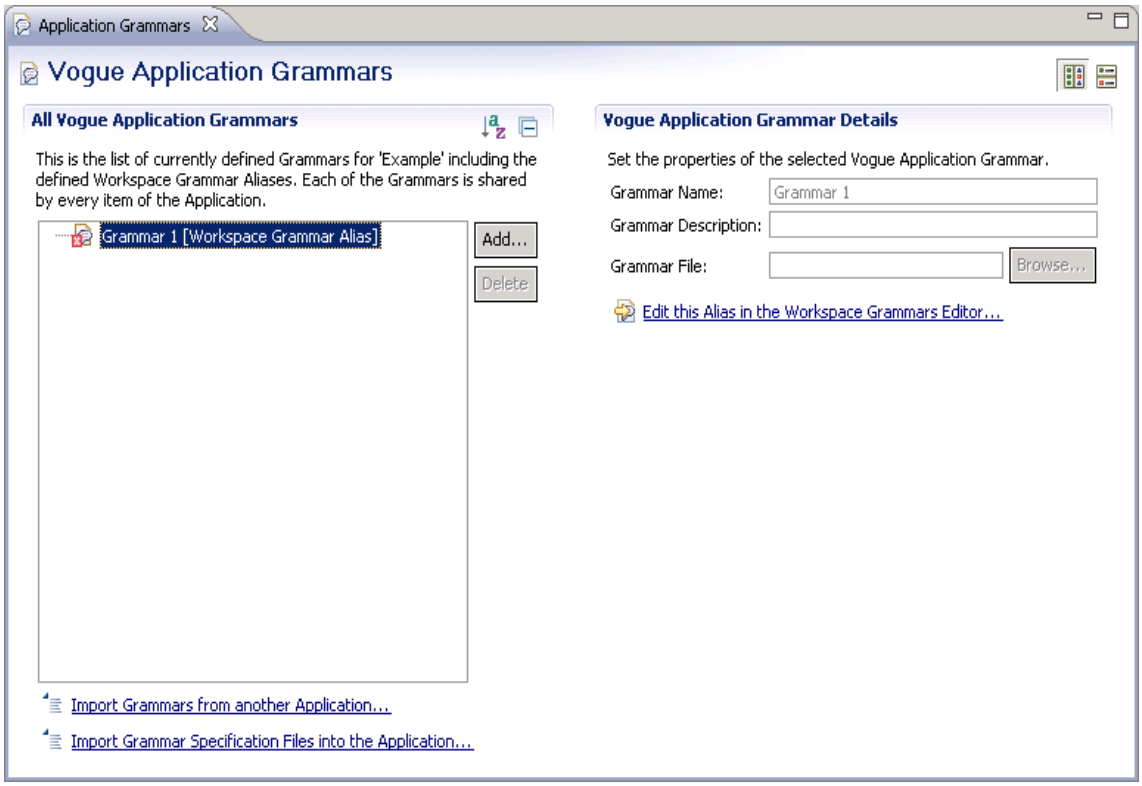
Icon	Function
	This icon lets you filter the prompts on the basis of the assigned languages.  Activate the checkbox of the desired language and then click on the **OK** button. Only the properties of the desired languages are displayed.
	This icon is active by default. In the icon's active state the areas **All Vogue Application Prompts** and **Vogue Application Prompt Details** are positioned next to each other. The area **All Vogue Application Prompts** is found in the left half of the tab.
	When you activate this icon, the areas **All Vogue Application Prompts** and **Vogue Application Prompt Details** are positioned on top of each other, with the area **All Vogue Application Prompts** always being in the upper half of the tab.

Tabelle 27 Further Functions of the “Application Prompts” Tab

Using the  icon at the top right margin of the **All Vogue Application Prompts** area you can sort all prompts defined for the application alphabetically ascending of descending.

5.3.3.3 Application Grammars

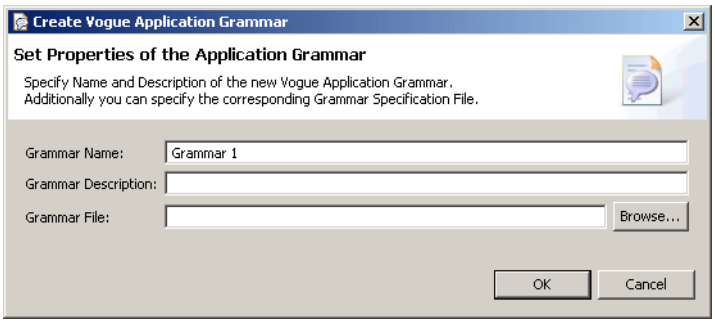
The list on the X**Application Grammars**X tab contains workspace grammars already, if you have configured them previously. These grammars appear in gray writing and cannot be edited here. You can, however, modify the properties of a selected grammar that was configured as workspace grammar via the **Edit this Alias in the Workspace Grammar Editor...** link. You reach the **Workspace Grammars** tab. See Abschnitt 5.3.2.4, “Workspace-spanning Grammars”.



Creating a new grammar

HINWEIS: To configure a new grammar proceed as described in Abschnitt 5.3.2.4, “Workspace-spanning Grammars”, auf Seite 120.

Click on the **Add...** button and define the **Grammar Name**, the optional **Grammar Description** and the **Grammar File** for the new grammar.



For each grammar at least one **Grammar File** must be selected. Follow step 1 auf Seite 122 to step 8 auf Seite 124 for this purpose. You can assign further grammar files of the same name for further grammar languages.

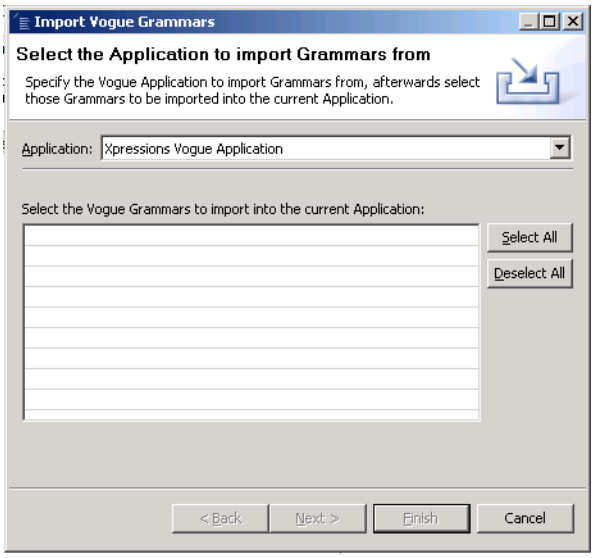
Editing an application grammar

You can edit an already configured grammar by selecting it and modifying the fields in the **Vogue Application Grammar Details** section. You can edit the **Grammar Name**, the **Grammar Description** and the **Grammar File**.

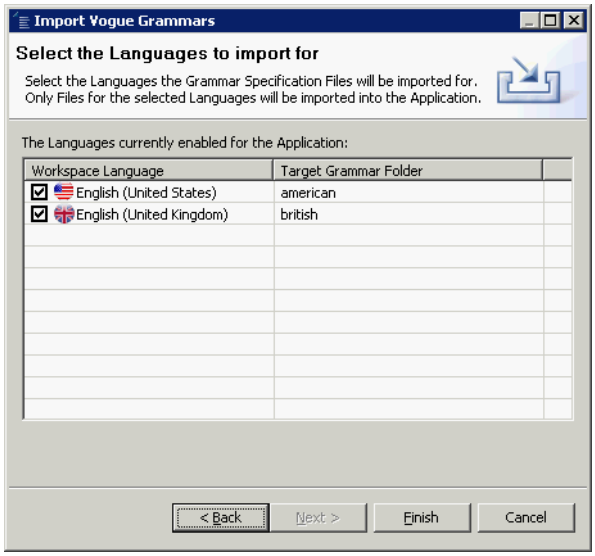
Importing grammars

With the **Import Grammars from another Application** link you can add further grammars from other existing applications analog to the import of grammars from other workspaces:

1. Click on the **Import Grammars from another Application...** link. The below dialog **Import Vogue Grammars** opens.



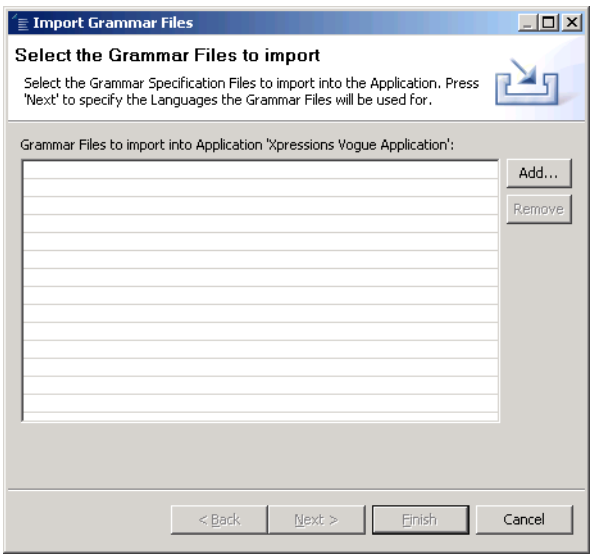
2. Select the **Application** from which the grammar is to be imported. The available grammars are automatically displayed.
3. Select one or several grammars and click on **Next**.
4. In the next dialog activate the checkboxes of the languages to be used for the grammar to be imported.



5. Click on the **Finish** button. The imported grammars are integrated in the **All Vogue Application Grammars** list on the **Application Grammars** tab.

Importing grammar files

With a click on the X**Import Grammar Specification Files into the Application...**X link you can import grammar files of the `grxml` format in the application. Only these grammar files thus integrated in the application can be assigned to a prompt.



This is the same dialog that can be opened by the following action:

- Click on the **Import...** button in the **Select Grammar File** dialog (see step 1 auf Seite 122)
- Click on the **Add...** button for creating an application grammar, then click on the **Browse...** button and eventually click on the **Import...** button (see Abschnitt 5.3.3.3, “Creating a new grammar”, auf Seite 149)
- Select an application grammar, click on the **Browse...** button and click on the **Import...** button

Proceed as described from step 4 to step 6 auf Seite 123. Finally, click on the **Finish** button. The **Import Grammar Files** dialog closes. The grammar specification file has been imported and is now available for grammars in the set languages.

Further features

The **Application Grammars** tab features at the top right margin two more icons the functions of which are explained in the below table.

Icon	Function
	This icon is active by default. In the icon's active state the areas **All Vogue Application Grammars** and **Vogue Application Grammar Details** are positioned next to each other. The area **All Vogue Application Grammars** is found in the left half of the tab.
	When you activate this icon, the areas **All Vogue Application Grammars** and **Vogue Application Grammar Details** are positioned on top of each other, with the area **All Vogue Application Grammars** always being in the upper half of the tab.

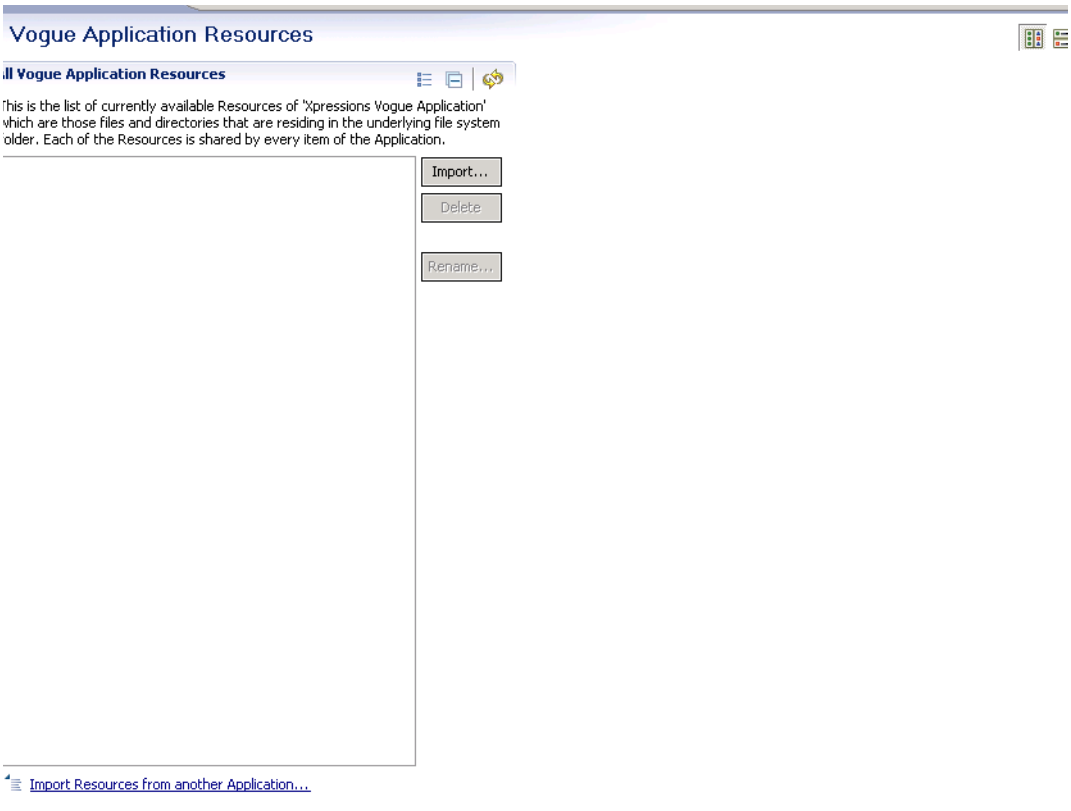
Tabelle 28 Further Functions of the “Application Grammars” Tab

Using the  icon at the top right margin of the **All Vogue Application Grammars** area you can sort all grammars defined for the application alphabetically ascending of descending.

5.3.3.4 Application Resources

The **Application Resources** tab serves for copying external files to the workfolder of an application, so that these files can be used in the callflow controls. This enables using files of another file type, except for prompt files or grammar files, also. Among these files you find documents used in the Document control (Abschnitt 6.3.15, “Document Control”, auf Seite 260), or configuration files that can be installed in the ASR Menu control (Abschnitt 6.3.20, “ASR Menu Control”, auf Seite 283) or in the ASR Expert control (Abschnitt 6.3.21, “ASR Expert Control”, auf Seite 291).

Resource files are copied to the following folder and can be divided into further sub-folders: `<OpenScape Xpressions install>\<workspace>\items\<application>\resources`



Importing resources

1. Click on the **Import...** button. The **Select Resource File(s) to be imported** dialog opens.
2. Select the desired file.
3. Confirm your selection with **OK**. The file is copied to the specified resources folder of your application and integrated in the **All Vogue Application Resources** list.

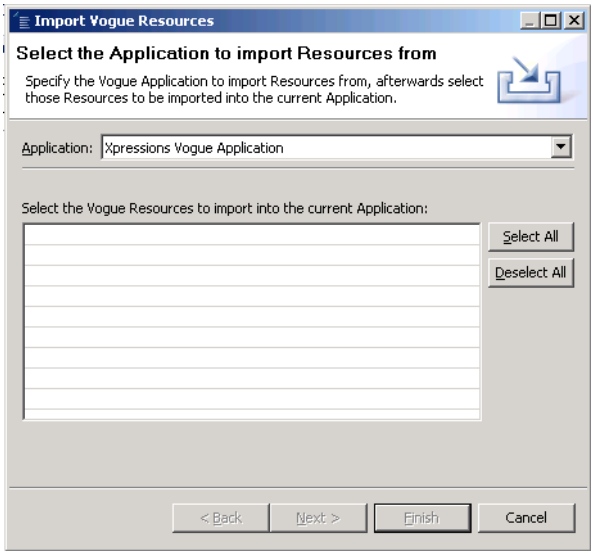
Select an entry in the application resources list and the following properties are listed in the right area of the tab: **Resources-Name**, **Resource Type**, **Resource Size** and the **Resource Date** on which the file was added to the application resources. This data serves for viewing and cannot be modified.

Selected files are irretrievably removed from the application resources via the **Delete** button.

With **Rename...** you can rename selected application resource files.

Importing resources from other applications

1. Click on the **XImport Resources from another Application** link to add further resource files from other applications:



2. Select the **Application** from which the resources are to be imported. The available resources are automatically displayed.

3. Select one or several resources and click on **Finish**. The imported resources are integrated in the **All Vogue Application Resources** list on the **Application Resources** tab.

Further features

The **Application Resources** tab features at the top right margin two more icons the functions of which are explained in the below table.

Icon	Function
	This icon is active by default. In the icon's active state the areas **All Vogue Application Resources** and **Vogue Application Resource Details** are positioned next to each other. The area **All Vogue Application Resources** is found in the left half of the tab.

Tabelle 29 Further Functions of the “Application Resources” Tab

Icon	Function
	When you activate this icon, the areas **All Vogue Application Resources** and **Vogue Application Resource Details** are positioned on top of each other, with the area **All Vogue Application Resources** always being in the upper half of the tab.

Tabelle 29 Further Functions of the “Application Resources” Tab

Using the  icon at the top right margin of the **All Vogue Application Resources** or the **F5** key you can update the list of resource files of an application's workfolder.

5.3.3.5 Callflow Editor

Callflows are created with a callflow editor and listed in the workspace. Each of them is assigned to an application.

A new callflow is created via an application's context menu. Rightclick the desired application and then select the option **New > Callflow**. See also Abschnitt 4.2.1.2, “Creating a new Callflow”, auf Seite 43.

Enter the desired **callflow name** and confirm the entry with **OK**. The new callflow is displayed underneath the application in workspace list.

A callflow's context menu

When you rightclick a callflow, its context menu opens. The following options are then available:

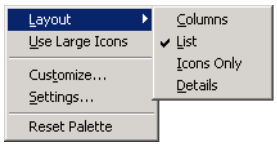
- **New** enables the creation of a new callflow.
- **Open with Callflow Editor** enables viewing the graphic representation of an existing callflow as well as its configuration and editing.
- **Copy** copies the selected callflow with all its settings to the clipboard.
- **Paste** creates a copy of the selected callflow.
- **Delete** removes the selected callflow from the workspace or application.
- **Rename...** changes the callflow name.
- **Properties** displays general information such as storage location, last access date, file size and callflow type and displays a summary of the contained controls and the associated editor settings.

With a doubleclick on the callflow's name in the workspace list the **editor** opens for editing the callflow with the associated **palette**.

The palette contains controls for usage in the callflow editor.

The context menu of the palette

To open the context menu of palette, rightclick one of the controls withing the palette's area. It provides the following options:



- **Layout** offers several options to change the palette's representation. The contents in the views are the same but they are displayed in a different manner. The following options exist:

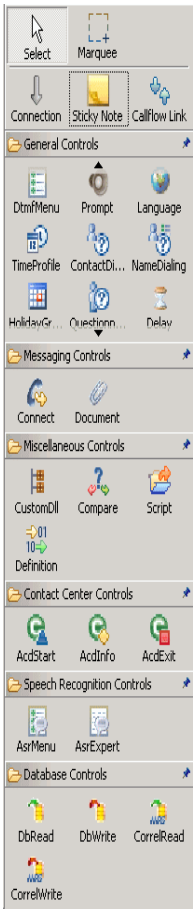
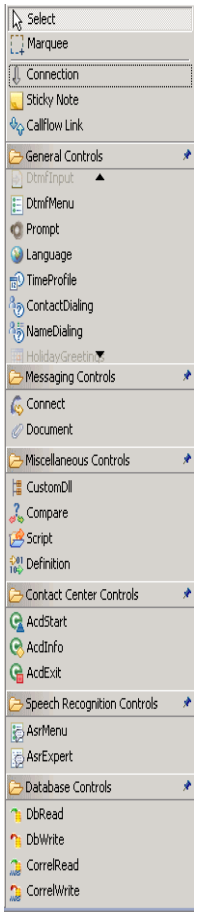
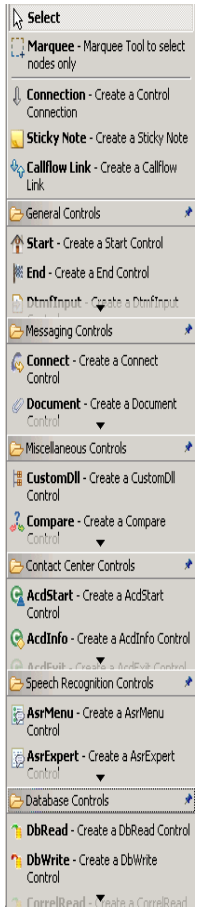
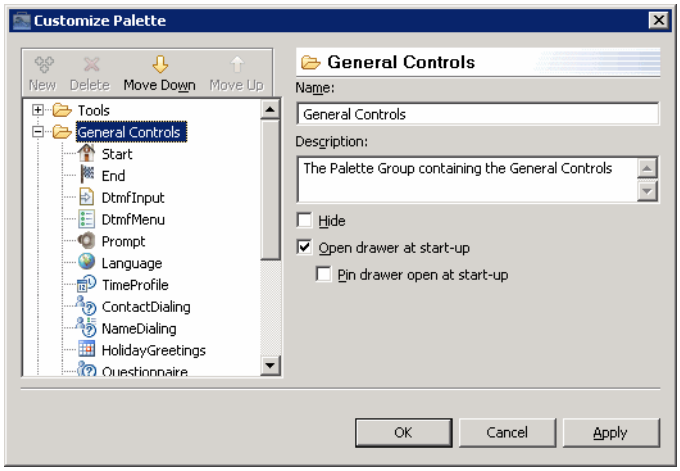
Columns	List	Icons only	Details
			

Tabelle 30 Representation Types of the Palette

- **Use Large Icons** enlarges the icon display.

- **Settings...** opens the **Customize Palette** dialog for editing the **Name** and the **Description** as well as for configuring different **Options** of the single controls and their group folders.



The left dialog area provides an overview of all available controls, sorted according to various groups (**drawer**). If you select a control or a group folder you can use the **Up** or **Down** buttons to change the position of the control or group folder in the list. In the right dialog area you can edit the **name** and **description** of a selected control or group folder.

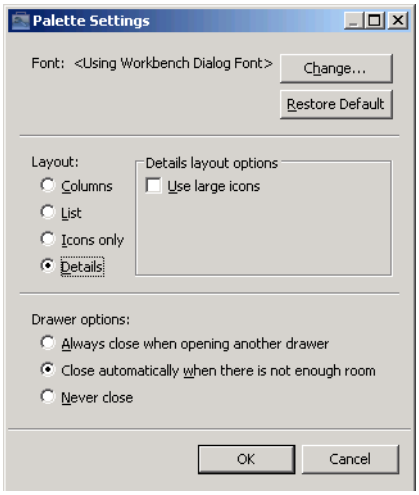
By activating the **Hide** option you can decide whether or not to display a control or a whole group of controls.

The **Open drawer at start-up** option can be selected for group folders and determines whether the respective control group is displayed opened at the Application Builder start, i.e. the single controls are displayed in the palette.

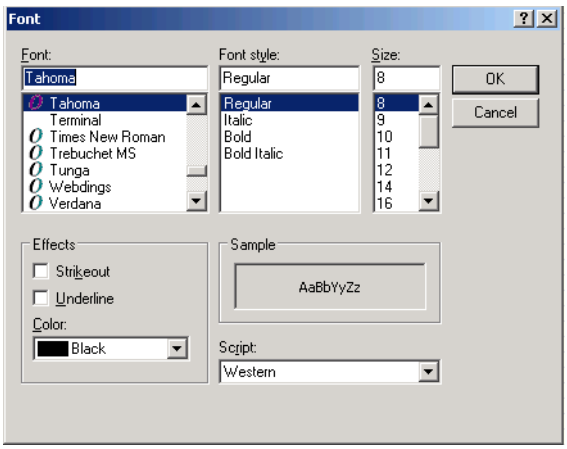
The **Pin drawer open at start-up** option determines if a group folder is furnished with a pen (see below) at the Application Builder start.

HINWEIS: The settings of the **Tools** drawer and of the tools contained therein cannot be edited.

- X**Settings...**X opens the palette settings dialog.



Push the **Change...** button to open the dialog for setting the font. You can define **Font**, **Font size**, **Size**, **Color** and **Effects**.



A click on the **Restore Default** button resets the font to its original values.

In the **Layout** and **List layout options** sections you can change the palette display like in the palette context menu.

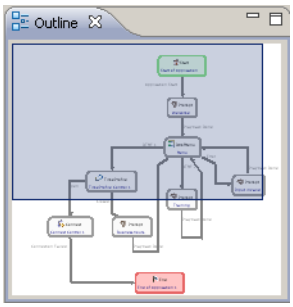
The **Drawer options** specify how the display of opened group folders of controls shall be handled.

Reset Palette resets the palette settings to their default values.

When you rightclick a group folder (drawer), the context menu contains the additional option **With Pen**. With an active pen ( ) you can prevent an open drawer in the palette display from getting closed.

5.3.4 Outline View

The outline displays the entire callflow in a minimized representation. Depending on the selected zoom factor (see Tabelle 15 auf Seite 94) the callflow may be shown in the callflow editor only in one extract.



If the callflow editor does not display the entire callflow, the portion you can see in the callflow editor is blue highlighted in the outline view. You can move this blue section with the left mousebutton kept pressed. The area shown in the callflow editor is updated accordingly.

5.3.5 Problem View

The problem view shows errors and warnings of all settings in the workspace and of all applications. This is independent from the callflow shown in the callflow editor. The view has the format of a table with the following columns:

- **Description**

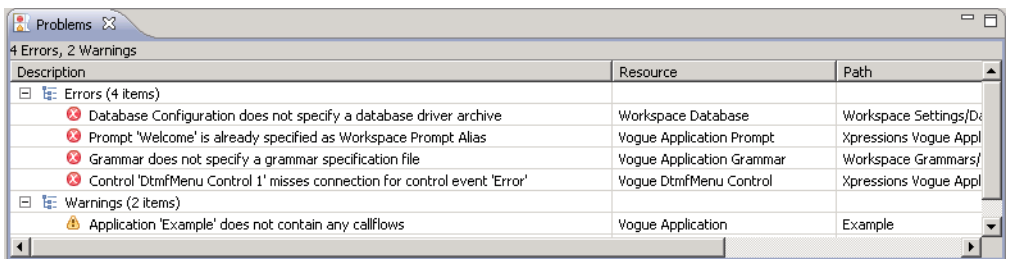
  This column precisely describes the error or warning. For example, it states that a control does not have a mandatory connection to another control or that not all necessary properties have been specified for a control.

- **Resource**

  This column states for each error or warning the control type, for example *Vogue Application Prompt*, *Vogue DTMF Menu Control* etc.

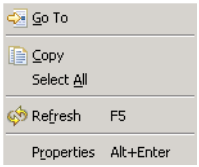
- **Path**

  This column specifies for each error or warning the path of the concerned control, for example *Workspace Grammars/Grammar1*.



5.3.5.1 Context Menu of the Problem View

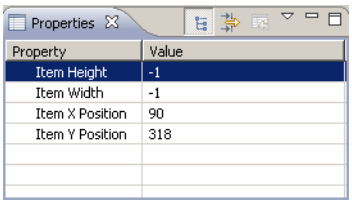
You open the context menu of the problem view with a rightclick on an entry to be provided with the following options:



- **Go To** opens the corresponding position of the error or warning. For example, the callflow is opened in the callflow editor and the control selected in which the problem occurred.
- The **Copy** option copies the content of the selected problem to the clipboard.
- **Select All** selects all entries in the problem view.
- The **Update** command updates the problem view by searching all configurations in the workspace, in applications and callflows for faulty settings.
- **Properties** opens the **Properties** dialog in which the **Description**, the **Resource** and the **Resource Path** of an error or warning are put out.

5.3.6 Properties View

The properties view shows the **properties** of the control selected in the callflow editor view and their **values**. The properties are the hight and width of the control and the geometric position in X- and Y-coordinates in the callflow.



5.3.6.1 Caption Bar Icons

The **Properties** view features the following icons on the right margin of the caption bar:

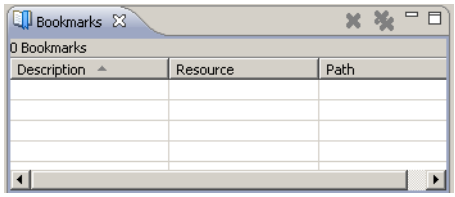
When you click an icon the effect becomes visible in the graphic representation. This is the case for the first icon of the last figure.

Icon	Meaning
	Display categories
	Display extended settings
	Restore default. This feature is not possible.
	 When you click the triangle, a menu opens. Each menu option corresponds to an executable icon in the caption bar. A ticked-off menu option is active. Selecting a menu option has the same effect as pushing the corresponding icon.
	Minimize properties view
	Maximize properties view

Tabelle 31 Icons on the Caption Bar of the “Properties” View

5.3.7 Bookmark View

Bookmarks serve as marker for quickly finding specific features or jobs. Uncompleted configurations or remarks can be quickly viewed in this way. Especially users who have not created the callflow themselves can then receive additional information.



Bookmarks can be added to callflows, controls, variables, prompts, grammars, languages, databases or resources. Select the desired element for this purpose.

- Control in the **callflow editor** (Abschnitt 5.3.3.5, “Callflow Editor”, auf Seite 156)
- Variable on the **Workspace** or **Application Variables** tab (Abschnitt 5.3.2.2, “Workspace-spanning Variables”, auf Seite 108 or Abschnitt 5.3.3.1, “Application Variables”, auf Seite 140)
- Prompt on the **Workspace** or **Application Prompts** tab (Abschnitt 5.3.2.3, “Workspace-spanning Prompts”, auf Seite 112 or Abschnitt 5.3.3.2, “Application Prompts”, auf Seite 144)
- Grammar on the **Workspace** or **Application Grammars** tab (Abschnitt 5.3.2.4, “Workspace-spanning Grammars”, auf Seite 120 or Abschnitt 5.3.3.3, “Application Grammars”, auf Seite 149)
- Language or database on the **Workspace Settings** (“Workspace Languages” tab or “Workspace Databases” tab) or
- Resource on the **Application Resources** tab (Abschnitt 5.3.3.4, “Application Resources”, auf Seite 154)

and click on the menu bar on **Edit > Add Bookmark...**. If you want to furnish a callflow with a bookmark, open it with a doubleclick on the name of the desired callflow in the workspace and select on the menu bar **Edit > Add Bookmark...**.

HINWEIS: The bookmarks of the bookmark view do not correspond to the help bookmarks.

5.3.7.1 Caption Bar Icons

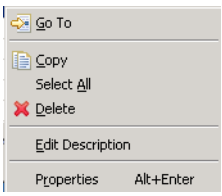
The bookmark view features the following icons on the right margin of the caption bar:

Icon	Meaning
	Delete all bookmarks
	Delete selected bookmark
	Minimize bookmark view
	Maximize bookmark view

Tabelle 32 Icons on the Caption Bar of the Bookmark View

5.3.7.2 Context Menu of the Bookmark View

You open the context menu of the bookmark view with a rightclick on an entry to be provided with the following options:



- The **Go to** option opens the page the bookmark refers to.
- The **Copy** option copies the content of the selected bookmark to the clipboard.
- **Select All** marks all entries of the bookmark view.
- **Delete** removes a selected entry from the bookmark view.
- **Edit Description** enables modifying the description of the selected bookmark.
- **Properties** opens the **Properties** dialog in which the **Description**, the **Resource** and the **Resource Path** of a bookmark are put out.

5.3.8 Search View

The search view shows the results of the search for a character string in all applications. The search is started via the **Search** menu option and the **Search** dialog then open (see Abschnitt 5.1.5, “Search”).

- **Description**

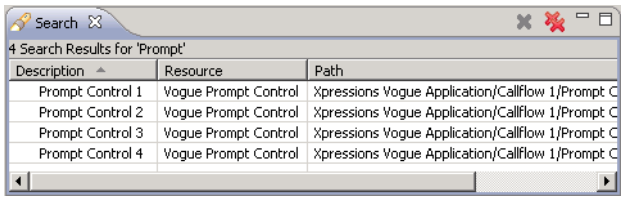
  This column states the name of the element in which the character string was found.

- **Resource**

  This column specifies the resource type, for example *Xpressions Vogue Application 1*.

- **Path**

  This column indicates the path of the concerned element, for example *Appl07/Callflow07/Phone Number Input Control*.



HINWEIS: The search view does not correspond to the help search-page.

5.3.8.1 Caption Bar Icons

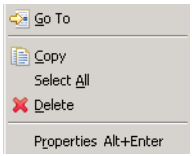
The search view features the following icons on the right margin of the caption bar:

Icon	Meaning
	Delete selected search hit
	Delete all search hits
	Minimize search view
	Maximize search view

Tabelle 33 Icons on the Caption Bar of the Search View

5.3.8.2 Context Menu of the Search View

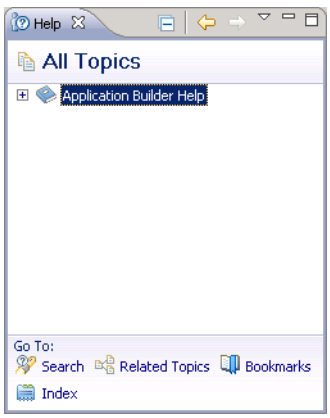
You open the context menu of the search view with a rightclick on a search hit to be provided with the following options:



- **Go To** opens the dialog or tab in which the string searched for was found.
- **Copy** copies the content of the selected search hit to the clipboard.
- **Select All** marks all entries of the search view.
- **Delete** removes a selected entry from the search view.
- **Properties** opens the **Properties** dialog in which the **Description**, the **Resource** and the **Resource Path** of a search hit are put out.

5.3.9 Help View

The help view shows the context-sensitive help. It opens when you select the element about which you want to have information and then push the **F1** key. An element can e.g. be a view, a tab or a control. In addition, you can open the help view via **Help > Dynamic Help**. See also Abschnitt 5.1.7, “Help”, auf Seite 87.



HINWEIS: If you select the **in an infopop** option in the **Tools** menu under the **Preferences** menu option under **Help**, the context-sensitive help is not displayed in the help view but in an infopop. More information is contained in Abschnitt 5.1.7, “Help”, auf Seite 87.

Depending on the selected help page, the bottom margin shows different links.

- **All Topics** leads to the help's table of contents.
- **Related Topics** shows the links that provide information about the desired element.
- **Bookmarks** displays the help pages that you have selected as bookmark.
- **Index** opens the keyword overview of the help.
- **Search** shows the page on which you can specify a search item for searching the help.

5.3.9.1 Caption Bar Icons

The help view has additional icons in the caption bar. Which icons are displayed depends on the link selected in the help view. The following figure shows an example.

HINWEIS: The help search-page does not correspond to the search view. Likewise, the help bookmarks do not correspond to the bookmarks of the bookmark view.

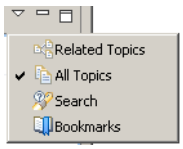
Icon	Meaning
	Fold all elements of the table of contents in this view.
	Display the categories of the search results on the help pages.
	Display the descriptions of the search results on the help pages.
	Display the table of contents as well as the currently shown help page in another window (the entry of the displayed help page is selected in the table of contents)
	Display the entry of the displayed help page in the table of contents.
	Add a bookmark to the displayed page
	Show last displayed help page.
	Undo skipping to the last help page.
	 Skip to the reference information of the help, to the keyword overview of the help, to the help's table of contents, to the search page of the help or to the help's bookmarks.
	Minimize help view
	Maximize help view

Tabelle 34 Icons on the Caption Bar of the Help View

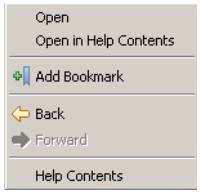
5.3.9.2 Context Menus of the Help View

The help view features different context menus for different help pages.

HINWEIS: The help pages **Related Topics**, **Index** and **Search** have identical context menus.

All Topics

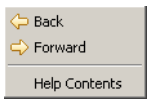
The context menu of the table of contents is opened with a rightclick on an entry.



- **Open** displays the context sensitive help in the help view.
- **Open in Help contents** opens the desired help page in a separate help dialog.
- **Add Bookmark** sets a new bookmark for the selected entry of the help's table of contents.
- **Back** shows the help page displayed last.
- **Next** undoes skipping to the last help page.
- **Help Contents** opens the online help. See also Tabelle 14 auf Seite 87.

Related Topics

You open the context menu of this help page with a rightclick on a free space.

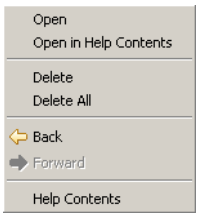


For a detailed description of the three depicted options see Abschnitt 5.3.9.2, “All Topics”, auf Seite 169.

When you rightclick one of the reference links displayed on this page, the above context menu of the table of contents opens. See All Topics.

Bookmark

When you rightclick a bookmark on this page, the following context menu opens:

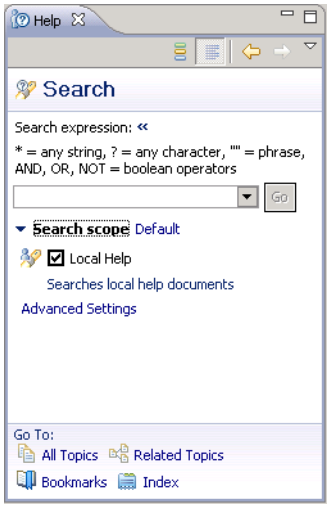


- **Open** displays the context sensitive help in the help view.
- **Open in Help contents** opens the desired help page in a separate help dialog.
- **Delete** removes the selected bookmark of the help.
- **Delete All** deletes all bookmarks of the help.
- **Back** shows the help page displayed last.
- **Next** undoes skipping to the last help page.
- **Help Contents** opens the online help. See also Tabelle 14 auf Seite 87.

If no bookmarks have been added to the help view, the context menu only contains the three lower options.

5.3.9.3 Browsing the Help Pages

Click on in the caption bar of the help view and select the **Search** entry in the list. The page for browsing the help pages.



