



**BlueSoleil™**

## **2.7.0.13 VoIP Release Release Note**

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# 1 Introduction

This document describes IVT BlueSoleil version 2.7.0.13 Commercial version release.

## 2 Target Platform

- CPU: 600MHz or above
- RAM: 128M or above
- Screen: 800\*600 or above
- Display: Adapter True Color 16bits or above
- OS: Windows 2000, Windows XP, Windows Vista
- Languages supported: Danish, German, English, Spanish, Italian, Japanese, Korean, Dutch, Russian, Simplified Chinese, Traditional Chinese, Finnish, French, Norwegian, Polish, Swedish, Portuguese

## 3 Release Functionality

### 3.1 Bluetooth Functionality

The software was written against version 2.0+EDR of the Bluetooth Core Specification[1] and Bluetooth Profile Specification[2].

The release provides:

Bluetooth Profile		Client/connections	Server/connections
PAN	Personal Area Networking Roles: Group Network/PAN User/Network Access Point	√, 1	√, 1+
Headset	Headset Roles: Audio Gateway	√, 1	√, 1
HFP	Hands-Free Roles: Audio Gateway	√, 1	√, 1
AV	Audio Video Roles: Source/Sink	√, 1	√, 1
SPP	Serial Port: Roles: Device A/Device B	√, 4	√, 2
DUN	Dial-Up Networking Roles: Data Terminal	√, 1	
FTP	File Transfer Roles: Client/Server	√, 1	√, 1
HID	Human Interface Device Roles: Host	√, 1+	

Printer	Hardcopy Cable Replacement Roles: Client	√, 1	
OPP	Object Push Roles: Client/Server	√, 1	√, 1
SYNC	Synchronization Roles: IrMC Client/IrMC Server	√, 1	√, 1
FAX	FAX Roles: Data Terminal	√, 1	
BIP	Basic Image Profile Roles: Remote Camera/Image Push(Imaging Responder)	√, 1	√, 1

Note:

1. “1” means there can be only 1 connection at the same time. “1+” means there can be more than 1 connection at the same time.

#### Bluetooth stack and profile

HCI	Host Controller Interface
L2CAP	Logical Link Control and Adaptation Protocol
SDP	Service Discovery Protocol
RFCOMM	RFCOMM protocol
GAP	General Access Profile
SDAP	Service Discovery Application Profile

And:

- Supports Bluetooth 1.2/2.0 Fast Connection
- Supports Bluetooth 1.2/2.0 AFH, to co-exist with Wi-Fi
- Full Bluetooth data rate from DM1/3/5, DH1/3/5, 2-DH1/3/5, 3-DH1/3/5, HV1/2/3, EV3/4/5, 2-EV3/5 and 3-EV3/5 as long as Bluetooth device supports.
- Bluetooth scatternet is supported as long as Bluetooth device supports
- Standard operating modes: page, inquiry, page-scan and inquiry-scan
- Standard USB (v1.1/2.0), UART (H4), PCMCIA and BCSP HCI Transport Layers
- All standard pairing, authentication, link key and encryption operations
- Master/Slave switch. This allows a device to connect itself to an established piconet

The build's supported Bluetooth features are detailed in the standard PICS documents, available from IVT's web site.

## 3.2 Extra Functionality

The build extends the standard Bluetooth functionality with the following features:

- Function interfaces for manufactures' special customization
- HID Mode Dongle switching between HID mode and HCI mode
- Network Access Point (NAP) function for PAN.

- Optimized Role switch policy for various Bluetooth devices to maximize the possibility of success in creating connection.

### 3.3 Functional Restrictions

The following major functional restrictions apply to this release:

- For PAN, Headset and SYNC profile, BlueSoleil cannot act as client and server at the same time.

- Restrictions of AV and Headset AG

(1) System Requirements on Audio Source if MP3 CODEC is selected (AV only).

CPU: 800MHz or above, RAM: 128M or above

- Supported media player by default for AVRCP

(1) Windows Media Player version 6.4, 7, 8, 9, 10.

(2) WinAmp 2.7, 2.8, 3.0.

(3) Realone 6.0.x (Fully tested with 6.0.11.864)

(4) Media Player Classic 6.4.8.9

(5) Foobar2000 v0.9 RC

Further extension to support other media players is possible by implementing BlueSoleil standard AVRCP interfaces. (If you are interested to do this, please contact IVT.)

