[SCE CONFIDENTIAL DOCUMENT]

PLAYSTATION(R)3 Programmer Tool Runtime Library 110.006

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Bug Fixes of the Reference Tool SDK package are as follows.

- Release 110.006 Bug Fixes

Bug Fixes in Release 110.006

System Software

On the game data screen, the creation date was wrongly displayed

- because the time duration of the specified time zone was incremented. This problem has been fixed.
- The game data were listed in chronological order. This problem has been fixed so that the data is displayed in reverse chronological order.

System Utilities

<Save Data Utility>

- When save was performed several thousands of times, the save after that was not performed correctly in some cases. This problem has been fixed.
- The save data list was not obtained successfully when performing a fixed save/load. This problem has been fixed.
- When you selected data quickly to save or load from a list, it accessed an incorrect address depending on the timing, and then it hung up. This problem has been fixed.
- In samples/sysutil/savedata, when multiple items matched as a search result of a prefix to be specified for cellSaveDataFixedSave/Load, it entered into an infinite loop. This problem has been fixed.
- In samples/sysutil/savedata, the memory corrupted depending on the timing of a power-off event. This problem has been fixed.

Audio Configuration Utility>

- When any one of the following conditions was met, CELL_AUDIO_OUT_OUTPUT_STATE_ENABLED was not returned to the state member of the structure CellAudioOutState that was obtained by cellAudioOutGetState(). This problem has been fixed.
 - The audio output is set to HDMI, however the HDMI cable is not connected.
 - The audio output is set to HDMI, however the power of the HDMI equipment is turned off.

- <Video Configuration Utility>
 When any one of the following conditions was met,
 CELL_VIDEO_OUT_OUTPUT_STATE_ENABLED was not returned to the state member of the structure CellVideoOutState that was obtained by cellVideoOutGetState(). This problem has been fixed.
 - The movie output is set to HDMI, however the HDMI cable is not connected.
 - The movie output is set to HDMI, however the power of the HDMI equipment is turned off.

< On-Screen Keyboard Utility>

- After On-Screen Keyboard dialog was booted, CELL_SYSUTIL_OSKDIALOG_LOADED was returned to the status of the callback function for status notifications, however there was a time-lag until the dialog screen was actually displayed. When cellOskDialogAbort() was called during this few frames, the utility hung up. This problem has been fixed.
- < Web Browser Utility >
- When multiple tabs are left opened on JavaScript, it hangs up. This problem has been fixed.
- Although cellWebBrowserShutdown() was executed, the system callback was not called. This problem has been fixed.

The system callback will be called after CELL_SYSUTIL_WEBBROWSER_SHUTDOWN_FINISHED is passed to the system callback as a callback event.

< AV Chat Utility >

- When the AV chat utility (sysutil_avc) was loaded, and then an unloading function was called before starting a chat, a DSI error occurred. This problem has been fixed.
- In sysutil_avc.h, the following constant values were different from what was written in the reference document. This problem has been fixed.

Fixed as follows: CELL_AVC_ERROR_INVALID_STATUS : 0x8002b708 -> 0x8002b70a CELL_AVC_ERROR_NO_SESSION : 0x8002b709 -> 0x8002b70d

Added:

CELL_AVC_ERROR_TIMEOUT : 0x8002b70b

- Depending on the timing of when the chat was started, only the self-portrait was displayed. This problem has been fixed.
- Depending on the timing of when the chat was started, the connection became unstable. This problem has been fixed.
- Although the chat was ended, it was not terminated correctly. This problem has been fixed.
- In samples/sysutil/avc, the message display position and the cursor's initial position have been corrected.

Network

Some routers were not able to establish a network connection using the PPPoE bridge. This problem has been fixed.

