

# Re: Bluetooth application development

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*Source:*

<http://www.tech-archive.net/Archive/WindowsCE/microsoft.public.windowsce.app.development/2008-11/msg00040>

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- *From:* san <[san@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:san@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Thu, 6 Nov 2008 09:53:02 -0800
- 

Thanks a lot Paul and let me try to explore more in the samples.

-San

"Paul G. Tobey [eMVP]" wrote:

It's a VERY complex API, maybe the most-complex that I've seen for Windows. MSDN does an adequate, barely, job of documenting the API calls and structures, but how to use it is left to the sample/source code of the OS. Most people never do what you're doing so, given the choice between improving the documentation of something else and documenting how to write a program to bypass the standard Bluetooth applets, I'd say that they're choosing correctly.

Paul T.

"san" <[san@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:san@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx)> wrote in message [news:BC899A11-ADB6-49D5-A6C1-149E137D79A9@xxxxxxxxxxxxxxxxxxxxx](mailto:news:BC899A11-ADB6-49D5-A6C1-149E137D79A9@xxxxxxxxxxxxxxxxxxxxx)

suppose I am deveoping handsfree application why I have to use control panel application as I can integrate that part in a simple manner with the phone application.

Why MSDN is not providing enough documentation to develop application from scratch.

Or Is there anything that I missing.

-San

"Paul G. Tobey [eMVP]" wrote:

I don't think that, if your OS is designed for autos, that you should

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have  
to do something different than what the standard Bluetooth  
Control Panel  
applet does with respect to pairing. You have the source code  
for it,  
\\public\wcshellfe\oak\ctlpnl\bthpnl; you can clone it and do  
whatever  
you  
like. I don't see any way to truly automate pairing; the user  
has to  
tell  
you what the PIN code is. If you can derive that without user  
entry,  
then  
it's \*useless\* as a security measure.

Paul T.

"san" <san@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in  
message  
[news:AE8AD47F-7AD8-4BFB-AB9E-51EA07552CEB@xxxxxxxxxxxxxxxxxxxx](mailto:news:AE8AD47F-7AD8-4BFB-AB9E-51EA07552CEB@xxxxxxxxxxxxxxxxxxxx)

The application provided with the Windows  
CE may be general for all the  
profiles and it may be using the std pairing  
process. My aim is to  
develop  
application specifically for some profiles  
and customised pairing  
process  
which stores the Pin number and will do the  
paring automatically.

Suppose we are developing BT application  
for Automobiles , I think we  
have  
to develop our own way specifically for  
A2DP profile or Handsfree  
profiles.

I may be wrong but trying to catch the  
concepts on application.

-San

"Paul G. Tobey [eMVP]" wrote:

There's already a gateway  
component available in  
Windows CE. Take a

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look  
at  
it (it's under  
\public\common\oak\drivers\bluetooth\samples,  
I think).  
I  
doubt that it's an application  
in the sense that the word is  
normally  
used.  
Service, maybe.

As for searching for devices  
to pair, why would you be  
doing that  
yourself?  
The OS has tools for doing  
that. It seems, well, crazy to  
do all of  
that  
yourself and the "why?" of  
this whole thread is still  
unclear.

Paul T.

"san"

<san@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>

wrote in message

news:AC4B832F-2C44-449B-9FC1-45141CC145E5@xxxxxxxxxxxxxxxxxxxx

Hi Paul,

I need to  
write  
Bluetooth  
Application.  
For  
example  
Headset  
Audio  
Gateway  
Application  
both as  
client and  
server.

As per my  
understanding  
it is as  
follows,

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Server Side

-----  
Register the  
AG service  
in my  
device –  
one doubt  
was  
regarding  
this –  
How  
to  
determine  
the SDP  
record size  
and offset  
value. I  
have seen  
an  
application  
which can  
be used to  
create SDP  
record but  
didn't  
understand  
the SDP  
record  
size and  
offset value  
in the  
MSDN  
documentation.

Create a  
socket and  
wait for  
connection  
from  
headset. I  
think I can  
enable  
the  
authentication  
and set the  
PIN in  
advance.  
But would  
like to  
know

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the  
flow of  
pairing  
process like  
call back  
from the  
stack to  
enter the  
PIN  
etc.

After  
creating the  
socket, I  
have to  
make  
headset  
connection  
between  
the  
AG  
and HS. I  
felt that  
there will be  
some API  
like  
AG\_Accept()  
and  
HS\_Connect()  
and some  
mechanism  
to get the  
callback for  
volume  
control or  
disconnection.

Client side

-----  
Search for  
devices  
Do the  
service  
search  
Create a  
socket and  
connect  
Here also i  
have to start  
the pairing  
process then

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Headset  
profile  
level  
connection  
and call  
back  
mechanism.

Hope this  
expnation  
will help  
you to  
understand  
my concept  
of  
bluetooth  
application  
development.