- Operating System and MS Outlook version dependency of SYNC and OPP profile.

Operating System	The supported versions of MS outlook
Windows 2000	Outlook 2000, Outlook XP, Outlook 2003
Windows XP	Outlook 2000, Outlook XP, Outlook 2003

### 3.4 Customization support

Customization in BlueSoleil installation disk can be made by OEM manufactures before they ship their CD, by changing settings in file "bttl.ini" and file "btav.ini".

#### Bttl.ini

##### [CONFIG]

##### **bShowBalloon=1**

Whether the system tray message is needed, default 1, valid values include 0 and 1

##### **BAutoWiFiCoexistenceSupport=1**

Whether automatic Wi-Fi coexistence support is needed, default 1, valid values include 0 and 1

##### **ShowWindow=YES**

Whether the BlueSoleil main window will be show when first started, default YES, valid values include NO and YES

Btav.ini is used for A2DP profile only. It defines default parameters when user connects to AV stereo headset. This is especially useful if the AV stereo headset support only limited SBC/MP3 CODEC format. The MP3 codec settings are also in this file.

## 4 History

The following significant changes have been made to BlueSoleil 2.7.0.13 VoIP Release since it is build 2.7.0.10 release:

- Bug fix: VoIP function does not work properly when there is no Skype installed.
- Bug fix: BlueSoleil can not work properly when unplug 3DSP Bluetooth adapter.
- Bug fix: BlueSoleil sometimes crash when transfer a big size (bigger than 2G) file.

The following significant changes have been made to BlueSoleil 2.7.0.10 VoIP Release since it is build 2.7.0.9 release:

- Improve the interoperability of BlueSoleil.

The following significant changes have been made to BlueSoleil 2.7.0.9 VoIP Release since it is build 2.7.0.8 release:

- Bug fix: VoIP function does not work properly on Vista.

The following significant changes have been made to BlueSoleil 2.7.0.8 VoIP Release since it is build 2.7.0.5 release:

- Support Broadcom chipset.

The following significant changes have been made to BlueSoleil 2.7.0.5 VoIP Release since it is build 2.7.0.2 release:

- BlueSoleil HID NT Service is added to BlueSoleil on Windows 2000 and Windows XP to support bluetooth mouse and keyboard during Windows logon. This function is optional.
- Make VoIP function more stable.
- Bug fix: BlueSoleil can not work properly when there is an AV connection and FTP connection at the same time.

The following significant changes have been made to BlueSoleil 2.7.0.2 Release since it is build 2.6.0.9 release:

- Add support for Hands-free profile (BlueSoleil acts as Hands-Free AG).
- Add support for controlling VoIP applications such as Skype(2.0/2.5) via a Headset/Hands-free device.

The following significant changes have been made to BlueSoleil 2.6.0.9 Release since it is build 2.6.0.8 release:

- The connection signal varies more observably.
- Bug fix: Some Bluetooth mouse can not work properly on Microsoft Windows Vista OS.

The following significant changes have been made to BlueSoleil 2.6.0.8 Release since it is build 2.6.0.6 release:

- Support ISSC and ConWise chip.

The following significant changes have been made to BlueSoleil 2.6.0.1 Release since it is build 2.3.0.0 release:

- Support Vista OS.
- Only support CSR chips.
- All drivers are signed by Micorsoft.
- All executable files are singed by IVT.
- Audio SBC codec is optimized and CPU usage decreases when playing music.
- Remove support for HID service.
- Support "Seletive Suppend" both on XP and Vista.
- On Vista, do not support auto-start when Windows starts.
- On Vista, do not support PAN NAP.
- Bug fix: Sometimes installation fails with error 183.
- Bug fix: If BlueSoleil is installed to a folder whose full path does not include a blank character, BlueSoleil crashes when being started.