NP Signaling Utility

- When activation and deactivation of a connection is repeatedly performed using the NP signaling utility, there was a possibility that the system software hung up. This problem has been fixed.
- With the structure for network information that is obtained from a terminal whose UPnP setting is "Invalid", nat_status and

upnp_status were as follows:
nat_status: SCE_NP_SIGNALING_NETINFO_NAT_STATUS_UNKNOWN
upnp_status: SCE_NP_SIGNALING_NETINFO_UPNP_STATUS_UNKNOWN

However, they have been changed as follows: nat_status: The correct NAT type

upnp_status: SCE_NP_SIGNALING_NETINFO_UPNP_STATUS_INVALID

NP Score Ranking Utility

- The following problem has been fixed.

 When sceNpScoreRecordScore() is called on a specific hardware, it always fails returning SCE_NP_COMMUNITY_SERVER_ERROR_BAD_REQUEST (0x8002a401)

No action is required at the game title side to resolve this problem.

For details, see the Technical Note. https://ps3.scedev.net/technotes/view/357

- The following restriction on when calling sceNpScoreDestroyTransactionCtx() has been lifted:
 - Just after aborting a transaction with sceNpScoreAbortTransaction(), it is not possible to destroy an NP score ranking transaction context by using sceNpScoreDestroyTransactionCtx() Please note that it is always required to check that the transaction has ended.

Because this restriction has been lifted, it is no longer necessary to confirm whether the transaction has ended in advance. When the context is discarded during the transaction, the transaction will be aborted.

Note that it is not necessary to poll cellSysutilCheckCallback() while executing sceNpScoreDestroyTransactionCtx().

- When the data size per transfer was specified as 3985 bytes or more using sceNpScoreRecordGameData(), 0x8002e005 was returned. This problem has been fixed.

NP Matching Utility

- When the following processes were performed in the receive invitation message utility, an incorrect error code was returned. This problem has been fixed.
 - 1. An error occurred when joining to a room from the receive invitation message utility.
 - 2. When joining to another room from another invitation message
 - without terminating the receive invitation message utility. 3. The error code described in 1 is returned although it successfully joined to another room in 2.
- When the receive invitation message utility was booted up, a callback was returned indicating it failed to join a room(no such room) after successfully joined the room.
- ·When multiple users joined a room at the same time using the receive invitation message utility or the utility that searches for and randomly joins an existing room using sceNpMatchingSearchJoinRoomGUI(), such room event was notified to the game before the completion event of the utility. This problem has been fixed.

NP Basic Utility

- NP IDs of online and offline presences are now correctly compared.
- When the NP basic event handler was registered immediately after sign-in, all the offline presence information of friends were not obtained. This problem has been fixed.
- The API that passes a NP ID now checks whether handle is empty or not.

np_gui Sample

- In np_gui sample, although a room was created with the LEVEL and WORLD parameters changed from the Conditions setting, such change was not reflected to the resulting room. This problem has been fixed.

Libhttp

- A redirected connection was reused even though it was closed by the server. This problem has been fixed.

- The authentication information was deleted after sending CONNECT using a SSL connection via a proxy. This problem has been fixed.
- In very rare cases, when using https, a function that is multithread safe became not multithread safe. This problem has been fixed.

Standard C/C++ Library

 The following functions that can be found in time.h were not able to handle the times in 2038 and later. This problem has been fixed. ctime, gmtime, localtime, mktime

CODEC

- The following restrictions has been removed from SDK085 onwards:
 - It is assumed that the outputs of the samples are output to a PC monitor with a resolution of SXGA or more or to an HDMI monitor that supports 1280x720/60p input. Therefore, if the monitor setting is not performed appropriately in advance with the setmonitor utility,

the samples will display an error message and will be aborted.

- The following problem relating to the method of obtaining the video frame size using libpamf have been fixed:

horizontalSize and verticalSize of the structure CellPamfM2vInfo or CellPamfAvcInfo was used to obtain the video frame size, however, it failed with a stream whose size was not a integral multiple of 16.

In MPEG2, it has been fixed so that it uses horizontalSizeValue and verticalSizeValue instead.