Enter your help page search item in the **Search expression** field and click on **Go**. When you click on **>>** the following search options are displayed:

Option	Description
*	Look for any string
?	Look for any character
"<*Expression*>"	Look for the specified expression
AND, OR, NOT	Use Boolean operators for the search

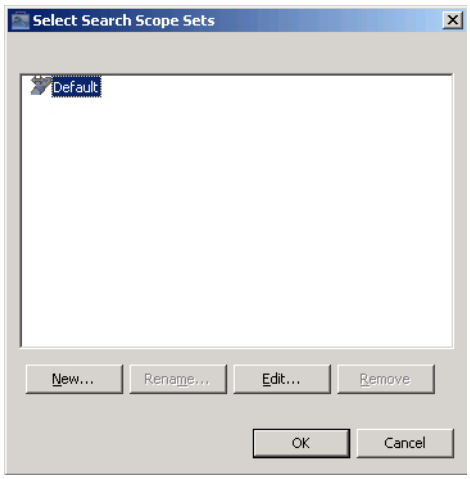
Tabelle 35 Search Options

The link to the right of the **Search scope** indicates the search range. If not otherwise modified, the search range is called **Default**. When you click the small black triangle on the left, an information section opens that indicates where the help is searching. The default is **Local Help**. The **Advanced Settings** link allows detailed settings for the search.

In the area thereunder you can see the hits of the completed search process in the form **<*defined search scope*> (<*number*> hits)**. With a click on the triangle to the left, all search results are listed for the corresponding search scope. The search hits are displays as links and a short extract of the help text is also shown.

Specifying the search scope

1. Click on the link to the right of the **Search scope**. The following dialog for selecting the search scope opens:



   Only the **Default** search scope is available for selection by default. It can neither be renamed nor deleted.

   Other search scopes can be defined via the **New...** button. After you have entered the new **Scope Set Name** and clicked the **OK** button, the new search scope is integrated in the list of search scope sets.

   Using the **Rename...** button you can change the **Scope Set Name** .

   Remove deletes the selected scope set entry.

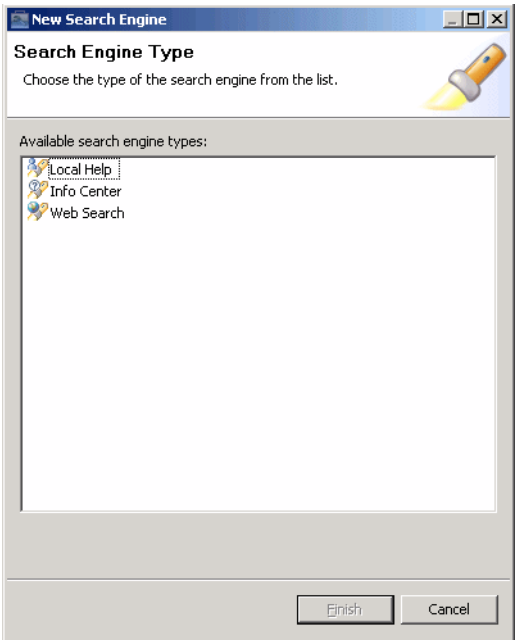
   The settings dialog of a selected search scope is opened via the **Edit...** button.
   See
   Abschnitt 5.3.9.3, “Local Help”, auf Seite 173,
   Abschnitt 5.3.9.3, “Info Center”, auf Seite 175 und
   Abschnitt 5.3.9.3, “Web Search”, auf Seite 176.

2. You can set the desired search scope as current search scope in two ways:

   - Doubleclick the desired entry in the list of search scope sets. The search scope name appears as link to the right of **Search scope**.
   - Select the desired entry in the list of search scope sets and click on **OK**. The search scope name appears as link to the right of **Search scope**.

Setting a search scope

In the left dialog section the **Local Help**, **Info Center** and **Web Search** search engines may occur. Each entry may appear several times. You remove an entry from the list with the **Delete** button. A new search engine is created via the **New...** button. The following dialog opens:



The three search engine types mentioned above are available. After you have selected the desired search engine type and clicked on the **Finish** button, the search engine list features this type for this search scope.

In the right section you can set a search engine's properties. All search engines can be activated by ticking off the X**Enable search engine**X checkbox. In the following we will explain the settings of the three possible search engines.

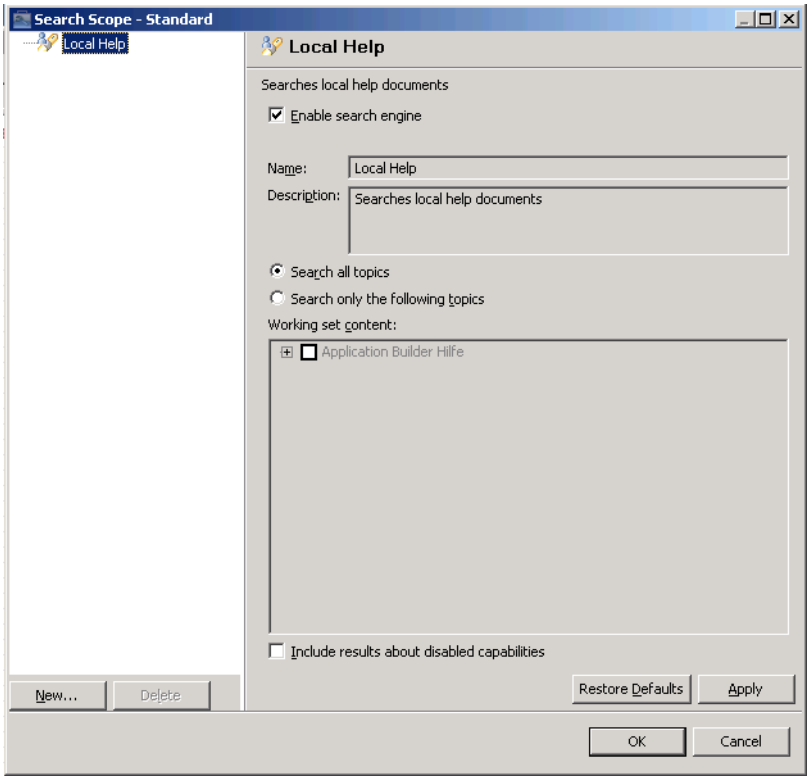
- **Local Help**

  The X**Name**X and **Description** cannot be modified.

  If the **Search all topics** radio button is active, all topics of the selected search engine are searched. If the X**Search only the following topics**X radio button is active, only pages among those pages are searched that are ticked off in the **Working set content** field.

  The **Restore Defaults** button resets all values to the defaulted ones.

  The performed modifications are copied via the **Apply** button.


Search Scope - Standard
Local Help
Local Help
Searches local help documents
Enable search engine
Name:
Local Help
Description:
Searches local help documents
Search all topics
Search only the following topics
Working set content:
Application Builder Hilfe
Include results about disabled capabilities
New...
Delete
Restore Defaults
Apply
OK
Cancel

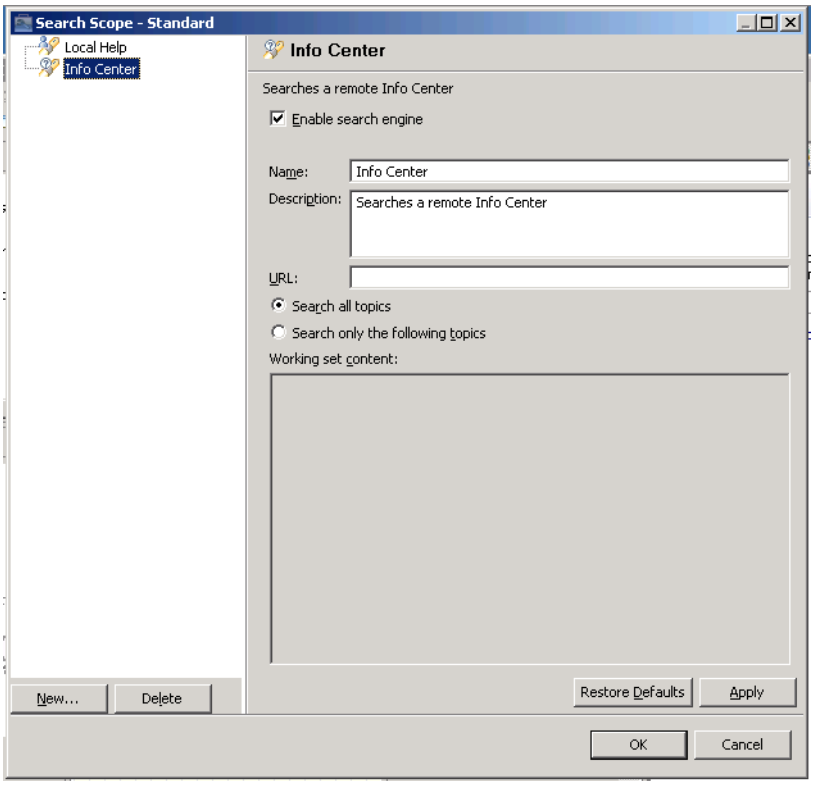
- **Info Center**

  The **Name** and **Description** of the search engine cannot be modified. Enter the internet address of the search engine in the **URL** field.

  If the **Search all topics** radio button is active, all topics of the selected search engine are searched. If the **Search only the following topics** radio button is active, only pages entered in the **Working set content** field are searched.

  The **Restore Defaults** button resets all values to the defaulted ones.

  The performed modifications are copied via the **Apply** button.

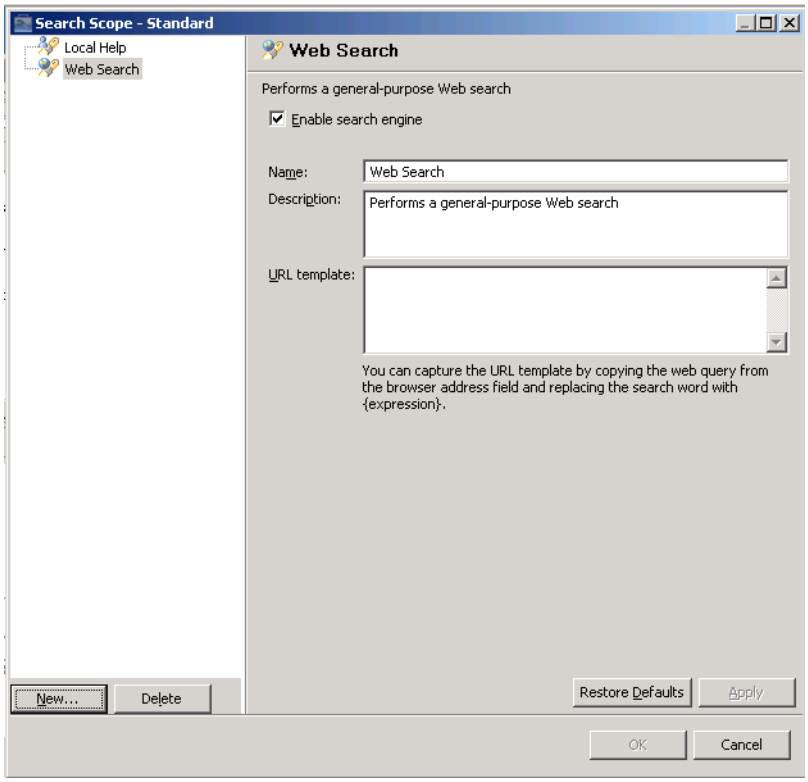


- **Web Search**

  The **Name** and **Description** of the search engine cannot be modified. You can receive the **URL template** by copying the web query from the internet browser address field and replacing the search item with ***{expression}***.

  The **Restore Defaults** button resets all values to the defaulted ones.

  The performed modifications are copied via the **Apply** button.



6 Application Deployment and Controls

This section describes in detail the deployment of applications, represents the applicable tools and controls of the callflow editor and explains their functionality, configuration and application.

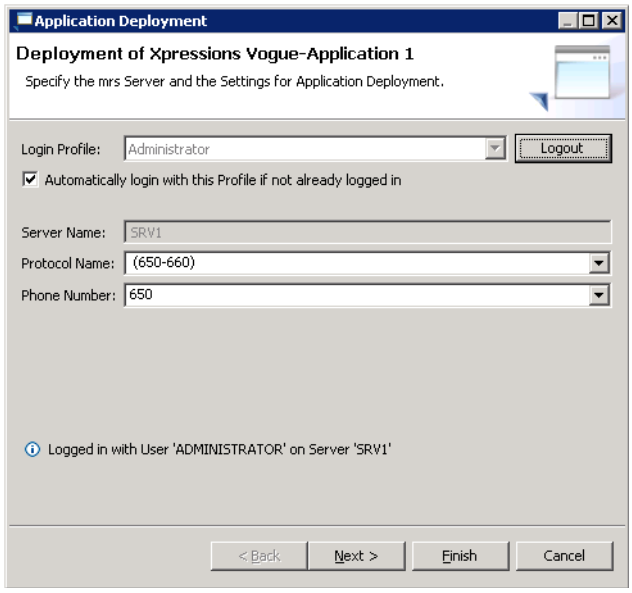
6.1 Deployment of an Application

HINWEIS: Only faultless applications can be deployed.

A complete application is made ready for execution by means of an export to the XPR database. In case of an export the XML definition files of an application are additional compressed in a folder and stored in the `<OpenScape Xpressions install>\userdata\vogue\` directory. The resource files can be optionally exported in the various languages also. The XML definition files contain the properties of the variables, prompts and grammars used in the application, the structure and elements of the callflows as well as the configuration of the application itself. The application configuration determines, for example, the available languages and the phone number via which the application can be reached.

How to deploy an application, i. e. export it in the XPR database in an operable state:

1. Click on  in the toolbar. With a click on the triangle next to the icon you can choose from existing applications. The following dialog opens.



2. Select the **Login Profile** with which you want to log on to an XPR server. Then click on the **Login** button.

HINWEIS: You need to have administrator privileges to log on to the XPR server.

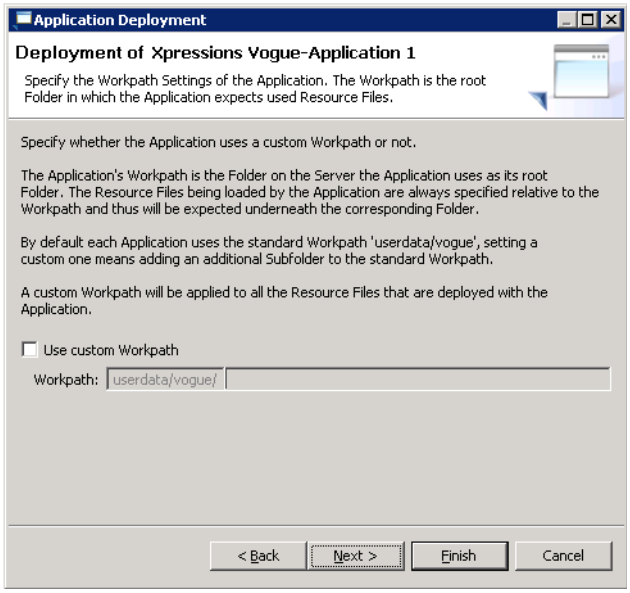
Automatically login with this Profile if not already logged in
If login to the XPR server is to occur automatically at the Application Builder start with the specified login profile , activate this checkbox.

HINWEIS: If you are already connected to an XPR server, the bottom area of the dialog displays a message indicated with ⓘ. This message informs you with which user you are logged in and at which server.

Via the **Logout** button you can close the connection to the server and define another logon profile.

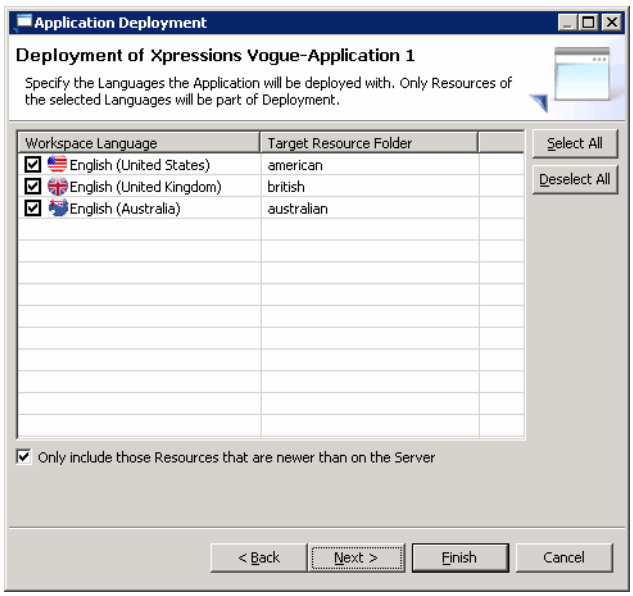
3. Select the configured **Vogue protocol** and the configured **phone number**. The control that follows the Start control is automatically used as Entry control.

4. Click on **Next**.



Here you can determine if you want to use a user-defined or the default working folder. The default working folder reads `<OpenScape Xpressions install>/userdata/vogue`.

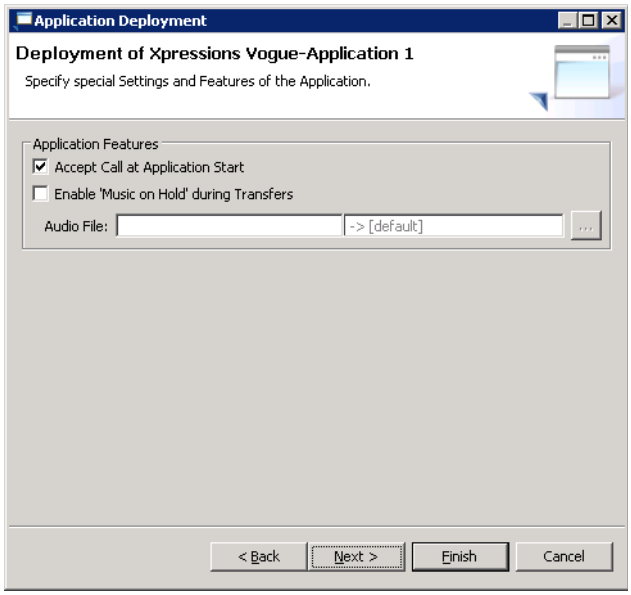
5. Click on **Next**. The following dialog opens:



6. Select from the available **Workspace Language** the language that is to be provided and thus to be exported to the XPR server for the execution of the application.

   Only deploy those Resources that are newer than on the Server
   By activating this option only those resource files are updated when newly deployed that were modified since the last deployment.

7. Click on **Next**. The dialog shown below is displayed.



8. Activate the checkbox of the desired feature:

   - **Accept Call at Application Start**

     Accepting a call establishes a valid connection between the caller and the system and the corresponding call charges will be calculated for the caller. You can use the **Accept Call at Application Start** option to set the time at which the charge counter becomes active and the caller incurs costs.

     By activating or deactivating the checkbox you can toggle the Offline and Online mode.

     If the **Accept Call at Application Start** option is active, the call will be accepted at the application start. The Online mode is active. The call is accepted, no matter whether an application is “Open” because of the time profile, for example. Call charges will definitely be incurred.

     If the **Accept Call at Application Start** option is inactive, the Offline mode is enabled. The call will not be accepted and remains free of charge until the following events occur:

     - A call is directly accepted before the performance of a control in which an announcement must be played. For example, the call is accepted before the execution of the DTMF Menu, Prompt or Questionnaire control.
     - In case of a Connect control the call is accepted in the attempt to forward it to a specified subscriber.
     - Using the Time Profile control the state of the application is checked. This does not require a call acceptance yet. A Connect control accepts the call only in case of status “Open”. The call is forwarded to

a defined subscriber. In the statuses “Break” and “Closed” or when the condition “group full” is fulfilled, the call is not accepted but only the defined connections are executed.

Only in the cases mentioned the call is accepted in Offline mode and the application switches to the Online mode.

WICHTIG: The Offline mode may lead to undesired side effects if the function and the ensuing consequences are not harmonized with the application's structure. If undesired side effects occur, the application's structure must be optimized accordingly.
Example 1:
If a call is received in Offline mode, the application is run through until it changes to Online mode. The relevant Vogue application is restarted in Online mode with the Entry Control. The controls at the beginning of a Vogue application for a call are run through twice. As a result, data is collected twice.
Example 2:
A call still being in Offline mode cannot be routed in comfort transfer since it has not been accepted yet. The call must either be routed in a different way, or Offline must be switched to Online mode before the comfort transfer. In the latter case, the first application in Offline mode is followed by comfort transfer in a second application in Online mode.

The Offline mode affects the way the End control is executed. The call is still terminated by executing the End control. If this control is executed in Offline mode, though, no announcement can be played, so that the call is not automatically accepted.

The Offline mode does not affect the functionality of the single controls.

- **Enable ’Music on Hold’ during Transfers**
  Through activation of this checkbox you can enable the **Music on Hold** feature or select the audio file played to the caller. The waiting music is played in an endless loop when the PBX forwards a call and the callee has not answered the phone yet.

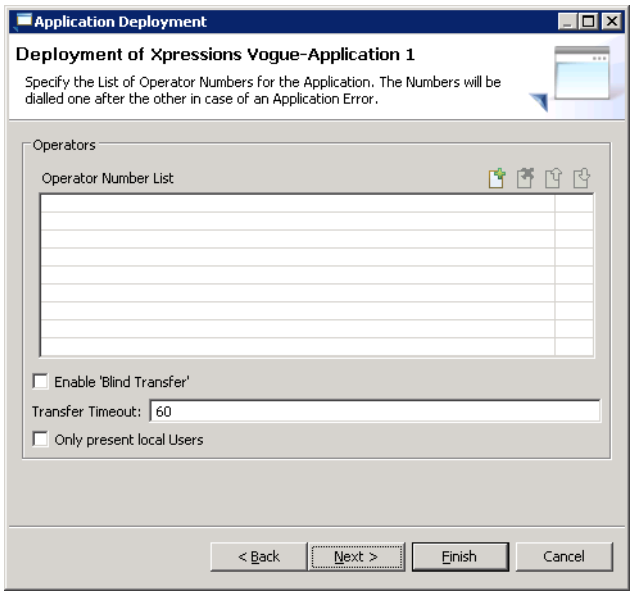
  The audio files must have the `*.pcm` or `*.wav` format. The files to be selected are found in the directory `<OpenScape Xpressions install>\Userdata\vogue`. You cannot modify the directory that must contain the selectable files. The XPR scope of delivery does not include any audio files for waiting music.

HINWEIS: Some PBX systems are equipped with music on hold. The music-on-hold selected in this dialog is specified for the Vogue script and can only be used if there is no music-on-hold in the PBX or this music can be deactivated.

To avoid a clash between the PBX music-on-hold and the music played by your application you can perform registry entries in the IP APL using parameter values. A call that dials a configured application can by means of the Connect control be forwarded to a destination you have specified. While being forwarded this call is assigned status `HOLD`. The PBX recognizes this status and plays its own music on hold. But since we want the Vogue script music-on-hold be played and not the one of the PBX, the calls must not be assigned the “Hold” status during the forwarding. For this purpose, edit in the registry values of the IP APL the `Private[REG_MULTI_SZ]`, entry, which among other things contains the parameters for SIP devices. You deactivate the “Hold” status for all OpenScape Xpressions scripts by the XPR server with value 0 for the parameter `HOLDFORBLINDTRANDSFER` (for forwarded calls in blind-transfer mode) and for `HOLDFORSUPTRANSFER` (for forwarded calls in supervised mode). If the “Hold” status is activated for forwarded calls in supervised mode (`HOLDFORSUPTRANSFER` = 1), the `HOLDFOR-VOGUETRANSFER` parameter can only be used to deactivate the “Hold” status for the Vogue script. Consequently, the Vogue script music-on-hold and not the PBX music-on-hold is played for forwarded calls in the Application Builder.

You receive continuative information in the “IP APL Registry Keys” section in the OpenScape Xpressions *Server Administration* manual.

9. Click on **Next**. The following dialog appears:



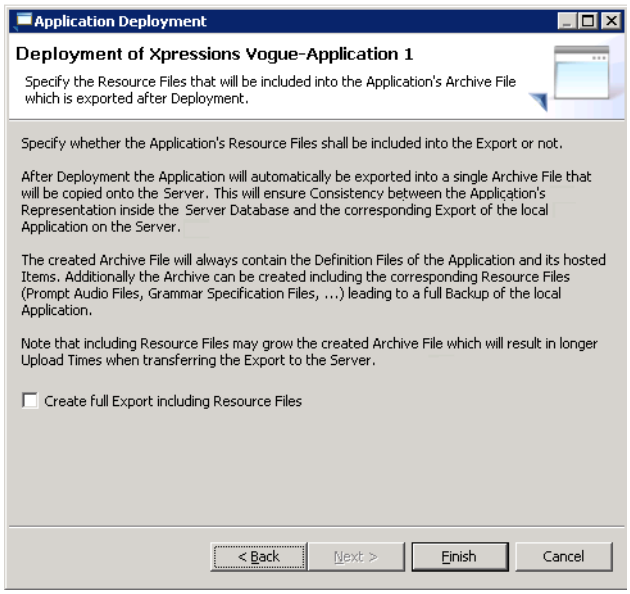
Select users from the XPR database to which the call is forwarded in case of an application error.

- ’**Enable Blind Transfer’**
  Through activation of this checkbox the system will not wait to see if the person accepts the call. The calling attempt is considered finished if the number is valid and the extension is not busy.

HINWEIS: The **’Enable Blind Transfer’** option is related to the “Blind Transfer” feature. Blind transfer means that the availability of the destination is not checked at the time of the transfer. Thus a caller might receive a busy signal or even be rerouted to the original control. For further information see the Telematic APL chapter in the OpenScape Xpressions *Server Administration* manual.

- **Transfer Timeout**
  This seconds specification defines after which period the connection setup to a subscriber is aborted if he/she cannot be reached. If the setup attempt is aborted, the subscriber next on the list is tried. If no subscriber can be reached or no subscriber is specified, the call is canceled as error case.
- **Only present local Users**
  With the option you determine which users will be considered for the selection of operators and the respective phone numbers. If the associated box is ticked off, only the local user profiles of the respective XPR server will be read out of the database. If the option is inactive, all global user profiles listed on all servers of the domain will be considered for selection. With a large number of user profiles this selection may affect the system performance or lead to a long runtime until the search is complete.

10. Click on **Next**. The following dialog pops up:



Create full Export including Resource Files
Through activation of this checkbox all resource files such as audio files and grammar files are also exported to the XPR server and provided in addition to the XML definition files.

HINWEIS: Please note that uploading large data amounts may take some time.

---

11. Click on the **Finish** button. You receive a message about the successful deployment of the application. Confirm this message with **OK**. The application can only be called via the configured phone number.

6.2 Elements of the Callflow Editor Palette

The following table shows all available controls of the callflow editor palette and provides a short description of the functionality:

Icon	Functionality
Tools	
	The **select** tool enables the selection of single elements such as controls, connections or notes. Selected elements can be moved in their geometric as well as structural position.
	The **scope selection** tool enables the simultaneous selection of several elements with the left mousebutton kept pressed. You can then use the (**select**) tool to move the selected elements combined to another position.
	The **Connection** serves for connecting two controls.
	Using the **Notice** tool you can position comments and notes anywhere in the callflow.
	The **Callflow Link** enables linking two callflows within an application.
General controls	
	The **Start Control** marks the beginning of a callflow and is mandatory for an application.
	The **End Control** marks the end of a callflow.
	With the **DTMF Input Control** the caller is able to enter number strings such as his/her customer number via the telephone keys.
	The **DTMF Menu Control** enables the caller to navigate through a menu.
	The **Prompt Control** plays one or several announcements and branches to another control (e. g. Menu control).
	With the **Language Control** you can change the language during runtime. Thus the caller can e.g. listen to announcements in his/her native language, if he/she switches to the appropriate language.
	In the **Time Profile Control** the caller is diverted to different controls depending on the time the call happened.
	The **Contact Dialing Control** searches an XPR contact (name, phone number, fax number, etc.) for a short name.
	Using the **Name Dialing Control** a caller searches for desired users of the system.
	The **Holiday Greetings Control** enables recording greetings by calling an application and the playback of such greetings on any days using time profiles.
	The **Questionnaire Control** asks the caller questions. The answers are recorded and then sent to the company's employee in charge via e-mail with a voice file attachment or as voice mail (for playback via telephone).
	The **Delay Control** allows interspersing breaks in the callflow.

Tabelle 36 Tools and Controls in the Palette

Icon	Functionality
	The **Record Control** enables re-recording an existing greeting by the caller.
Messaging controls	
	The function of the **Connect Control** is to dial a list of telephone numbers one after another after one or several greetings have been played. (*"You will be connected to our hotline now. Please hold the line."*).
	With the help of the **Questionnaire Control**you can send documents (e.g. e-mails, SMS, fax or voicemails).
Various controls	
	The **Customer Specific Dll Control** is used for editing the parameters for the `CustomVogue.dll` .
	With the help of this **Compare Control**you can perform comparisons according to previously defined rules. You can specify a list of rules here, so that e.g. all incoming calls can be allocated to their original country on the basis of their leading telephone numbers.
	The **ASR Menu Control** starts another protocol (E-script) without using additional B-channels. With the help of this control you can arbitrarily extend the application.
	In this **Definition Control** you define the variables with the help of texts. I.e. you are able to define individual variables here and fill them with a content that you will need in other controls.
Speech recognition controls	
	Using the **ASR Menu Control** allows the recognition of single, permanent voice commands and routing the caller to the controls assigned to these commands.
	With the **ASR Expert Control** and by means of keys you can filter functional units (such as actions, locations, etc.) from entire sentences of an announcement and save them.
Database controls	
	With the help of the **DB Read Control** you can query data/data records from existing databases. A caller is e.g. able to query the current state of his/her order from a contact center.
	With the help of the **DB Write Control** you can enter data/data records in already existing databases. A caller is able to automatically enter an order.
	The **Correl DB Read Control** enables reading of entries in the Correlation Database.
	The **Correl DB Write Control** is in charge of writing entries in the Correlation Database.

Tabelle 36 Tools and Controls in the Palette

6.2.1 General Information about the Control

A control is added to a callflow with two mouseclicks.

1. Select the desired control type in the palette. The mousepointer changes.
2. Place the mousepointer in the desired position in the callflow editor and push the left mousebutton. The selected control is now part of the callflow.

To move a control, select it in the callflow and place it in the desired position with the left mousebutton kept pressed.

Each control is represented as rectangle with rounded corners. Within the rectangle you see the icon, the control type and the control name. The following figure shows a control of type Start named “Start of Application” in the callflow editor area.

The name of a newly created control is always predefined by the control type description and a digit as numbering (e. g. “Prompt Control 1”).

When you doubleclick a control, its **Properties** configuration dialog opens. In this dialog of every control you can perform the following three settings on the **General** tab:

- You can enter a **Name** for the new control or change the existing **Name** (max. 63 characters, special characters are not allowed).
- You can enter an optional, freely definable comment as **Description**. This description is displayed as tooltip of the control and does not affect the control's functionality.
- Furthermore, the **Restore Default** button lets you reset all control settings except for **Name** and **Description** to the defaulted values.

In some controls, variables and greetings can be used. You can use only variables and announcements that were created or released either for the workspace or for the corresponding application. The announcements and variables created in the controls are automatically valid for the entire callflow application.

Further setting options depend on the control type and are described in Abschnitt 6.3, “Control Types”, auf Seite 199 for each single control.

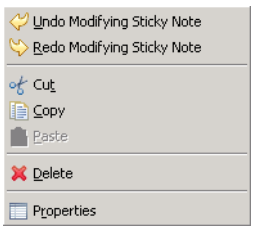
HINWEIS: A callflow must always begin with a control of type Start and end with a control of type End.

HINWEIS: Several controls in a callflow may have the same name.

HINWEIS: The control types ASR Menu and ASR Expert are released only project-specifically. The same applies for the **Can be interrupted by the contact center** checkbox in the properties dialog by some control types.

Context menu of a control

When you rightclick a control, the following context menu opens, for example:



Menu options are displayed that you can use to cancel the last modification, to undo the last cancellation, to delete the selected control and to represent the **properties** of the selected control. In addition you can cut or copy selected controls and paste them anywhere in the callflow editor.

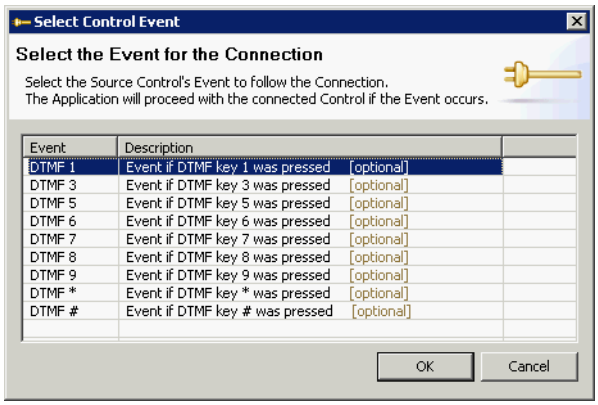
6.2.2 Connection

To set up a connection, two controls, e. g. a DTMF Menu control and a Prompt control, must be contained in the callflow editor.

1. Click on **Connection** in the palette. The mouse pointer is now represented as plug.
2. First click the control from which you want to set up the connection before selecting the control that is to represent the connection target. With a click on the second control a connection is established between the two controls if allowed. For example, a connection between the Start and End control is not allowed, or all possible events that can be configured for a connection between controls are covered.

If the control selected first may have several outgoing connections, a dialog appears in which you can select the event that must occur for the use of the connection to be established.

Example: The next figure shows the **Select Control Event** dialog for a DTMF Menu control. In this dialog you select the DTMF key that must be pushed so that the connection to be created is used.



For each connection the connection name is displayed, which is identical with the event name and the position of which (as closely as possible to the connection startpoint) is automatically defined.

With the connection you establish a call forwarding from one control to the next.

The following table summarizes the possible events for each control:

Control	Possible Events for Connections
Start	Start of application
End	End of application

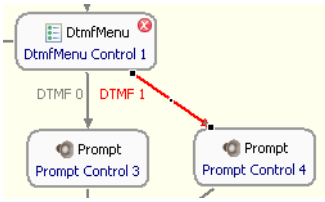
Tabelle 37 Possible Events for Connections between Controls

Control	Possible Events for Connections
DTMF Input	Input valid; input invalid
DTMF Menu	Input of DTMF keys 0 to 9, * or #; error
Prompt	Playback complete
Language	Successful language selection (**finished**); faulty language selection (**error**)
Time profile	Time profile status: “Open”, “Break” or “Closed”
Contact Dialing	User found (**finished**); user not found (error)
Name Dialing	User found (**finished**); user not found (error)
Holiday Greetings	Successful (**finished**); completed unsuccessfully (error)
Questionnaire	Complete (**finished**)
Delay	Delay time up
Record	Successful recording (recording completed); unsuccessful recording (recording failed)
Connect	Only a connection in case of an unsuccessful connection to another subscriber (connection failed)
Document	Document successfully transmitted (sending successful); document unsuccessfully transmitted (sending failed)
Customer Specific Dll	Successful invocation of the DLL file (**finished**); unsuccessful invocation of the DLL file (error)
Compare	A connection for fulfilling each configured rule (**<*rule name*>**); a configured rule was not fulfilled (**no hits**)
Script	Only a connection if the selected script could not be initiated (change failed)
Definition	Definition or assignment successful (**finished**); faulty definition or assignment (**error**)
ASR Menu	Execution error (**error**); invalid entry or entry not recognized (**no hits**); no entry (**timeout**)
ASR Expert	Recognized entry (**success**); execution error (**error**); invalid entry or entry not recognized (**no hits**); no entry (**timeout**)
DB Read	Successful reading from the database (**success**); empty database entry (**empty**); error when reading from the database (**failed**)
DB Write	Successful writing in the database (**success**); error when writing in the database (**failed**)
Correl DB Read	Successful reading from the database (**success**); empty database entry (**empty**); error when reading from the database (**failed**)
Correl DB Write	Successful writing in the database (**success**); error when writing in the database (**failed**)

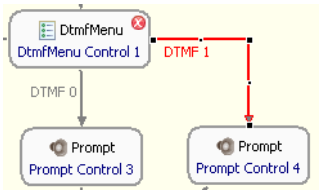
Tabelle 37 Possible Events for Connections between Controls

HINWEIS: Not every connection between any controls is possible.

Whether or not a connection is represented as straight line is automatically decided by the Application Builder. The representation may be manually modified, though. To this, the connection must be clicked.



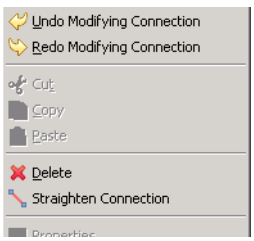
The connection and its name is then displayed in red. In the middle of the connection and on both ends black dots appear as markers. If you move the mouse pointer onto the black dot in the middle of the connection, the mouse pointer appears as (✣X). With the left mousebutton kept pressed, this dot can only be moved at will within the drawing area of the callflow editor. The connection line and the position of the connection name are automatically adjusted to the new position of the connection center. After releasing the left mouse button the new positions are retained.



If the connection line is now bent, further black dots that you can move in the above manner appear on the connection line. All relocations of the dots can be made undone. You can also straighten a bend by selecting the **Straighten Connection** option in the context menu.

Context menu of a connection

When you rightclick a bent connection, the following context menu opens, for example.



Menu options are displayed that you can use to cancel the last modification, to undo the last cancellation and to **Delete** the selected connection. With **Straighten Connection** a bent connection is straightened as far as possible. The menu option to display **properties** cannot be selected. The **cut**, **copy** and **paste** features are not possible either.

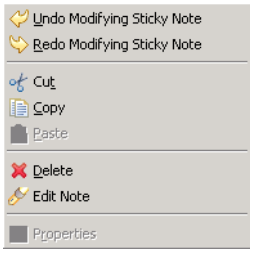
6.2.3 Notice

A note in the callflow serves for inserting comments. To create a note, click on **Note** in the palette. Keep the left mousebutton pressed, drag the mousepointer in callflow editor to the desired position and release the mousebutton. To alter the note's text, doubleclick the note with the left mouse button.