The following significant changes have been made to BlueSoleil 2.3 since it is build 2.1.3:

- Data transfer mechanism is optimized and data transfer performance is improved.
- Optimize role management and improve the performance for connecting to multi-devices simultaneously.
- Installation takes shorter time and reboot is not required after installation (thought in some cases reboot is still required).
- Stability of Blueooth start/stop process is improved.
- Add AVRCP support for foobar2000 v0.9 RC, Media Player Classic 6.4.8.9.
- Bug fix: AV sound quality is bad if AV is connected after HID (AV and HID locate on separate devices).
- Bug fix: For some headsets, blue screen occurs after BlueSoleil connects high quality audio service and mono-channel Headset service.
- Bug fix: FTP server folder cannot be deleted after FTP transfers files to server and disconnects.
- Bug fix: BlueSoleil cannot set up OPP connection with some new hand-phones.
- Bug fix: PC suite does not work with BlueSoleil after switching user under XP OS.

The following significant changes have been made to BlueSoleil 2.1.3 since it is build 2.1.2:

- Automatically show ever-connected devices on UI after BlueSoleil starts.
- Bug fix: DUN fails on windows 2000 OS.
- Bug fix: BlueSoleil does not support Nokia new phones (e.g. N series).
- Bug fix: For some Bluetooth devices, BlueSoleil still runs in evaluation mode after registering a license key.
- Bug fix: PAN cannot find physical network cards on some machines.
- Bug fix: "End program -IVT Corporation..." dialog is shown when the system is being shut down.

- Bug fix: BlueSoleil cannot run when there is no taskbar.
- Bug fix: When “Welcome to Bluetooth” is shown at the first run, BlueSoleil behaves abnormally after standby/resume the system.
- Bug fix: When PC suite 6.7 is installed and BlueSoleil is not set to auto-run on startup, more than one instance of BlueSoleil can run at the same time.
- Bug fix: On media center OS, if there are too many com ports, LAP does not work.

The following significant changes have been made to BlueSoleil 2.1.2 since it is build 2.1.1 EDR:

- Support online purchase of new versions of BlueSoleil.
- Bug fix: Some applications sometimes hang when trying to use virtual COM port.
- Bug fix: When BlueSoleil is connected with a remote device, animation of the line between the central sun and the remote device is not active.
- Bug fix: Every time after a Bluetooth device is plugged, new version-check dialog pops up.

The following significant changes have been made to BlueSoleil 2.1.1 EDR since it is build 2.1 EDR:

- Accept license keys of 1.6 series, which means that give free update to current users.
- X64 fully support
- The speed of virtual network card is changed to 3M.
- PAN stability is bigly improved.
- Remove support for Windows 98SE, Windows ME
- Bug fix: FTP server interoperability issue with LG new type of mobile phone

The following significant changes have been made to BlueSoleil 2.1 EDR since it is build 2.0 EDR:

- Disable Bluelog support to improve EDR performance.
- Doesn't compatible with 1.6 series license key.
- Bug fix: The IVT 1.6.2.1 and above version (include ver.2.0) crash in some PC/notebook. The PC will crash and show the blue screen when BlueSoleil start.
- Bug fix: After BlueSoleil was installed, click “my device service”->property—>computer shut down or blue screen.
- Bug fix: Sometimes, it takes a very long time for an HID device to connect back with BlueSoleil.
- Bug fix: Switch account a to account b, and then a remote BlueSoleil transfer a file to account b via FTP, but the file was transferred to the folder of bluetooth share which is in the account a.
- Bug fix: iPAQ A2DP source can not connect with BlueSoleil AV sink.
- Bug fix: If there is no physical sound card installed, Listening music with a stereo headset, and then a skype incoming call come in. No sound can be heard from headset any more.
- Bug fix: FTP share files sometimes can not be deleted in Remote Shared Folder dialog.
- Bug fix: Remote BlueSoleil connect FTP to local BlueSoleil, local BlueSoleil refused the request, and then local BlueSoleil connect FTP to remote BlueSoleil, local BlueSoleil hang.

- Bug fix: Reconnect HSAG from a headset service from BlueSoleil, nothing could be heard at the first time. Reconnecting again will resolve this problem.
- Bug fix: Headset connected HS to the BlueSoleil, and then stand by the PC. After BlueSoleil restart, headset reconnected, the audio adapter didn't change to the Bluetooth SCO Audio.

The following significant changes have been made to BlueSoleil 2.0 EDR since it is build 1.6.4.0:

- Fully support of Bluetooth 2.0 core specification and EDR.
- Add "Options" dialog to let user control some global settings.
- Check new version automatically when BlueSoleil starts or on request.
- Support of connecting to remote PANU service via BlueSoleil UI.
- Support of disconnecting incoming PAN connection via API.
- Web registration to prevent BlueSoleil from piracy.
- Bug fix: BlueSoleil may crash when resumed from suspend mode.
- Bug fix: "Terminating program" dialog shows up when shutting down system.
- Bug fix: Encryption does not work when encrypt option is enabled and security level is high.

