ESTOS UCServer Axxium Plugin

Dialog Plug-In DLL

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Requirements

Hardware/Software	Information
ESTOS UCServer Version 3.0.0.921 or higher	ESTOS UCServer is a CTI Server Software
enetivr3.dll	The enetivr3.dll must be located in the same directory as the UCServerPlugin.dll
estos UCServer V6 or higher	You must configure the registry values for server, enetivrSystemLogin and enetivrSystemPassword.

Version

Version	Information	Tested with …
V6.0.0	Fixed Reconnect Issue with service Login	
V4.0.0.2	Added SetCallDataEx	
V4.0.0.1	Added SetCallData / Updated for UCServer V4	
V3.0.0.3	New Inforface for CtiServer V3	Axxium V5.0
V1.0.0.3	Added SnapShotDeviceEx	Axxium V5.0
V1.0.0.2	Added SnapShotDevice	Axxium V5.0
V1.0.0.0	First available version	Axxium V3.0

Introduction

The UCServerPlugin.dll may be used to report the phone number of an external caller to the ESTOS UCServer just before a call transfer to an agent is made.

Background:
In an telephone environment, where a software like Axxium gets incoming calls and transfers them to agents or telephone extensions, the phone number of an external caller is normally not reported to the CTI software on the workstation. During the call transfer, the CTI software on a workstation shows the internal phone number of Axxium and not the external phone number of the caller.

Using the UCServerPlugin function AnnounceCallTransfer, the UCServer gets the number of the external caller, just before the call gets transferred to the extension. Therefore, the CTI Software on the workstation will now show the right number of the external caller.

The UCServerPlugin.dll may be used to query the telephony status of a line device. You may check if a line has active calls or is idle.

The UCServerPlugin.dll enables you to provide CallData from the IVR System to the UCServer environment. Information which has been fetched during the IVR process can be easliy added to the call and used afterwards.

Important: To use the UCServerPlugin.dll you must copy the **UCServerPlugin.dll** and the **enetivr3.dll** in the Plugin Dierectory of Axxium**.**

Functions

AnnounceCallTransfer

Description

The Function AnnounceCallTransfer tells the UCServer the number of the external caller just before the call transfer starts.. You should enter this function (as a external dll module) just before you enter the transfer call box.

Input parameters

AgentExtension

The Agentextension is the phone number of the destination, where the call will be transferred to. When using Agentel, you should use “Agent” as Parameter.

ExternalCaller

The ExternalCaller property should be filled with the CallerID of the external caller.

TransferringNumber (otional)

The number of the IVR which will transfer the call to the agent.

Output Parameters

AnnounceCallTransfer does not use any Output parameters

Return

Value	Condition	Information
0	Success	Everything was ok
1000	Fail	Failed to load the enetivr3.dll
-1	Fail	Connect to UCServer failed
-2	Fail	Protocol Error with the UCServer
-22	Partial Success	Everything was OK, but the destination extension was not found by the UCServer
-28	Fail	Login to the UCServer failed.

Additional information

The dll connects to the UCServer when loaded into memory. If the IP Connection to the UCServer dropps, it will be automatically reestablished.

SnapShotDevice

Description

The Function SnapShotDevice asks the UCServer if an active call exists on a given line extension. You may check if a telephone is idle before you start to transfer a call.

Input parameters

PhoneNumber

The PhoneNumber is the internal phone number of the device you want to get the status from. When using Agentel, you should use “Agent” as Parameter.

Output Parameters

HasActiveCalls

The parameter HasActiveCalls contains either 0 or 1. If the line extension is not known or the line does not have any active calls the result is 0. If the line device is known and has any active calls the result is 1.

Return

Value	Condition	Information
0	Success	Everything was ok
1000	Fail	Failed to load the enetivr3.dll
-1	Fail	Connect to UCServer failed
-2	Fail	Protocol Error with the UCServer
-22	Partial Success	Everything was OK, but the destination extension was not found by the UCServer
-28	Fail	Login to the UCServer failed.

Additional information

The dll connects to the UCServer when loaded into memory. If the IP Connection to the UCServer dropps, it will be automatically reestablished.