HINWEIS: A note does not affect the callflow functionality and process in any way.

Context menu of a note

When you rightclick a note, the following context menu opens:



Menu options are displayed that you can use to cancel the last modification, to undo the last cancellation and to **Delete** the selected note. The **Edit Note** menu option enables altering the text of the selected note. The menu option to display **properties** cannot be selected. In addition you can cut or copy selected notes and paste them anywhere in the callflow editor.

6.2.4 Callflow Link

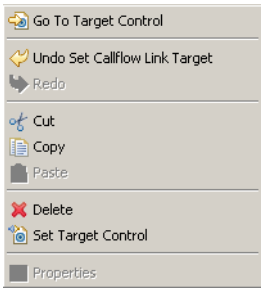
The callflow link enables connecting two callflows within an application. The callflow linking with an arbitrary, configured control of the other callflow serves as point of entry in the other callflow.

This is an example of a Callflow Link control to which no Target control in another callflow has yet been assigned.

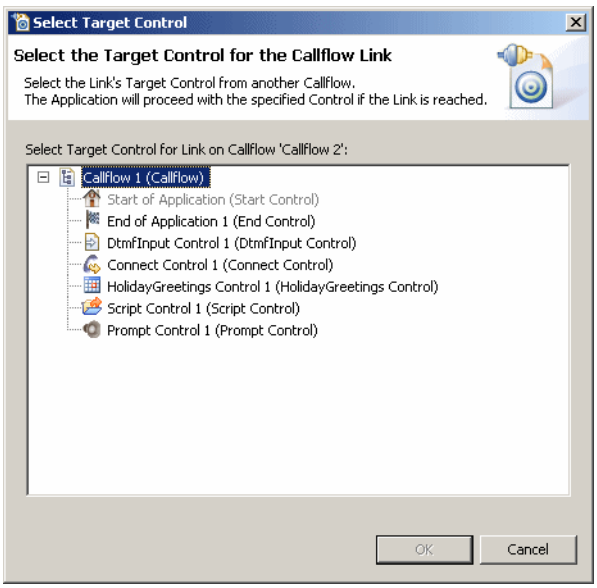
This is an example of a Callflow Link control to which “Compare control 1” has been assigned in another callflow as Target control. Under a configured Callflow Link control you also find the name of the linked callflow in the format `[to <callflow name>]`.

Context menu of a callflow link

When you rightclick a callflow link, the following context menu opens, for example:



Menu options are displayed that you can use to cancel the last modification, to undo the last cancellation and to **Delete** the selected connection. **Set Target Control** opens the below dialog in which the linking Target control is defined.



With a click on **Go to Target Control** the linked callflow opens in the callflow editor and the Target control appears in a black frame. In addition you can cut or copy a selected Callflow Link control and paste it anywhere in the callflow editor. The menu option to display **properties** cannot be selected.

6.2.5 Speech Recognition

An application created by the Application Builder may require an entry. Besides making entries via telephone keys, speech entries are also possible, provided a speech recognition system has been installed. The application detects automatically whether such a system has been installed. Speech recognition occurs by a speech recognition software with a speech grammar that decodes announcements, compares them with permanent entries and, as the case may be, executes associated commands. The speech recognition feature is possible with the DTMF Input control: you can make an entry by saying key numbers (0 to 9, “yes” for *, “no” for #). The actions triggered by an entry do not depend on whether entries are made via DTMF keys or by voice.

Beyond that, two other controls enable the announcement of further voice prompts, so that a user can control the operations of an application. With the ASR Menu control, defined key words can be used as voice commands to have a connection set up to other controls of the application. Announcing “Information” may lead to a Prompt control that delivers information on a specific product. In addition, entire sentences can be announced and recognized in the ASR Expert control. By means of the keys defined in the grammar file, announcements can be filtered and single parts of the sentence saved in variables. If, for example, a key exists in the grammar that recognizes the function of actions, the term “direct” is filtered from the sentence “Please direct call to workstation” and saved in a variable.

HINWEIS: You can obtain further detailed information on the process and systematics of speech recognition from various manuals in the documentation directory of the supplied speech recognition system by *Nuance Vocalizer*.

6.2.6 Creating Raw Data

The Vogue script delivers statistical raw data and provides them for creating so-called reports. The raw data are stored in log files in the directory `<OpenScape Xpressions install>\stat` and sorted by date. Such files are extracted by the Report APL in database tables, which the Report Schedule APL can subsequently access. Creating reports is planned via Report Schedule APL, the actual creation is taken on by the Report engine. Statistical raw data can be transmitted by the VOGUE script also without the installation of the Report APL. Such data are only found in the log files, though, and filed in database tables by the Report APL in the first place.

HINWEIS: You find continuative information about the reporting concept and about the Report respectively Report Schedule APL in the corresponding chapter of the OpenScape Xpressions *Server Administration* manual.

For each voice application and control used, raw data is created by the Vogue script that may serve statistical evaluation. In other words, the created raw data are in case of an export to an SQL database stored in two different tables. The data that characterizes the concrete flow of an entire application is stored in the **IVR Application** database table. For example, you can trace which application phone number was dialed with which phone number, for which reason a call was aborted or how long an application was executed.

Besides general application specifications, separate raw data is generated for each control. Execution data of controls is statistically recorded and stored in the second database table `IVR Box`. Besides general specifications such as the control name or the execution duration during a call, the typical control properties are considered. The Compare control, for example, delivers whether the condition of a rule has been fulfilled, or the Time Profile control provides the state of the time profile during the call. Each `IVR Box` table is assigned to an `IVR Application` table.

You can activate or deactivate the creation of raw data in any control (data of the `IVR Box`). In other words, in each control you can specify via the **Generate raw data for statistics** option on the **General** tab of each control whether or not raw data are to be delivered for the corresponding control. The creation of raw data for a control is activated by default. You cannot deactivate the creation of raw data for an application (data of the `IVR Application`).

In the Application Builder you can only activate or deactivate the creation of raw data for controls. Data can only be further processed by report creation using a report engine, the execution or results of which is planned respectively managed by the Report Schedule APL.

HINWEIS: You can obtain a precise list and description of the created raw data for applications and controls from section “The Databases of the Vogue Script” in the Report APL chapter of the OpenScape Xpressions*Server Administration* manual.
In there you also find a description of how to create raw data via the `adodb.ini` file. You can specify the storage duration of the data in the tables, which is one year by default and may lead to large data amounts.

6.3 Control Types

This section serves as reference to the setting options of all control types in the callflow editor.

HINWEIS: The control types ASR Menu and ASR Expert are released only project-specifically. The same applies for the **Can be interrupted by the contact center** checkbox in the properties dialog by some control types.

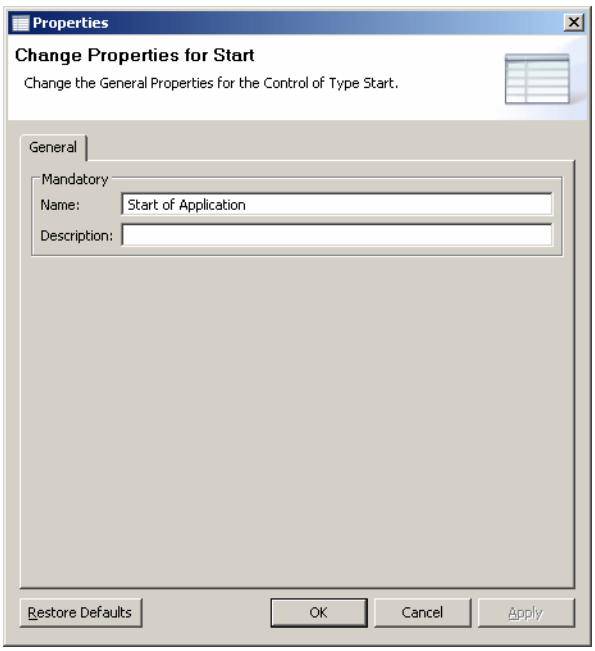
WICHTIG: As of OpenScape Xpressions V7 ACD is no longer supported. The following control types do not have any function and will not be described anymore:
- ACD Start Control
- ACD Info Control
- ACD End Control

6.3.1 Start Control

A Start control declares the starting point of a callflow. It does not possess a feature for controlling the call procedure in an application, but represents the point of entry in the graphic design of the callflow. The Start control simulates the time when the call is accepted by the application.

Every callflow must contain a Start control. In each **application** only one Start control can be configured.

In the Start control's configuration dialog you can set the **Name** and **Description**. See Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



Connections

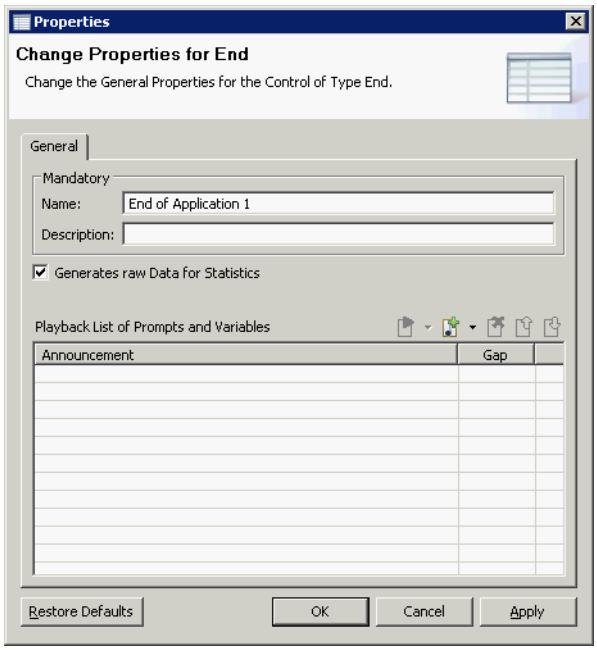
After an incoming call has successfully reached or started the application, it can be forwarded to any other control.

6.3.2 End Control

An application can be terminated with an End control.

The End control does not only represent the point of exit in the graphic callflow design, but has a call control function in an application: the call is disconnected from the system. A prompt can optionally be played in addition.

Every callflow must have an End control. In each callflow only one End control can be configured.



In the End control's configuration dialog you can enter or set the **Name** and **Description**. See Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.

The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by the a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

Before a call is finally finished in an application by the system, any number of greetings can be played. You receive information about selecting and configuring greetings within a control in Abschnitt 6.3.5, “Prompt Control”, auf Seite 211.

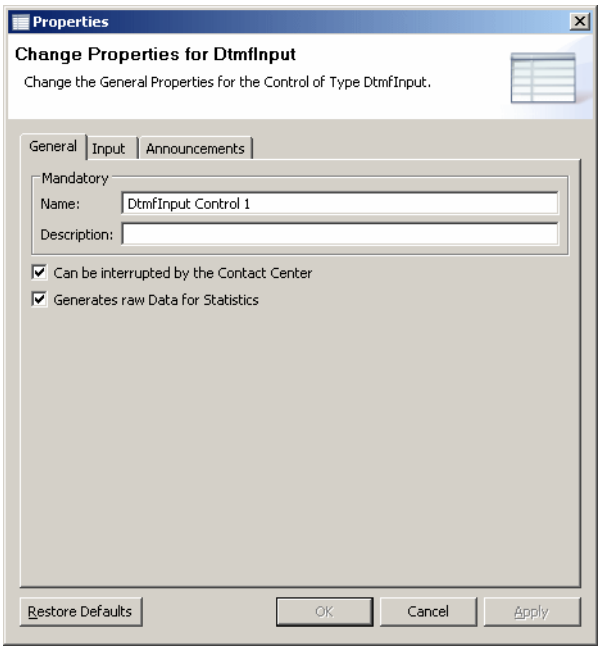
6.3.3 DTMF Input Control

This control enables a caller to enter numerical orders, such as his/her customer number, by keypad or by voice entry. The voice entry corresponds to the DTMF keys (0 to 9, “yes” for *, “no” for #). Furthermore, a security request can be realized, so that not every customer who calls can access all data. Instead, he/she can request individual data, such as the status of a purchase order, after he/she has been authenticated by entering the customer number.

The configuration dialog of the DTMF Input control provides the tabs **General**, **Input** and **Announcements**.

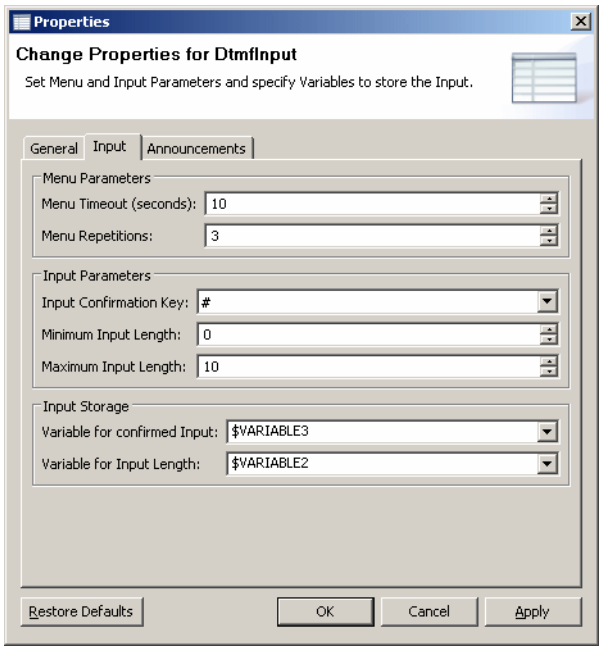
“General” tab

The **General** tab of the DTMF Input control contains the following setting options. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

“Input” tab



In the **Menu Parameters** section you can enter the behavior of the control in case of a time-out (no input within a specific period). The following settings are available:

Field	Description
Menu Timeout (seconds)	Enter here the time (in seconds) available to the caller to make his/her input by keypad or voice after the announcement(s) have been played. If you enter a ’0', the caller can wait an undefined period of time until he/she makes an entry via a key. The default value is 10 seconds.
Menu Repetitions	If the caller has not made a key or voice entry, the announcement is repeated. In this field you specify how often entries can be repeated until the control linked to the **Error** event is transferred to. The value refers to the number of missing entries. In case of value 3, the entry and thus the announcement will be repeated three times, so with the first execution the announcement is played altogether four times. If you enter a ’0’, the greeting is not repeated but the caller is directly forwarded to the control configured for the **error** event after a missing entry. The feature is then deactivated. Three repetitions are allowed by default.

Tabelle 38 Setting Fields in the Menu Parameters Area

In the **Input Parameters** section you specify the data entry options. These are:

Field	Description
Input Confirmation Key	In this field you specify or select with which DTMF key (0 to 9, *, #) the caller may complete and confirm his/her entry, before the maximum length of an entry has been reached. If, for example, value 3 has been defined as minimum length and value 6 as the maximum, a caller may abort entries being 3, 4 or 5 characters long with the input confirmation key. The entry will then be continued with the correspondingly linked control. The input confirmation key does not allow completely aborting the entry process and switching to the next linked control before the minimum entry length has been reached. Entries can be aborted by pushing the input confirmation key on the key pad or by the corresponding voice entry (0 to 9, “yes“ for *, “no” for #). We recommend to enter * or # here. When the number of entered characters corresponds to the maximum entry length, the input confirmation key must not be pushed. If this field remains empty, the function of this key is deactivated, i. e. the caller must enter as many characters as are indicated by the **Maximum Input Length** field. Inform the caller in an announcement of the DTMF Input control, which input confirmation key was specified (e.g. “To finish, push the star key or say ’yes’.”).
Minimum Input Length	In this field you enter the minimum length of the digit string the caller has to enter. If the number of entered digits falls short of this and the time specified in the **Menu Timeout (seconds)** has elapsed, the process is aborted. The caller may then repeat his/her entry if allowed by the settings in the **Menu Repetitions** field. By default, value 0 deactivates this feature and no entries can be made. Verify that the **Minimum Input Length** does not exceed the **Maximum Input Length**.
Maximum Input Length	In this field you enter the maximum length of the digit string the caller may enter. If the caller exceeds this entry restriction, a default announcement will be played. His/her entry is finished. If you enter a zero in the **Minimum Input Length** and **Maximum Input Length** fields, the feature will be disabled. If e. g. the **Maximum Input Length** field contains a zero, the caller may enter a digit combination of any length. A maximum of 10 keystrokes is allowed as entry by default. Verify that the **Maximum Input Length** does not fall short of the **Minimum Input Length**.

Tabelle 39 Setting Fields in the Input Parameters Area

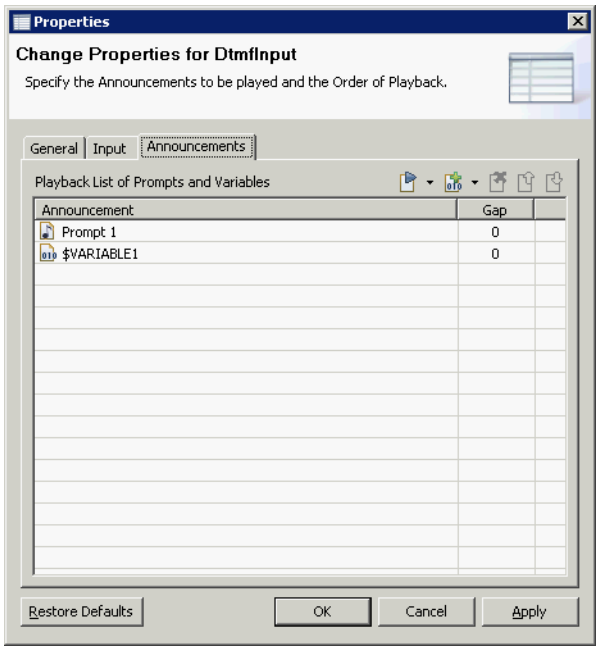
In the **Input Storage** section you need specify the variables for filing the confirmed input and the input length. You can either use variables already available or create new ones. The **Variable for confirmed Input** stores the

pushed or announced key sequence, which was performed as entry by pushing the **input confirmation key**. The **Variable for Input Length** specifies the number of keys pushed for the entry.

HINWEIS: Both variables in the **Input Storage** area must be specified for successfully configuring the DTMF Input control and integrating it in the application.

“Announcements” tab

You select the announcement(s) for the DTMF Input control here. All announcements or variables assigned to the control are listed in the **Announcements** column. The **Gap** in the second column is the time that passes before the next announcement is played or before the transition to the next control. The entry is made in seconds. The default value is 0 seconds. The greatest entry you can make here 999999999 seconds.



The following icons are available on the **Announcements** tab.

Icon	Description
	This icon enables playing a selected announcement. See below Playback options.
	With a click on the triangle of one of the icons depicted on the left you open a selection list with the options **Add Prompt...** and **Add Variable...**. Depending on the option you have selected, the corresponding icon is displayed. These icons enable creating a new announcement (prompt) or variable or adding it to the list. See under this table Adding a prompt/variable.

Tabelle 40 Icons on the “Announcements“ Tab

Icon	Description
	This icon lets you remove a selected announcement or variable from the list .
	If you have inserted several announcements or variables, they are played in order from top to bottom. Using these icons you can move a selected announcement or variable in the list up or down.

Tabelle 40 Icons on the “Announcements“ Tab

Adding a prompt/variable

Select **Add Prompt...** . The **Select Prompts for Announcements List** dialog opens, which lists all announcements already imported and created. These greetings are created either for the entire workspace or for an application. You can also insert greetings for selection. Via the **Create new Prompts...** link you reach the **Create Vogue Application Prompt** dialog for configuring announcements for an application. The configuration occurs analog to creating prompts for applications (see Abschnitt 5.3.3.2, “Application Prompts”, auf Seite 144). Activate the checkboxes of the desired announcements and confirm your selection with the **OK** button. The selected files are now listed. The sequence of the files in the list corresponds to the sequence of the announcement playback. If you select further greetings they will be added to the end of the list.

If you select the **Add Variable...** option, the **Select Variables for Announcement List** dialog opens, which lists all variables already imported and created. These variables are created either for the entire workspace or for an application. You cannot create variables in the DTMF Input control. If a text-to-speech program is installed, the value of this variable, a text, is converted into speech while the application is run through.

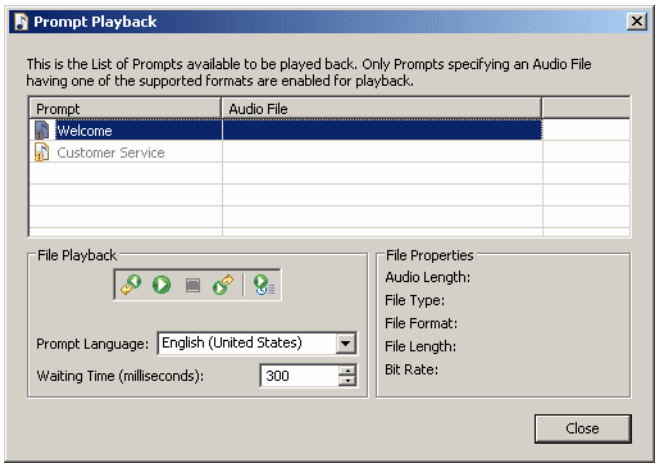
HINWEIS: Check whether a text-to-speech program is installed and whether the text to be converted into speech is available in a language that this program can process.

The variable may also contain a path specification to a sound file in the `*.pcm` or `*.wav` format, which is contained in the `<XPR install>userdata/vogue` directory. This path specification may be a relative path or an absolute UNC path, for example `\\<XPR computer name>\MrsUserdata$\Voice\loop\`. Activate the checkboxes of the desired variables and confirm your selection with the **OK** button. The selected variables are now listed. The sequence of the files in the list corresponds to the sequence of the announcement playback (see Tabelle 43 auf Seite 213). If you select further variables they will be added to the end of the list.

Playback options

Select a variable or a prompt and click on the triangle of the  icon. A selection list with the options **Direct Playback** and **Customize Playback...** opens.

If you select the **Customize Playback...** option, you reach the **Prompt Playback** dialog.



This dialog lists all configured announcements and variables of the DTMF Input control. For each selected announcement you receive further information in the **File Properties** area such as **Audio Length**, **File Type**, **File Format**, **File Length** and **Bit Rate**. In the **File Playback** area you can toggle the configured announcement language using the **Prompt Language** combo box. You can also use this box to determine the language in which the variable text is composed. The **Waiting Time (ms)** specifies in milliseconds the time used as waiting time for announcements that cannot be played. This waiting time is used only for playing the entire list of announcements. With a click on the icon you can play the selected announcement. The icon finishes the playback. With the icon you move one entry back in the list, with the icon one entry forward. The icon has all greetings in the list played.

A click on the **Direct Playback** button plays a selected announcement instantly. While the announcement is being played, the button converts into an icon for finishing the playback. A click on the **Close** button closes the **Prompt Playback** dialog.

Connections

You can configure a connection to a control for the events of a (**valid entry**) or (**invalid entry**) each.

6.3.4 DTMF Menu Control

With this control you enable the caller to navigate through a menu with the help of his/her phone keypad.

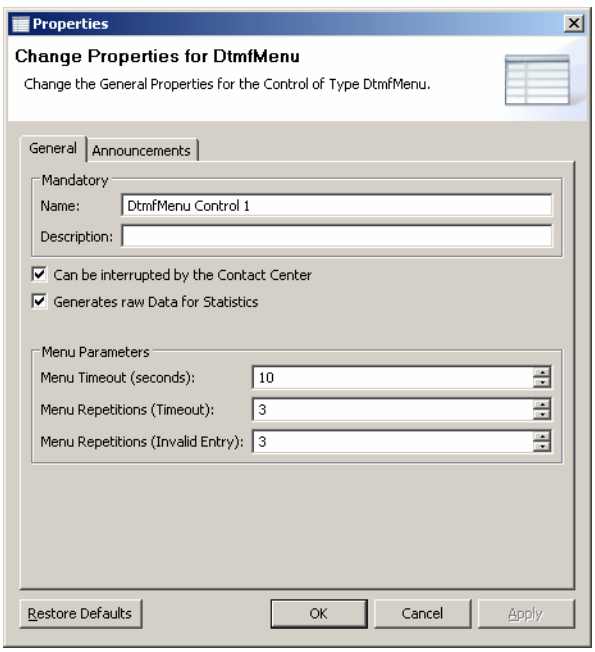
The caller may hear the following example announcement: *"If you wish to be connected to our customer service, please push 1. If you wish to be connected to our sales department, please push 2."*

After the announcement, the caller has a certain period of time for his/her entry. If in the example the caller pushes 1 within this period, he/she is forwarded to the next control that connects him/her to the customer service. If he/she enters 2, he/she is forwarded to a control that connects him/her to the sales department. But if he/she does not make an entry within the specified period or the entry is incorrect, he/she can be forwarded to another control (for example an End control).

The configuration dialog of the DTMF Menu control provides the tabs **General** and **Announcements**.

"General" tab

The **General** tab of the DTMF Menu control contains the following setting options. See also Abschnitt 6.2.1, "General Information about the Control", auf Seite 187.



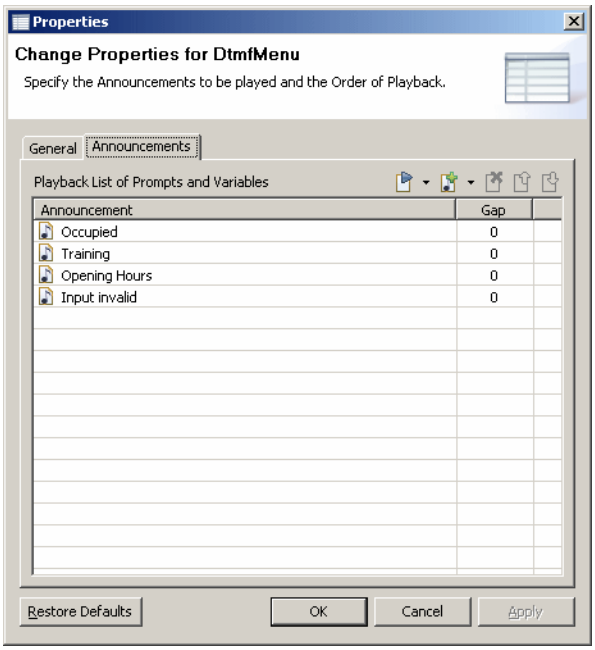
The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, "Creating Raw Data", auf Seite 197.

The **Menu Parameters** section offers the following setting options:

Field	Description
Menu Timeout (seconds)	Enter the time (in seconds) available to the caller to make his/her input after the announcement(s) here. If you enter a ’0', the caller can wait an undefined period of time until he/she makes an entry via a key.
Menu Repetitions (Timeout)	If the caller has not made an entry, the announcement will be repeated. In this field you specify how often entries can be repeated until the control linked to the **Error** event is transferred to. The value refers to the number of missing entries. In case of value 3, the entry and thus the announcement will be repeated three times, so with the first execution the announcement is played altogether four times. If you enter a ’0’, the greeting is not repeated but the caller is directly forwarded to the control configured for the **error** event after a missing entry. The feature is then deactivated.
Menu Repetitions (Invalid Entry)	If the caller has made an invalid entry (i.e. pressed a DTMF key that is not defined), the announcement will be repeated. In this field you specify how often entries can be repeated until the control linked to the **Error** event is transferred to. The value refers to the number of invalid entries. In case of value 3, the entry and thus the announcement will be repeated three times, so with the first execution the announcement is played altogether four times. If you enter a ’0’, the greeting is not repeated but the caller is directly forwarded to the control configured for the **error** event after an incorrect entry. The feature is then deactivated.

Tabelle 41 Options for entering DTMF Keys

“Announcements” tab



The setting options on the **Announcements** tab are analog to the settings described in Abschnitt 6.3.3, ““Announcements” tab”, auf Seite 205.

Connections

For each possible entry of a DTMF key (0 to 9, *, #) a connection to another control can be established. When pushing the corresponding DTMF key, a call is forwarded to this control. In addition, a control can be specified for forwarding in case of an error (time-out, missing or invalid entry).

6.3.5 Prompt Control

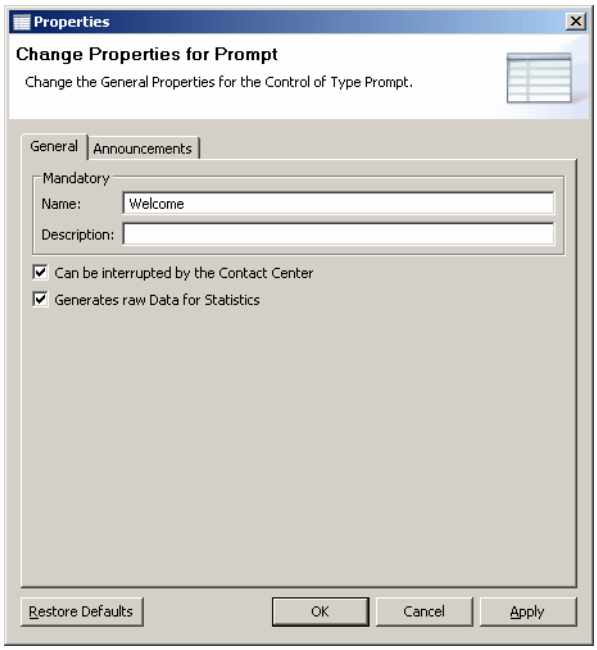
A Prompt control serves for playing an audio file respectively a list of audio files. You can enter a string variable as alternative to a sound file.

With a click on the **Restore Defaults** button, the defaulted values except for **Name** and **Description** are restored.

The configuration dialog of the Prompt control provides the tabs **General** and **Announcements**.

“General” tab

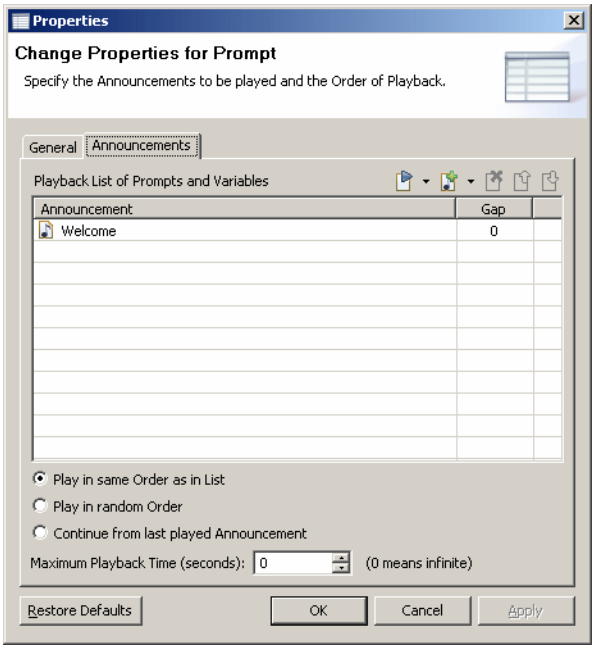
The **General** tab of the Prompt control contains the following setting options. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

“Announcements” tab

You select the announcement(s) for the Prompt control here. A greeting may correspond to a sound file or string variable. All announcements or variables assigned to the control are listed in the **Announcements** column. The **Gap** in the second column is the time that passes before the next announcement is played or before the transition to the next control. The entry is made in seconds. The default value is 0 seconds. The greatest entry you can make here 999999999 seconds.



The following icons are available on the **Announcements** tab.

Icon	Description
	This icon enables playing a selected announcement. See below Playback options.
	With a click on the triangle of one of the icons depicted on the left you open a selection list with the options **Add Prompt...** and **Add Variable...**. Depending on the option you have selected, the corresponding icon is displayed. These icons enable creating a new announcement (prompt) or variable or adding it to the list. See under this table Adding a prompt/variable.
	This icon lets you remove a selected announcement or variable from the list .
	Using these icons you can move a selected announcement or variable in the list up or down. See below Further setting options.

Tabelle 42 Icons on the “Announcements“ Tab

Adding a prompt/variable

Select **Add Prompt...** . The **Select Prompts for Announcements List** dialog opens, which lists all announcements already imported and created. These greetings are created either for the entire workspace or for an application. You can also insert greetings for selection. Via the **Create new Prompts...** link you reach the **Create Vogue Application Prompt** dialog for configuring announcements for an application. The configuration occurs analog to creating prompts for applications (see Abschnitt 5.3.3.2, “Application Prompts”, auf Seite 144). Activate the checkboxes of the desired announcements and confirm your selection with the **OK** button. The selected files are now listed. The sequence of the files in the list corresponds to the sequence of the announcement playback

(see Tabelle 43 auf Seite 213). If you select further greetings they will be added to the end of the list.

If you select the **Add Variable...** option, the **Select Variables for Announcement List** dialog opens, which lists all variables already imported and created. These variables are created either for the entire workspace or for an application. You cannot create variables in the Prompt control. If a text-to-speech program is installed, the value of this variable, a text, is converted into speech while the application is run through.

HINWEIS: Check whether a text-to-speech program is installed and whether the text to be converted into speech is available in a language that this program can process.

The variable may also contain a path specification to a sound file in the `*.pcm` or `*.wav` format, which is contained in the `<XPR install>userdata/vogue` directory. This path specification may be a relative path or an absolute UNC path, for example `\\<XPR computer name>\MrsUserdata$\Voice\loop\`. Activate the checkboxes of the desired variables and confirm your selection with the **OK** button. The selected variables are now listed. The sequence of the files in the list corresponds to the sequence of the announcement playback (see Tabelle 43 auf Seite 213). If you select further variables they will be added to the end of the list.

Playback options

The announcement playback options on this tab are analog to the options described in Abschnitt 6.3.3, “Playback options”, auf Seite 206.

Further setting options

On this tab of the Prompt control further setting options are available in the lower portion of the dialog. The options and the respective significance are listed in the following table:

Option	Description
Play in same Order as in List	When you select this option, the announcements are played according to the list sequence specified.
Play in random Order	After selecting this option, the list sequence is disregarded. The announcements are played in an order arbitrarily selected by the system.
Continue from last played Announcement	If the announcement length exceeds the maximum play time, the announcement is abandoned after expiration of this period. If this option is selected, announcement playback will be continued from the position where the last announcement was abandoned.

Tabelle 43 Options for playing Greetings in the Prompt Control

Option	Description
Maximum Playback Time (seconds)	In this field you can set a maximum restriction of the play time. You can select a time range from 1 to 600 seconds. Selecting 0 deactivates this function, so that no maximum restriction for the play time exists.

Tabelle 43 Options for playing Greetings in the Prompt Control

Connections

In the callflow, a call from a Prompt control can be forwarded to another control when the announcements configured in the Prompt control have been played.

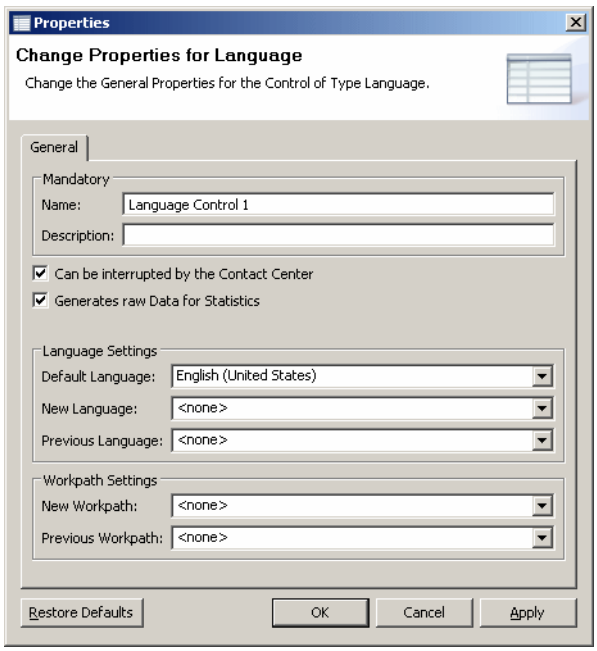
6.3.6 Language Control

With this control you can change the language of the announcements to be played at the application's runtime. This language is at the same time the language in which - if available - speech recognition and TTS is performed. All languages licensed and installed in the XPR server can be switched to.

Before the initial execution of a Language control in an application, the application uses the language set during the XPR server setup.

WICHTIG: If the Vogue script routes a caller to another telematics script such as ERGO, PhoneMail or EVO, the telematics script uses for all greetings the language that the Vogue script defines for the caller. This is possible, for example, by means of the Language control. After a caller has selected a specific language in the Language control, he/she can then be forwarded to a corresponding telematics script with the help of the Script control (see Abschnitt 6.3.20, “ASR Menu Control”, auf Seite 283).

The configuration dialog of the Language control contains only the **General** tab, on which the setting options described below are available. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

The **General** tab is further split up in the areas **Language Settings** and **Workpath Settings**.

In the **Language Settings** section you specify the default language and the variables for a possible new language or for languages previously used.

In the **Default Language** field you determine the language to be used by the application after the execution of **Language control**, if no language is contained in the variable of the **New Language** field.

HINWEIS: Under **Default Language** you find all generally possible languages for selection. However, you need to previously configure the languages in the workspace settings. See Abschnitt 5.3.2.1, “Settings in the Workspace”, auf Seite 100.

In the **New Language** field you can select the variable the value of which specifies the language to be used after the execution of this control. The permissible values are found in Tabelle 44 auf Seite 217. Please keep in mind that the variable value must be written in capital letters. The assignment of such a value to a variable must have been performed in another control, for example, a Definition control or a DB Write control, before the execution of the Language control. If this field does not contain a value, the **Default Language** is used.

HINWEIS: No variables can be created at this point. The variables to be selected are specified either for the workspace or for the application.