The following significant changes have been made to BlueSoleil 1.6.4.0 since it is build 1.6.3.1:

- Add disconnection notification when stopping services or disconnecting a PAN client from the remote status dialog.
- Add a mechanism to handle the case that a program using BlueSoleil API crashes.
- Bug fix: Cannot connect FTP from some mobile phones.
- Bug fix: Cannot search devices for a long time (about 1 to 2 minutes) when BlueSoleil is firstly started.

The following significant changes have been made to BlueSoleil 1.6.3.1 since it is build 1.6.3:

- Bug fix: Using the previous created Shortcut on the desktop to connect Headset Service, there is no "RING\_IN" from BlueSoleil shortcut.
- Bug fix: The profile icon becomes gray when failed in connecting to a service.
- Bug fix: If BTW is ever installed on a computer, the "Bluetooth SCO Audio" will be displayed as "Bluetooth AV Audio(2)".

The following significant changes have been made to BlueSoleil 1.6.3 since it is build 1.6.2.1:

- AV and headset coexistence support.
- AVRCP support for Realone and winamp 3.0.
- PAN DHCP more stable
- Disabled PAN NAT support.
- Bug fix: Compatibility problem with NSC chipset.
- Bug fix: Laptop with high COM port numbers could not create connections.
- Bug fix: HSP compatibility problem with Cardo scala-500 headset, 8 seconds delay.



- Bug fix: 9. BlueSoleil displays the HCI version and LMP version as "UNKNOWN" for a 2.0 dongle

The following significant changes have been made to BlueSoleil 1.6.2.1 since it is build 1.6.2:

- Added Finnish and Norwegian support
- Added online help of all the supported 17 languages

The following significant changes have been made to BlueSoleil 1.6.2 since it is build 1.6.1.4:

- The install engine is MS Installer.
- Added Polish, Portuguese and Swedish support.
- Revised Italian translations.
- The interface becomes more stable.
- Bug fix: BlueSoleil Directory Transversal -- BlueSoleil may save the file received from OPP to the parent folder of OPP root path.
- Bug fix: CF-Card SCO Problem.

The following significant changes have been made to BlueSoleil 1.6.1.4 since it is build 1.6.1.3:

- BlueSoleil will set "Global\\BlueSoleilStarted" event regardless of the setting of hid2hci in bttl.ini.
- Bug fix: BlueSoleil Cannot pass HCT 12.1 Mixer Driver Test.

The following significant changes have been made to BlueSoleil 1.6.1.3 since it is build 1.6.1.2:

- Mixer Driver Test Support of HCT 12.1
- After resetting a mouse, BlueSoleil cannot connect with it again unless restarting BlueSoleil.

The following significant changes have been made to BlueSoleil 1.6.1.2 since it is build 1.6.1.1:

- Russian Support
- Digital Rights Management test support of HCT 12.1
- Bug fix: Two BlueSoleil connected, and then stand by one of them. After the PC restart all the services of this BlueSoleil can't restart.

The following significant changes have been made to BlueSoleil 1.6.1.1 since it is build 1.6.1:

- HID NT Service more stable.
- More smooth switch between HID NT Service and BlueSoleil
- Bug fix: Cannot pass Bootvis test.
- Bug fix: Bluetooth cannot start up if the firmware is BTPS\_1\_50\_02\_Build\_1879 for a RFMD device.
- Bug fix: HID mouse move will cause AV sound becomes very bad.

The following significant changes have been made to BlueSoleil 1.6.1 since it is build 1.6.1 Beta1:

- Doesn't install LAP modem in Windows XP MCE, this modem will be installed when firstly used.
- Speed up the detection of USB device unplug event.
- Bug fix: Unhandled exception is encountered when installing BlueSoleil.
- Bug fix: Connect HID, then disable HID NT service, remove BlueSoleil from startup folder, the computer cannot be shut down.
- Bug fix: Machine crashes when starting up BlueSoleil on WinME.
- Bug fix: Sometimes BlueSoleil can't connect DUN with mobile phone.
- Bug fix: FAX can't be used under windows 2000 OS.
- Bug fix: Sometimes the connection seems remaining when disconnect from headset.
- Bug fix: BlueSoleil can't connect to HID service of mobile phone Sony Ericsson K700i.
- Bug fix: BlueSoleil hangs when the Stereo Headset is out of range and loss connection.
- Bug fix: BlueSoleil can't connect to HID service of mobile phone Sony Ericsson K700i.