SetCallData

Description

The Function SetCallData adds custom call data to a call within the UCServer environment.The call data can be sent prior to the existence of the call in the UCServer. If the call is not yet known on the UCServer the server will cache the information for a configurable time and add it to the call as soon as it appears. SetCallData allows you to set a string containg all name:value associations, SetCallDataEx offers you to set name and value seperatly.

Input parameters

AgentExtension

The Agentextension is the phone number of the destination, where the call will be transferred to. When using Agentel, you should use “Agent” as Parameter.

CallData

Call Data which will be added to the call. CallData is a list of key-value pairs in the following notation: Key1|value1:Key2|Value2 and so on. The property value string must not exceed 1270 characters in total. Alternativly SetCallDataEx allows to set propertyname and value in seperated fields.

CallStateMask (otional)

A LINECALLSTATE_ Mask as filter . CallData will only be applied if the state mask matches the callstate on the UCServer.

LINECALLSTATE_IDLE	0x00000001
LINECALLSTATE_OFFERING	0x00000002
LINECALLSTATE_ACCEPTED	0x00000004
LINECALLSTATE_DIALTONE	0x00000008
LINECALLSTATE_DIALING	0x00000010
LINECALLSTATE_RINGBACK	0x00000020
LINECALLSTATE_BUSY	0x00000040
LINECALLSTATE_SPECIALINFO	0x00000080
LINECALLSTATE_CONNECTED	0x00000100
LINECALLSTATE_PROCEEDING	0x00000200
LINECALLSTATE_ONHOLD	0x00000400
LINECALLSTATE_CONFERENCED	0x00000800
LINECALLSTATE_ONHOLDPENDCONF	0x00001000
LINECALLSTATE_ONHOLDPENDTRANSFER	0x00002000
LINECALLSTATE_DISCONNECTED	0x00004000

Default is 0xffffffff matching any call state

HostCallID (otional)

TAPI driver host call ID. This id must match on the UCServer if set.
Default is 0x00 matching any HostCallID.

TransferringNumber (otional)

The number of the IVR which will transfer the call to the agent.

Output Parameters

SetCallData does not use any Output parameters

Return

Value	Condition	Information

0	Success	Everything was ok
1000	Fail	Failed to load the enetivr3.dll
-1	Fail	Connect to UCServer failed
-2	Fail	Protocol Error with the UCServer
-22	Partial Success	Everything was OK, but the destination extension was not found by the UCServer
-28	Fail	Login to the UCServer failed.

Additional information

The dll connects to the UCServer when loaded into memory. If the IP Connection to the UCServer dropps, it will be automatically reestablished.

Data can be shown on the client side by editing the remotecontact.xslt. Simply uncommend the the section below <!-- Accessing custom call data example -->, change the name of the property according to the name used while setting the value.

SetCallDataEx

Description

The Function SetCallDataEx adds custom call data to a call within the UCServer environment.The call data can be sent prior to the existence of the call in the UCServer. If the call is not yet known on the UCServer the server will cache the information for a configurable time and add it to the call as soon as it appears. Where SetCallData allows you to set a string containg all name:value associations, this function offers you to set name and value seperatly. The method allows to set up to 5 properties within one function call. If you need to set more properties call the function multiple times.

Input parameters

AgentExtension

The Agentextension is the phone number of the destination, where the call will be transferred to. When using Agentel, you should use “Agent” as Parameter.

CallData[X]Name

Name of the property the CallData[X]Value will be available within the UCServer environment.

CallData[X]Value

Value of the property associated with CallData[X]Name.