Language	Variable value
German	GERMAN
English (United Kingdom)	BRITISH
English (USA)	AMERICAN
Flemish	FLEMISH
French (France)	FRENCH
French (Canada)	CANADIANFRENCH
Italian	ITALIAN
Dutch	DUTCH
Portuguese (Brazil)	BRAZILIAN
Portuguese	PORTUGUESE
Russian	RUSSIAN
Spanish (Spain)	SPANISH
Spanish (USA)	AMERICANSPANISH
Turkish	TURKISH
Czech	CZECH
Walloon	WALLOON

Tabelle 44 Name of the new language

HINWEIS: When setting the variable read out of the **New Language** field please only select one of the languages licensed on your XPR server and configured in the Application Builder workspace. The language-dependent files such as prompt and grammar files are loaded either from the `<OpenScape Xpressions install>\Userdata\vogue\` default directory or from a user-defined subfolder. The corresponding user-defined subfolder can be specified upon deploying an application. See Abschnitt 6.1, “Deployment of an Application”.

In the **Previous Language** field you can store the languages used until the execution of the Language control in already existing variables or in those to be newly defined. The variables to be selected are specified either for the workspace or for the application. In addition, you can specify variables here that can be further used in the application.

In the **Workpath Settings** section you use the **New Workpath** field to determine the workpath that contains the specific resources of a language such as prompt and grammar files. You specify these language resources in the workspace and they can be used for playing greetings or speech recognition in the following controls. The workpath is stored as value in a variable. The value describes the relative path underneath the `<OpenScape Xpressions Install>\Userdata\vogue\` default directory, in which the language files associated to the new language are stored. Example: `german\`.

In the **Previous Workpath** field you can set the workpath in which the languages used until the execution of this Language control are stored in an existing variable or in one to be newly created. This enables switching to the previous language in another Language control. The value describes the relative path of the user-defined workspace underneath the `<OpenScape Xpressions Install>\Userdata\vogue\` default directory, in which the language files associated to the new language are stored. Example: `german/`.

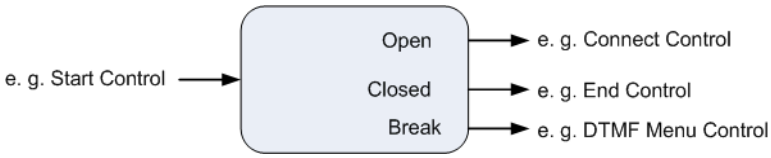
Connections

You can configure a connection to another control for each of the events of a successful (**finished**) or impossible language alteration (**error**).

6.3.7 Time Profile Control

With this control you can branch to different controls depending on a calendar profile and thus on the time when the call occurred.

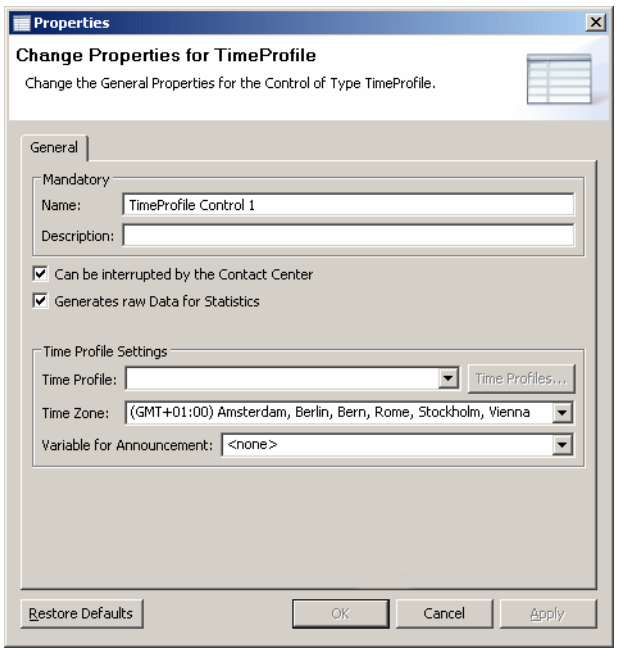
The following figure shows an application example of this control.



The call is forwarded to a Connect control if, for example, the office of the company is open. If the company is closed, the call is forwarded to an End control. Within the End control the announcement *"You are calling outside our business hours. You can reach us daily from ... until .... Thank you for calling. Good Bye."* might be implemented. After playing the announcement the End control terminates the call. If the call is made during a break, it is forwarded to the DTMF Menu control. The caller can then use the menu options to decide how to further proceed with the call.

Please note that no announcement is played within the Time Profile control, but other controls are referred to based on a calendar profile. If a prompt file is assigned to the statuses of a calendar profile, the storage path to this prompt file is stored in a variable and can be played in other controls, such as the Prompt control.

The configuration dialog of the Time Profile control offers the following configuration options on its **General** tab.



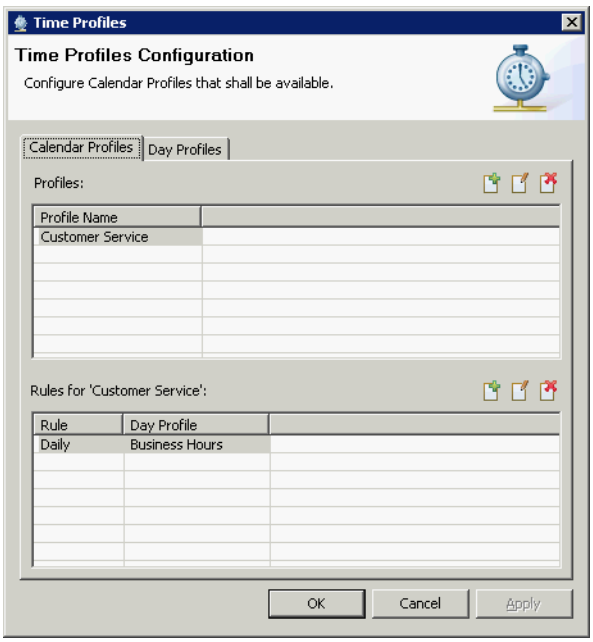
See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.

The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

In the **Time Profile Settings** section you can select and configure time profiles:

Setting a time profile

You need to select a **Time Profile** for the control. Via the **Time Profiles...** button you may create new time profiles or change already existing ones. The following dialog opens:



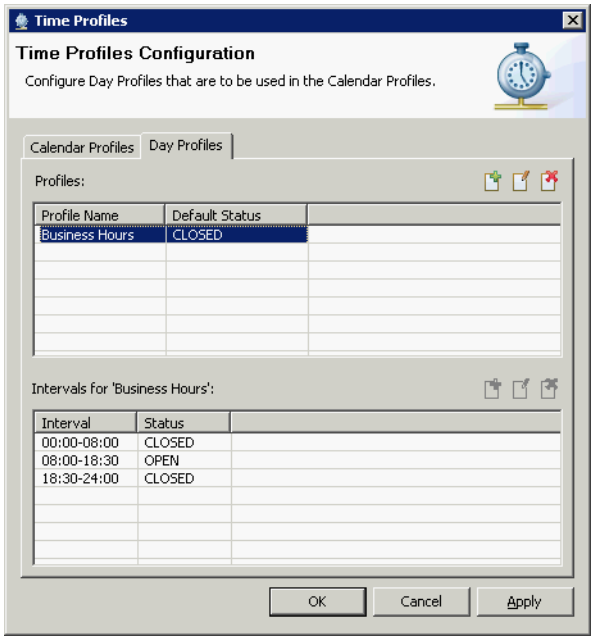
On the **Calendar Profiles** tab you see the configured **Calendar Profiles** and their **Rules**, which link a date or a day to a day profile.

The following icons are available on the **Calendar Profiles** tab.

Icon	Description
	This icon enables the creation of a new calendar profile or of a new rule for the selected calendar profile. See Defining a new rule for a calendar profile.
	After you have clicked this icon you can rename a created calendar profile or change the settings of a selected rule. See Defining a new rule for a calendar profile.
	You use this icon to remove a selected rule or calendar profile from the **Profiles** or **Rules** list.

Tabelle 45 Icons on the “Calendar Profiles“ Tab

Switch to the **Day Profiles** tab to create a new day profile.



In the top section you see the day profiles and in the bottom section the time intervals of the day and their corresponding **Status**es (“Open”, “Closed”, “Break”).

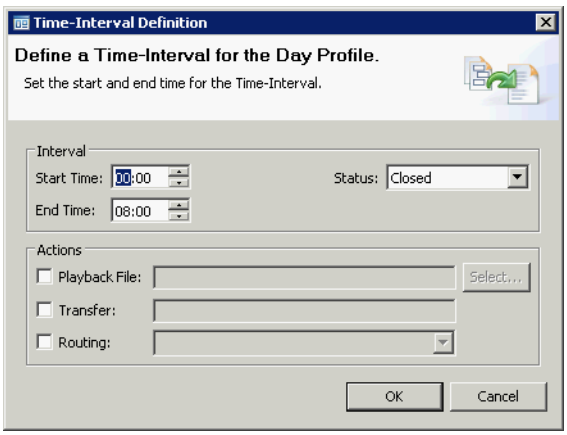
The following icons are available on the **Day Profiles** tab.

Icon	Description
	This icon enables creating a new day profile or interval for the selected day profile. See Defining a new interval.
	After you have clicked this icon you can rename a created day profile or change the settings of a selected interval. See Defining a new interval.
	You use this icon to remove a selected rule or day profile from the **Profiles** or **Rules** list.

Tabelle 46 Icons on the “Day Profiles“ Tab

Defining a new interval

You create new time intervals via the  icon in the **Intervalls for <*name of the day profile*>** area. The following dialog opens.



Specify the **Start** and **End Time** of the interval and the corresponding **Status**.

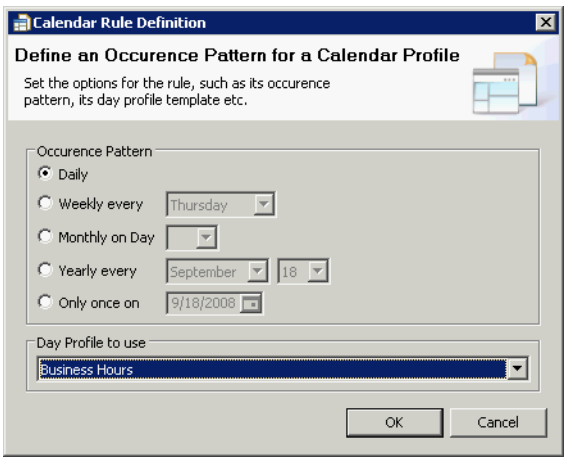
In addition, you can set further options such as a **Playback File**, the **Transfer** to a phone number or specific **Routing** methods in the **Actions** area.

In the **Playback File** field you can select a prompt file that is played when the respective time interval of a day profile sets in. If status “Closed” is assigned to the time interval, you can enter a phone number in the **Transfer** field to which the call is forwarded.

Note that in case of **transfer** actually the forward number is retrieved, but also a **connect box** is required to be used in order to perform the **forwarding**.
In order to configure that, set a variable at the “Variable for Announcement” field at the <Time Profile> control Properties. Use this same variable on the Targets tab of the <Connect> control Properties.

Defining a new rule for a calendar profile

You can integrate configured day profiles in calendar profiles by clicking on  in the **Rules for <*name of the calendar profile*>** section. The following dialog opens in which you determine the temporal validity of the day profile.



After you have selected a **Day Profile to use** from the list of available day profiles, confirm your entries with **OK**. In the **Time Profiles** dialog the created calendar profiles are represented with the rules and day profiles assigned to them.

Configuring the Time Zone

Assign a specific **Time Zone** to each time profile in the configuration dialog. You can make a selection from the list of possible time zones. If you do not select a time zone, the default time zone of the XPR server is used. For determining the time zone serves the Greenwich Mean Time (GMT) index, which is read out of the Windows database and assigned to specific locations. The time zones are specified as positive respectively negative deviations from the GMT. The central-European time corresponds, for example, to `GMT+01:00`. The selected time zone is stored with the corresponding value of the time zone index in the variable `TZINDEX` in the Correlation database.

HINWEIS: You find a compilation of all time zones and the associated index in Kapitel , “Time Zone Index”.

By means of a time zone, the times specified for the “Open”, “Break” and “Closed” states of the time profile are adjusted to the time zone determined here and need not correspond to the XPR server time zone. In other words, using the server time zone and the time zone specified here in the Time Profile control, there may be a possible temporal difference between the current server time and the location time. Based on the time zone and the given server time the calendar profile status and to which controls the call is routed in correspondence to this status is determined. A possibly existing daylight saving time is taken into account as well.

Example: A company has an OpenScape Xpressions server in Berlin as well as groups in London and New York. For the locations in London and New York an individual calendar profile in configured that considers the respective time zone. The respective calendar profile considers the time zone of the location in which the agents of the respective groups operate. In this way the groups are independent from the time zone of the OpenScape Xpressions server and corresponding callers. Besides selecting a time zone for a time profile from a list, a **Variable** can be selected with a time zone as value. So, the location and thus the caller's time zone can be dynamically adjusted by using the Compare control and an arbitrary variable in the Definition control. You can create a rule in the Compare control that, for example, refers to a Definition control in dependence of the international prefix of the caller number. In this Definition control, a value is assigned to a variable. This value corresponds to the time zone associated to the caller's location. The value must correspond to the time zone index in the form of a whole-number. However, a rule must be created for each international prefix in the Compare control and a Definition control for each time zone. The variable specified in the Definition control can then be assigned to the currently active time profile of the application. For example, the international prefix `+49` corresponds to `Germany` and thus to the time zone `GMT+01:00`. This time zone corresponds

to value `110` in the time zone index. Based on the international prefix the Compare control recognizes the location Germany. Subsequently, the Definition control is activated that assigns the time zone index `110` for Germany to a variable. If this variable is assigned to an active time profile, the variable assigns the time zone `GMT+01:00` to the time profile.

HINWEIS: You find further information about the Compare control in Abschnitt 6.3.17, “Compare Control”, auf Seite 268 as well as about the Definition control in Abschnitt 6.3.19, “Definition Control”, auf Seite 275.

HINWEIS: Please note that especially vast countries cannot only be assigned to one time zone (for example USA, Russia, Brazil), so that the international prefix cannot be the only determinant of the time zone.

In the **Variable for Announcement** field you can select or newly define a variable to save the greeting that is linked to a day profile. If an arbitrary day profile is executed and an announcement is assigned to this day profile, the announcement is stored in the variable specified here. An announcement can be created and assigned to the day profile by means of the Holiday Greetings control (see Abschnitt 6.3.10, “Holiday Greetings Control”, auf Seite 235).

HINWEIS: In the Time Profile control no announcements are played. After the announcement has been stored in a variable it is available for further use. The greeting may, for example, be used for the Prompt control, as the folder that contains the announcements created in the Holiday Greetings control cannot be accessed by the Prompt control. So that the variable can be used, the **Variable for Announcement** of the Time Profile control must be added on the **Announcements** tab of the Prompt control.

HINWEIS: The `$TIME` and `$DATE` variables are write protected and cannot be used for saving announcements.

Connections

The Time Profile control can be connected to other controls that are forwarded to depending on the time profile's status. Three different statuses of time profiles exist: “Open”, “Closed”, “Break” . If you have defined these statuses in your time profile, a control for forwarding must be assigned to each of these statuses. The application can otherwise not be deployed.

6.3.8 Contact Dialing Control

The Contact Dialing control performs the search for the corresponding user for a previously determined name dialing number.

In addition to digits, the singe telephone keys are assigned to letters and special characters. Instead of the telephone number 0700-74636 you are thus enabled to keep in mind numbers in the format 0700-SIMEN. Telephone numbers represented as letters are called name dialing numbers, word dialing numbers or vanity numbers.

The assignment of letters to the digits on telephone keys has been standardized by ITU. There are two recommendations for this assignment, though. The common recommendation represents the following assignment:

1	**2** ABC	**3** DEF
4 GHI	**5** JKL	**6** MNO
7 PQRS	**8** TUV	**9** WXYZ
*****	**0**	**#**

Tabelle 47 Assignment of Letters to Digits according to ITU Standard

You find more information about name dialing numbers in the “Mail APL” chapter of the OpenScape Xpressions *Server Administration* manual.

For each XPR user a name dialing number is stored in the database field `VM_VANITY`. The Contact Dialing control searches the database for the user whose name dialing number matches the value of one of the variables forwarded in this control. Of this user an information to be selected, such as e-mail address, cell phone number or address, is read out of the database and stored in a variable for forwarding to the next control. If more than one user is found who has the name dialing number that is searched for, only one information of the user found first is stored in a variable and forwarded to the next control. In a second variable to be forwarded the number of the found hits is always stored.

It may happen that the variable of the name dialing number does not contain a complete phone number but, for example, contains only the first three digits. In this case, the Contact Dialing control looks for all users whose name dialing number begins with the value in the variable, and stores an information of the user found first in the variable to be forwarded. In a second variable to be forwarded the number of all found users is stored.

The database field `VM_VANITY` of any XPR user may be set manually or automatically. Manual setting is done with the program *DBTool*. Automatic setting is initiated in the Mail APL. Start the XPR monitor and open the components window. Open the Mail APL settings dialog and click on the last tab. There, activate the checkbox and select the user database field from which the name dialing number is to be created. `NAME` and `VM_HI_DSP_NAME` are available. `NAME` contains the user name (not the user ID), `VM_HI_DSP_NAME` includes an

alternative name to appear on the display of a Hicom telephone. To create name dialing numbers, only letters and digits are used. Blanks and other special characters are skipped.

HINWEIS: Manual setting may be used, for example, to store name dialing numbers created from name tokens.

HINWEIS: When toggling from the database field `NAME` to `VM_HI_DSP_NAME` or vice versa to create the name dialing numbers, the name dialing numbers of all users are automatically created. It is not possible to have the name dialing numbers created for only a specific number of users. Whether `NAME` or `VM_HI_DSP_NAME` is used for creating name dialing numbers is then stored in the `VANITY` (not `VM_VANITY`) database field.

WICHTIG: Not only the Contact Dialing control but also the Name Dialing control accesses the `VM_VANITY` database field of the user.
Verify that this control interprets the value of this database field as you intend it for the Contact Dialing control, before you change the value of the database field.

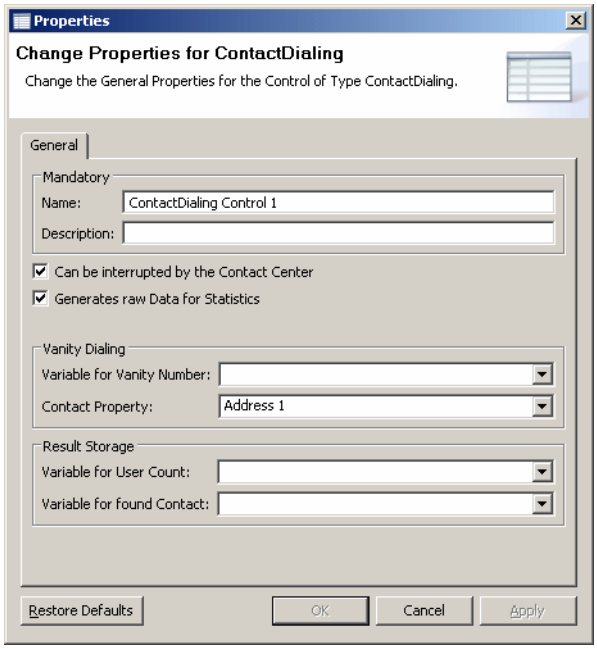
WICHTIG: Not only the Application Builder but also scripts such as ERGO, PhoneMail and Caller Guide access the `VM_VANITY` database field of a user. Verify that these scripts interpret the value of this database field as you intend it for the Application Builder, before you change the value of the database field.

Differences between the Contact Dialing and the Name Dialing Control

The Contact Dialing control is similar to the Name Dialing control. They differ from each other as

- the Name Dialing control is approximately a combination of DTMF Input control and Contact Dialing control. The Name Dialing control enables setting the parameters required for the DTMF input. The Name Dialing control does not enable a voice entry like the DTMF Input control does.
- the name dialing number must be available stored in a variable at the Contact Dialing control start. Setting this variable has previously been performed e.g. by a DTMF Input control or by a DB Read control.
- the Contact Dialing control delivers the number of hits when comparing the name dialing number stored in the variable with user phone numbers in the database. In case of several hits, the Name Dialing control reads out the names for the user, so that he/she can call the desired subscriber via keypad.

The configuration dialog of the Contact Dialing control solely features the **General** tab, on which the following setting options are available. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

In the **Vanity Dialing** section of the tab you can assign the **Vanity** code to the **desired contact property**.

Field	Description
Variable for Vanity Number	The **Variable for Vanity Number** specifies the variable the value of which stores a name dialing number for which a contact is to be found in the database. This variable is not identical with the `VANITY` database field. You can only use variables that have already been defined for the workspace or for the application.
Contact Property	The **Contact Property** is an information about a user, for example department, address, user name or e-mail address. This property is read out of the database for the found user and transferred to and saved in the variable in the field for the **found user contact** (see below).

Tabelle 48 The ’Vanity’ and ’MRS Contact’ fields

In the Result Storage area of the tab you can specify a variable that stores the number of users as well as a variable to save the found user contact. The variables are forwarded to the next control of the application.

Field	Description
Variable for User Count	The **Variable for User Count** specifies how many users have the name dialing number searched for. It is possible to query this variable in a Compare Control. If the result includes a value greater than 1, the caller could be prompted to render his/her query more precisely. You can select variables already defined or create new ones.
Variable for found Contact	The **Variable for found Contact** specifies the variable in which the information of the user found first is stored, whose name dialing number corresponds to the name dialing number searched for. In other words, the first user whose name dialing number stored in the database corresponds to the value of the variable specified in the **Variable for Vanity Number** field. You can select variables already defined or create new ones.

Tabelle 49 Fields for Variable Specification

Connections

The are two options as events for the connection to further controls. The call is forwarded to a control either when the contact was found (**Finished**) or in case of an unsuccessful contact search (**Error**).

6.3.9 Name Dialing Control

HINWEIS: The Name Dialing control is similar to the Contact Dialing control. The differences between the two controls are outlined in Abschnitt 6.3.8, “Differences between the Contact Dialing and the Name Dialing Control”, auf Seite 226.

The Name Dialing control offers the caller to enter a name dialing number and to subsequently search for the corresponding user.

In addition to digits, the singe telephone keys are assigned to letters and special characters. Instead of the telephone number 0700-74636 you are thus enabled to keep in mind numbers in the format 0700-SIMEN. Telephone numbers represented as letters are called name dialing numbers, word dialing numbers or vanity numbers.

The assignment of letters to the digits on dialing keys has been standardized by ITU. There are two recommendations for this assignment, though. The assignment represented in Tabelle 48 auf Seite 227 is the common one.

You find more information about name dialing numbers in the “Mail APL” chapter of the OpenScape Xpressions *Server Administration* manual.

For each XPR user a name dialing number is stored in the database field `VM_VANITY`. The Name Dialing control prompts the caller to enter the name dialing number of the user searched for by telephone keypad. Voice entries are not possible. The Name Dialing control searches the database for the user whose name dialing number matches the value entered by the caller. Of this user an information to be selected, such as e-mail address, cell phone number or address, is read out of the database and stored in a variable for forwarding to the next control. If several users are found who have the name dialing number searched for, all hits are read out to the caller and he/she is prompted to select the appropriate user by telephone keypad. Of this user an information is stored in a variable and forwarded to the next control.

It may happen that the name dialing number entered by the caller is not the complete phone number but, for example, contains only the first three digits. The Name Dialing control then searches for all users whose name dialing numbers begin as specified in the entry and reads out all hits to the caller. The caller will be prompted to select the appropriate user via telephone keypad. Of this user an information is stored in a variable and forwarded to the next control.

The database field `VM_VANITY` of any XPR user may be set manually or automatically. Manual setting is done with the program *DBTool*. Automatic setting is initiated in the Mail APL. Start the XPR monitor and open the components window. Open the Mail APL settings dialog and click on the last tab. There, activate the checkbox and select the user database field from which the name dialing number is to be created. `NAME` and `VM_HI_DSP_NAME` are available. `NAME` contains the user name (not the user ID), `VM_HI_DSP_NAME` includes an

alternative name to appear on the display of a Hicom telephone. To create name dialing numbers, only letters and digits are used. Blanks and other special characters are skipped.

HINWEIS: Manual setting may be used, for example, to store name dialing numbers created from name tokens.

HINWEIS: When toggling from the database field `NAME` to `VM_HI_DSP_NAME` or vice versa to create the name dialing numbers, the name dialing numbers of all users are automatically created. It is not possible to have the name dialing numbers created for only a specific number of users. Whether `NAME` or `VM_HI_DSP_NAME` is used for creating name dialing numbers is then stored in the `VANITY` (not `VM_VANITY`) database field.

WICHTIG: Not only the Name Dialing control but also the Contact Dialing control accesses the `VM_VANITY` database field of the user.
Verify that this control interprets the value of this database field as you intend it for the Name Dialing control, before you change the value of the database field.

WICHTIG: Not only the Application Builder but also scripts such as PhoneMail and Caller Guide access the `VM_VANITY` database field of a user. Verify that these scripts interpret the value of this database field as you intend it for the Application Builder, before you change the value of the database field.

The Name Dialing control contains several greeting texts that, for example, prompt to enter a name dialing number or inform about the number of hits. You cannot set these announcement texts via the **Properties** configuration dialog. Replacing a language file with another language file of the same name is the only option to change the announcement text. All voice files of the Name Dialing control have the path

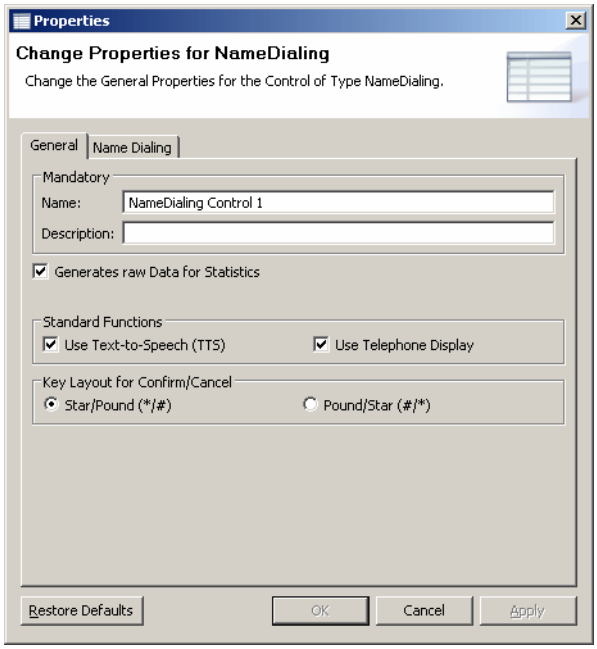
`<OpenScape Xpressions Install>\res\e\vogue\...\NameDial*.pcm.`

If the replaced language file cannot be used, it has most likely a wrong coding format.

The configuration dialog of the Name Dialing control provides the tabs **General** and **Name Dialing**.

“General” tab

The **General** tab of the Name Dialing control contains the following setting options. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.

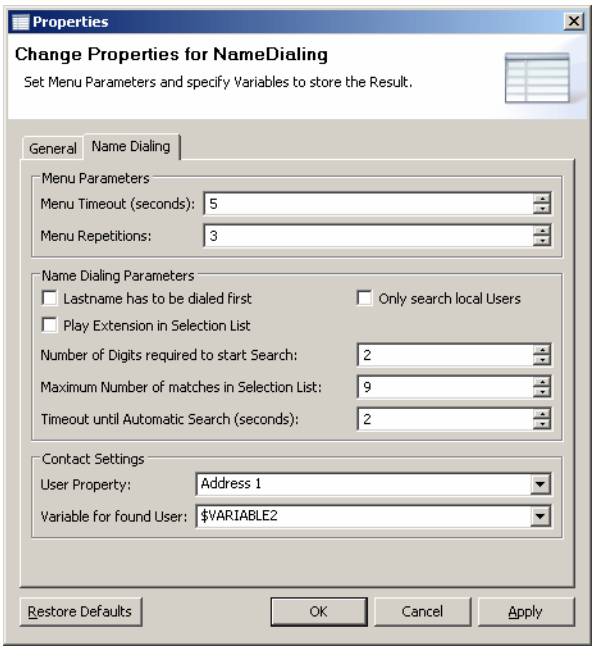


The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

In the **Standard Functions** and **Key Layout for Confirm/Cancel** sections you find options to control the Name Dialing control by the caller.

Section	Description of the options
Standard Functions	Here it is possible to activate optional features: • If you activate the **Use Text-to-Speech** checkbox, the values found in the database are transformed into spoken language by means of TTS and announced via telephone. This requires a TTS such as Nuance Vocalizer. • With the help of the **Use Telephony Display** checkbox the name search result is shown on the caller's telephone display.
Key Layout for Confirm/Cancel	In this section you have to define the Key Layout for ***** and **#** for Confirmation and Cancellation of an input. The first key is for confirmation, the second one for cancellation. By clicking the confirmation key, the series of digits you entered is applied for the search and the search starts. With the help of the break key the name search starts again. The star key is used to confirm entries, and the pound key serves for canceling entries by default.

“Name Dialing” tab



This tab is divided into the three sections **Menu Parameters, Name Dialing Parameters** and **Contact Settings**.

The configuration options of the single sections will be explained in the following table :

Section	Descriptions
Menu Parameters	This section refers to playing or showing the hit list of a search. From this hit list the caller selects a name with the help of the DTMF keys. If the hit list is issued and the caller does not select a name, the hit list will be issued again. Under **Menu Timeout (sec)** a value is defined in seconds indicating how long the system waits before a hit list will be played or displayed again. The default value is 5 seconds and the maximum waiting time can be 99 seconds. The **Menu Repetitions** field defines how often the hit list may be repeated before the process is automatically canceled. The default value is 3 and the maximum number of repetitions 999.

Tabelle 50 The Fields of the ’Name Dialing’ Tab

Section	Descriptions
Name Dialing Parameters	This section defines values and features for the concrete name search operation. • **Last name has to be dialed first** This feature defines that the caller must enter the last name first. If this feature is deactivated, the caller has to enter first name and last name. • **Play Extension in Selection List** This feature enables the additional display of the extensions that associate the found names. If this feature is deactivated, only the name is displayed. • **Only search Local Users** With this option you determine which users are considered in the search for contacts and the respective phone numbers. If the checkbox is ticked off, only the local user profiles of the respective XPR server are read out of the database. If the option is inactive, all global user profiles listed on all servers of the domain will be considered for selection. With a large number of user profiles this selection may affect the system performance or lead to a long runtime until the search is complete. • **Number of Digits required to start the Search** To look for a name the user must enter a digit string. The longer a series of digits is, the more precise is the search for the desired name. In this field you specify the minimum number of digits that the string must contain. The default value is 2 and the maximum digit length 9. • **Maximum Number of matches in Selection List** The value of this field restricts the maximum number of matches for a name search. A smaller value decreases the search duration of the system, whereas a greater value returns a more comprehensive result. Default value and maximum value are identical and are 9.
	• **Timeout until Automatic Search (sec)** This field defines a value in seconds how long the system waits before starting an automatic search. If the caller enters, for example, a series of digits, but forgets to confirm the entry, the name search starts automatically after the value that has been entered here. The default value is 2 seconds and the maximum waiting time can be 99 seconds.
Contact Settings	Under **User Property** you select an attribute of the found user, which is saved in the variable mentioned under **Variable for found User**. The **user property** is read out of the contact's database fields. You can enter a variable that has already been defined or a new one. The $Time and $Date variables are write protected and cannot be used for saving. You need to define a **Variable for found User** to successfully accomplish the configuration of the Name Dialing control and to use the control in the application.

Tabelle 50 The Fields of the 'Name Dialing' Tab

Connections

The are two options as events for the connection to further controls. The call is forwarded to another control either when the contact was found (**Finished**) or in case of an unsuccessful contact search (**Error**).

Extension of Automated Attendant

If you deploy an automated attendant solution as voice dialog system, you need to create a Definition control before the Name Dialing control in your application to make finding subscribers more efficient and faster. In the Definition control you need to define two variables. The variable names must exactly read as follows:

- AAFILTER
- AAFILTERVALUE

The value you assign to variable AAFILTER corresponds to a key name or attribute of a data record and variable AAFILTERVALUE corresponds to the key or value of the attribute.

6.3.10 Holiday Greetings Control

What are “holiday greetings”?

When you configure applications in the Application Builder, you can enable users to record **announcements** by telephone and to link such announcements to a future **date**. In this way users can record an announcement to be played at a date they have specified.

A user may not only record prompts for one date but for any number of upcoming appointments. These prompts as well as the respective path to the storage location are assigned to a time profile. When the appointment is due the path can be stored in a variable while a Time Profile control is run through. This variable can be used in other controls, such as the Prompt control, for playing the prompt. The recorded prompt is executed by the Vogue script via the storage path in which the variable is stored. Only one announcement can be created for each date.

In these announcements companies inform callers that employees are not available at a specific point in time. For example, on 3 October a German company informs its callers that this date is a public holiday in Germany. An announcement is valid for an entire day.

Calendar and day profiles

To understand the function and operation in this control, the term time profile is important. As described in Abschnitt 6.3.7, “Time Profile Control”, auf Seite 219, time profiles can be divided into calendar and day profiles:

- **Day profiles**
  There is a global list of day profiles, which is independent from calendar profiles. Each day profile can be created independently from a calendar profile, but it can only be used in combination with a calendar profile. Each day profile can be divided into time units within the 24 hours of a day. Each time unit is assigned a status (“Open”, “Break”, “Closed”). When recording announcements in the Holiday Greetings control, a day profile may only be assigned one announcement. A day profile may possess different statuses at different times of day. Each status can be assigned a prompt. In the Holiday Greetings control a day profile is created that has status “Closed” all day and is thus connected to only one prompt. A new day profile is always created, i.e.an already existing day profile for a date is overridden when newly assigned to this date.

- **Calendar profiles**
  The calendar profile contains a set of rules. A rule consists of a date of possibly different formats and a day profile. This enables you to link a calendar profile to an arbitrary number of appointments and thus to any number of day profiles. The following two restrictions apply:

  – Only one day profile may exist per calendar profile.

– Only one calendar profile can be activated for recording or playing announcements, since only one calendar profile can be used in a control.

The active calendar profile for which the announcements can be created in the Holiday Greetings control is selected in the options of the “Holiday Greetings” tab. In a Time Profile control the calendar profile is used with the associated time profiles. When the Time Profile control is run through, the prompt and the associated memory path are stored in a variable at the occurrence of the date of a corresponding day profile. This variable is available to other controls within the application, such as the Prompt control, for prompt playback. See also Abschnitt 6.3.7, “Time Profile Control”, auf Seite 219.

Basic proceedings

By means of the telephone keypad and receiver, the user may create any number of announcements. Only one announcement may be used for a day profile, thus for one date.

Announcements may only be created for an active calendar profile (see “Holiday Greetings” tab). All recorded announcements are assigned to day profiles in this calendar profile.

Recorded announcements are assigned to a day profile. Linking an announcement to a date thus means that the announcement is linked to a day profile. When announcements are recorded in the Holiday Greetings control, either existing day profiles are used or new day profiles automatically created.

- If a day profile already exists for the desired date, this day profile is used for recording the announcement. All statuses of this day profile are linked to the recorded announcement and indicated with the “Closed” property. Other announcements already assigned to these statuses are replaced, so that only the new announcement is valid for the entire day profile, independent from the selected status. How to create day profiles is described in Abschnitt 6.3.7, “Time Profile Control”, auf Seite 219.
- If no day profile exists for a demanded date yet, the system automatically generates a new day profile. This newly created day profile contains the “Closed” status all day. To this status the new announcement is linked.

The user may only create an announcement for the whole day and not for specific periods that fall short of or exceed a day. It is not possible to record an announcement, for example, for an afternoon or a pack of announcements for a whole week. But, it is well possible to record seven announcements for consecutive dates that make up a week.

Before saving recorded announcements you can play them to check their quality. An announcement already recorded for a day is recognized by the system. This announcement can be played, retained or overridden.

Recorded announcements are stored in the `<OpenScape Xpressions Install>\Userdata\voice\loop\` directory. Each announcement receives the format `[Name of the day profile]_[Date].pcm`.