The following significant changes have been made to BlueSoleil 1.6.1 Beta1 since it is build 1.4.9.3:

- Fully support of BT 1.2
- Improved support for Bluetooth Enhanced Data Rate (EDR)
- Doesn't install LAP modem in installation process; install them when needed.
- Bug fix: Send file from T630 to BlueSoleil failed, BIP service.
- Bug fix: Device Search sometimes won't show discovered devices
- Bug fix: Sometimes BlueSoleil still displays the connection when disconnected from headset.

The following significant changes have been made to BlueSoleil 1.4.9.3 since it is build 1.4.9.2:

- Sometimes IVT displays profile icons not exactly after service browsing.
- BlueSoleil will not install any MP3 codec, the codec will be installed by the user and configured in btav.ini.
- Removed shortcut menu, desktop shortcut now support DUN, PAN, AV and Headset.
- Changed virtual audio device name to "Bluetooth AV/HS Audio".
- Added HID QOS support, to solve the HID delay problem.
- Bug fix: Windows 98SE can't restart after accomplishing BlueSoleil installation, or blue screen.
- Bug fix: A mouse connects HID back to the Bluesoleil, OK. Then a headset connects HS back to the Bluesoleil, OK. But the sound quality is very bad.
- Bug fix: A bluetooth mouse connected HID with BlueSoleil, then reset the mouse or unplugs it on the BlueSoleil. The system will reinstall the driver when BlueSoleil reconnect to the mouse. And the count of mouse driver in the Device Manager increase.

- Bug fix: Bluetooth Audio device name is not set correctly, if Widcomm BTW 1.4.3 for MSI version is installed/uninstalled.
- Bug fix: Sometimes, there is no sound on the headset side.
- Bug fix: Failed to add Bluetooth audio device when firstly installing BlueSoleil on a Windows XP sp2 system.

The following significant changes have been made to BlueSoleil 1.4.9.2 since it is build 1.4.9.1:

- Improvement: WinXP SP2, BlueSoleil registers to Windows for security declaration automatically, the dialog that asks whether to block BlueSoleil.exe will not display.
- Bug fix: WinXP SP2, RPC Locator may crash when BlueSoleil starts, if user is using Windows Domain to log in network.
- Bug fix: BlueSoleil reads RSSI too often. The interval is changed to 6 seconds.
- Bug fix: When sync is running between Bluesoleil and a cell phone, unplug the dongle; the pc may crash.
- Bug fix: Wrong SCO connection handle when disconnecting SCO temporally after an incoming ACL connection arrives.
- Bug fix: When a headset is connected with Bluesoleil, power off the headset; the pc may freeze.

The following significant changes have been made to BlueSoleil 1.4.9.1 since it is build 1.4.9:

- Updated HID, Virtual COM port, Bluetooth audio and USB drivers
- Obtained Microsoft WHQL waiver, contingency ID 1085
- Changed PAN DHCP IP from 192.168.2.x to 192.168.50.x
- Bug fix: When a headset is connecting with Bluesoleil, unplug the dongle; the pc may freeze.

The following significant changes have been made to BlueSoleil 1.4.9 since it is build 1.4.8:

- Added AVRCP support.
- Added automatic bluetooth 1.2 Wi-Fi Co-Existence support.
- Auto-generate pin code when connecting to a keyboard.
- Improved HID performance.
- Change virtual device names.
- Bug fix: After HCRP connected, the remote device status dialog does not show the COM port number, it shows Unknown.
- Bug fix: Unplug the Bluetooth dongle/CF card when it is pushing files, the Bluesoleil goes wrong and shuts down.
- Bug fix: Disconnect and reconnect from the headset side for many times when using a HID mouse, RFMD dongle will die.
- Bug fix: when connecting to a mouse or keyboard, need wired mouse or keyboard to press Enter for the HID device driver installation dialog.