Please give  
your  
comments,

Thanks,  
San

"Paul G.  
Tobey  
[eMVP]"  
wrote:

The  
profile  
defines  
what  
happens;  
you  
can't  
somehow  
write  
a  
peer  
to  
peer  
chat  
application  
that  
runs  
'over'  
the

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headset  
profile  
or  
something.

No,  
you  
haven't  
explained  
why  
you'd  
need  
to  
make  
application  
layer  
connections  
over  
an  
AG  
profile.  
That  
makes  
no  
sense  
whatsoever.  
If  
you  
can't  
explain  
\*what\*  
you're  
trying  
to  
do,  
we  
can't  
help.

Paul  
T.

"san"

<san@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>

wrote

in

message

[news:6562F709-5BBC-4DFD-8643-40ACD551AABD@x](mailto:news:6562F709-5BBC-4DFD-8643-40ACD551AABD@x)

Hi  
Paul,

Re: Bluetooth application development

I  
want  
to  
write  
Bluetooth  
applications  
over  
different  
profiles  
like  
headset,  
handsfree,  
DUN  
etc.

I  
will  
get  
the  
Platform  
builder  
installaton  
soon  
and  
before  
that

I  
want  
to  
make  
an  
idea  
of  
how  
to  
write  
applications.

I  
went  
through  
the  
MSDN  
documentation  
but  
couldnt  
clarify  
some  
of  
the  
things.

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Please  
help  
me  
to  
resolve  
the  
same.

Using  
sockets  
I  
can  
make  
bluetooth  
connection  
but  
I  
have  
to  
make  
profile  
level  
connection  
and  
one  
doubt  
was  
regarding  
the  
APIs  
for  
AG.

Thanks,  
San

"Paul  
G.  
Tobey  
[eMVP]"  
wrote:

I  
don't  
understand  
what  
you're  
trying  
to  
achieve.

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You  
want  
to  
build  
a  
new  
profile?  
Or  
just  
want  
to  
use  
an  
existing  
profile?  
I  
can't  
think  
of  
any  
reason  
at  
all  
that  
you'd  
need  
to  
write  
code  
to  
use  
an  
existing  
AG  
device,  
for  
example.  
It  
just  
works,  
automatically  
grabbing  
the  
audio  
and  
doing  
the  
right  
thing  
with  
it.

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The  
Windows  
CE  
5.0  
will  
include  
the  
Bluetooth  
Control  
Panel  
applet,  
which  
will  
do  
scanning,  
pairing,  
etc.  
If  
you  
don't  
have  
Windows  
CE  
5.0,  
you  
can't  
legally  
do  
anything.  
You  
are  
not  
permitted  
to  
grab  
some  
of  
the  
source  
code  
from  
Windows  
CE  
5.0  
and  
package  
it  
up  
for  
some

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other  
use;  
it's  
only  
usable  
when  
building  
a  
new  
OS  
for  
your  
device.

Paul  
T.

"san"  
<san@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>  
wrote  
in  
message  
[news:9349A756-077C-467C-8F4B-82A5D](mailto:news:9349A756-077C-467C-8F4B-82A5D)

Hi,

I  
need  
to  
develop  
Bluetooth  
applications  
for  
different  
profiles  
in  
Windows  
CE  
over  
MS  
stack.  
I  
have  
few  
doubts  
after  
going  
through  
the  
documentation.

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–  
BT  
Application  
can  
write  
over  
serial  
port  
or  
using  
Winsock.  
Is  
it  
something  
like  
Winsock  
will  
be  
managed  
code  
and  
over  
serial  
it  
will  
be  
native  
code.  
Can  
I  
write  
a  
headset  
Audio  
gateway  
application  
by  
using  
socket  
programming  
alone?

–I  
found  
Winsock  
APIs  
for  
finding  
the  
devices,  
services

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and  
connection  
but  
couldn't  
find  
the  
APIs  
for  
profile  
specific  
like  
for  
Audio  
Gateway.

–How  
to  
start  
the  
pairing  
process,  
Is  
there  
any  
API  
to  
trigger  
the  
operation  
or  
by  
setting  
the  
socket  
property  
pairing  
will  
happen  
while  
connecting?

–Is  
there  
any  
application  
for  
Device  
search,  
Service  
search  
and

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pairing  
comes  
with  
Windows  
CE  
5.0  
Installation.  
I  
read  
that  
we  
can  
use  
OS  
UI  
for  
device  
search  
and  
pairing  
in  
some  
documentation.

–Where  
can  
I  
find  
the  
application  
code  
as  
I  
don't  
have  
Windows  
CE  
Installation.

–Also  
I  
found  
an  
application  
to  
create  
the  
SDP  
record  
but  
didn't

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understand  
the  
SDP  
Record  
Size  
and  
offset  
for  
registering  
a  
particular  
service.

Please  
help  
me  
on  
these  
and  
any  
pointers  
will  
be  
helpful.

Thanks,  
San