CallStateMask (otional)

A LINECALLSTATE_ Mask as filter . CallData will only be applied if the state mask matches the callstate on the UCServer.

```
LINECALLSTATE_IDLE                  0x00000001
LINECALLSTATE_OFFERING              0x00000002
LINECALLSTATE_ACCEPTED              0x00000004
LINECALLSTATE_DIALTONE              0x00000008
LINECALLSTATE_DIALING               0x00000010
LINECALLSTATE_RINGBACK              0x00000020
LINECALLSTATE_BUSY                  0x00000040
LINECALLSTATE_SPECIALINFO           0x00000080
LINECALLSTATE_CONNECTED             0x00000100
LINECALLSTATE_PROCEEDING            0x00000200
LINECALLSTATE_ONHOLD                0x00000400
LINECALLSTATE_CONFERENCED           0x00000800
LINECALLSTATE_ONHOLDPENDCONF        0x00001000
LINECALLSTATE_ONHOLDPENDTRANSFER    0x00002000
LINECALLSTATE_DISCONNECTED          0x00004000
```

Default is 0xffffffff matching any call state

HostCallID (otional)

TAPI driver host call ID. This id must match on the UCServer if set.
Default is 0x00 matching any HostCallID.

TransferringNumber (otional)

The number of the IVR which will transfer the call to the agent.

Output Parameters

SetCallData does not use any Output parameters

Return

Value	Condition	Information
0	Success	Everything was ok
1000	Fail	Failed to load the enetivr3.dll
-1	Fail	Connect to UCServer failed
-2	Fail	Protocol Error with the UCServer
-3	Fail	Parameter invalid (missing value for name or no parameter at all)
-22	Partial Success	Everything was OK, but the destination extension was not found by the UCServer
-28	Fail	Login to the UCServer failed.

Additional information

The dll connects to the UCServer when loaded into memory. If the IP Connection to the UCServer dropps, it will be automatically reestablished.

Data can be shown on the client side by editing the remotecontact.xslt. Simply uncommend the the section below <!-- Accessing custom call data example -->, change the name of the property according to the name used while setting the value.

Configuration

Registry

The following registry keys, located under "HKEY_LOCAL_MACHINE\Software\ESTOS\UCServer4\Client" are read from ENetIVR. When running on a 64Bit Windows, the keys are located in "HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\ESTOS\UCServer4\Client"

Attention: When Registry Virtualisation is active, make sure the following key does not exist or does not contain any values:
"KEY_CURRENT_USER\SOFTWARE\Classes\VirtualStore\MACHINE\SOFTWARE\Wow6432Node\estos\UCServer4\Client".

Name	Value	Description
server	REG_SZ	The servers name or IP address. This setting is used by all CtiServer Client Applications.
CtiPort	REG_DWORD	The servers connector port. This setting is used by all CtiServer Client Applications.
enetivrdebug	REG_DWORD	The debug level. A value greater 0 enables logging into Enetivr3.log.
enetivrrepeat	REG_DWORD	A value greater than 0 invokes a timer for calling a keep-alive every *enetivrrepeat* seconds. If this key is missing the interval is set to 15 seconds by default.
enetivrakzremove	REG_SZ	The items in this column separated string will be removed if preceiding the external number before it is send to the TAPI server. If the external phone number comes with a preceiding 0 from the S0-bus a "0" must be written here.
enetivrakzprefix	REG_SZ	Optional. The string will be appended as prefix to the external number. It will be put in front of the number after the enetivrakzremove has been processed.
enetivrCalledRemove	REG_SZ	This string if persent will be added as prefix to the strCalledNumber in AnnounceCallTransfer. It is neccessary, if the line phone numbers in the CtiServer are configured as long (canonical) number and the AnnounceCallTransfer is called with internal (short) phone numbers.
enetivrCalledPrefix	REG_SZ	Optional. The string will be appended as prefix to the called number. It will be put in front of the called number after the enetivrCalledRemove has been processed.
enetivrSystemLogin	REG_SZ	The System Login Name. The Login required for the functionality of the interface. The System login is required only if it is configured in the CtiServer. For UCServer 6 and above, this is the Administrator Account. The System login is always required for UCServer 6.
enetivrSystemPassword	REG_SZ	The System Login Password. The Login required for the functionality of the interface. The System login is required only if it is configured in the CtiServer. The System Login is always required for UCServer 6.

Ini File

Ini file settings are not used by the dll.