- Bug fix: Unplug the Bluetooth device after synchronization (without closing the dialog), BlueSoleil on which side the device is unplugged will go "not responding".
- Bug fix; Currently SBC is set as the default codec. If user wants to use MP3 codec, the setting must be changed each time the computer is rebooted.
- Bug fix: Wrong PID/VID information for a HID device when using windows HID API.
- Bug fix: A headset connection setup problem with HBH-65
- Bug fix: Bluetooth HID Manager prevents system from sleeping.
- Bug fix: The notebook's CPU cannot enter Windows C3 state to save power after USB dongle is unplugged.

The following significant changes have been made to BlueSoleil 1.4.8 since it is build 1.4.7:

- Bluetooth 1.2 Faster Connection and AFH are supported.
- Bluetooth Enhanced Data Rate, EDR, is supported.
- BlueSoleil HID NT Service is added to BlueSoleil on Windows 2000 and Windows XP to support bluetooth mouse and keyboard during Windows logon. This function is optional.
- HID Mode Dongle switching between HID mode and HCI mode, and procedure for HID auto-pairing are added.
- CSR, NSC and RFMD dongle-built-in license key check scheme is used to check license.
- In the installation, users can choose the language; this choice will affect both the installation process and the UI of BlueSoleil.
- Added installation logs function.
- Bug fix: Cannot select bluelet audio as the default playback device automatically on Windows XP sometimes.
- Bug fix: BlueSoleil HCRP couldn't continue to work if HCRP Server doesn't support 1284ID.
- Bug fix: Bluelet audio can't be installed successfully when it's first installed in a fresh XP system.
- Bug fix: Cannot set bluelet audio as the default playback device on WinXP sometimes.
- Bug fix: Computer freeze when using DUN on a P4 3G platform.
- Bug fix: Headset compatibility problem with Motorola HS801.
- Bug fix: After using the HID profile, BlueSoleil cannot be uninstalled completely.

The following significant changes have been made to BlueSoleil 1.4.7 since it is build 1.4.6:

- Outlook addin can add buttons and menus to all explorers of Outlook.
- Improved interoperability with Socket CE stack.
- Users can choose to show or hide the system tray messages via a pop-up menu.
- When BlueSoleil first starts, use Computer name as device name. Whenever a new device is inserted, the original name is used as the device name.
- Friendlier UI, friendlier tip messages.
- Bug fix: If the sink(Receiving) side suspends and then resumes, SBC frames are lost.

- Bug fix: If the virtual COM port number is too high, BlueSoleil will not accept serial port connections.
- Bug fix: If ActiveSync is using virtual COM port of BlueSoleil, BlueSoleil will prevent the system from shutting down.
- Bug fix: HCRP against Admaya Printer adapter, cannot print all the contents.
- Bug fix: BlueSoleil will crash when works with Outlook 2003 which has connected to Exchange Server.
- Bug fix: SDP interoperability problem with RFMD AV headphone, BlueSoleil crash.

The following significant changes have been made to BlueSoleil 1.4.6 since it is build 1.2.2:

- Add Headset profile

(1) Audio Gateway

BlueSoleil acts as Audio Gateway (AG). It can work as both AG client and AG server. First, users need to establish connection to headset, then play music, record sound or chatting.

(2) Pair

Generally, Headset security level is set to Security Medium. Before creating audio connection, it needs authentication and pairing.

(3) Headset Initial Audio Connection

Once successful authenticated, headset remembers the user's Bluetooth device address. Pressing Headset answer key, the headset will initiate connection to BlueSoleil's AG server.

(4) Headset release Audio Connection

To hang up, press answer key to disconnect this connection regardless of which side initiates the connection.

(5) Reject call

When BlueSoleil connects to Headset, it will disconnect from headset if users do not answer the call after ringing 20 times.

(6) Coexistence with other profile

In order to coexist with other profiles, audio connection may pause 0.5 second when other device access local device and service.

- Add AV profile

(1) Audio Source

BlueSoleil AV can act as Audio Source. User first establish a stream between two Bluetooth devices, then open popular player such as RealPlayer, Windows Media Player, Quick Time, Winamp, or many others and play music of any format. User can just think the Bluetooth is a virtual sound card.

(2) Audio Sink

BlueSoleil AV can act as Audio Sink. It receives audio from Source and plays back on local sound card.

