



Web services

Web service support for cab label printers How to create a Java service client with **NetBeans**



valid for following printer types:

A+ -Series [™] XD4[™] Mach 4 [™] PX -Print ModuleSeries [™] and all printing systems based on the cab "X2" board

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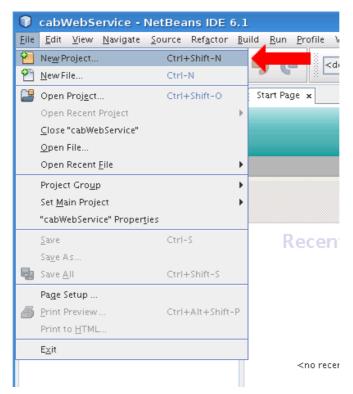


How to create a Web Service client with Netbeans

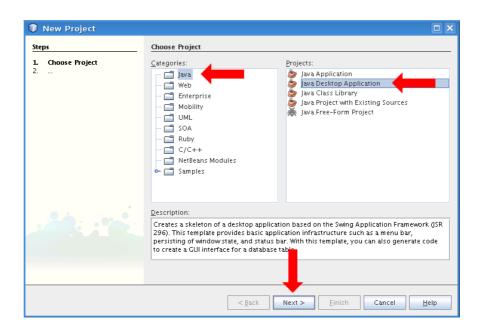


You have to download and install Netbeans (http://www.netbeans.com).

After you start Netbeans you have to create a new project.



In the opened dialog choose a 'Java Desktop Application' and then click on 'Next'.



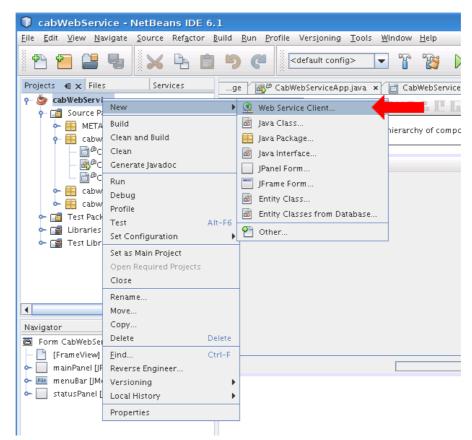


Next give your application a name and click on 'Finish'.

🕽 New Desktop Applicati	on			
Steps	Name and Location	n		
 Choose Project Name and Location 	Project <u>N</u> ame:	cabWebService		
	Project <u>L</u> ocation:	· · · · · · · · · · · · · · · · · · ·	Br <u>o</u> wse	
	Project Fol <u>d</u> er:		tBeansProjects/cabWebService	
	Application <u>C</u> lass:	.CabWebServiceApp		
	Choose <u>A</u> pplication	n Shell		
	Basic Applicat		A basic application skeleton containing every needed to start with a general desktop applic	
	B Database Application		such as the following:	,
			 main frame with a menu bar and state About box 	tus bar
			 main Application class implementation of status bar messa 	-
			and progress indication	-
			 resource management mechanisms better hand loading of icons and s 	
			·	
		< Back	Next > Finish Cancel	Help
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Next step is to create the Web Service Proxy.

In the project view right click the root element from your project and go to 'New->Web Service Client...'





In the opened dialog choose 'WSDL URL' and type in the IP-address or DNS-name from your cab printer and add '/services.wsdl'. This is the location of the WSDL. Close the dialog by pressing the 'Finish' button.

🗊 New Web Service Clien	t		×
Steps	WSDL and Clie	ent Location	
1. Choose File Type 2. WSDL and Client Location	Specify the WSI	DL file of the Web Service.	
	O Project:	Brows <u>e</u>	
	🔵 Local File:	Browse	
	WSDL URL:	http://192.168.2.45/services.wsdl Set Proxy	
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		piset to code	
		< <u>B</u> ack Next > Einish Cancel Help	

In the next step create your user interface.

You can place the interface objects by drag and drop from the right side to the preview. In our case it's a simple status query, with an input text box, a button and an output text box. To add a click action to the button you have to double click on it.

ge 🛛 🖓 CabWebServiceApp.java 🗙 📄 CabWebServiceAboutBox.java 🗴 📄 CabWebServiceView.java 🗴		Palette			© ∎ x
Source Design 🕠 🖶 🖆 🔛 🚛 🖬 🖬 🖨 😂		Swing Container Swing Container	's		-
		Panel	🛅 Tabbed Pane	📕 Split Pane	
🂡 Use the Connection Mode button (in 🍟 toolbar) to establish a connection between components.	×	Scroll Pane	📖 Tool Bar	🔁 Desktop Pane	
2.		 Internal Frame	👅 Layered Pane	-	
File Help		Swing Controls			
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		🔚 Combo Box	📑 List	Text Field	
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		mnemonic			
		text	jButton	1	
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		11161 15			
		[Button1 []Button]			0



In the recent opened dialog choose in the 'Action' pull down menu the 'Create New Action..' Item.