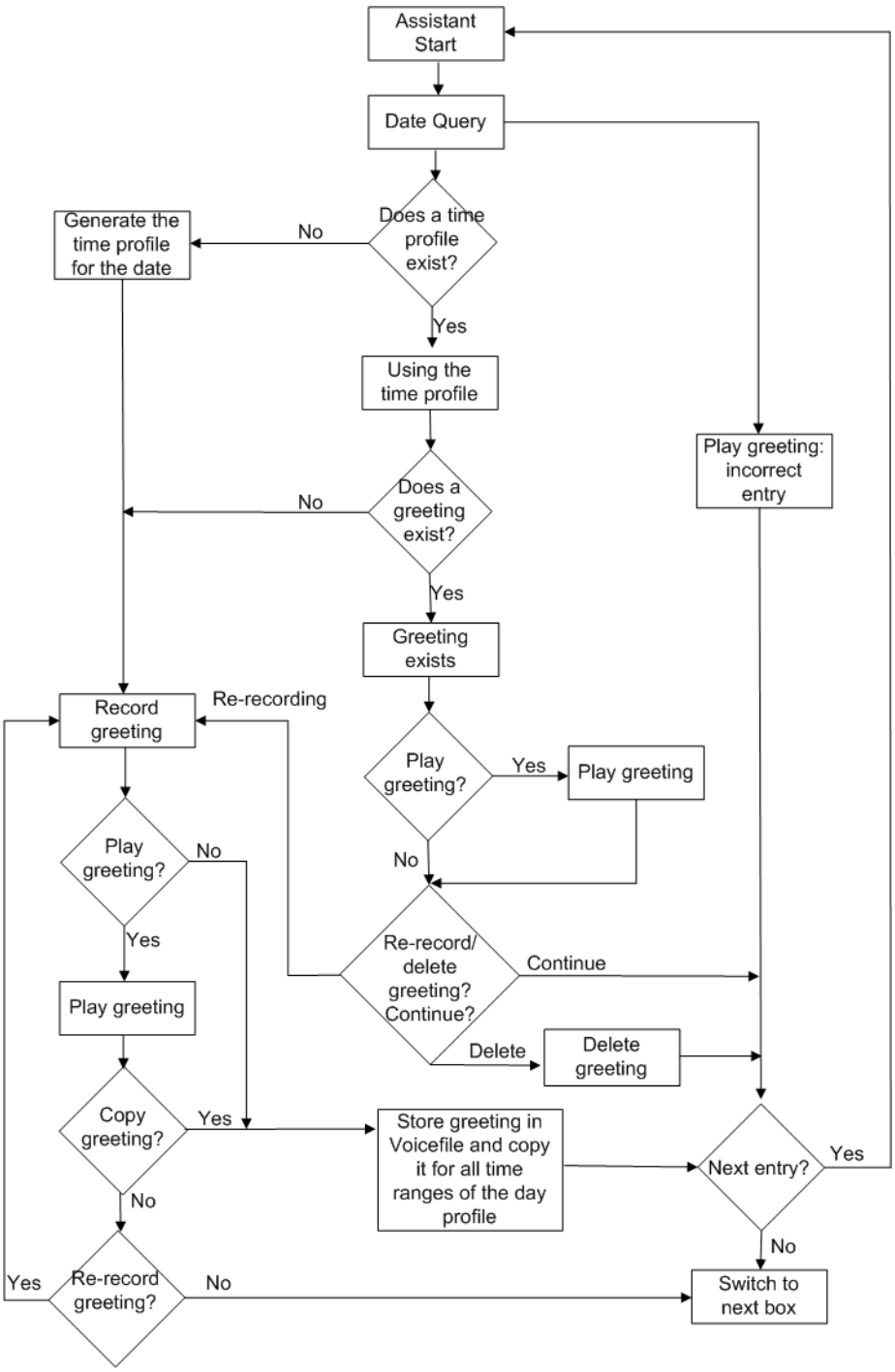
A calendar profile with the associated day profiles is selected in the Time Profile control (see Abschnitt 6.3.7, “Time Profile Control”, auf Seite 219) and integrated in an application. When the Time Profile control is run through, the prompt and the associated memory path are stored in a variable at the occurrence of the date of a corresponding day profile. This variable is available to other controls within the application, such as the Prompt control, for prompt playback. In this way, other callers of this application can be informed that, thanks to a public holiday, the desired contacts are not available at their workstation.

Once the user has completed all recordings, he/she is forwarded to the next control in the application.

The announcement-recording assistant

When the Holiday Greetings control is configured in an application and the application is started by a calling user, an assistant starts. This assistant helps the user to record announcements and to assign them to a date. The assistant uses voice prompts already created to announce required operational steps.

The following graphic clarifies the flow of the Holiday Greetings control:



This procedure can be shortly summarized as follows:

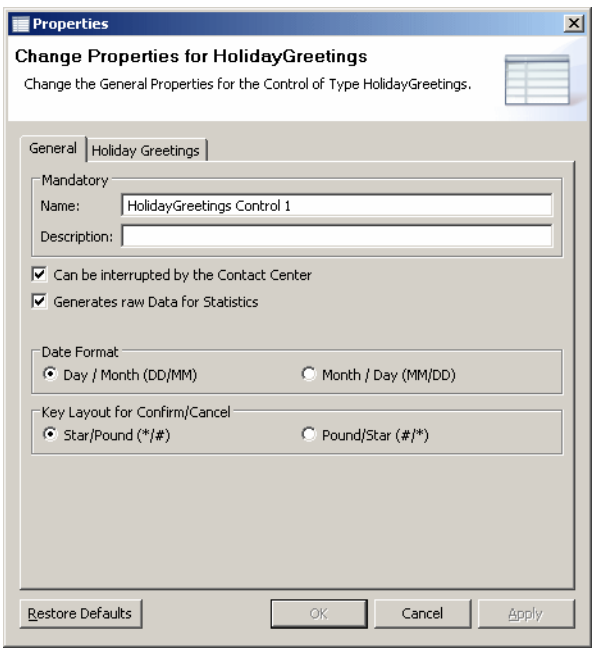
1. When the Holiday Greetings control is reached, the assistant starts.
2. The user enters a date. The system checks whether a day profile is already available. If no day profile exists, a new one is created with the 24-hour time profile “Closed”.
3. If a day profile exists, the user may play already existing announcements and keep or rerecord them.
4. After a rerecording the user may also play the recorded announcement, for example, to check its quality. You can repeat recording an announcement.
5. The user may repeat the process of date querying and announcement recording for any number of appointments.
6. The user decides when the entire process and thus the assistant for announcement recording and for linking them to specific appointments is to finish. Once the assistant has been shut down, the user is forwarded to the next control of the application.

Specific behavior properties of the control as well as of the assistant can be set on the configuration tabs of the Holiday Greetings control.

The configuration dialog of the Holiday Greetings control features the **General** and **Holiday Greetings** tabs.

“General” tab

The **General** tab of the Holiday Greetings control contains the following setting options. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

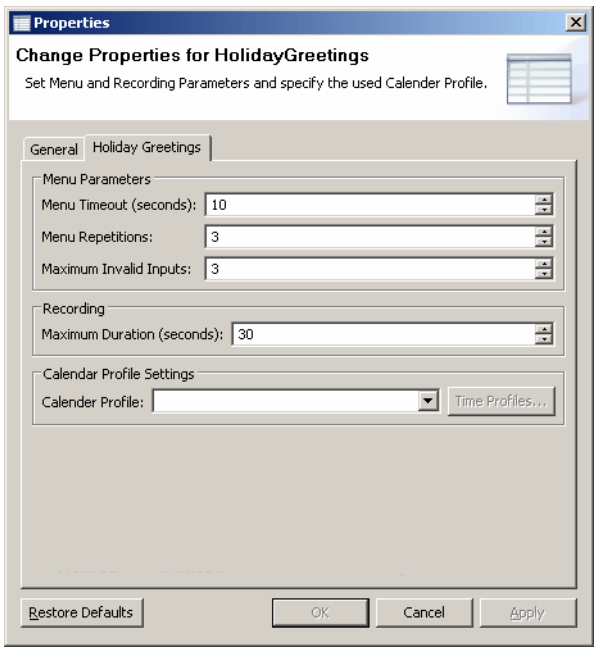
In the **Date Format** and **Key Layout for Confirm/Cancel** sections you find options to control the Holiday Greetings control by the caller.

Section	Description of the options
Date Format	Here you can determine the date entry format. • When you select the **Day / Month (DD/MM)** radio button, you need to enter the day first, followed by the month, e. g. the entry for 28 April reads 28/04. • When you select the **Month / Day (MM/TT)** radio button, the entry for 28 April reads 04/28.

Section	Description of the options
Key Layout for Confirm/Cancel	In this section you need to define the layout of the keys * and # for the entry confirmation and cancellation functions. By clicking the confirmation key, the entered date is applied for the search and the search starts. With the help of the cancel key the name search starts again. The star key is used to confirm entries, and the pound key serves for canceling entries by default.

“Holiday Greetings” tab

On this tab you can perform settings for the assistant proceedings to record holiday greetings. The settings refer to a selected calendar profile. A day profile corresponds to the assigned date. While a calendar profile must already exist before the Holiday Greetings control is used, a day profile may be automatically created by the Application Builder at runtime.



The **Holiday Greetings** tab contains the following setting options in the **Menu Parameters**, **Recording** and **Calendar Profile Settings** sections:

Field	Description
Menu Parameters	The settings in this field refer to the number of possible entry repetitions, if an error has occurred. If the system could not detect a valid entry even after several attempts, the assistant closes and the caller is forwarded to the control specified in the **Error** field. • Under **Menu Timeout (seconds):** the time the system waits for an entry is specified in seconds. After expiration of this waiting time, the entry is abandoned. The entry is only repeated if a repetition is possible through the value set in the **Menu Repetitions** field. • The specification in the **Menu Repetitions** field describes the maximum number of entry opportunities if no entry was made. • The **Maximum Invalid Inputs** field defines the maximum number of entries that may be made after an entry has been identified as invalid.
Record	In the **Maximum Duration (seconds)** field a period is defined in seconds that is considered the upper limit for the recording duration. After expiration of this period the recording is automatically finished. The recording duration must be between 10 and 180 seconds. The default value is 30 seconds.
Calendar Profile Settings	In this area you can select the **Calendar Profile** that you would like to configure. The announcements are assigned to day profiles, which are assigned to the calendar profile selected here. In other words, the calendar profile contains the day profiles to which the desired date and the recorded announcement is coupled. You learn how to create a calendar profile in Abschnitt 6.3.7, “Time Profile Control”, auf Seite 219. Please note that you can only select a calendar profile if you are connected to an XPR server. You log on in the work area under the **Vogue Server** entry.

Tabelle 51 The Fields of the “Holiday Greetings” Tab

Connections

There is one connection option for each following control for the successful execution of the control (**Finished**) or for an error result (**Error**), e.g. if the maximum number of entry repetitions has been reached.

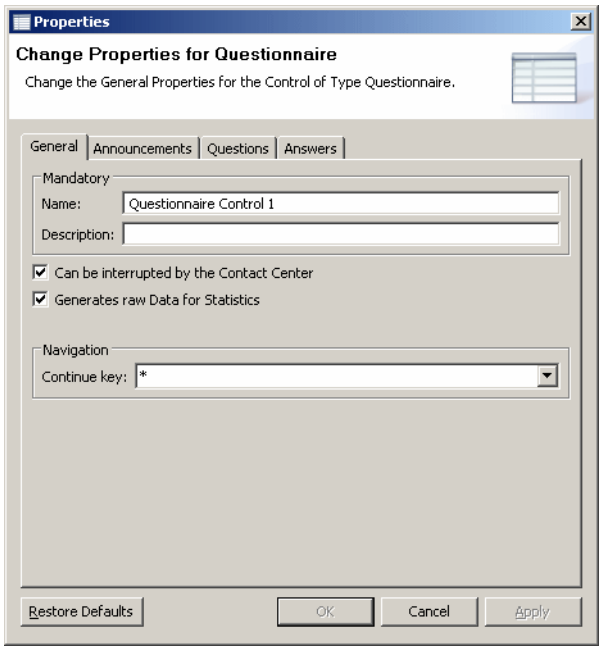
6.3.11 Questionnaire Control

This control serves for asking the caller questions. The answers are recorded and will be sent to the company's employee in charge via e-mail with a voice file attachment or as voice mail (for playback via telephone).

The configuration dialog of the Questionnaire control is divided in the **General**, **Announcements**, **Questions** and **Answers** tabs.

"General" tab

The **General** tab of the Questionnaire control contains the following setting options. See also Abschnitt 6.2.1, "General Information about the Control", auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, "Creating Raw Data", auf Seite 197.

In the **Navigation** section you can define a key (0 to 9,*, #) in the **Continue key** combo box via which the caller can skip a question and/or answer. The following two actions are possible:

- When the caller pushes the key specified here once, the question is skipped and he/she can answer immediately.

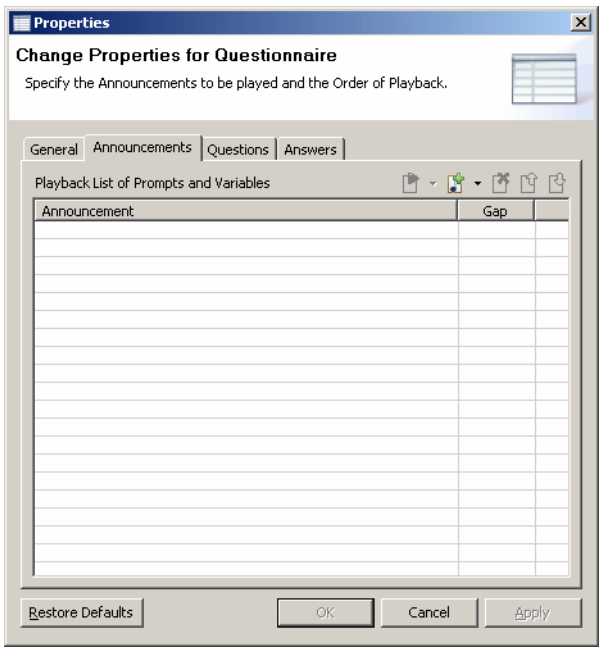
- When the caller pushes the key specified here twice, the question and the answer option are skipped. The caller is then asked the next question.

HINWEIS: No entry in the **Continue key** field disables this feature.

If you would like to use this feature, you should inform the caller in the welcome announcement (see “Announcements” tab).

“Announcements” tab

On this tab you enter the introducing announcement(s) for the Questionnaire control (e.g. *”Welcome. We will now ask you 5 questions concerning our product. You have 30 seconds to record an answer.”*.

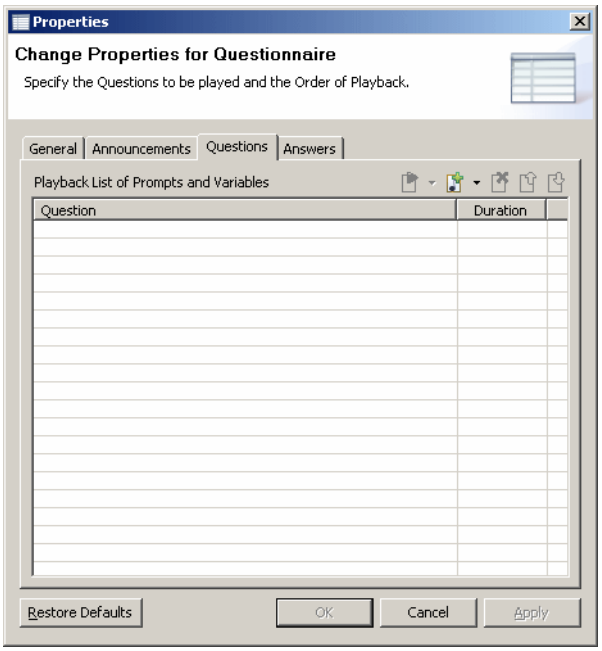


For further information about announcement setting please refer to “Announcements” tab.

HINWEIS: The question voice files may be entered on the **Questions** tab.

“Questionnaire” tab

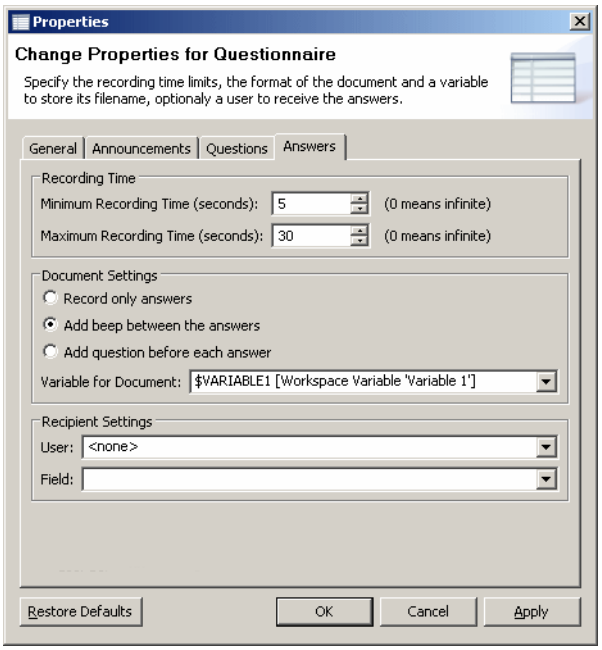
On this tab you enter the voice files for the questions.



For further information about announcement setting please refer to “Announcements” tab.

“Answers” tab

On this tab you can perform various settings that refer to recording duration and answer storage as well as define the recipient of these answers.



In the **Recording Time** section you enter the minimum and maximum recording times in seconds for the caller's answers. The **Minimum Recording Time** field specifies the minimum length and the **Maximum Recording Time** field the maximum limit for a reply. If you set the **Minimum Recording Time** to e. g. four seconds, all recordings that fall short of four seconds are dismissed. A zero means in both fields that no restriction to the answer-recording duration is set, i. e. all answers are recorded.

In the **Document Settings** section you may decide between the options **Record only answers**, **Add beep between the answers** and **Add question before each answer**. You can only select one of these modes. These options define how the answers are stored for further processing.

HINWEIS: On the **Questions** tab you may create questions about text entries using a text-to-speech system. However, you cannot record questions that were created with a TTS system, so that, in case of several questions and several answers, you need to select the option **Add beep between the answers** to insert an acoustic separation between the different answers.

Furthermore, you can define the name of a **Variable for Document** in which the document inclusive questions and answers is to be stored. The announcement stored therein can be used for further functions. For example, you might access this variable in the Document control and send it to an arbitrary recipient.

Enter the employee's name and address responsible for the answers in the **Recipient Settings** section. Select a XPR user from the list in the **User** field. This field displays only employees who are released for the user according to his/her privileges.

If you select a **User**, you also need to define a **Field** (message type), since otherwise no recipient is stored. You can only select message types configured for the respective employee. For example, you can only use an e-mail address as type if the selected employee has an e-mail address stored in the XPR database. You can remove the selected employee and the associated type as recipient by selecting the ***<none>*** entry in the Name field and confirming with **OK**.

Connections

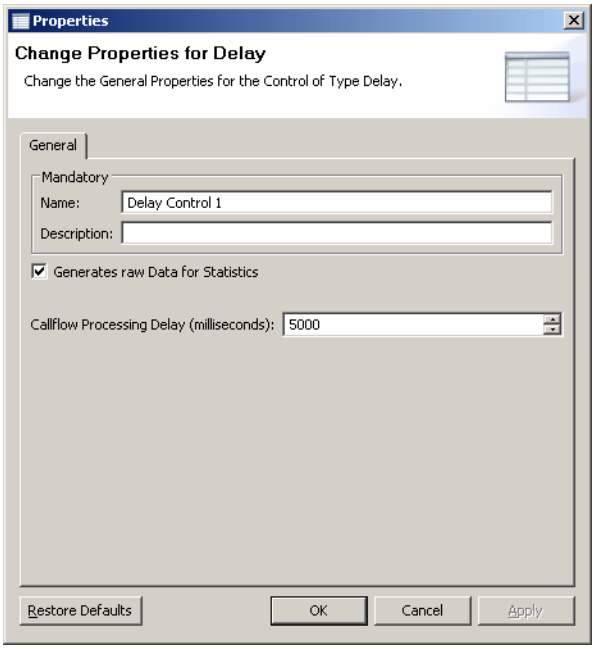
After all greetings have been played and the answers been recorded, the call is forwarded to the next following control (**Finished**).

6.3.12 Delay Control

The Delay control enables placing breaks in a callflow. With millisecond specifications you can determine how much time must pass until the next connected control is forwarded to. In this way you can delay playing announcements or executing controls for a specific period.

“General” tab

The configuration dialog of the Delay control contains only the **General** tab, on which the setting options described below are available. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

In the **Callflow Processing Delay (milliseconds)** field you can specify a waiting period that delays the application execution. The default value is 5000 milliseconds. The maximum is 99999 milliseconds.

Connections

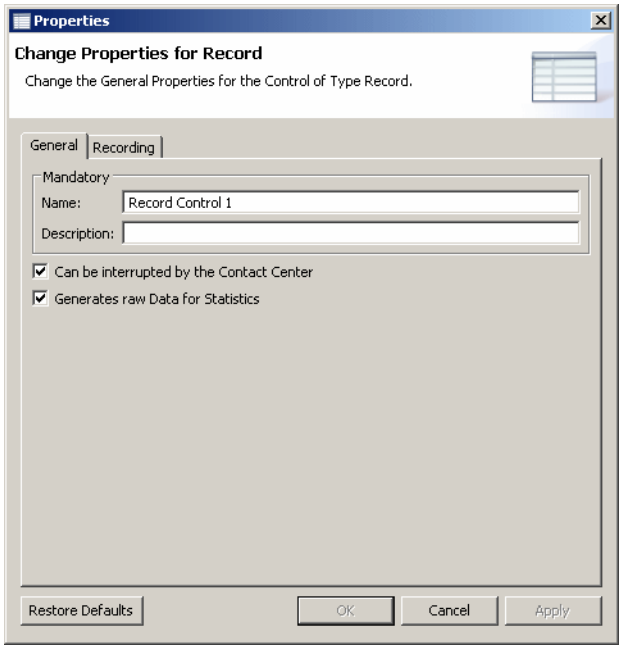
After the delay period has elapsed, the execution of the Delay control is complete and the call can be forwarded to the next control (**Finished**).

6.3.13 Record Control

Using this control a caller can rerecord a permanent and existing prompt. This updated prompt can then be used in the application.

“General” tab

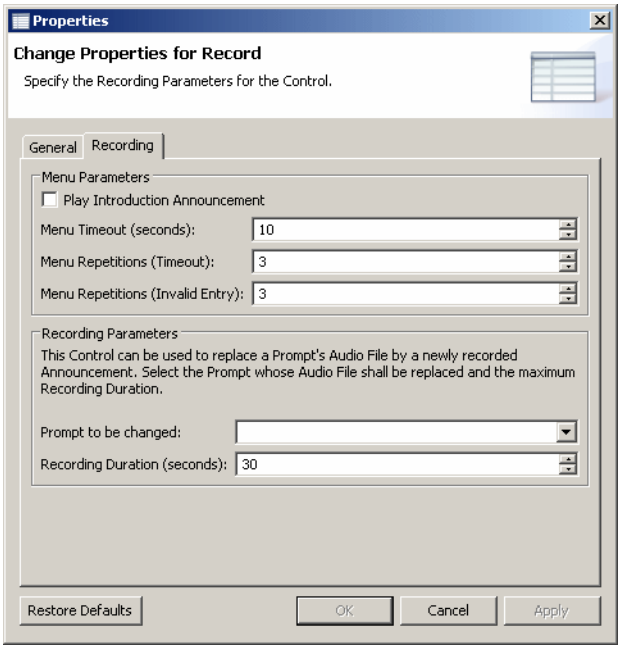
The configuration dialog of the Record control contains only the **General** tab, on which the setting options described below are available. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

“Recordings” tab

The **Recording** tab enables the configuration of options in the **Menu Parameters** and **Recording Parameters** section.



In the **Menu Parameters** section the following settings are possible:

Field	Description
Play Introduction Announcement	This option activates or deactivates playing an announcement that informs about the function and flow control of the control as well as prepares the caller for the recording. The greeting is called `Greeting-StartRec.pcm` and found in the `<OpenScape Xpressionsin-stall>\res\e\vogue\<language>` directory.
Menu Timeout (seconds)	Enter the time (in seconds) available to the caller to make his/her input after the announcement(s) here. If you enter a '0', the caller can wait an undefined period of time until he/she makes an entry by voice.
Menu Repetitions (Timeout)	If the caller has not made an entry, the announcement will be repeated. In this field you specify how often entries can be repeated until the control linked to the **Recording failed** event is transferred to. The value refers to the number of missing entries. In case of value 3, the entry and thus the announcement will be repeated three times, so with the first execution the announcement is played altogether four times. If you enter a '0', the announcement is not repeated but the caller is directly forwarded to the control configured for the **Recording failed** event after a missing entry. The feature is then deactivated.

Tabelle 52 Options for entering DTMF Keys

Field	Description
Menu Repetitions (Invalid Entry)	If the caller has made an invalid entry (i.e. pressed a DTMF key that is not defined), the announcement will be repeated. In this field you specify how often entries can be repeated until the control linked to the **Recording failed** event is transferred to. The value refers to the number of invalid entries. In case of value 3, the entry and thus the announcement will be repeated three times, so with the first execution the announcement is played altogether four times. If you enter a ’0’, the announcement is not repeated but the caller is directly forwarded to the control configured for the **Recording failed** event after a missing entry. The feature is then deactivated.

Tabelle 52 Options for entering DTMF Keys

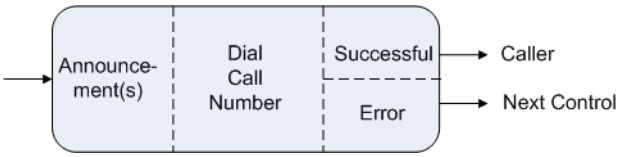
In the **Recordings Parameters** section you select the announcement that is rerecorded and thus overridden by the caller's input (**Prompt to be changed**). You cannot create a new greeting here. The greeting must have already been created for the workspace or application. Please note that the greeting is configured for the caller's language. The prompt must be in the `<OpenScape Xpressions Install>/userdata/vogue` default directory or in a user-defined subfolder.

In the **Recording Duration (seconds)** field you specify the time available to the caller for the recording. The default value is 30 seconds. Minimum is 10 seconds and maximum is 99 seconds.

Connections

One connection can be added to a control for each successfully completed **(Recording finished)** and unsuccessfully completed recording **(Recording failed)**.

6.3.14 Connect Control



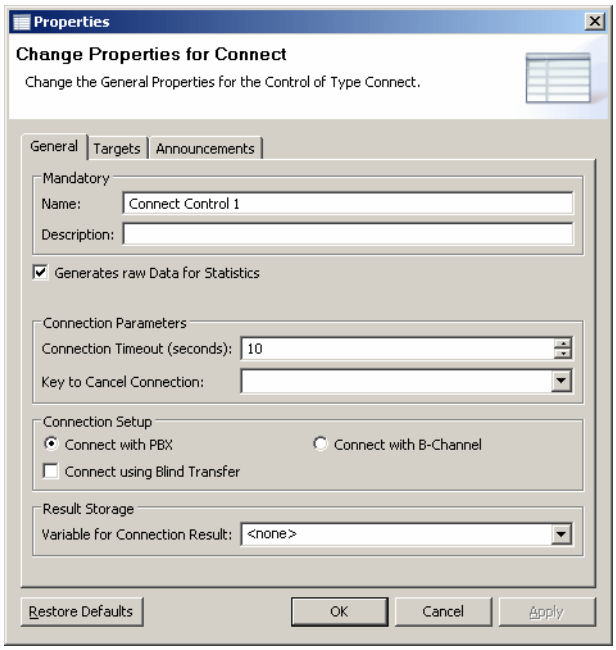
The task of this control is to dial the first number in a list of phone numbers after one or several announcements have been played (*"You will now be connected to the hotline. Please hold the line."*). When a connection has been successfully established to a new target by dialing a phone number, the caller will be connected to this target. Subsequently, the Connect control will not dial further phone numbers. The Connect control plus the entire application are shut down. If it is not possible to establish a connection to the first target though, the next number in the list is dialed. When the end of the list has been reached, the control specified as Error control is forwarded to.

Users of a system as well as other applications may be connected. Each application has been assigned a unique phone number (see Abschnitt 5.3.2.5, "Vogue Server Settings", auf Seite 127), so that applications can be dialed like a user. Such dialed applications are directly started, i.e. the application starts with the control that has been configured in the first position. In the second application a Connect control may have been implemented, which, in turn, connects a third application. In this way applications can be linked to a chain. This means, applications can be unitized.

The configuration dialog of the Connect control consists of the **General**, **Targets** and **Announcements** tabs.

“General” tab

The **General** tab of the Connect control contains the following setting options. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

In the **Connection Parameters** area you can configure the following parameters:

- In the **Connection Timeout (seconds)** field you specify the maximum duration of a dialing process.

  If you enter 10 seconds, for example, the system tries to reach the conversation partner's telephone within 10 seconds. If the subscriber or application could not be reached within this time, the next phone number in the list is dialed. When the end of the list has been reached, the control specified as Error control is forwarded to.

  If you enter 0 in the **Connection Timeout (seconds)** field, this feature will be set to maximum value of 300 seconds. The maximum value that can be set is 180 seconds.

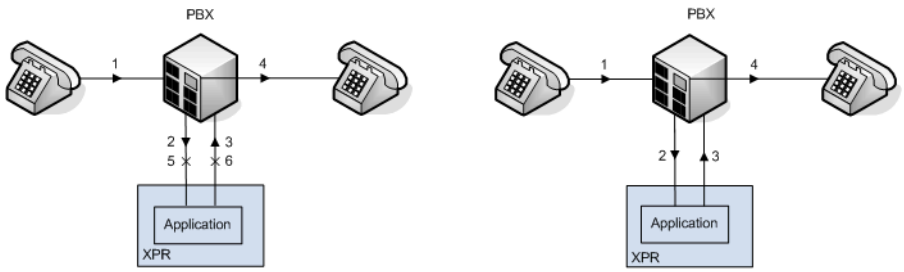
Please check also the IpApl timer that can be set on registry key called MaxAlertTime which defines a time after which each connection request is terminated that has not been accommodated until then (default is 60 seconds)..

HINWEIS: The **Connection Timeout (seconds)** functions is not possible with all PBXs. At the end of this section you receive a compilation of the compatible PBXs and protocols. See Function compatibility.

- In the **Key to cancel Connection** field you can select a key from the key pad (0 to 9, *, #) that can be pushed to cancel the attempt to call a phone number, so that the next number in the list is dialed. If there is no other phone number in the list, the connecting procedure is completely terminated and the application continued with the control specified for the event of a failed connection. If this field remains empty, this feature is deactivated, i.e. the calling attempt cannot be canceled by pushing a key any more.

HINWEIS: Please note that the user is in the introductory announcement for the Connect control informed about the cancellation key for closing the connection. See “Announcements” tab.

The **Connection Setup** options define in which way a call is routed. **Connect with PBX** means routing with path replacement. **Connect with B-Channel** means routing without path replacement. The following example illustrates these features.



The caller dials the application access number. His/her attempt to set up a connection (1) is routed by the PBX to the application in the XPR server (2). For this purpose, a B-channel is set up between PBX and XPR server. The call is forwarded within the XPR server to the application and there to the Connect control. The control effects the establishment of a second B-channel, this time from the XPR server towards the PBX (3) and further to the target subscriber (4). Both B-channels between the PBX and XPR server remain (see b) in the above figure), though they are now not needed anymore. This may block urgently required resources. If path replacement is used (see a) in the above figure), both B-channels are abolished again (5 and 6) and are thus available for newly incoming calls. The abolishment may take 0.5 to 20 seconds though.

If you activate the **Connect using Blind Transfer** checkbox, the system will not wait to see if the person accepts the call. The calling attempt is considered finished if the number is valid and the extension is not busy.

HINWEIS: The **Connect using Blind Transfer** option is based on the “Blind Transfer” feature (see the Telematic APL chapter in the OpenScape Xpressions *Server Administration*) manual. This feature is not executable with all PBXs. At the end of this section (Abschnitt 6.3.14, “Function compatibility”) you find a compilation of the compatible PBXs and protocols.

In the **Variable for Connection Result** field you can select a variable that saves the routing result. If a connection could not be established, the reason is given here. The variable must be in the format `$BEZEICHNER`. You can either create a new variable with a click on the **Create new variable...** link or fall back to variables already configured for the workspace or for the application.

HINWEIS: The `$DATE` and `$TIME` system variables are write protected and cannot be used for saving the following values.

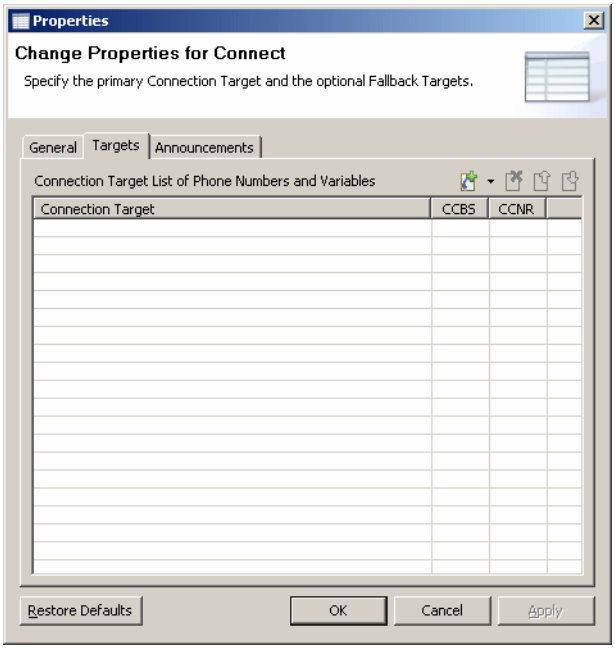
Possible variable values are:

Value	Meaning
READY	The connection has been established successfully.
TIMEOUT	The routing recipient could not be reached during the time that was given.
BUSY	The routing recipient is in a call and cannot accept another call.
DTMF	The caller interrupts the routing process with the defined break key.
FAILURE	The operator's number is either invalid or does not exist.

Tabelle 53 Possible Values of the “Variable for Connection Result” Field

“Targets” tab

On the **Targets** tab you enter the phone number to be dialed in top position. If no connection can be established, the next phone number is tried etc.



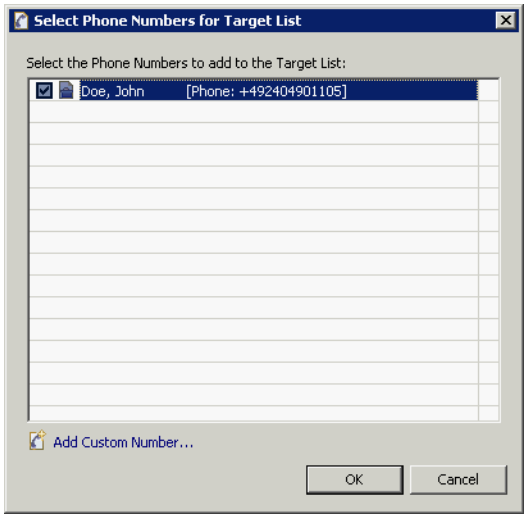
The following icons are available on the **Targets** tab.

Icon	Description
	Only one of these icons is displayed at a time. With a click on the triangle to the right of one of the icons you open the list with the options **Add Phone Number...** and **Add Variable...**. Depending on the option you have selected, the corresponding icon is displayed. These icons let you add phone numbers from the XPR address book as well as custom phone numbers and variables. See under this table Adding a new connection target.
	Using this icon you can remove a selected phone number variable from the list .
	If you have inserted several connection targets, they are dialed in order from top to bottom. Using these icons you can move a selected connection target or variable in the list up or down.

Tabelle 54 Icons on the “Targets“ Tab

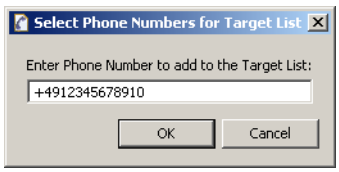
Adding a new connection target

To add a new phone number as **Connection Target**, click on the  icon and make a selection from the then open list.



This list includes all entries of your XPR address book and the corresponding options for reaching the conversational partner. I.e. in the list you may not only select a user or another application, but also a line assigned to the user or application.

With a click on the **Add Custom Number...** link you can open the following dialog for entering a phone number that is not contained in your XPR address book.

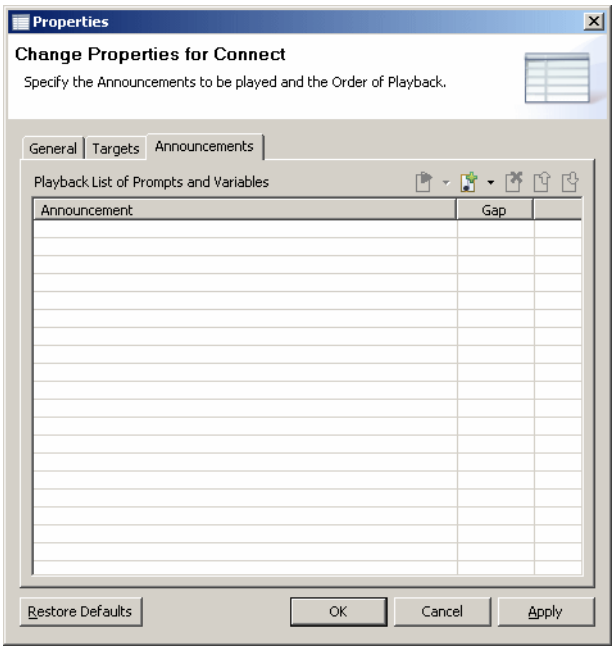


Alternatively, you can click on  to deploy a variable as **Connection Target**, which contains the connection information of a contact. This information such as phone numbers can be evaluated and used for the connection mechanism.

In the two columns **CCBS** and **CCNR** you can activate (**Yes**) or deactivate (**No**) these features for the respective entry with a mouseclick in each case. **CCBS** includes the call back feature, if the connection was busy during a connection attempt. **CCNR** means that the call is repeated if there was no answer during the connection attempt.

HINWEIS: The **CCBS** and **CCNR** options are not possible with all PBXs. At the end of this section you receive a compilation of the compatible PBXs and protocols. See Abschnitt 6.3.14, “Function compatibility”.

“Announcements” tab



Here you specify the announcement(s) for the Connect control. For further information on the settings please refer to Abschnitt 6.3.3, ““Announcements” tab”, auf Seite 205.

Function compatibility

The functions **Connection Timeout (seconds)**, **Key to Cancel Connection**, **CCNR** and **CCBS** describe the functions that you find on the **General** and **Targets** tab. The **Protocol** column specifies the signaling protocol that is supported by the PBX and simultaneously enables the stated functions.

PBX	Protocol	Timeout	Break key	CCNR	CCBS
HiPath 4000 V1	QSIG	Yes	Yes	No	No
HiPath 4000 V1	CorNet-NQ	No	No	Yes	Yes
HiPath 4000 V2	QSIG	Yes	Yes	No	No
HiPath 4000 V2	CorNet-NQ	Yes	No*	Yes	Yes
HiPath 4000 V3	QSIG	Yes	Yes	No	No
HiPath 4000 V3	CorNet-NQ	Yes	No*	Yes	Yes
HiPath 4000 V4	QSIG	Yes	Yes	No	No
HiPath 4000 V4	CorNet-NQ	Yes	No*	Yes	Yes
HiPath 3000 V6	QSIG / CorNet N	Yes	Yes	No	No
HiPath 3000 V7	QSIG / CorNet N	Yes	Yes	No	No
HiPath 8000 V3.1	SIP	Yes	No	No	No

Tabelle 55 Function compatibility

PBX	Protocol	Timeout	Break key	CCNR	CCBS
Nortel Succession 1000	QSIG	Yes	Yes	No	No
Alcatel OmniPCX Enterprise 8	QSIG	Yes	Yes	No	No
Cisco Unified Communications Manager 7	SIP / H323	Yes	No	No	No
Alcatel 4400	QSIG	Yes	Yes	No	No
Nortel Meridian	QSIG	Yes	Yes	No	No

Tabelle 55 Function compatibility

* The restriction only applies if the “Connect with PBX“ option is used

Connections

In case of an error in the connection to a configured connection target, a control for forwarding the call can be used. In case of a successful connection the application is shut down after the call has ended.