(3) Pair

If the security level is low on the IVT stereo headphone device, pair is not supported. So user should set security level of BlueSoleil to low on setup, initialization and runtime.

(4) Audio Format Transferred on Air  
MP3 and SBC in this release version.

(5) SBC code

Sample frequency: 16kHz, 32kHz, 44kHz and 48kHz.

Channel mode: mono, dual, stereo and joint stereo.

Bit Rate: all Bit Rates from SBC Spec.

- Add BIP profile
  - (1) BIP Remote Camera Control  
Via BlueSoleil, user can connect to a remote digital camera and control it to take a picture and transfer the picture to PC side.
  - (2) BIP Push Image server  
Remove digital camera or other devices can send pictures to user's PC via this profile.
- SPP
  - (1) Improve SPP speed from 50k to 70k.
  - (2) Transfer SPP data using hyper-terminal over 100M data.
- Driver
  - (1) USB dongle driver update to support 3.06G CPU. Otherwise, download file will make PC restart.
  - (2) System freeze after HID driver installed first time, when connect to a HID mouse/keyboard, especially on 3.06G CPU computer.

The following significant changes have been made to BlueSoleil 1.2.2 since it is build 1.0.8:

- Seamless Integration with MS Windows
  - (1) Print a document to connect.  
When users print a document, BlueSoleil will automatically setup the connection with the Bluetooth printer users set.
  - (2) Open a serial port to connect.  
When users open a Bluetooth virtual serial port, BlueSoleil will automatically setup the connection with the remote Bluetooth serial port server users set.
  - (3) Dial-up to internet to connect.  
When users dial-up using windows dial-up dialog, BlueSoleil will automatically setup the connection with the Bluetooth dial-up server users set.
  - (4) Start LAN access to connect.  
When users dial-up using windows dial-up dialog, BlueSoleil will automatically setup the connection with the Bluetooth LAN Access server users set.
  - (5) Send a FAX to connect.  
When users dial-up using windows dial-up dialog, BlueSoleil will automatically setup the connection with the Bluetooth FAX server users set.
- Integration with MS Outlook for Object Push and Synchronization.  
Cards and other objects can be saved to Outlook directly and users can send a card or calendar to a Bluetooth device from Outlook directly.
- Shortcut on Windows Desktop  
Windows shortcut is introduced here to let user to be able to setup Bluetooth connection when they want by just double- clicking them. It makes Bluetooth connection extremely simple.

- Security 2  
With this feature, users can manage local Bluetooth services in a flexible way. Authentication, encryption and authorization can be configured based on every service. Users can set which remote device can access local services and which not.
- FAX  
FAX enable users to send a FAX from PC side via Bluetooth cellular phone or Bluetooth FAX machine wirelessly.
- Network Address Translation for PAN  
With this function, BlueSoleil can share Internet connection to other Bluetooth devices.
- Improved HID Reconnection  
When HID mouse and keyboard stand by a few minutes, they will disconnect Bluetooth connection temporarily to save power. It is supported that the connection will be setup automatically again when mouse and keyboard are moved or typed.
- Network Access Point for PAN  
With this function, BlueSoleil can act like a HUB. Other Bluetooth devices can connect to local area network via BlueSoleil.
- DHCP server in PAN GN  
With this function, remote devices connect to BlueSoleil can obtain IP address quickly.
- More Bluetooth Serial Ports  
More Bluetooth Serial Ports are supported, with 4 Bluetooth Serial Ports for out-going connections and 2 Bluetooth Serial Ports for incoming connections.
- Remote Control  
With this feature, users can make cellular phones like Ericsson T39 or T68 to work like a mouse and keyboard. Users can remotely control their PC to show Power Point etc.

The following significant changes have been made to BlueSoleil 1.0.8 since it is build 1.0.7:

- Add license checking.
- Add short cut on windows desktop for DUN, to make it convenient to dial-up a Bluetooth cellular phone – only one click to dial-up.
- DUN interoperability issue with Nokia Bluetooth phone 6310 is solved.
- Improved to support Ericsson Communication Suite software on PC side used for T39 or T68 phones.
- T68 can display the default vcard sent from BlueSoleil using OPP now.
- Data transferring speed is optimized for various Bluetooth chips.
- RSSI and other connection information of the remote connected device are shown also on server side.
- Paired devices are marked at the orbit directly.
- Inquiry procedure is optimized to find more devices with fewer clicks.
- Set the service bit on device class after local service is started.