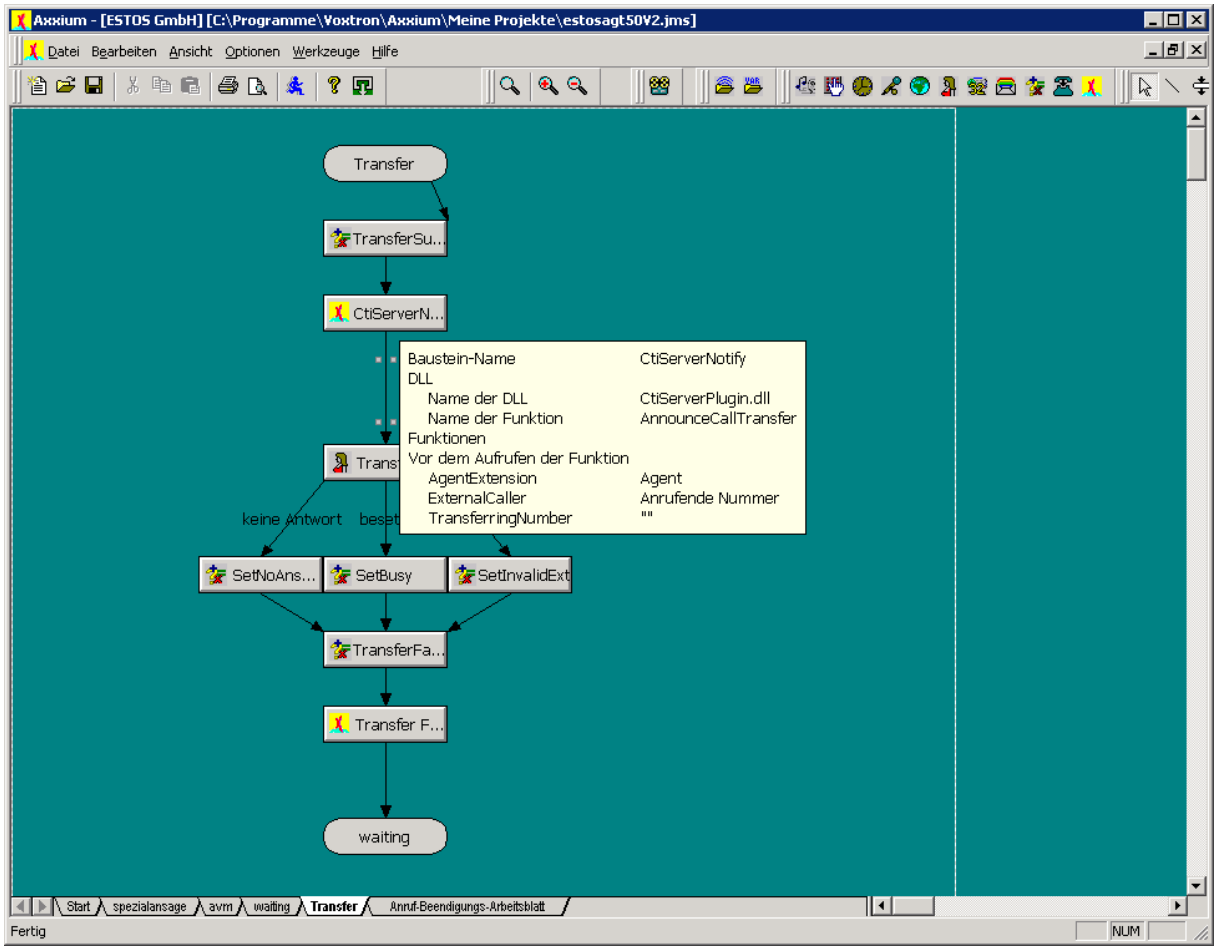
Examples

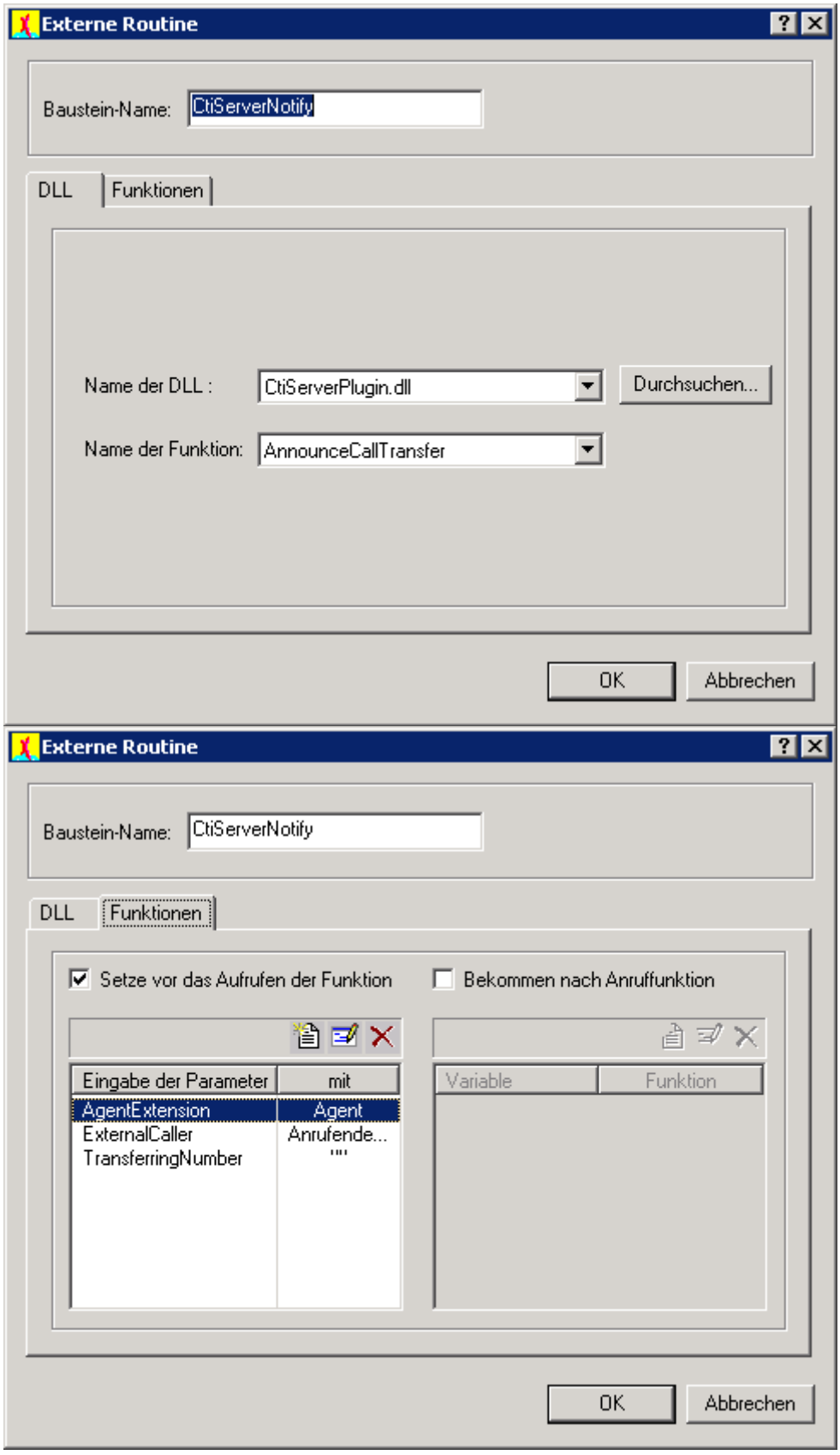
Example 1 : Incoming Callcenter with agents

Purpose

The Callcenter takes incoming calls, plays a welcome message and tries to find the next free agent. It will then report the external callerid to the CtiServer using the dll. Afterwards it transferrs the call to the agent.