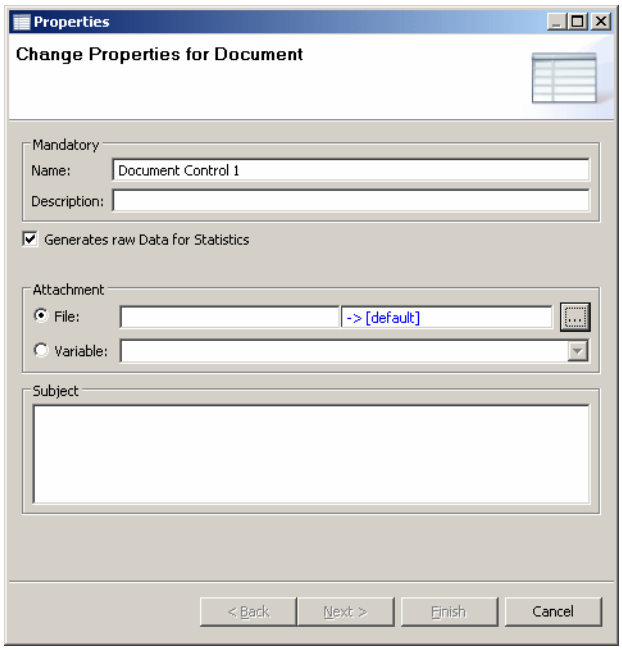
6.3.15 Document Control

With the help of this control, documents can be sent (e.g. e-mails, SMS, fax or voice mails). The document can be a variable or a text.

HINWEIS: All documents are taken from the `<OpenScape Xpressions Install>\Userdata\vogue\` default directory or from possible user-defined subfolders. In addition, the documents are stored in corresponding directories depending on the language.

The configuration of the Document control is not divided in tabs but in the following steps:

1. In the End control's configuration dialog you enter the **Name** and **Description** or modify these specifications. See Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



   The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

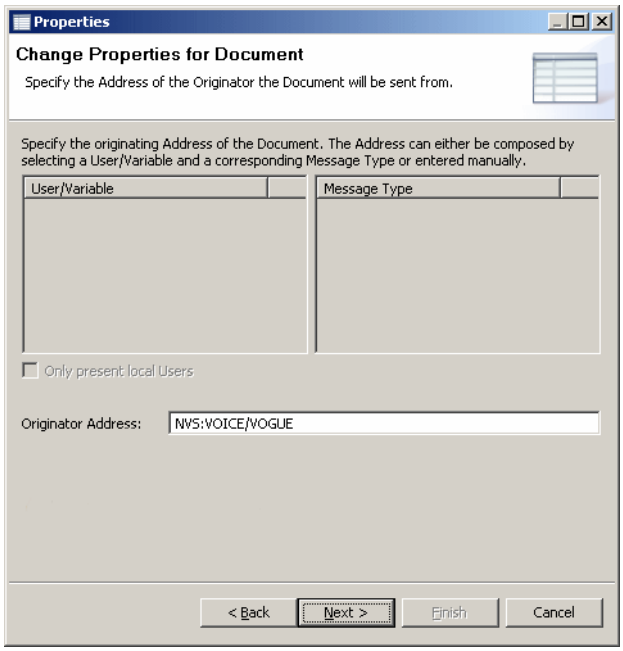
2. In the **Attachment** section of the tab you can either select a **file** to be sent or specify a **variable** as wildcard. You need to mark the desired option before you can make a more detailed entry in the text line.

   If you select a **file**, enter the path and document name.

You cannot create a **variable** but need to fall back to variables created for the workspace or application. The variable must contain the storage path to a document.

3. In the **Subject** section you can enter a comment that will be sent with the document. Here you can also use variables.

4. The click on **Next**. In the following dialog you define the originator's address.



5. Select a **user** from your XPR address book or a **variable** already defaulted for the workspace or application. You are automatically provided with a list of possible **message types**. The message types that can be selected correspond to the addresses that have been assigned to this XPR user via database fields. As soon as you have selected a **user** or a **variable**, the **Originator Address** field is automatically filled in with the corresponding NVS address.

   Alternatively, you can also enter an NVS address in the format `NVS:<message type>/<user>` in the **Originator Address** field. The system completes the additional information such as e.g. **User** and **Message type**. If you enter for instance `NVS:FAXG3/02404100200`, the message type analog fax and the user corresponding to the fax number is identified.

HINWEIS: For further information about the configuration of users, please refer to the OpenScape Xpressions Web Client user manual.

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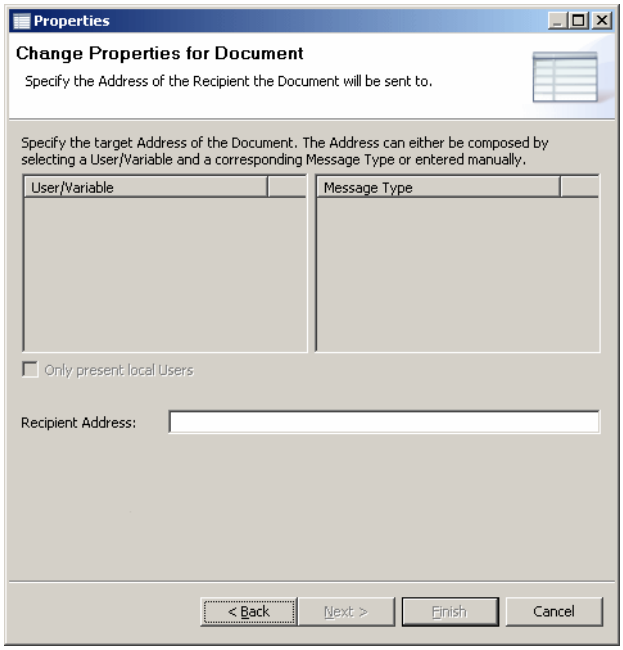
6. In the **Message type** list field you select the type of the message. To select a message type you need to select an entry in the **User/ Variable** column.

   Possible message types are:

- Analog Fax (FAXG3)
- Digital Fax (FAXG4)
- E-mail
- Euro File Transfer
- Business Phone
- Short Message Service (SMS)
- Mobile Phone
- Private Fax
- Private Phone
- Voicebox
- Name

With the **Load only local users** option you determine which users will be considered for the selection of contacts and the respective phone numbers. If the checkbox is ticked off, only the local user profiles of the respective XPR server are read out of the database. If the option is inactive, all global user profiles listed on all servers will be considered for selection. With a large number of user profiles this selection may affect the system performance or lead to a long runtime until the search is complete.

7. Click on **Next**. Up comes this dialog:



   To define the desired **Recipient Address** for the selected document, repeat steps 5 and 6.

8. Click on the **Finish** button. The configuration dialog of the Document control closes and the configuration is complete.

Connections

One connection can be set up to a following control if sending the document was **successful** or **unsuccessful**.

6.3.16 Customer Specific Dll Control

Dynamic Link Libraries (DLLs) are dynamic libraries that contain features for executing programs and are loaded into the RAM dynamically, i.e. if required. Outsourcing program features to different libraries aims at the program code not having to be loaded into the RAM but only the library with the features currently required. Furthermore, this modularization of program features enables other programs to access this library, so that specific features need not be stored several times and thus redundantly.

The Customer Specific Dll control allows an adjusted Dll call. All configured Customer Specific Dll controls refer to the `VogueCustomDll.dll` file, which is found in the `<OpenScape Xpressions install>\bin` path. For the Customer Specific Dll control function only the `VogueCustomDll.dll` file will be accessed. You cannot add further DLL files.

HINWEIS: An existing `VogueCustomDll.dll` file is not overridden when the XPR server setup is executed anew. If you perform modifications in the `VogueCustomDll.dll` file, the file can thus not be restored by another setup. To restore the original format of the `VogueCustomDll.dll` file you need to create a copy of the original file.

HINWEIS: You cannot rename or remove the `VogueCustomDll.dll` file.

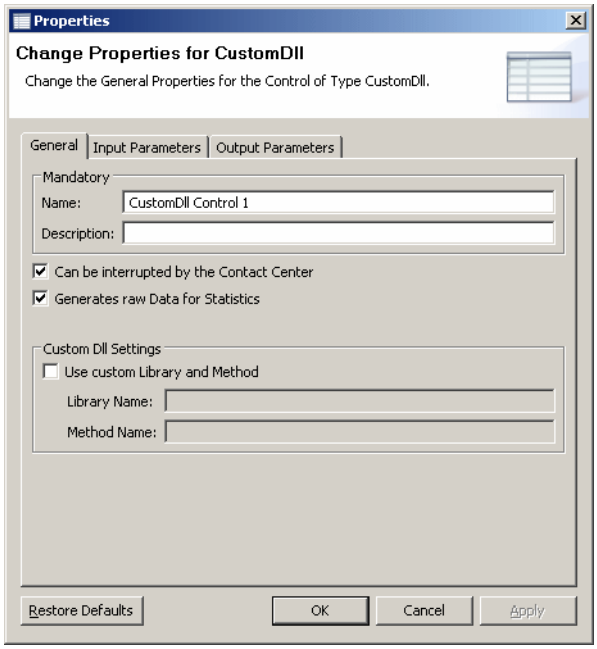
In the `VogueCustomDll.dll` file methods are implemented that execute an instance and enable the assignment or reference of a specific entry to a specific task. This instance or assignment is valid until the `VogueCustomDll.dll` file function is executed again by any Customer Specific Dll control. Arbitrary entries of the `<key>=<value>` format lead to permanent entries also of the format `<key>=<value>` by executing the control. The execution of the control transforms the output in variables with the keys determining the variable name and the values also representing the value of the variable. The result in variable format can be transferred to further controls.

Example: The parameter “Command” with value “Buy”, the parameter “Product” with value “Apple” and the parameter “Number” with value “3” are specified as entry parameters. The names “Result” with value “OK”, “Price” with value “120” and “Quality” with value “A” are specified as output parameters. By invocation of the Customer Specific Dll control an instance is initialized that creates as output the `$Result=OK, $Price=120` and `$Quality=A` variables inclusive values.

The configuration dialog of the Customer Specific Dll control is divided into the **General**, **Input Parameters** and **Output Parameters** tabs.

“General” tab

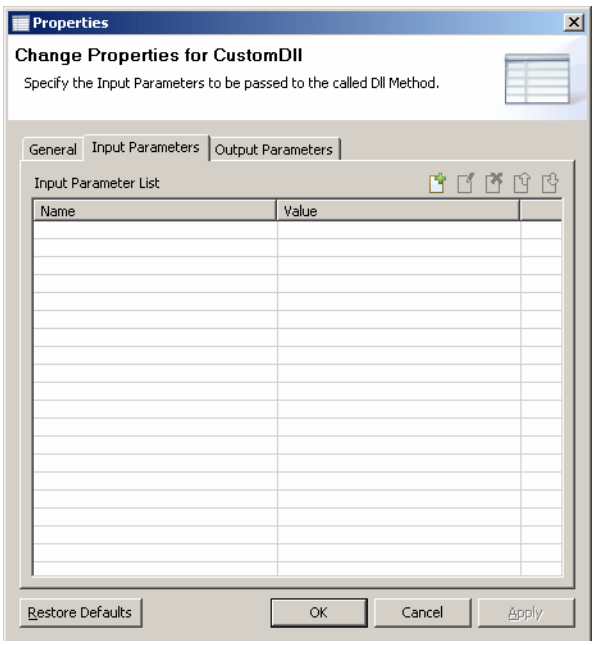
The **General** tab of the Customer Specific Dll control contains the following setting options. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

- “Input Parameters” tab

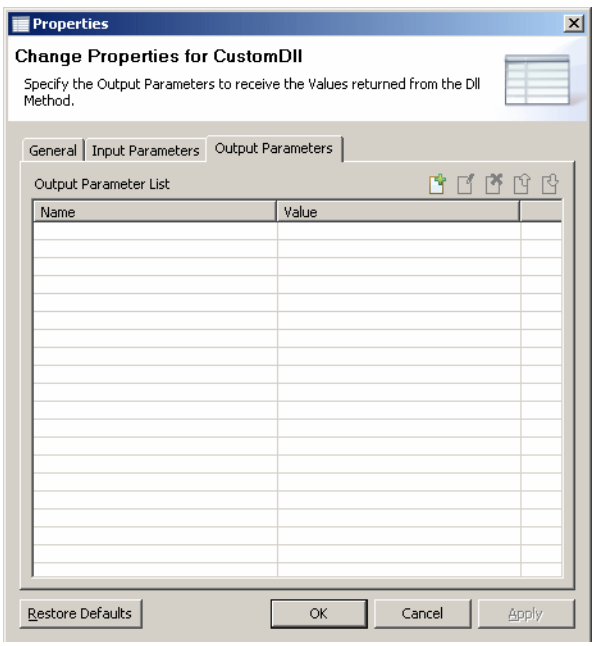
On this tab you specify the input parameters to be transferred to the invoked Dll method.



Click on the icon to enter a name for the input parameter in the **Name** column and to assign a **value** to it. You can enter variables already defined as well as any text characters.

“Output parameters” tab

On this tab you specify the input parameters to be transferred to the invoked Dll method.



Click on the icon to enter a name for the output parameter in the **Name** column and to assign a value to it.

The parameters in the **Name** column are transformed in variables by executing the control. The values of the corresponding rows are assigned to these variables.

Connections

Connections to further controls can be established in case of a successful (**Finished**) and unsuccessful **Error**) control execution.

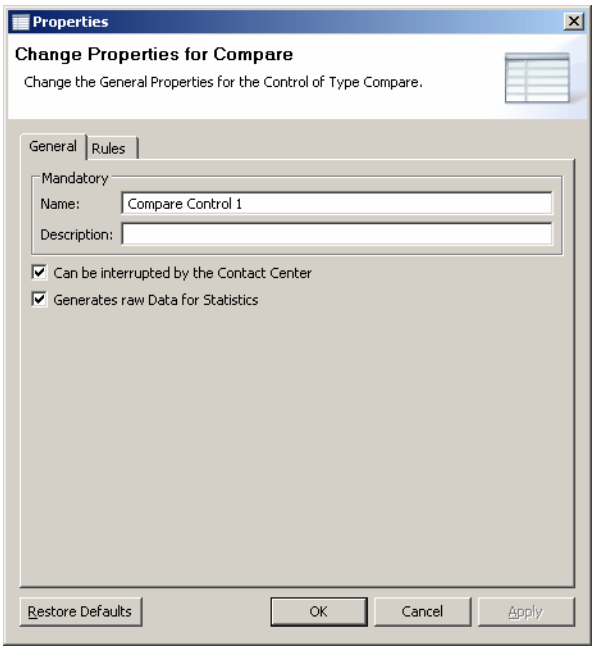
6.3.17 Compare Control

Using the Compare control you can execute comparisons according to a previously defined rule. You can specify a list of rules here, so that e.g. all incoming calls can be allocated to their original country on the basis of their leading telephone numbers. To make adding or modifying rules easier and faster, an assistant is used.

The configuration dialog of the Compare control provides the tabs **General** and **Rules**.

“General” tab

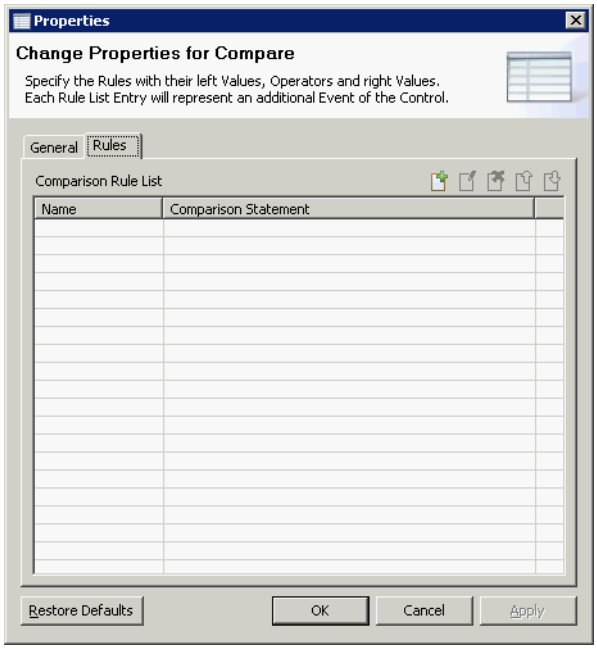
The **General** tab of the Compare control contains the following setting options. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

“Rules” tab

On the **Rules** tab you define one or several rules for the comparison of values in variables, e.g. to allocate the call to its country of origin. This definition is realized with the help of a wizard.



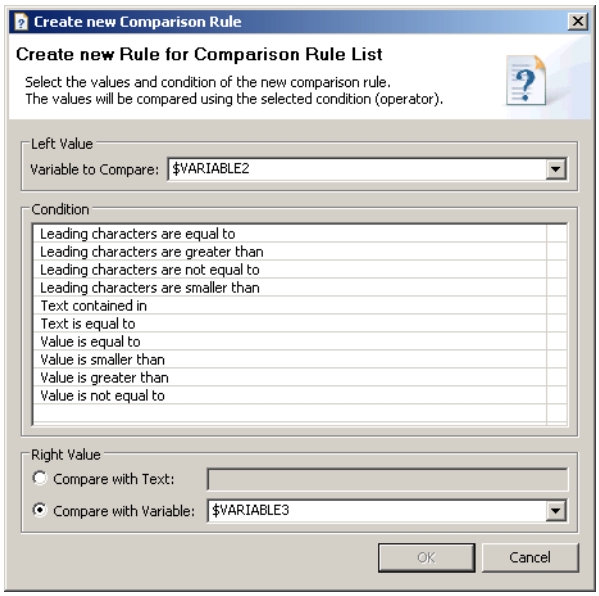
The following icons are available on the **Rules** tab.

Icon	Description
	This icon lets you create a new rule. See under this table Defining a new rule.
	A click on this icon enables you to modify the settings of an already created and selected rule in the **Edit Comparison Rule** dialog (analog to the **Create new Comparison Rule**) dialog.
	You use this icon to remove a selected rule from the list.
 	If you have created several rules, they are applied in order from top to bottom. Using these icons you can move a selected rule in the list up or down.

Tabelle 56 Icons on the “Rules“ Tab

Defining a new rule

1. Click on . The following dialog opens:



   Each specified rule follows the same format, in which the value of a variable is compared with the value of another variable or with a permanent value. The comparison is performed using a specific comparison operation such as “greater than” or “smaller than”. This comparison operation serves as condition for declaring the result of a rule as applicable or not applicable.

2. In the **Left Value** area you select the **Variable to Compare**, which is to deliver the first comparison value. Here you can fall back to variables you have specified for the entire workspace or for the application.

3. Select one of the comparison operations in the X**Condition** section. Possible comparison operations are:

   - Leading characters are equal to
   - Leading characters are greater than
   - Leading characters are not equal to
   - Leading characters are smaller than
   - Text contained in
   - Text is equal to
   - Value is equal
   - Value is smaller than
   - Value is greater than
   - Value is not equal to

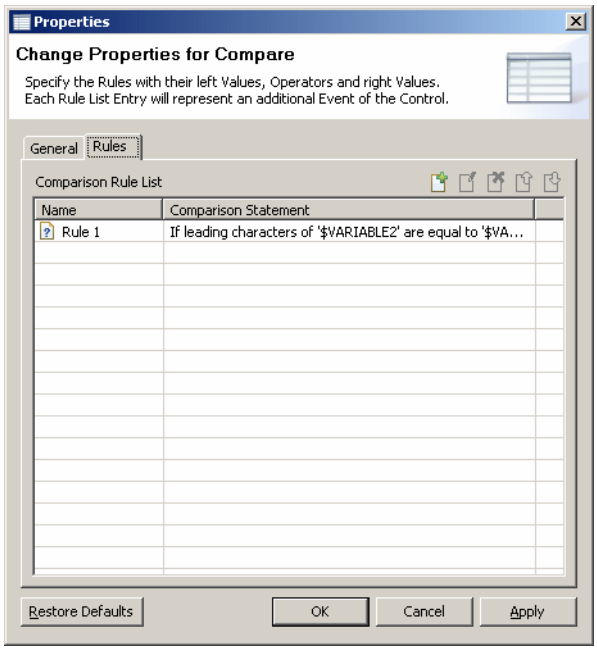
4. Subsequently, you determine in the **Right Value** area with which value the value from the variable in the **Left Value** section is compared. You have the following two options:

   - In the **Compare with Text** field you can enter a text to be compared with the variable set in step 2.
   - In the **Compare with Variable** field you can select a **Variable** to be compared with the variable set in step 2.

   The value of the **Variable to Compare** is now compared with the value from the variable in the **Right Value** section or with the permanent text under consideration of the **Condition**. This assignment is stored as rule and implemented in the application upon the execution of the Compare control. Depending on the result of a rule comparison (condition applies or not), the call is forwarded to the next control.

   Example: The callers' phone numbers are stored in the **Left Value** area. If you want to filter all calls from Germany, use the **Leading characters are equal to** condition and specify `"+49"` in the **Compare with Text** field. For each caller from Germany the call is forwarded to a specific control.

5. If you have made all entries for creating a rule, click on **OK**. The created rule appears now in the **Comparison Rule List** on the **Rules** tab.



   You can rename the newly created rule with a click on the defaulted **Name** of the rule. Enter the desired rule name, e. g. ” Caller from Germany”, and then push the Enter key . Your modifications have been copied. The **Name** field must always be filled in so that a connection to the ensuing control can be set up when the rule's condition is complied with.

Connection

Depending on whether or not a rule comparison condition applies, you can create a connection to a control. I.e. a connection can be created for each rule the comparison operation of which delivers a match (**Test**). Analog to this you can create a connection for the case that a rule condition does not apply (**No hits**).

6.3.18 Script Control

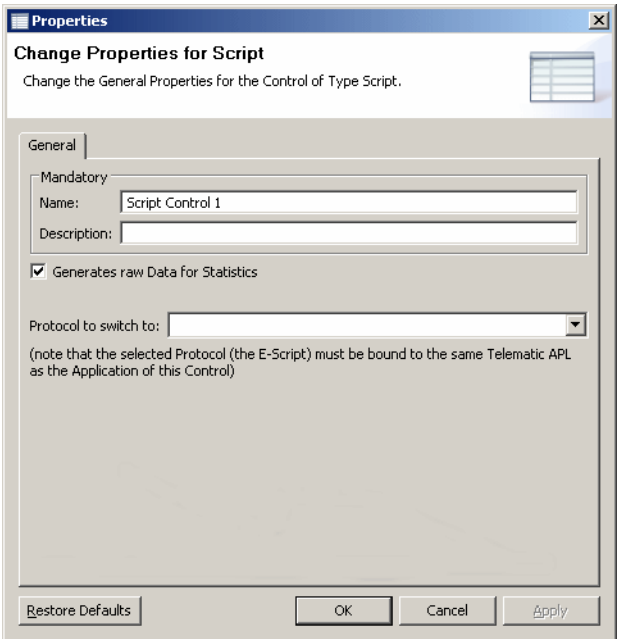
With the help of this control you can start another protocol (E-script). By this, B-channels of an ISDN line can be kept free. The following example illustrates this advantage.

Example: A PBX forwards a call to the XPR system in which the Vogue script is started. Now PhoneMail is required, for example. Without a Script control the call is routed back to the PBX and XPR system in which PhoneMail is started. Thus 3 B-channels are occupied. The script now contains the feature that a call does not have to be sent back from the XPR to the PBX, but is forwarded within the XPR system to PhoneMail. Thus only one channel is used instead of the previously 3 B-channels that were occupied, and thus resources are saved.

If the Connect control and not the Script control is used to call a voicemail system, two of the three B-channels can be abolished by path replacement. See Abschnitt 6.3.14, “Connect Control”, auf Seite 252.

HINWEIS: Still, the script to be selected must have been configured in the same Telematic APL as the Vogue script. All defined scripts are displayed in the selection field however. Before you select a script you have to make sure that this script has been configured in the same telematics APL (e.g. IP or ISDN APL) as the Vogue script.

The configuration dialog of the Script control solely features the **General** tab, on which the following setting options are available. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

In the **Protocol to switch to** field you receive a selection of possible scripts. You should make sure that this selected script has been configured in the same Telematic APL as the protocol for your application. If you have e.g. configured the Vogue protocol in the ISDN APL for this application, the here selected script must be configured there. An example of a script to be newly selected is PhoneMail.

HINWEIS: To select an E-script you must be connected to an XPR server. You log on in the work area under the **Vogue Server** entry.

Connections

In case of an error, thus a failed script change, a control should be set for forwarding the call.

6.3.19 Definition Control

With the Definition control, one or several variables are defined or values are assigned to existing variables. Such variables can be read and set in other controls of the same application, if they are not write-protected.

A variable can be assigned a string, a number, a voice file or the value of another variable. It does not have to be defined right at an application's start, but only when it is needed. It is not possible to only declare a variable and define it at a later date. A data type is automatically assigned to a variable by value assignment.

A variable can be defined in more controls than just the Definition control, but only this control lets you assign a value to a variable. In the DTMF Input control you can, for example, define two new variables. The mandatory assignment of the number of pushed keys and the entered key sequence for these variables may exclusively occur in a Definition control.

Except for the Definition control, variables can be specified for the entire workspace or for an application. See Abschnitt 5.3.2, “Workspace View”, auf Seite 99.

HINWEIS: Application-specific variables can be defined as write-protected (see Abschnitt 5.3.2.1, “Settings in the Workspace”, auf Seite 100). These variables can thus not be modified when these variables are used in an application. You can, however, assign a value to the variables in the Definition control so that the variables' content is not empty. This assignment can exclusively be carried out in the Definition control.

The following default-system variables can be used in an application:

Variable name	Description	Data type/Format
$DATE	Current date	String/TT.MM.JJJJ
$TIME	Current time	String/hh:mm:ss
$REDIRECTED	Phone number of the redirected phone	Phone number
$CALLED	Phone number of the callee	Phone number
$CALLER	Phone number of the caller	Phone number
$CALLID	Call ID	string

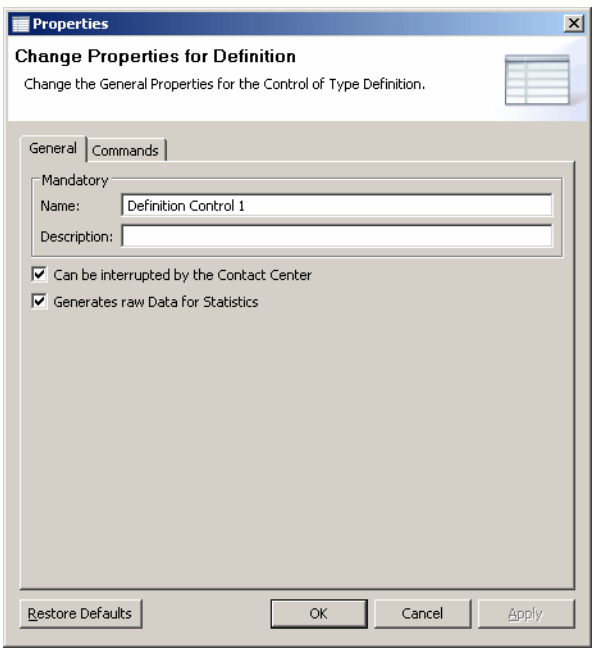
Tabelle 57 Preinstalled Variables

`$CALLER` is, for example, used to save the caller's number. It would be possible to design an application that forwards a caller A to a Definition control that allocates `$CALLER` with the phone number of a user B and subsequently forwards to a Connect control that connects him/her with a user C. If user C has a telephone that displays the caller's number, he/she would see user B's number though user A is calling.

The configuration dialog of the Definition control provides the tabs **General** and **Commands**.

“General” tab

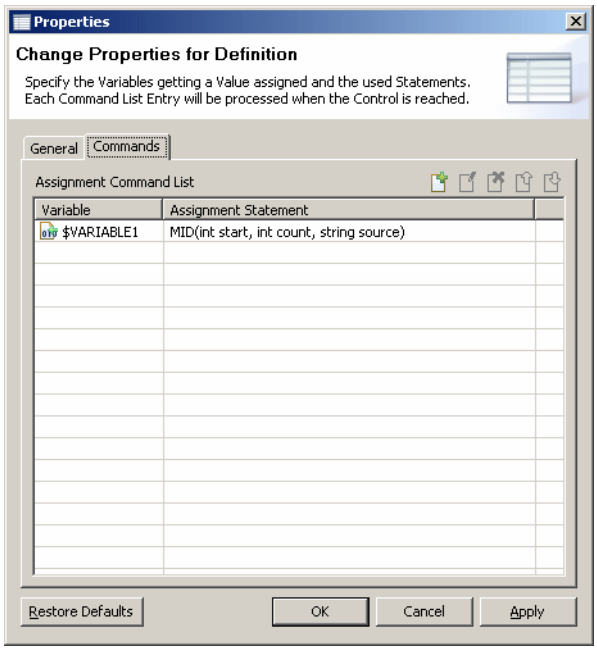
On the **General** tab of the Definition control you can perform the following settings. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

“Commands” tab

On the **Commands** tab you define one or several commands for assigning values of created variables. This definition is realized with the help of a wizard.



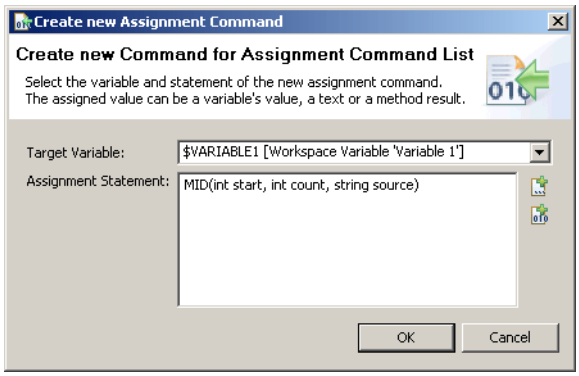
The following icons are available on the **Commands** tab.

Icon	Description
	This icon lets you create a new command. See under this table Defining a new rule.
	A click on this icon enables you to modify the settings of an already created and selected command in the **Edit Assignment Command** dialog (analog to the **Create new Assignment Command**) dialog.
	You use this icon to remove a selected command from the list.
	If you have created several commands, they are applied in order from top to bottom. Using these icons you can move a selected command in the list up or down.

Tabelle 58 Icons on the “Commands“ Tab

Defining a new assignment command

1. Click on the X icon to define a new command for assigning a value of a new or of an already existing variable. The following dialog opens:



2. Select a **Target Variable** already configured for the workspace or application or click on the **Create new variable** link to create a new variable. The variable name must start with **$** and comprise capital letters only.

HINWEIS: The variables `$DATE` and `$TIME` are not write protected. They must not be assigned any values.

---

3. In the **Assignment Statement** field you enter either a method invocation or a variable the result or value of which is to be assigned to the variable. In doing so please keep in mind that there are different data types.

   - *string*: if the text “Sven” is to be assigned to a variable, enter “Sven”. Please do not forget the inverted commas. To link the strings, enter them in succession. A string may be implicitly converted into a number if it contains digits only.
   - *int*: if you want to assign a number to a variable, enter it. Be sure to enter the number without inverted commas since otherwise a string will be assigned that merely contains the number as character. This differentiation is important as you can, for example, add a number but not a string. On the other hand, you can link a string to another string, but not two numbers to each other. A number may adopt values between inclusive -2^{31} and $2^{31}-1$, thus -2147483648 and 2147483647. If required, a number is implicitly converted into a string. For arithmetic operations, only the below instructions ADD, SUB, MUL and DIV are permitted. The operators ’+’, ’-’, ’*’ and ’/’ are not allowed.
   - *Datei*: You can also assign the relative path, e.g. to a voice file, to a variable. For this purpose, enter the name of the file, for example `NameDialTooManyMatches.pcm`, without inverted commas. This variable can then be used, for example in the Prompt control, to play this file to the caller. If you enter the file name enclosed in inverted commas, not the actual voice file but the name is assigned to the variable as string.

Voice files for the Application Builder are stored either in the `<OpenScape Xpressions Install>Userdata\vogue\` directory respectively in one of the subfolders or in a user-defined resource folder.

HINWEIS: Make sure that you configure the prompts as well as the associated audio files in the prompt settings of the workspace or application. These configured prompts are assigned to a language and can be retrieved by the Vogue script.

- *Phone number*: if a number prefixed with a plus sign is entered, the entry is neither interpreted as number nor as string, but as phone number. Phone numbers are always normalized. Example: `+4924049010` Phone numbers cannot be added or linked.

HINWEIS: There are no floating point numbers and no hexadecimal numbers.

HINWEIS: If you use a non-defined variable, it is always forwarded as empty character string.

WICHTIG: The value of a string variable may reflect a language name used in a Language control to toggle the application language. Such language names may adopt only specific values, which are mentioned in Tabelle 44 auf Seite 217 and reflect languages licensed and installed on your XPR server.
The Application Builder respectively the application created with it cannot determine which languages are licensed and installed in the XPR server. It can only determine whether or not a directory or a language file exists.

In addition, the use of definitions in the XML-based SSML is supported. This serves for creating greetings in prompts by means of TTS. But instead of specifying a continuous text for greeting output, the text playback can be adjusted with the help of a special notation. For example, phone numbers may be announced digit by digit and slowly, thus for everybody to understand. The variables defined with SSML entries can thus be used as prompts.
Specify the desired entry in SSML for using SSML as **text**. One example of this specification would be
“`<say-as interpret-as=”telephone”>012387654</say-as>`”, which announces the number as phone number. You find a list of all possible definitions in SSML in the user guide of the supported speech recognition system, e.g. RealSpeak Telecom Software Development Kit

on the supplied DVD for installing the languages to enable text-to-speech. You can obtain further information about SSML from the web pages of the W3C institution.

There are function calls that extract parts from a string or apply arithmetic operations to integers: Click on  to receive the following selection:

Instruction	Description
string LEFT (*int* count, *string* source)	Returns the left part of the specified “source” string up to the specified length “count”. If the “count” length exceeds the length of the complete “source” string, the complete string will be issued. Example: LEFT (4, “Example”) = “Exam”
string RIGHT (*int* count, *string* source)	Returns the right hand part of the specified “source” string of the specified length “count”. If the “count” length exceeds the length of the complete “source” string, the complete string will be issued. Example: RIGHT (4, “Example”) = “mple”
string MID (*int* start, *int* count, *string* source)	Returns the medium part of the specified “source” string starting from the position “start” (the index starts with 0 and not with 1) with the specified “count” length. Example: MID (3, 2, “Example”) = “mp”
int LEN (*string* source)	Returns the number of characters in the “source” string. Example: LEN (“Example”) = 7
int FIND (*string* source, *string* sub, *int* start)	Finds the specified “sub” string part in the superior “source” string starting from a specified “start” position (the index starts with 0 and not with 1) and returns the position of the string part that was searched for. Example: FIND (“Example”, “Exam”, 1) = 0
int ADD (*int* a, *int* b)	Adds the two values a and b and returns the sum. Example: ADD (4, 2) = 6
int SUB (*int* a, *int* b)	Subtracts the value b from value a and returns the difference Example: SUB (4, 2) = 2; SUB (2, 4) = -2
int MUL (*int* a, *int* b)	Calculates the product of the two values a and b. Example: MUL (4, 2) = 8
int DIV (*int* a, *int* b)	Divides value b by value a. Value b must be unequal 0. Neither floating point numbers nor the rest of the division are specified. Example: DIV (4, 2) = 2; DIV (2, 4) = 0
int DAY()	Delivers the current date
int MONTH()	Delivers the current month
int DAYOFWEEK()	Delivers the current weekday
int YEAR()	Delivers the current year
int HOUR()	Delivers the current hour
int MINUTE()	Delivers the current minute
int SECOND()	Delivers the current second

Tabelle 59 Function Calls as Instructions

Instruction	Description
string TIMESTR(string pattern)	Delivers the current time in the specified “pattern“ format Example: stringTIMESTR(“hh:mm”)=”07:34”

Tabelle 59 Function Calls as Instructions

HINWEIS: Instructions may be nested. `ADD(SUB(4,2),3)`, for example, results in `5`.

After a click on the  icon an overview opens that shows already defined variable, which can thus be used in the assignment definition.

In the following we list assignment examples for demonstration.