Set Action			
Set jButton2's action	property using:	Default editor	
<u>A</u> ction:	<none></none>		
Action's <u>C</u> lass:	<none> quit(global)</none>		
Action's <u>M</u> ethod:	showAboutBox		
	getStatus Create New Acti	on	
Attrib <u>u</u> tes:	Basic Adva	inced	
	Te <u>x</u> t:		
	Tool Tip:		
	Accelerator:		
		Ct <u>r</u> l Shift Al <u>t</u> Meta (Mac only)	
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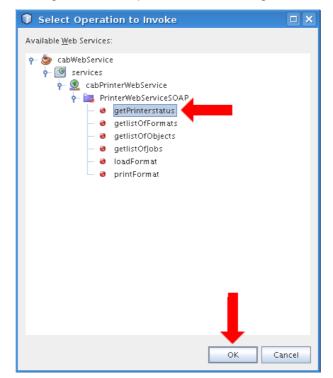
Then you give your new action a method and a button name.

Set Action		□ ×
Set jButton1's action	n property using: Default editor	
<u>A</u> ction: Action's <u>C</u> lass: Action's <u>M</u> ethod:	Create NewAction	
Attrib <u>u</u> tes:	Background Task Basic Advanced	
	Te <u>x</u> t: get Status	
	Accelerator:	
	Icon: Small Icon Large Icon	
	OK Cancel <u>H</u> el;	p



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	aboutBox =		3ox(mainFra	cation().getMainFrame(); me);
L	CabWebServiceAp }	pp.getApplication().show	v(aboutBo×)	;
	* initialize the 1 * WARNING: Do NOT	modify this code. The o ted by the Form Editor.		
+	Generated Code	unenceited y		
F	@Action public void getStat	tus() { 1 .		
L	}	Navigate	•	
		ShowJavadoc	Alt-F1	
	<pre>// Variables declat private javax.swin private javax.swin</pre>	Fi <u>n</u> d Usages Refactor	Alt-F7	
	private javax.swin	Format	Alt+Shift-F	
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	private javax.swin	Reverse Engineer		
	private javax.swin	Run "CabWebServiceView.java"	Shift-F6	
	private javax swin		Ctrl+Shift-F5	
	<pre>private javax.swin // End of variable</pre>	Run Into <u>M</u> ethod	Shift-F7	
	yy End of Variabio	New <u>W</u> atch	Ctrl+Shift-F7	
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		Select in	•	
		EJB Methods		
		Enterprise Resources		2.
so that	wsimport won't do upp	Web Service Client Resources	Þ	Call Web Service Operation

In the opened dialog choose the operation in our case 'getPrinterStatus' and click the 'OK' button.





Now you see the automatic generated source code for calling the cab printer status web service.



Modify the code to adapt it in your created user interface.

You need the following mandatory methods to send a web service query to the cab printer.

- create the service (Arrow 1)
- open the SOAP binding (Arrow 2)
- call the status web service (Arrow 3)
- At arrow 4 is the documentation of the method.

The status web service need a String with the query parameter(s) and returns a string with the answer. The two strings originatefrom the text boxes in the user interface.

<pre>@Action ☐ public void getStatus() { </pre>		
	WebService service = new de.cab.wsschema.CabPrinterWebServic SOAP port = service.getPrinterWebServiceSOAP();	.e(); 1 .
this.tStatus0UT.setText(po		
<pre>} catch (Exception ex) { // TODO handle custom exce } // Variables declaration private javax.swing.JButt private javax.swing.JBane private javax.swing.JPane </pre>	<pre>O getPrinterstatus(String parameters) O toString() O equals(Object arg0) O getlistOfFormats(ListOfFormatsRequest parameters) ListOfF O getlistOfJobs(ListOfJobsRequest parameters) List O getlistOfObjects(ListOfObjectsRequest parameters) ListOfO D hashCode() O notify() O notify(1) O printFormat(PrintFormat parameters) O wait()</pre>	OfJobsResponse
ts/cabWebService/build/classes 1/NetBeansProjects/cabWebService/buil sProjects/cabWebService/build/classes 1/3/2000	<pre>@webMethod(action=status) @webResult(name=statusResponse, targetNamespace=http://www.cab.de/WSSchema, partName=parameters) public String getPrinterstatus(String parameters) Printer Status. Input Values: ESCs, ESCz, ESCi, ESCi, ESCa, ESCj, ESC7, Generi Label Output Values: Generic: Output a generic Printer Status, Label: Output the loaded Label, Other: see Programming manual Parameters: parameters Returns:</pre>	





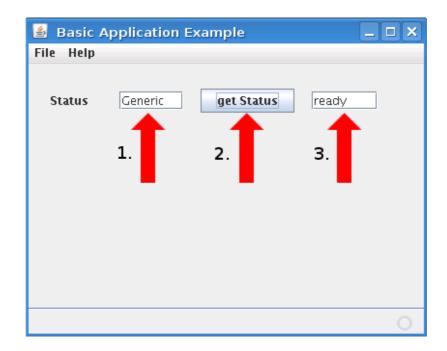
You can test your application now. In the main bar on the top of Netbeans go to 'Run->Run Main Project'.

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You see now your created user interface.

Enter the query message, like 'Generic' in the input text box. Click the button and wait for the response.



An enhanced sample code, including MD5 authorisation is available in the download area of cab's website