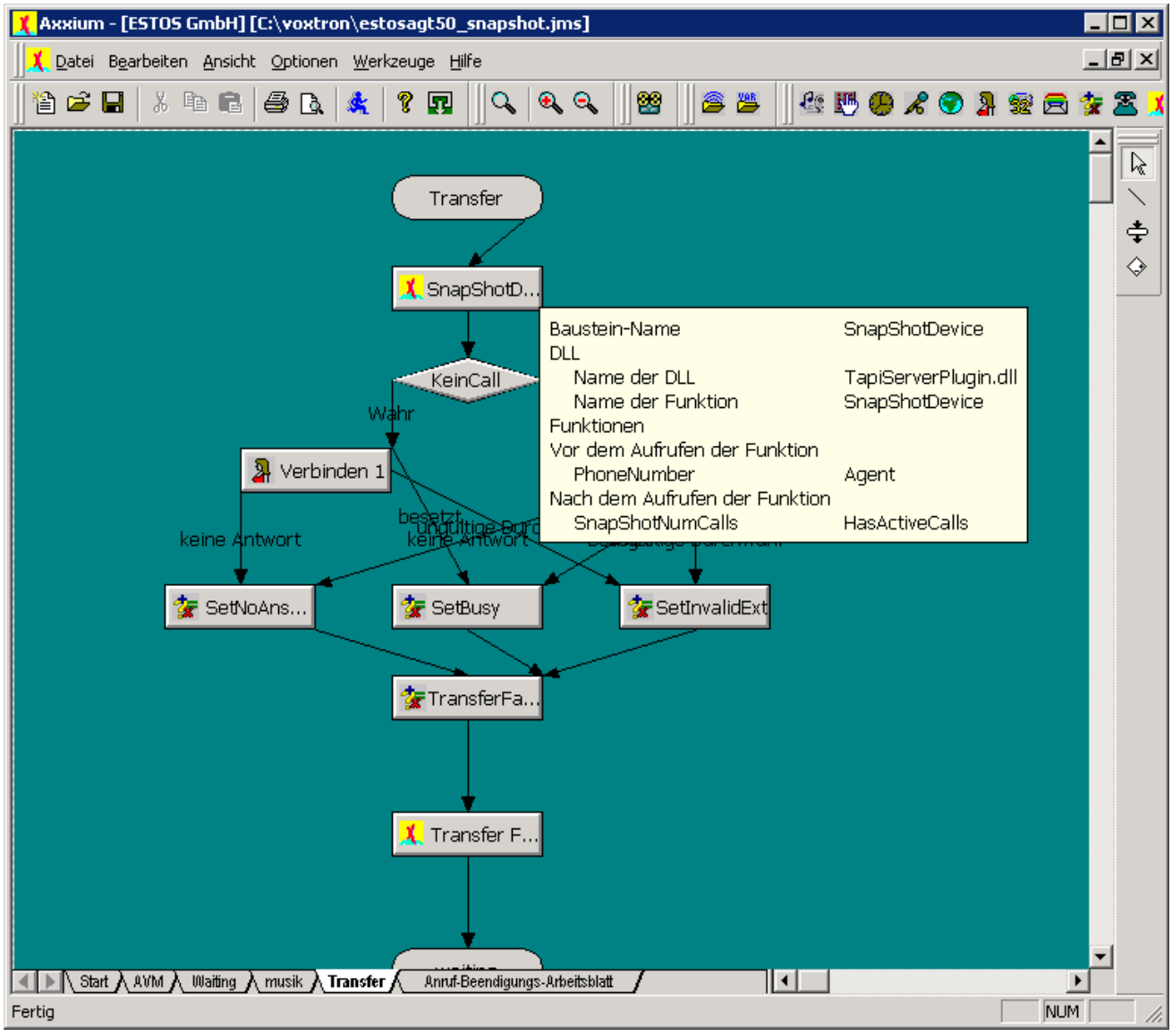
How it works




Externe Routine
Baustein-Name:
CtiServerNotify
DLL
Funktionen
Name der DLL :
CtiServerPlugin.dll
Durchsuchen...
Name der Funktion:
AnnounceCallTransfer
OK
Abbrechen
Externe Routine
Baustein-Name:
CtiServerNotify
DLL
Funktionen
Setze vor das Aufrufen der Funktion
Bekommen nach Anruffunktion
Eingabe der Parameter
mit
AgentExtension
Agent
ExternalCaller
Anrufende...
TransferringNumber
""
Variable
Funktion
OK
Abbrechen

Example 2 : Incoming Call will be transferred if a extension is idle

Purpose

Axxium gets incoming calls, plays a welcome message and transfers the call to the next free extension. It asks the CtiServer if an extension is idle before transferring the call.

How it works