Assignment example	Data type of the result	Remark
“I am a text.” “I am a text, too.”	string	The strings may be separated by a blank. Result: “I am a text.I am a text, too.”
“The result reads:” $VAR	string	$VAR must be of data type *string* or *int*. It does not matter whether this variable has already been defined in another Definition control, in any other control or in the same Definition control. If $VAR is of file type *int*, an implicit conversion into file type *string* takes place. Result, if $VAR has value “3” or 3: “The result reads:3”
“The result reads:” ”$VAR”	string	Since $VAR is enclosed in inverted commas, not the value of $VAR but the string “$VAR” is attached. Result: “The result reads:$VAR”
$FORENAME”'s surname is “$SURNAME”.”	string	$FORENAME and $SURNAME must be strings or integers. Result if $FORENAME has value “Sven” and $SURNAME has value “Svensson”: ”Sven's surname is Svensson.”
“Sven is ”3” years old.”	string	Here, an implicit conversion of 3 (datatype *int*) into “3” (data type *string*) takes place. Result: “Sven is 3 years old.”
“Welcome.pcm”	string	The result is the name of the file, thus a string, not the actual file: “Welcome.pcm”
“+4924049010”	string	This is no phone number but a string: “+4924049010”

Tabelle 60 Allowed assignments

Assignment example	Data type of the result	Remark
ADD(3, “24”)	INT	“24” is implicitly converted into an integer, since “24” only contains digits. Result: 27

Tabelle 60 Allowed assignments

The following assignments are not allowed:

Prohibited assignment	Remark
“The file is called “ Welcome.pcm ”.”	This is not allowed, since the data type file is not implicitly converted into string.
+4924049010 +4924049010	This is not allowed, since phone numbers cannot be linked.
ADD(+4924049010,+4924049010)	This is not allowed, since arithmetic operations cannot be applied to phone numbers.
ADD(3.4, 5)	This is not allowed, since there are no comma numbers.
ADD(3, ”4A”)	This is not allowed, since the string does not exclusively contain digits. Hexadecimal numbers are unknown.

Tabelle 61 Prohibited assignments

4. Confirm your assignments with **OK**. The variable is listed with the created assignment definition.

Connections

As regards connecting other controls we differentiate two options. The definition and assignment of one or several variables has either been successful (**Finish**) or an error has occurred in this process (**Error**).

6.3.20 ASR Menu Control

The ASR Menu control acts analog to the DTMF Menu control like a distributor to other controls. But the menu is additionally controlled via voice entries and not only using the keyboard.

By announcement the caller is given an overview of possible controls for forwarding and can then be connected to the desired control. With the ASR Menu control the desired control cannot only be selected via DTMF keys but also by voice entry of keywords. The keywords are freely selectable when configuring the control. During the execution of the control a speech recognition algorithm recognizes such words and forwards to the corresponding control.

Contrary to the DTMF Menu control, the ASR Menu control cannot be set by parameter configuration in a way that the entry process is repeated in case of an error. The solution to this is forwarding the error exit of the ASR Menu control to the same ASR Menu control.

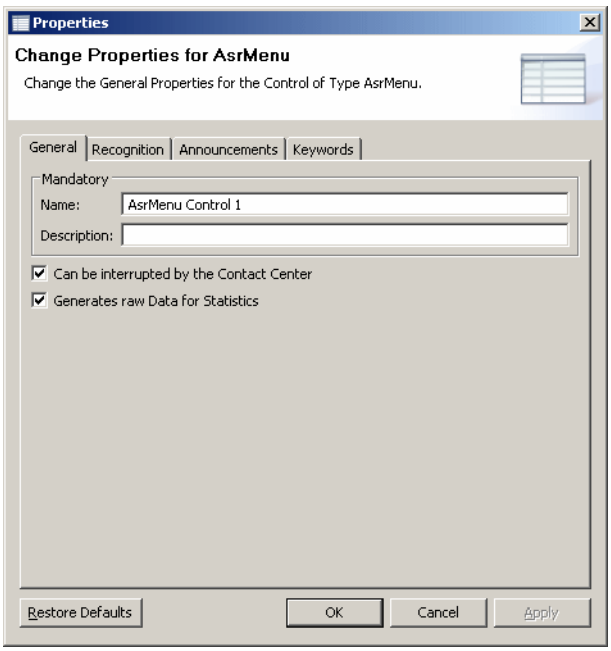
HINWEIS: You can obtain further detailed information on the process and systematics of speech recognition from various manuals in the documentation directory of the supplied speech recognition system by *Nuance Vocalizer*.

WICHTIG: Verify that the speech recognition system is available in all languages used by your application.

The ASR Menu control contains four tabs: **General**, **Recognition**, **Announcements** and **Keywords**.

“General” tab

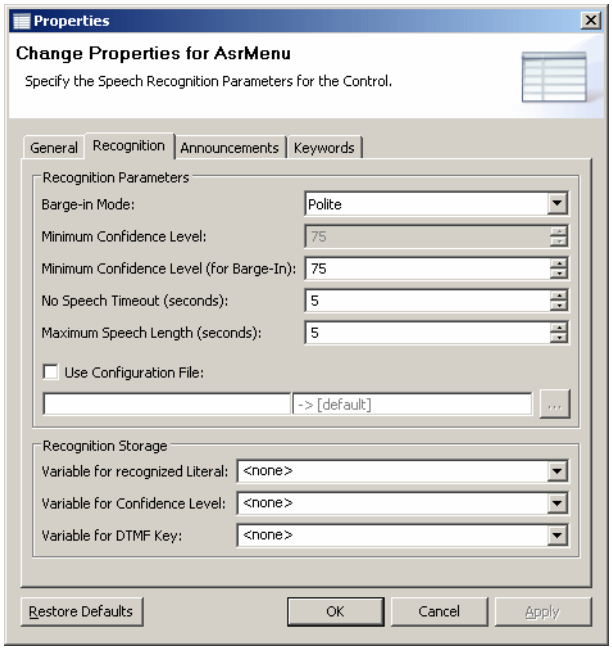
On the **General** tab of the ASR Menu control the following settings can be performed. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

“Recognition” tab

Within this tab you can set specific patterns of behavior for the speech recognition software. For example, you can configure the minimum level of speech recognition, the announcement start time and recognition of voice commands, or the termination of speech recognition due to a timeout.



In the **Recognition Parameters** section you can perform the following settings:

Field	Description
Barge in mode	The **barge-in mode** (cutting off mode) determines when the speech recognition starts during an announcement playback and the announcement playback is stopped. In none of the cases the announcement would be repeated like in the DTMF Menu control if required. In all cases the control linked to the **Timeout** condition is forwarded to if no keyword is recognized after the announcement list has been played and the time set under **No Speech Timeout (seconds)** has expired. • **Off** The speech recognition and also the DTMF key recognition does not start until the entire announcement list for this control has been played. • **Basic** Playing the greeting list of the control is canceled when the speech recognition system recognizes any tone with a minimum volume. It does not matter here whether a keyword has been recognized as valid. Valid means that the confidence barge in has been reached or exceeded.

Tabelle 62 The Fields of the “Recognition” Tab

Field	Description
	• **Continuous** Playing the announcement list of a control is only canceled if the speech recognition has recognized a keyword in the user's voice entry as valid. • **Polite** Playing the announcement list of a control is interrupted as long as the user performs a voice entry. Playing the announcement list of a control is only canceled if the speech recognition has recognized a keyword in the user's voice entry as valid. Otherwise, after expiration of the maximum talk delay, the announcement list will be continued from the point at which it was interrupted. When the caller then makes another voice entry, the announcement will be interrupted again. The default value is “Polite”.
Minimum Confidence Level	Confidence level is the demanded minimum level of speech recognition in percent. If the speech recognition recognizes a keyword while the caller makes entries by voice and the speech recognition level reaches or exceeds this minimum level, the recognition is considered valid and forwarded to the control that is linked to the recognized keyword on the Keywords tab. Otherwise the speech recognition will report an error. The value may be between 0 and 100 percent. The default value is 75 %.
Minimum Confidence Level (for Barge-In)	If the barge-in mode is active, the caller may make a voice entry while an announcement is being played (“Announcements” tab). The confidence level for the barge-in mode is the minimum value of the speech recognition level with which a keyword must be recognized in this cutting off situation. The announcement is interrupted and the control linked to the keyword is executed. The value may be between 0 and 100 percent. The default value is 75%.
No Speech Timeout (seconds)	The caller must start his/her voice entry until the time specified in seconds after the end of the announcement playback. Otherwise the entry will be abandoned. Value “0” deactivates this function, so that no timeout can occur. The default value is 5 seconds.
Maximum Speech Length (seconds)	This period in seconds defines how long the voice entry of a caller may last. Value “0” deactivates this function, so that no timeout can occur. The default value is 5 seconds.

Tabelle 62 The Fields of the “Recognition” Tab

The values to be set can also be read from a file to be specified in the field under the **Use Configuration File** checkbox. This file is a text file that exclusively contains lines according to the following example:

```
Confidencelevel=75
ConfidencelevelBargeIn=70
BargeInMode=off
MaxSpeechTimeout=10000
```

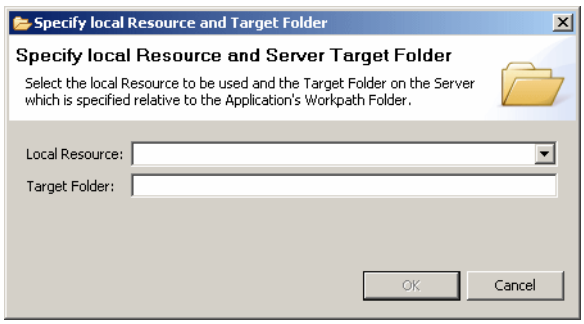
Such a file cannot be automatically created by Application Builder, but must be created manually. The following variables and value allocation notation must be adhered to.

Meaning	Variable	Permis-sible values	Default value	Deacti-vation value
Confidence level	ConfidenceLevel	0 ... 100	75	
Barge in confidence level	ConfidenceLevel-BargeIn	0 ... 100	75	
Barge in mode	BargeInMode	Off, Basic, Continuous, Polite	Polite	
Talk end delay	EndOfSpeehTimeout	0 ... 2^{31}-1	0	0
Max. talk delay	NoSpeechTimeout	0 ... 2^{31}-1	7	0
Max. talk time	MaxSpeechTimeout	0 ... 2^{31}-1	7	0

Tabelle 63 Configuration File for the ASR Menu Control

The talk end delay is the time that must elapse after the voice entry of a caller, so that the end of the voice entry can be recognized as such.

The configuration file is selected via the ... icon and the following dialog:



In the **Locale Resource** field specify the file path at which the configuration file is found. This file must have the `txt` extension for text file. This file is stored underneath the `<XPR install>/userdata/vogue` default folder.

In the **Target Folder** field you can create a folder that is defined in the mentioned default directory and serves as storage location for the configuration file.

Using the following selected or newly to be defined variables in the **Recognition Storage** section you can store the results of recognizing voice commands or DTMF keys.

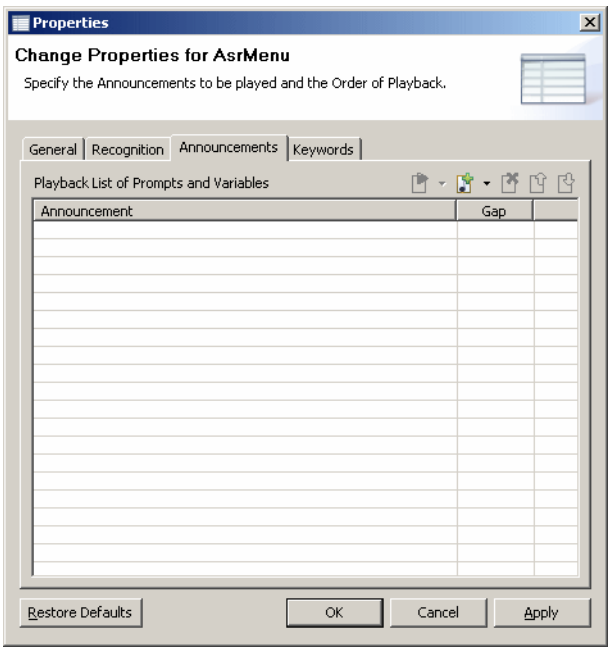
Field	Description
Variable for recognized Literal	Here you specify the variable that stores the recognized keyword.
Variable for Confidence Level	In this field you can assign the level of speech recognition determined at the recognition of a keyword to an existing variable or to one to be newly defined. The value may be between 0 and 100 percent. 100% means definite recognition of a keyword. The smaller the value, the more unlikely has a keyword been recognized.

Field	Description
Variable for DTMF key	If you enter a command via DTMF keys, you may here specify the variable in which the pressed key is stored.

For each of the fields in the above table a new variable can be created via the **Create new variable...** link.

“Announcements” tab

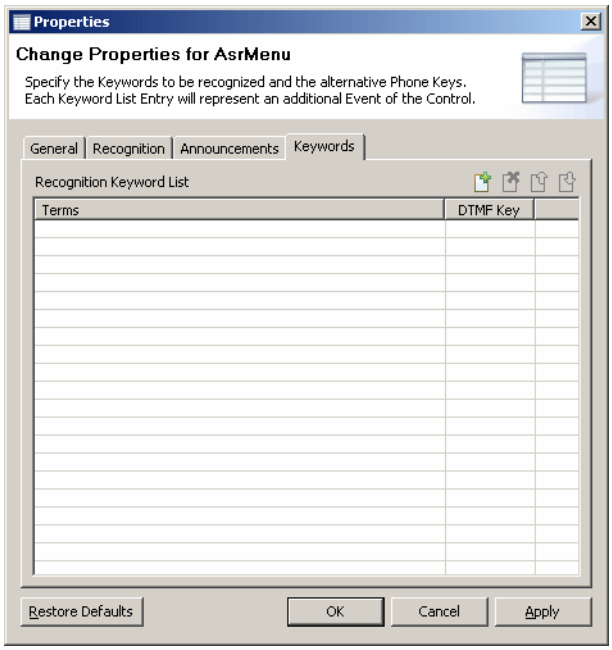
This tab allows selecting or recording an announcement to be played at the control execution. This announcement should contain control operation instructions for the user.



For the tab's operation please refer to the descriptions in Abschnitt 6.3.3, ““Announcements” tab”, auf Seite 205.

“Keywords” tab

On this tab you define the keywords to be recognized and the corresponding DTMF keys to be pushed.



The following icons are available on this tab.

Icon	Description
	This icon lets you create a new keyword. See under this table Defining a new keyword.
	Via this icon a selected keyword is removed from the list.
	Using these icons you can move a selected keyword in the list up or down. This order does not influence the function and serves merely to increase clarity.

Tabelle 64 Icons on the “Keywords“ Tab

Defining a new keyword

1. Click on  . The mousepointer is positioned in the **Terms** of the **Recognition Key List** column.
2. Enter the desired keyword. This keyword can be normal text or a variable.
3. In the **DMTF key** column you can optionally specify a key that can be pushed to forward to the same control. The DMTF keys are the telephone keys 0 to 9 as well as the keys * and #.

4. Confirm your entries with the Enter key.

HINWEIS: The number of entries in the table may exceed the number of DTMF keys. In this case only the 12 most important entries are assigned DTMF keys.

HINWEIS: If several keywords are entered, they must be separated by semicolon. The length of all keywords of an entry must not exceed 512 byte.

HINWEIS: The speech recognition system can recognize DTMF keys announced by means of voice entries (see Abschnitt 6.3.3, “DTMF Input Control”, auf Seite 202). Using digits as terms of the recognition keyword list (“one”, “two”, etc.) can thus not deliver the desired result and should be avoided. Instead, use meaningful terms for navigating in the menu (e.g. operator, information, order status, etc.).

HINWEIS: Enter for each keyword also the translations into the languages in which your application will be used, so that the speech recognition can correctly take effect in such languages as well.
Example: You enter “Help” as keyword. If the application is then executed in German, the word “Help” will never be recognized since the announcement text of the ASR Menu control will prompt the user to enter the German word “Hilfe”. The entry “Help;Hilfe” would be the solution in this case.

Connections

The ASR Menu control allows a connection to a control for each configured and recognized keyword. Furthermore, a differentiation is made between possible speech recognition errors (**Error**), the timeout in case of an entry (**Timeout**) or a faulty or unrecognized entry (**No hits**).

6.3.21 ASR Expert Control

Like the ASR Menu control, this control uses a speech recognition system with associated grammar file to detect voice commands by the user. The function of the ASR Expert control differs radically from the ASR Menu control function though. While the ASR Menu control is used for forwarding to other controls by means of voice commands, announcements or portions of them are stored in the ASR Expert control for further usage. In addition, the ASR Menu control accepts only keywords, whereas in the ASR Expert control entire sentences can be announced. From these whole sentences the speech recognition system filters and arranges the sentence parts via grammar file key and stores them in variables that can be used for further functions. A key has a unique name and serves as container for an amount of words and sentence fragments that are explicitly assigned to the key in the grammar. In most cases a key represents a specific functionality that may exist in a linguistic statement. For example, actions, persons, directions, time data etc. are stored in a key each.

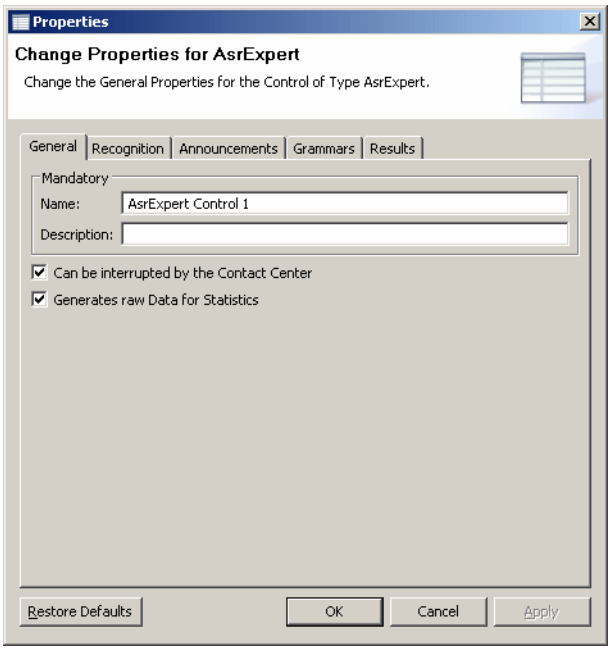
A key in a grammar may e.g. serve for acquiring locations. By means of this key the speech recognition system recognizes in an announcement the term “at the workstation”, which is assigned to key “location” in the grammar. This term is stored in a variable and may be used in other controls.

HINWEIS: You can obtain further detailed information on the process and systematics of speech recognition (among other things on the structure of a grammar and on the key tasks) from various manuals in the documentation directory of the supplied speech recognition system by *Nuance Vocalizer*.

The configuration dialog of the ASR Expert control comprises five tabs: **General**, **Recognition**, **Announcements**, **Grammars**, **Results**.

“General” tab

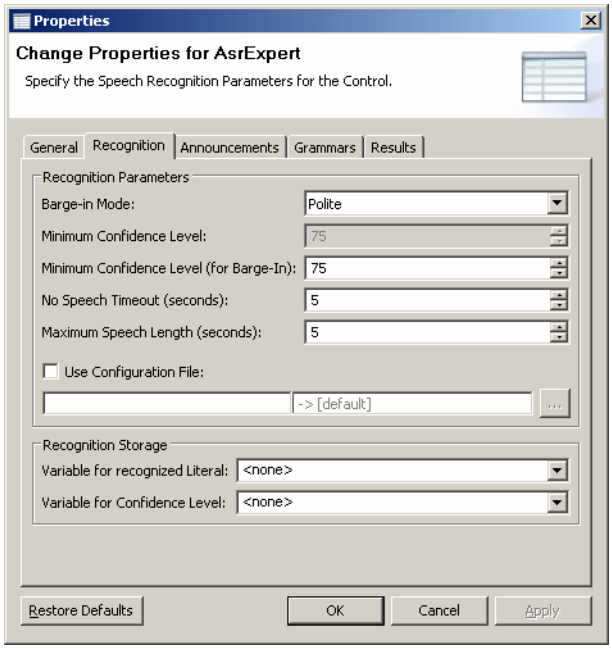
The **General** tab of the ASR Expert control contains the following setting options. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

“Recognition” tab

Within this tab you can set specific patterns of behavior for the speech recognition software. You can thus configure for the announcement and recognition of voice commands when to start or, owing to a timeout, when to finish.



In the **Recognition Parameters** section you can perform the following optional settings:

Field	Description
Barge-in Mode	With this option you can define for the speech recognition when it should start or should be accessible by the user: • **Off**: The speech recognition (and also the DTMF key recognition) does not start until the entire announcement list for this control has been played. • **Basic**: Playing the announcement list of the control is canceled when the system recognizes the start of a user's voice message. • **Continuous**: Playing the announcement list of a control is only canceled if the speech recognition has recognized the user's voice message as valid. • **Polite**: Playing the announcement list of a control is interrupted as long as the user performs a voice entry. Playing the announcement list of a control is only canceled if the speech recognition has recognized the user's voice message as valid.
Minimum Confidence Level	Sets the announcement recognition minimum that the speech recognition system must perform for a valid recognition. If this minimum portion of an entire announcement is recognized by the speech recognition system, the associated command is executed. Otherwise the speech recognition will report an error. The value may be between 0 and 100 percent.

Tabelle 65 The Fields of the “Recognition” Tab

Field	Description
Minimum Confidence Level (for Barge-In)	Sets the announcement recognition minimum that the speech recognition system must perform for a valid recognition while the announcement list is played. The value may be between 0 and 100 percent. The default value is 75 seconds.
No Speech Timeout (seconds)	The user must start his/her announcement within the time specified. Otherwise it will be canceled. Value “0” deactivates this function, so that no timeout can occur. The default value is 5 seconds.
Maximum Speech Length (seconds)	This period in seconds defines how long the announcement of a user may last. Value “0” deactivates this function, so that no timeout can occur. The default value is 5 seconds.

Tabelle 65 The Fields of the “Recognition” Tab

The values to be set can also be read from a file to be specified in the field under the **Use Configuration File** checkbox. This file is a text file that exclusively contains lines according to the following example:

```
Confidencelevel=75
ConfidencelevelBargeIn=70
BargeInMode=off
MaxSpeechTimeout=10000
```

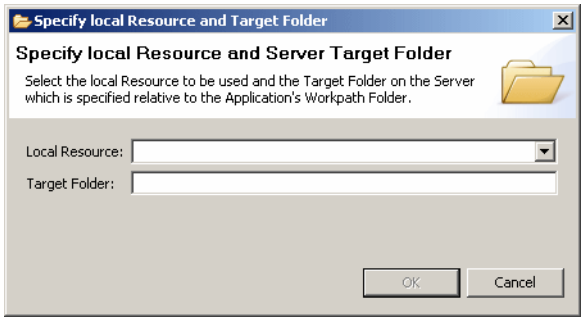
Such a file cannot be automatically created by Application Builder, but must be created manually. The following variables and value allocation notation must be adhered to.

Meaning	Variable	Permissible values	Default value	Deactivation value
Confidence level	ConfidenceLevel	0 ... 100	75	
Barge in confidence level	ConfidenceLevel-BargeIn	0 ... 100	75	
Barge in mode	BargeInMode	Off, Basic, Continuous, Polite	Polite	
Talk end delay	EndOfSpeehTimeout	0 ... 2^{31}-1	0	0
Max. talk delay	NoSpeechTimeout	0 ... 2^{31}-1	7	0
Max. talk time	MaxSpeechTimeout	0 ... 2^{31}-1	7	0

Tabelle 66 Configuration File for the ASR Expert Control

The talk end delay is the time that must elapse after the voice entry of a caller, so that the end of the voice entry can be recognized as such.

The configuration file is selected via the  icon and the following dialog:



In the **Locale Resource** field specify the file path at which the configuration file is found. This file is stored under the <`OpenScape Xpressions` install>/ userdata/vogue default folder and must have the `.txt` file extension.

In the **Target Folder** field you can create a folder that is defined in the mentioned default directory and serves as storage location for the configuration file.

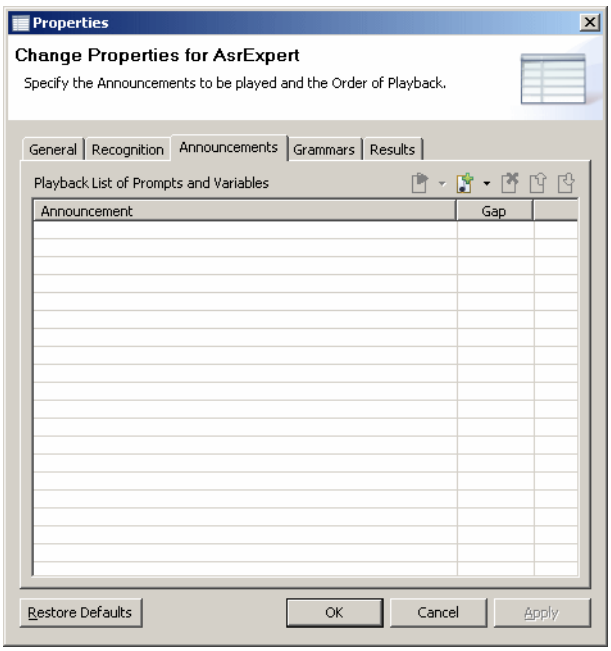
Using the following selected or newly to be defined variables in the **Recognition Storage** section you can store the results of recognizing voice commands or DTMF keys.

Field	Description
Variable for recognized Literal	This variable saves the entire announcement
Variable for Confidence Level	The confidence level determines a percentage between 0 and 100 that represents the speech recognition level. A value of 100 indicates the complete recognition of an announcement. Any value below this percentage consequently means that a specific portion of the announcement was not recognized. You can set the minimum level for this voice recognition degree on the **Recognition** tab in the **Recognition Parameter** section.

Tabelle 67 The Fields of the “Recognition” Tab

“Announcements” tab

This tab allows selecting or recording an announcement to be played at the control execution. This announcement should contain control operation instructions for the user.

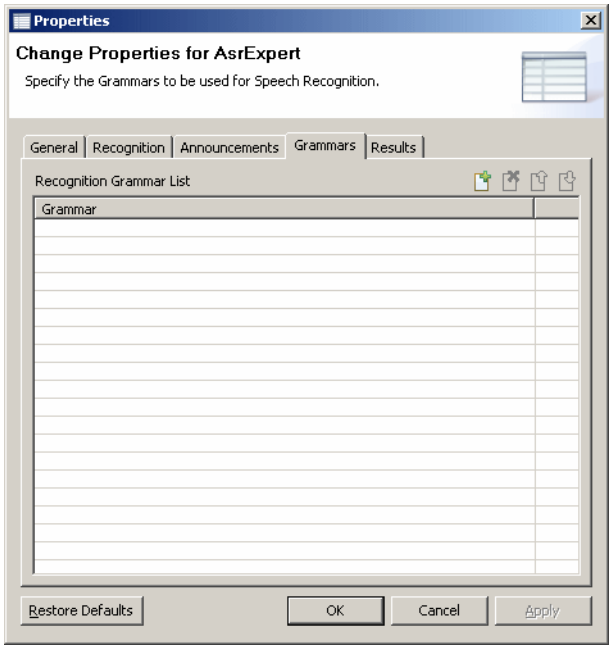


You are provided with information on handling recordings under Abschnitt 6.3.3, ““Announcements” tab”, auf Seite 205.

“Grammars” tab

On this tab you can select one or several grammar files for speech recognition. To this you need to select the corresponding file name of the grammar.

Each grammar file indicated by the `.grxml` extension is loaded by the speech recognition system from the path <`OpenScape Xpressions` install>\res\E\vogue\ASR\ . For the single language the files are stored accordingly in sub-directories such as `\German`. In the Application Builder you can load every grammar file you select here on this tab from any path and for every language configured in the workspace. Since the selected grammar file must also be in path <`OpenScape Xpressions` install>\res\E\vogue\ASR\, you should store all grammar files under this path. Please also note the structure underneath these directories, i.e. the grammar files should be in the sub-directories of the corresponding language. For example, grammar files in German should be stored in the `German` folder. Only in this way one of these files can be selected in the Application Builder as grammar file and serve as base for the speech recognition system.



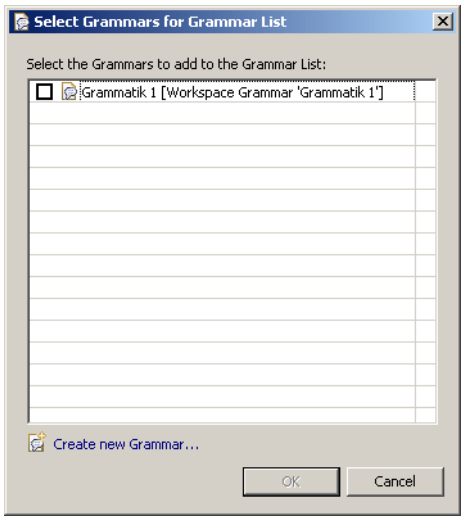
The following icons are available on the **Grammars** tab.

Icon	Description
	This icon lets you create a new rule. See under this table Adding a grammar file.
	You use this icon to remove a selected grammar file from the list.
	Using these icons you can move a selected grammar in the list up or down. The grammar files are queried for speech recognition according to the sequence of the list entries.

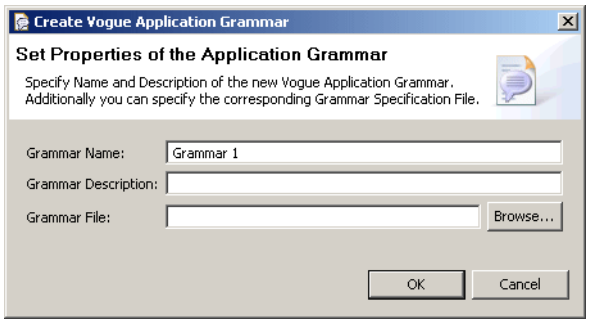
Tabelle 68 Icons on the “Grammars“ Tab

Adding a grammar file

1. Click on . The following dialog opens.



In this dialog you can add new grammar files or select those already configured for the workspace or application. If you want to add a new grammar file, click on the **Create new grammar...** link. The following dialog opens:



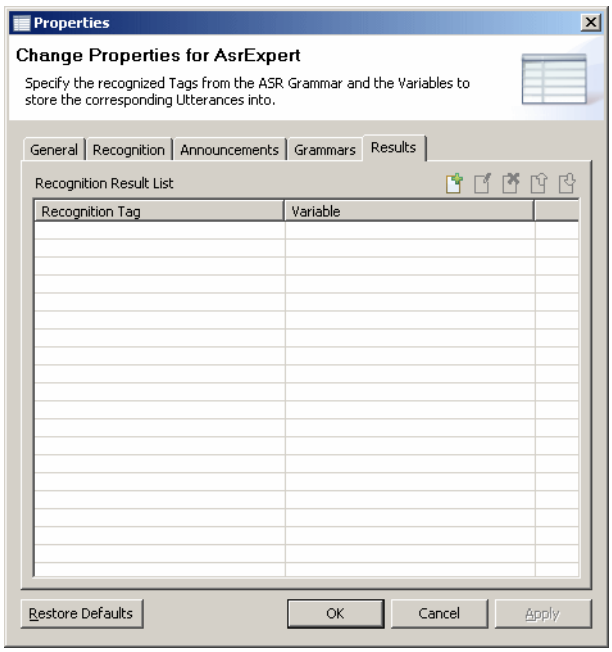
Continue with the steps described in Abschnitt 5.3.2.4, “Adding a grammar file”, auf Seite 122.

“Results” tab

On this tab you can define keys the recognized values of which can be saved in variables. In case of an announcement, the speech recognition system searches the grammar for keys specified on this tab. In the grammar file specific values are assigned to these keys. The speech recognition system checks whether these values in the grammar file match the announcement or portions of it. Found matches are stored in the defined variables.

HINWEIS: The based-on grammar file is not be analyzed so that the Application Builder does not list the keys available in the grammar file. You thus need to analyze the grammar file yourself for entering valid keys.

HINWEIS: You are provided with a description of how to use keys and their values in the context of grammars for speech recognition in the *OSR Developer Guide* manual. You find this manual in the documentation directory of the supplied speech recognition system by Nuance Vocalizer.



The following icons are available on the **Results** tab.

Icon	Description
	This icon lets you create a new key (result). See under this table Adding a result.

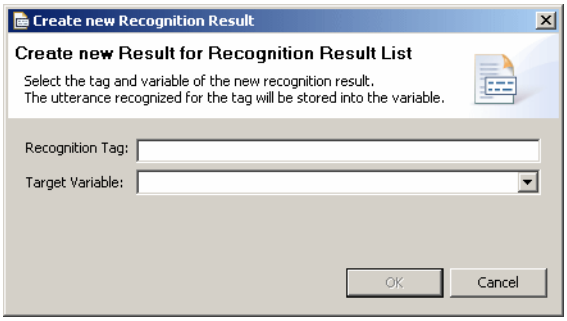
Tabelle 69 Icons on the “Results“ Tab

Icon	Description
	A click on this icon enables you to modify the settings of an already created and selected key in the **Edit Recognition Result** dialog (analog to the **Create new Recognition Result**) dialog.
	Via this icon a selected result is removed from the list.
	Using these icons you can move a selected key in the list up or down. The list entry sequence serves for clarity and does not affect the functionality.

Tabelle 69 Icons on the “Results“ Tab

Adding a result

You add a new key with a click on  . The below dialog opens, in which you at first define a key in the **Recognition Tag** field . Then select a **Target Variable** or define a new one via the **Create new variable...** link. Only when both fields are filled in, an entry will successfully be generated.



HINWEIS: The `$Time` and `$Date` variables are write protected and can therefore not be used.

Connections

You can configure connections for the successful recognition of an entry (**Success**), for an error in the language recognition process (**Error**), in case of an invalid or unrecognized entry (**No Hits**) and for an entry timeout (**Timeout**).

The Grammar files for the ASR Expert control

A grammar contains rules on the vocabulary of a language and on how they can be interconnected. There are two ways to understand the structure and functioning of a grammar file. On the one hand you can set up the sentences that can be generated from the vocabulary (Method 1). On the other hand you can observe how a grammar analyzes and arranges a large number of similar sentences. The grammar then divides the sentences into single portions and creates rules for sentence matching with the speech recognition (Method 2).

Method 1

When you compose a grammar you need to find out how to create general rules. It appears easy to simply compile the possible sentences, for example:

- “Direct my calls to my home.”
- “Direct my calls to the office.”
- “Direct my calls to my car phone.”

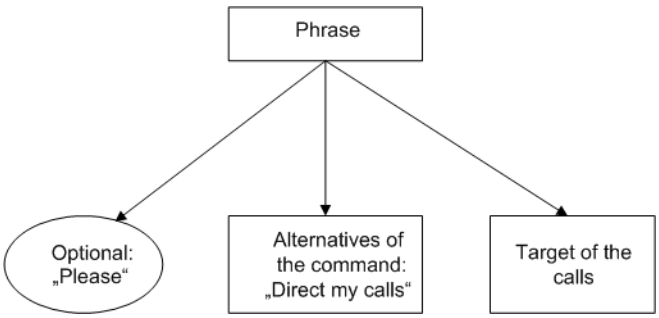
Since all sentences contain the “Direct my calls” portion, adding further options to these sentences seems an easy method. But with a growing number of sentences and options the list will be long and unclear. In such a list it is very difficult to check whether all sentence possibilities and options have been included. For, a valid rule can only be created when all word order options are considered.

A list might look like this:

```
Direct my calls to my home.
Direct calls to my home.
Send my calls to my home.
Send calls to my home.
Please direct my calls to my home.
Please direct calls to my home.
Please send my calls to my home.
Please send calls to my home.
Direct my calls to the office.
Direct calls to the office.
Send my calls to the office. etc.
```

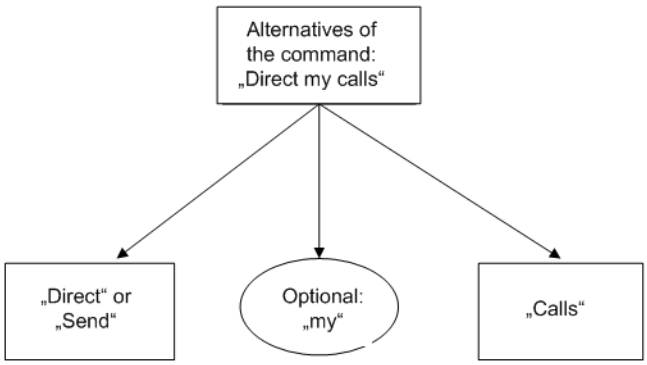
Method 2

Creating a grammar renders are clearer and more efficient result when the command that the user has in mind is first conceptionally realized. Instead of a long list of all possible sentences, each sentence is divided into single portions. These portions are collected in categories, so that each possible sentence can be created from these categories. In our example, the following categorization can be displayed as graphic representation:

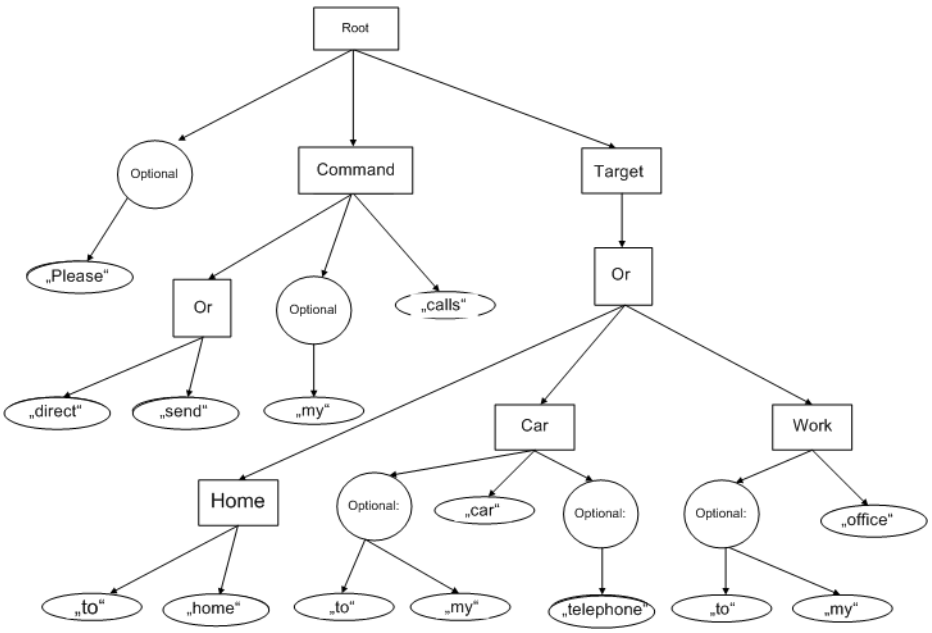


Instead of the long list of possible sentences the representation features only three categories as general sentence portions: the optional “Please”, the versions of the “direct my calls” command, and the routing destination with “to my home”, “to my office” and “to my car phone”.