- Device class is explained in Security configuration window or Attribute configuration window using string instead of figures.
- The remote device icon can be shown correctly now when remote device connects to my device.
- Bug fix: On Windows 98E/ME, if user exit directly without disconnect LAP connection first, program will lead to general protection error some time.
- Bug fix: Unicode characters (Chinese, Japanese, Korean) in a file name or directory name can be shown correctly in FTP window now. An exception is: if the windows default language is different from the characters – the Chinese characters (Japanese, Korean), the Unicode characters will not be shown correctly.
- Bug fix: On some notebooks, Windows 98 or Windows XP, the LAP cannot connect with the reason “Start RAS fail”.
- Bug fix: Significant FTP security bug. FTP client side can access the parent folders of the server’s shared folder using “\..”.
- Bug fix: The short cut for synchronization’s can auto start now.

## 5 Known Issues

The “Severity” column gives a subjective assessment (**Low**, **Medium**, **High**) of how severely each issue may affect the software’s usefulness in real applications.

ID	Severity	Description
<b>Installation</b>		
1	L	Some software can only use com ports lower than COM10. During BlueSoleil installation, Bluetooth serial ports will be installed as low as possible. Normally, it will be COM3: HCRP(client), COM4-5: SPP(client), COM6-7: SPP(server), COM8-9: SPP(client), COM10: DUN(client), COM11: FAX(client). If other software has occupied the lower com ports, BlueSoleil will not be installed on the lower ports. It may bring inconvenience to the usage of the software that need serial ports lower than COM8. Please just make sure install BlueSoleil first in this case.
<b>Application</b>		
1	M	BlueSoleil may not be able to start Bluetooth after switching users in Windows XP and Windows Vista
2	M	On Vista OS, selective suspend is not supported and if the firmware key 0x02c5 (USB attribute bitmap) in CSR chip is 0x00e0, BlueSoleil will hang after 15 seconds of idle.
3	M	“Auto start “ on Vista OS does not work.
4	L	On Vista OS, Nokia PC suite 6.7 or later versions can start another instance of BlueSoleil while BlueSoleil is already running.
5	M	BlueSoleil may not restart Bluetooth with ISSC/ConWise dongle when the computer wake up until restart BlueSoleil or re-plug the dongle.
<b>GAP</b>		
<b>DUN</b>		
1	L	DUN may not be used if exit BlueSoleil when there is a DUN connection to a phone.
<b>FAX</b>		
<b>SPP</b>		



<b>HID</b>		
1	M	The Bluetooth mouse can not reconnect to BlueSoleil after re-plug the Conwise Bluetooth dongle.
<b>FTP</b>		
1	L	On Windows 2000, when downloading files, the destination folder's window message process will be stopped temporarily. After the data transfer is finished, it will recover.
2	L	BlueSoleil may not function properly when it works as FTP Server and FTP client at the same time.
<b>PAN</b>		
1	M	PAN service may not start when BlueSoleil is firstly used, sometimes the "exit" menu is gray
2	M	After the Bluetooth device is changed, the IP address of PAN adapter may be 0.0.0.0 or 169.254.x.x
<b>OPP &amp; SYNC</b>		
1	L	When synchronize with MS Office XP Outlook, a dialog will appear to let user to select whether to accept the data access. If users choose No, operation will break while cards can be imported into Outlook.
<b>Headset</b>		
1	L	User should first establish the Bluetooth audio connection between Headset and Audio Gateway, and then play music, record sound or chatting. Otherwise the audio may stream to local sound card.
2	M	On some machines with Vista OS installed, High Quality Audio functions may not function properly.
<b>AV</b>		
1	L	Users should first establish the Bluetooth AV stream between two streaming device, then open media players. Otherwise the audio may stream to physical sound card.
2	L	When playing CD on some computers, there may be some glitches. Please Download and update the latest DirectSound on Microsoft website. Then it will work well.
3	M	On some machines with Vista OS installed, High Quality Audio functions may not function properly.

## 6 References

- [1]. Specification of the Bluetooth System, Core, V2.0+EDR, November 4th, 2004.  
[2]. Specification of the Bluetooth System, Profiles, V1.1, February 22th, 2001.

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