The command versions can be further divided:



The following graphic representation contains the entire rules for the grammar:



The graphic shows that a grammar can be represented as tree. Starting from the root as basis the tree branches to its single elements. A grammar can solely have one root. The tree branches can be ordered in “Non-Terminals”, which are represented as rectangles. The “Non-Terminals” represent a grammar rule and determine and categorize vocabulary. The tree leaves are called “Terminals” and are displayed as ovals. The “Terminals” are the single words of the vocabulary that cannot be further specified, thus forming the end of the branch.

This representation simplifies integrating extensions and modifications. If, for example, a test reveals that many users state *“workstation”* instead of *“office”*, the terminal *“workstation”* can be added as variation of the non-terminal *work*.

While the grammar is visually represented by means of trees, it is implemented as a set of rules in a text file. These rules are based on the Chomsky hierarchy for classifying formal languages. Such theoretic fundamentals are not required for understanding the given example and for the structure of speech recognition grammars. The interested reader may find further information on this subject in appropriate literature and in the Internet.

The following source text shows two versions for the implementation of the presented example by means of XML:

Version 1

The first version shows how each single rule is implemented. Each rule contains a unique name (`rule id`) and is either furnished with entries (“Terminals”) or with references to other rules (“Non-Terminals”). `<?xml version='1.0' encoding='ISO-8859-1'?>`

```
<grammar xml:lang="en-US" version="1.0" root="ROOT" xmlns="http:/
/www.w3.org/2001/06/grammar">
   <rule id="ROOT" scope="public">
      <item> <ruleref uri="#CallCommand"/> </item>
   </rule>
   <rule id="CallCommand">
      <item repeat="0-1"> please </item>
      <item> <ruleref uri="#StandardCallCommand"/> </item>
   </rule>
   <rule id="StandardCallCommand">
      <ruleref uri="#DirectMyCalls"/>
      <ruleref uri="#Where"/>
   </rule>
   <rule id="DirectMyCalls">
      <one-of>
      <item> <ruleref uri="#Direct"/> calls </item>
      <item> <ruleref uri="#Direct"/> my calls </item>
      </one-of>
   </rule>
```

```
   <rule id="Direct">
      <one-of>
      <item> send </item>
      <item> direct </item>
      </one-of>
   </rule>
   <rule id="Where">
      <one-of>
      <item> <ruleref uri="#Work"/> </item>
      <item> <ruleref uri="#Car"/> </item>
      <item> <ruleref uri="#Home"/> </item>
      </one-of>
   </rule>
   <rule id="Home">
      <one-of>
      <item> to my home </item>
      <item> home </item>
      </one-of>
   </rule>
   <rule id="Car">
      <one-of>
      <item> to my car phone </item>
      <item> to my car </item>
      </one-of>
   </rule>
   <rule id="Work">
      to the office
   </rule>
</grammar>
```

Version 2

The second version implements the same example, but uses the XML possibilities to a much greater extent. Each voice command (`CallCommand`) consists of an action (`ACTION`) and a destination for the execution of this action (`LOCATION`). The action refers to the `DirectMyCalls` rule with the corresponding entries, while the destination refers to the `Where` rule. Optional entries such as `to my` are enabled via repetitive commands that are either not executed or once.

```
<?xml version='1.0' encoding='ISO-8859-1'?>
<grammar xml:lang="en-US" version="1.0" root="ROOT" xmlns="http:/
/www.w3.org/2001/06/grammar">
```

```
<rule id="ROOT" scope="public">
   <item> <ruleref uri="#CallCommand" />
   <tag>
   ACTION=CallCommand.ACTION;
   LOCATION=CallCommand.LOCATION;
   SWI_meaning = ACTION + ' ' + LOCATION
   </tag>
   </item>
</rule>
<rule id="CallCommand">
   <item repeat="0-1"> please </item>
   <ruleref uri="#DirectMyCalls"/>
   <tag>
   ACTION='direct calls'
   </tag>
   <ruleref uri="#Where"/>
   <tag>
   LOCATION=Where.LOC
   </tag>
</rule>
<rule id="DirectMyCalls">
   <one-of>
   <item> direct </item>
   <item> send </item>
   </one-of>
   <item repeat="0-1"> my </item>
   Calls
</rule>
<rule id="Where">
   <one-of>
   <Item >
   <ruleref uri="#Home" />
   <tag>LOC='home'</tag>
   </item>
   <Item >
   <ruleref uri="#Car" />
   <tag>LOC='car'</tag>
   </item>
   <Item >
```

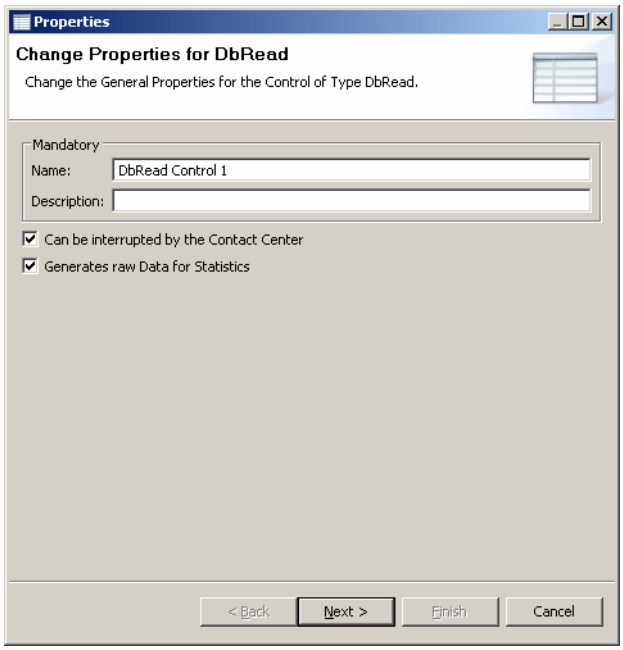
```
      <ruleref uri="#Work" />
      <tag>LOC='office'</tag>
      </item>
      </one-of>
   </rule>
   <rule id="Home">
      <item repeat="0-1"> to my </item>
      home
   </rule>
   <rule id="Car">
      to my car
      <item repeat="0-1"> phone </item>
   </rule>
   <rule id="Work"> to the office </rule>
</grammar>
```

6.3.22 DB Read Control

With the help of this control you can request and display data/data records from existing databases. A caller is, for example, able to query the current state of his/her order from a contact center.

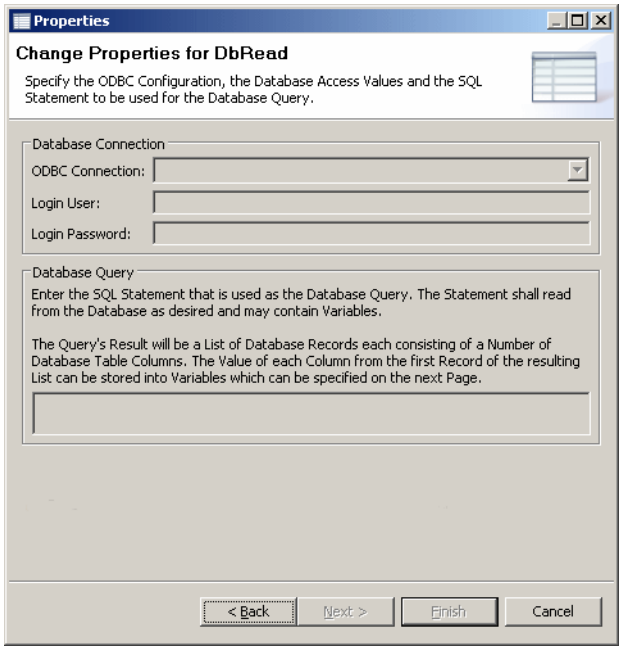
The DB Read control is configured in a dialog and via the following steps .

1. Set the **Name** and **Description** of the DB Read control. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

2. The click on **Next**. The following dialog opens:



3. In the **ODBC Connection** field you specify the name of the configured data source. Here you can only access System Data Resources. How to create a valid database link is described in Abschnitt 2.4, “Configuring the Database Access”, auf Seite 21.

4. In the **User** and **Password** fields enter optionally the user name and the associated password that has been assigned in the ODBC Data Sources Administrator. If you have any questions concerning data security in the existing databases, please contact your database administrator.

HINWEIS: Verify that the user has the privileges for performing database queries.

---

5. In the **Database Query** section you can enter an SQL command. Here you can also use variables that are available in other controls of the Application Builder. They may, for example, be used to query the status of an order.

HINWEIS: Please note that the SQL command may depend on the file type of the queried table column and on the SQL used (for example ANSI SQL).

In the following examples the ID column is of a numerical file type, the STATUS column is of a string data type and the `STARTDATE` column is of file type:

```
SELECT * FROM tabelle1 WHERE ID='$GETID'
UPDATE table1 SET STATUS='update string' WHERE ID=2
```

```
UPDATE table1 SET STATUS=”update string” WHERE ID=2
UPDATE table1 SET STATUS='update string' WHERE
ID='$GETID'
UPDATE table1 SET STATUS=”update string” WHERE
ID='$GETID'
SELECT * FROM table1 WHERE STARTDATE=#01/03/2007#
SELECT * FROM table1 WHERE STARTDATE={01/03/2007}
```

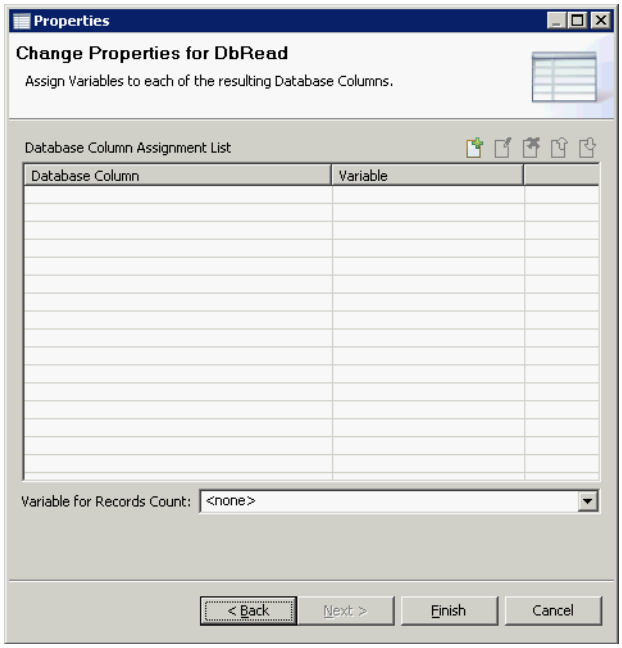
To receive further information about the syntax and semantics of the SQL commands please refer to appropriate literature or tutorials in the internet.

HINWEIS: Please keep in mind that Vogue variables in the SQL command must begin with a `$` character.

HINWEIS: If you have specified a Microsoft Access Database as data source in the **ODBC Connection** field, you can only indirectly enter SQL commands that contain Vogue variables here. How to proceed: Enter an SQL command without Vogue variable, for example `SELECT * FROM table1 WHERE ID=2`. We assume that the Access Database contains a `table1`. Click on the **Columns** tab and assign a Vogue variable to a table column, for example the GETID variable to the `PersonalId` column. We assume that `table1` in the Microsoft Access Database contains a column `PersonalId`. When you click the **Columns** tab, the Application Builder exchanges data with the database to receive the names of the table columns. If the SQL command on the **SQL** tab contained a Vogue variable at this time, an error message would be created. The same happens if on the **Data Source** tab neither a data source nor on the **SQL** tab an SQL command has been entered. Click on the **SQL** tab and modify the SQL command in a way that it now contains your desired Vogue variable, for example:

```
SELECT * FROM table1 WHERE ID='$GETID'
```

The query result is a list of database records, which consists of different database table columns. The value of each single column of the first record of the result list can be stored in variables. You specify this variable in the next step by clicking on **Next**.



In this dialog you specify with which variables the columns found in the database are to be connected. At the initial call all database columns are read out, which may take quite some time depending on the data amount. The value in **Database Column** refers to the names in the database columns.

6. Click on the icon. The **Create new Column Assignment** dialog opens, in which you can assign a **Target Variable** to each **Database Column** found. You can create new variables or use those already defined for the workspace or application.

7. You can define a variable for storing the records count of the query by selecting a variable in the **Variable for Records Count** field or creating a new one.

HINWEIS: The `$Time` and `$Date` system variables are write protected and cannot be used here.

---

8. Click on the **Finish** button. The configuration dialog closes and the configuration is complete.

Connections

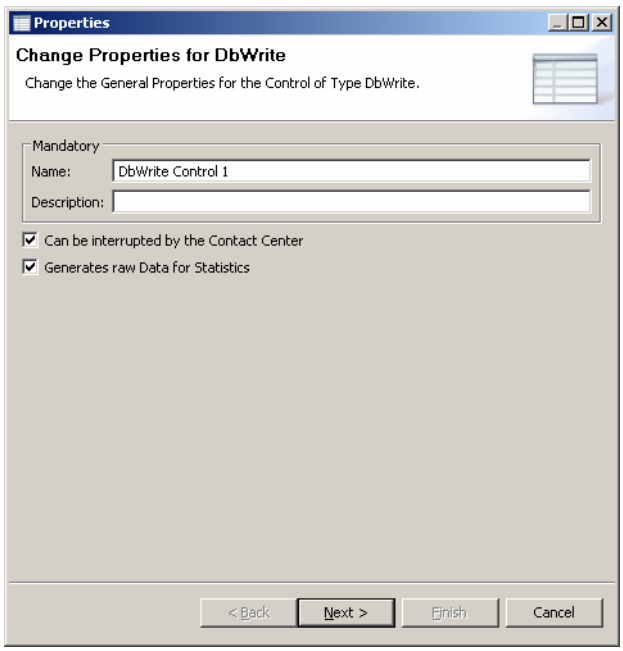
You can deploy connections for the following controls, if the database query was **successful**, if the result of the database query is **empty** or the database query has **failed**.

6.3.23 DB Write Control

With the help of this control you can enter data records in already existing databases. An application example is the database of a mail order service in which the caller may store an order.

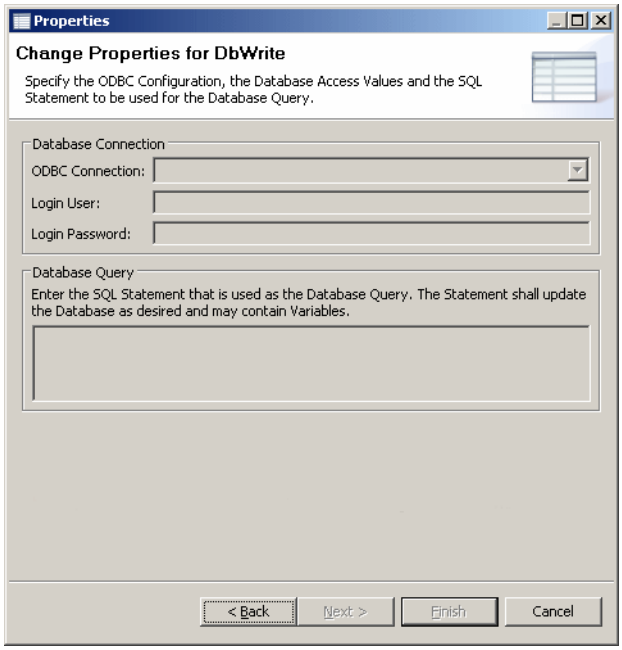
The settings dialog of the DB Write control does not contain any tabs and divides the configuration in the following steps.

1. Set the **Name** and **Description** of the DB Write control. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

2. Click on **Next**. You reach the following dialog:



3. In the **ODBC Connection** field you specify the name of the configured DSN (Data Source Name). Here you can only access System Data Resources. How to create a valid database link is described in Abschnitt 2.4, “Configuring the Database Access”, auf Seite 21.

4. In the **User** and **Password** fields enter optionally the user name and the associated password that has been assigned in the ODBC Data Sources Administrator. If you have any questions concerning data security in the existing databases, please contact your database administrator.

HINWEIS: Verify that the user has the privileges for performing database queries.

---

5. In the **Database Query** section you enter an SQL command that edits the connected database. Here you can also use variables that are available in other controls of the Application Builder. You can create new database fields, edit existing ones or remove them.

   Please note that the SQL command may depend on the file type of the queried table column and on the SQL used (for example ANSI SQL). In the following examples the ID column is of a numerical file type, the STATUS column is of a string data type and the STARTDATE column is of file type Date:

```
SELECT * FROM table1 WHERE ID='$GETID'
UPDATE table1 SET STATUS='update string' WHERE ID=2
UPDATE table1 SET STATUS=”update string” WHERE ID=2
```

```
UPDATE table1 SET STATUS='update string' WHERE
ID='$GETID'
UPDATE table1 SET STATUS=”update string” WHERE
ID='$GETID'
SELECT * FROM table1 WHERE STARTDATE=#01/03/2007#
SELECT * FROM table1 WHERE STARTDATE={01/03/2007}
```

For continuative information about the syntax and semantics of SQL commands please consult appropriate literature or tutorials in the internet.

HINWEIS: Please keep in mind that Vogue variables in the SQL command must begin with a `$` character.

HINWEIS: If you have specified a Microsoft Access Database as data source in the **ODBC Connection** field, you can only indirectly enter SQL commands that contain Vogue variables here. How to proceed: Enter an SQL command without Vogue variable, for example `SELECT * FROM table1 WHERE ID=2`. We assume that the Access Database contains a `table1`. Click on the **Columns** tab and assign a Vogue variable to a table column, for example the `GETID` variable to the `PersonalId` column. We assume that `table1` in the Microsoft Access Database contains a column `PersonalId`. When you click the **Columns** tab, the Application Builder exchanges data with the database to receive the names of the table columns. If the SQL command on the **SQL** tab contained a Vogue variable at this time, an error message would be created. The same happens if on the **Data Source** tab neither a data source nor on the **SQL** tab an SQL command has been entered. Click on the **SQL** tab and modify the SQL command in a way that it now contains your desired Vogue variable, for example:

```
SELECT * FROM table1 WHERE ID='$GETID'
```

---

6. Click on the **Finish** button to complete the configuration.

Connections

You can deploy connections for the following controls if the database query was **successful** in each case or the database editing **failed**.

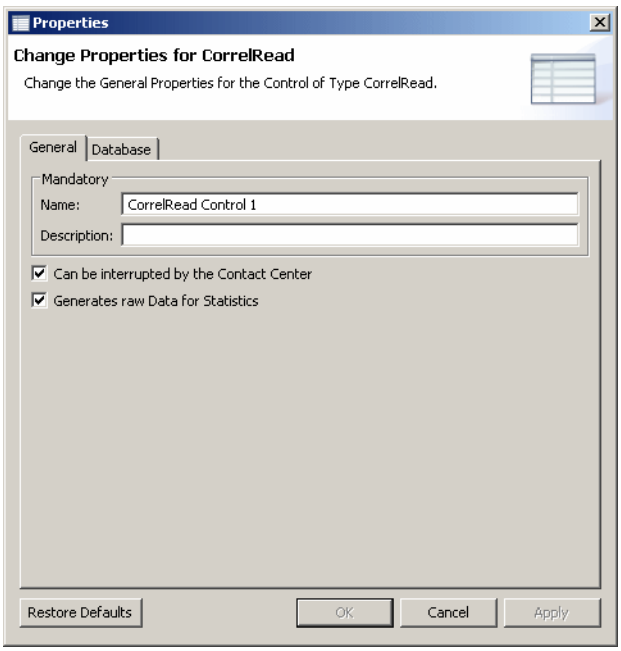
6.3.24 Correl DB Read Control

Using this control you can retrieve and put out data records from the XPR server **Correlation** Database.

The configuration dialog of the DB Read control is divided in the tabs **General** and **Database**.

“General” tab

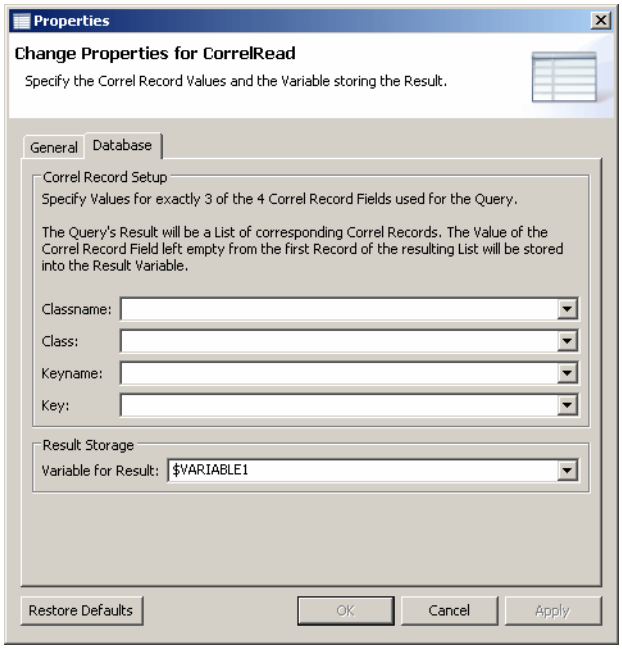
On the **General** tab you can set the **Name** and **Description** of the Correl DB Read control. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

“Database” tab

On this tab you define the data records used for queries to the Correlation Database of the XPR server.



At least three of the **Classname**, **Class**, **Keyname** and **Key** fields must be filled in. In case of a successful connection to the Correlation Database the fields can be selected by list.

The first value of the query is stored as result in a **Variable for Result**.

HINWEIS: For further information about the Correlation Database please refer to the Server Administration manual.

Connections

You can deploy connections for the following controls, if the database query was **successful**, if the result of the database query is **empty** or the database query has **failed**.

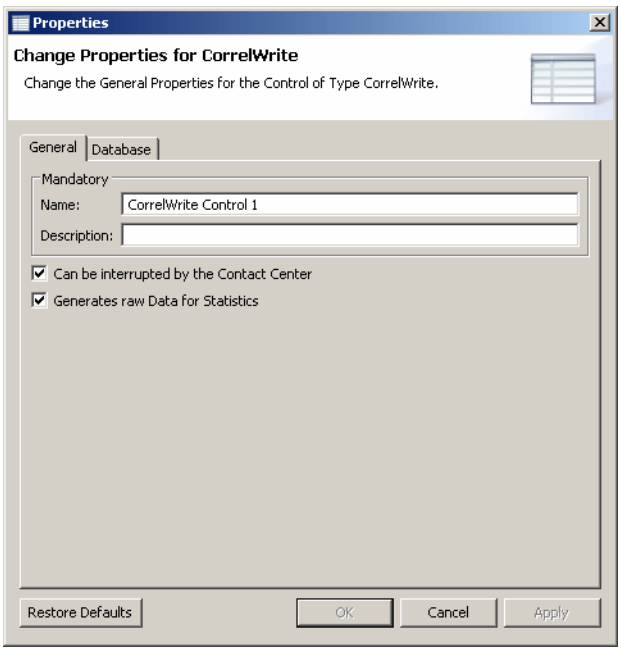
6.3.25 Correl DB Write Control

Using this control you can enter data records in the XPR server Correlation Database.

The configuration dialog of the Correl DB Write control features the **General** and **Database** tabs.

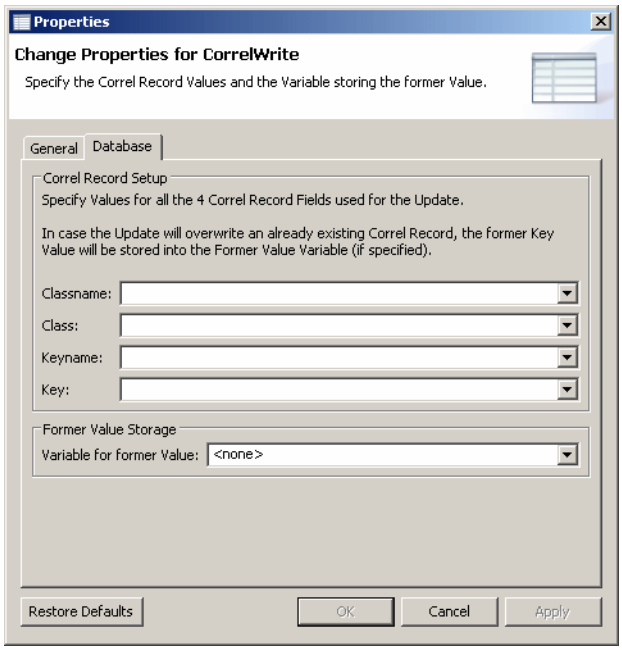
“General” tab

On the **General** tab you can set the **Name** and **Description** of the Correl DB Write control. See also Abschnitt 6.2.1, “General Information about the Control”, auf Seite 187.



The **Generates raw Data for Statistics** checkbox is ticked off by default, so that this feature is active. The Vogue script thus delivers statistical information about the execution of the control. Using the Report APL such data are stored in the database tables and can subsequently be used by a report engine for creating so-called reports. You find further information in Abschnitt 6.2.6, “Creating Raw Data”, auf Seite 197.

“Database” tab



At least three of the **Classname**, **Class**, **Keyname** and **Key** fields must be filled in. In case of a successful connection to the Correlation Database the fields can be selected by list.

The previous and now overridden value can be stored by **Variable for former Value**. In case of a new entry in the database the variable remains empty.

HINWEIS: For further information about the Correlation Database please refer to the OpenScape Xpressions *Server Administration* manual.

Connections

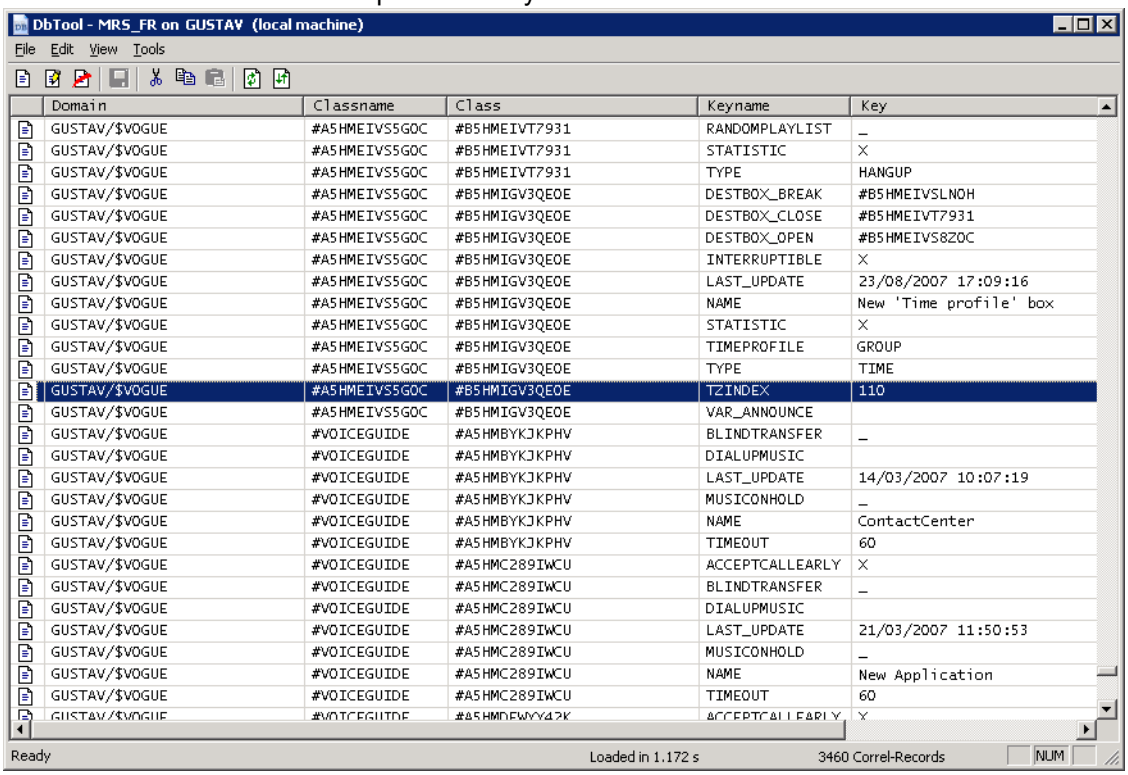
You can deploy connections for the following controls if the database query was **successful** in each case or the database editing **failed**.

A Time Zone Index

Times zones are used for the configuration of time profiles in the Time Profile control. Besides selecting the time zone from a given list you can choose the time zone using the time zone index. The time zone index must be stored as value in a variable.

A.1 Selecting the Time Zone from a List

When selecting a time zone in the Time Profile control, the corresponding time zone index is stored in a list in the variable TZINDEX of the Correlation Database. With help of the tool you can view the value:



Domain	Classname	Class	Keyname	Key
GUSTAV/$VOGUE	#A5HMEIVS5GOC	#B5HMEIVT7931	RANDOMPLAYLIST	_
GUSTAV/$VOGUE	#A5HMEIVS5GOC	#B5HMEIVT7931	STATISTIC	X
GUSTAV/$VOGUE	#A5HMEIVS5GOC	#B5HMEIVT7931	TYPE	HANGUP
GUSTAV/$VOGUE	#A5HMEIVS5GOC	#B5HMIGV3QEOE	DESTBOX_BREAK	#B5HMEIVSLNOH
GUSTAV/$VOGUE	#A5HMEIVS5GOC	#B5HMIGV3QEOE	DESTBOX_CLOSE	#B5HMEIVT7931
GUSTAV/$VOGUE	#A5HMEIVS5GOC	#B5HMIGV3QEOE	DESTBOX_OPEN	#B5HMEIVS8ZOC
GUSTAV/$VOGUE	#A5HMEIVS5GOC	#B5HMIGV3QEOE	INTERRUPTIBLE	X
GUSTAV/$VOGUE	#A5HMEIVS5GOC	#B5HMIGV3QEOE	LAST_UPDATE	23/08/2007 17:09:16
GUSTAV/$VOGUE	#A5HMEIVS5GOC	#B5HMIGV3QEOE	NAME	New 'Time profile' box
GUSTAV/$VOGUE	#A5HMEIVS5GOC	#B5HMIGV3QEOE	STATISTIC	X
GUSTAV/$VOGUE	#A5HMEIVS5GOC	#B5HMIGV3QEOE	TIMEPROFILE	GROUP
GUSTAV/$VOGUE	#A5HMEIVS5GOC	#B5HMIGV3QEOE	TYPE	TIME
GUSTAV/$VOGUE	#A5HMEIVS5GOC	#B5HMIGV3QEOE	TZINDEX	110
GUSTAV/$VOGUE	#A5HMEIVS5GOC	#B5HMIGV3QEOE	VAR_ANNOUNCE	
GUSTAV/$VOGUE	#VOICEGUIDE	#A5HMBYKJKPHV	BLINDTRANSFER	_
GUSTAV/$VOGUE	#VOICEGUIDE	#A5HMBYKJKPHV	DIALUPMUSIC	
GUSTAV/$VOGUE	#VOICEGUIDE	#A5HMBYKJKPHV	LAST_UPDATE	14/03/2007 10:07:19
GUSTAV/$VOGUE	#VOICEGUIDE	#A5HMBYKJKPHV	MUSICONHOLD	_
GUSTAV/$VOGUE	#VOICEGUIDE	#A5HMBYKJKPHV	NAME	ContactCenter
GUSTAV/$VOGUE	#VOICEGUIDE	#A5HMBYKJKPHV	TIMEOUT	60
GUSTAV/$VOGUE	#VOICEGUIDE	#A5HMC289IWCU	ACCEPTCALLEARLY	X
GUSTAV/$VOGUE	#VOICEGUIDE	#A5HMC289IWCU	BLINDTRANSFER	_
GUSTAV/$VOGUE	#VOICEGUIDE	#A5HMC289IWCU	DIALUPMUSIC	
GUSTAV/$VOGUE	#VOICEGUIDE	#A5HMC289IWCU	LAST_UPDATE	21/03/2007 11:50:53
GUSTAV/$VOGUE	#VOICEGUIDE	#A5HMC289IWCU	MUSICONHOLD	_
GUSTAV/$VOGUE	#VOICEGUIDE	#A5HMC289IWCU	NAME	New Application
GUSTAV/$VOGUE	#VOICEGUIDE	#A5HMC289IWCU	TIMEOUT	60

In the example depicted here the variable TZINDEX contains value 110, which represents the time zone (GMT+1:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna. All time zones valid world-wide as well as their index values are listed in the *Time Zone Index Table*.

Depending on the time zone selected in the Time Profile control as well as the valid time zone and the current server time, the time valid for each caller can be calculated. According to this correctly calculated call time, the time profile and its single states are executed.

A.2 Selecting the Time Zone by Means of a Variable

If you use a variable to select the time zone, this variable must contain a valid time zone index as value. You can assign variable and value, for example, in the Definition control. The variable itself may carry any name.

If, for example, you assign value 73 to the self-created variable $TimeZone and select the variable as time zone in the Time Profile control, each potential caller is assumed to be in Greenland. Using the time zone for Greenland as well as the current server time the call time valid for the caller is calculated and the time profile executed according to this time.

A.3 Time Zone Index Table

The following table lists the single time zones with the corresponding index value:

Index	Time zone	Time zone description
0	GMT-12:00	International date line (West)
1	GMT-11:00	Midway, Samoa
2	GMT-10:00	Hawaii
3	GMT-9:00	Alaska
4	GMT-8:00	Pacific (USA and Canada); Tijuana
10	GMT-7:00	Mountain (USA and Canada)
13	GMT-7:00	Mexico; Chihuahua, La Paz, Mazatlan
15	GMT-7:00	Arizona
20	GMT-6:00	Central (USA and Canada)
25	GMT-6:00	Canada Central; Saskatchewan
30	GMT-6:00	Mexico; Guadalajara, Mexico City, Monterrey
33	GMT-6:00	Central America
35	GMT-5:00	East (USA and Canada)
40	GMT-5:00	USA East; Indiana
45	GMT-5:00	South America Pacific; Bogotá, Lima, Quito
50	GMT-4:00	Atlantic (Canada)
55	GMT-4:00	South America West; Caracas, La Paz
56	GMT-4:00	Pacific South America; Santiago (East)
60	GMT-3:30	Newfoundland
65	GMT-3:00	Eastern South America; Brazil
70	GMT-3:00	South America East; Buenos Aires, Georgetown
73	GMT-3:00	Greenland
75	GMT-2:00	Middle Atlantic

Index	Time zone	Time zone description
80	GMT-1:00	Azores
83	GMT-1:00	Cape Verde
85	GMT	Greenwich Mean Time; Dublin, Lisbon, London
90	GMT	Greenwich; Casablanca, Monrovia
95	GMT-1:00	Central Europe; Belgrade, Bratislava, Budapest, Prague
100	GMT+1:00	Central European; Sarajevo, Skopje, Warsaw, Zagreb
105	GMT+1:00	Brussels, Copenhagen, Madrid, Paris
110	GMT+1:00	Casablanca, Monrovia, Reykjavik
113	GMT+1:00	West-Central Africa
115	GMT+2:00	Eastern Europe; Bucharest
120	GMT+2:00	Egypt, Kairo
125	GMT+2:00	FLE; Helsinki, Kiev, Riga, Sofia, Tallinn, Vilnius?
130	GMT+2:00	GTB; Athens, Istanbul, Minsk
135	GMT+2:00	Israel; Jerusalem
140	GMT+2:00	South Africa; Harare, Pretoria
145	GMT+3:00	Russia; Moscow, St.Petersburg, Volgograd
150	GMT+3:00	Arabia, Kuwait, Riyadh
155	GMT+3:00	East Africa; Nairobi
158	GMT+3:00	Arabia; Bagdad
160	GMT+3:30	Iran; Teheran
165	GMT+4:00	Arabia; Abu Dhabi, Muscat
170	GMT+4:00	Caucasus; Baku, Tbilisi, Yerevan
175	GMT+4:30	Afghanistan; Kabul
180	GMT+5:00	Jekaterinburg
185	GMT+5:00	West Asia; Islamabad, Karatchi, Tashkent
190	GMT+5:30	India; Chennai, Calcutta, Mumbai, New Dehli
193	GMT+5:45	Nepal
195	GMT+6:00	Central Asia; Astana, Dhaka
200	GMT+5:30	Sri Lanka; Sri Jayawardenepura
201	GMT+6:00	North-Central Asia; Alamaty, Novosibirsk
203	GMT+6:30	Myanmar, Yangon Rangoon
205	GMT+7:00	South-East Asia; Bangkok, Hanoi, Jakarta
207	GMT+7:00	North Asia; Krasnoyarsk
210	GMT+8:00	China; Beijing, Chongqing, Hong Kong SAR, Urumqi
215	GMT+8:00	Singapore; Kuala Lumpur

Index	Time zone	Time zone description
220	GMT+8:00	Taipeh
225	GMT+8:00	West Australia; Perth
227	GMT+8:00	North-East Asia; Irkutsk, Ulan Bator
230	GMT+9:00	Corea; Seoul
235	GMT+9:00	Tokyo; Osaka, Sapporo
240	GMT+9:00	Yakutsk
245	GMT+9:30	Australia; Darwin
250	GMT+9:30	Australia; Adelaide
255	GMT+10:00	Canberra, Melbourne, Sydney
260	GMT+10:00	East Australia; Brisbane
265	GMT+10:00	Tasmania; Hobart
270	GMT+10:00	Vladivostok
275	GMT+10:00	West Pacific; Guam, Port Moresby
280	GMT+11:00	Central Pacific; Magadan, Solomon Islands, New Caledonia
285	GMT+12:00	Fiji; Kamchatka, Marshall Islands
290	GMT+12:00	New Zealand; Auckland, Wellington
300	GMT+13:00	Tonga, Nuku'alofa

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