In AVC, it now uses the value that is included in the picture information output by the video decoder.

libsail

- The following problem has been fixed.
 - The call of the following functions is not terminated normally during playback:

cellSailPlayerOpenEsAudio()

cellSailPlayerOpenEsVideo()

cellSailPlayerCloseEsAudio()

cellSailPlayerCloseEsVideo()

- The following problem has been fixed.
 - When cellSailPlayerStop() is called immediately after a CELL_SAIL_EVENT_SOURCE_EOS event occurred during playback, the notification of STOP is not received depending on the timing, and the player operation will no longer be available.
- The following problem has been fixed.
 - The value of pitch of the structure CellSailVideoFormat that is obtained when cellSailGraphicsAdapterGetFormat() is called is doubled.
- In streaming/simple_player sample, after cellSailSoundAdapterGetFrame() was called within SimplePlayer::onMixerNotified(), the next process was proceeded without performing an error check. This problem has been fixed.

SPU Runtime Library

....

ibspurs>

- The following problem has been fixed.
 - When cellSpursEventFlagWait() is executed with SPU, the logical OR of the bit pattern of the SPURS event flag that was received before and the "mask" may be returned for the argument "mask".

(Conditions of when It Occurs) When all of the following conditions are satisfied, the logical OR may be returned.

- When the SPURS event flag is initialized by specifying CELL_SPURS_EVENT_FLAG_SPU2SPU for the argument "direction" of cellSpursEventFlagInitialize()
- When the nth bit of the bit pattern that is specified with the argument "mask" of cellSpursEventFlagWait() is 0 and the nth bit of the bit pattern of the previous SPURS event flag is 1
- The following bug has been fixed.

In samples/spu_library/lispurs/common/ppu/libsample_spurs_utils.mk, a non-existing path "libspurs3" is specified. When this mk file is is used, an error may occur.

daisy>

- A description in the following header file has been modified because it does not conform to the C++ rule: target/spu/include/cell/daisy/glue.h
- In libdaisy, when the following functions were used in the PPU program, a compile error occurred. This problem has been fixed.

Pipe::InPort::beginPush(void) Pipe::OutPort::beginPop(void) QueueControl::Local::dump()

libgcm

When executing cellGcmSetSecondVFrequency() with its argument specified with CELL_GCM_DISPLAY_FREQUENCY_SCANOUT followed by cellGcmSetSecondVFrequency() with its argument specified with CELL_GCM_DISPLAY_FREQUENCY_59_94HZ, the second V interruption was not taken place. This problem has been fixed.

libdbgfont

- The following problem has been fixed.
 - With the function cellDbgFontInitGcm() included in libdbgfont_gcm.a, if an invalid value is included in the member localBufAddr or mainBufAddr of the structure CellDbgFontConfigGcm to be set as the argument, -1 is returned or a hang-up occurs within the function. An invalid value is an address within the range that cannot be accessed by libgcm.

When it is set so as not to use the main memory, the setting of the member mainBufAddr will be ignored.
(When neither CELL_DBGFONT_VERTEX_MAIN nor CELL_DBGFONT_TEXTURE_MAIN is specified for the member option.)

libaudio

 With the function cellAudioGetPortTimestamp(), if the sound setting was "HDMI: 'Dolby Digital 5.1 Ch.' specified, 'Linear PCM 5.1 Ch. 48 kHz' not specified" with the system software, the correct time stamp value could not be obtained. This problem has been fixed.

libmixer

 With the function cellSurMixerGetTimestamp(), if the sound setting was "HDMI: 'Dolby Digital 5.1 Ch.' specified, 'Linear PCM 5.1 Ch. 48 kHz' not specified" with the system software, the correct time stamp value could not be obtained. This problem has been fixed.

MultiStream

- When cellMSStreamSetInfo() was called twice or more after the MultiStream library was initialized using cellMSStreamOpen() or cellMSCoreInit(), an error occurred. This problem has been fixed.
- When cellMSFXParaEQInit(), cellMSFXParaEQSet() or cellMSFXParaEQGetNeededMemorySize() was used, an exception event occurred. This problem has been fixed.
- Although CELL_MS_DISABLE_SPU_PRINTF_SERVER was specified to "flags" of the structure CellMSSystemConfig, and the printf server of the MultiStream SPU was disabled, the server was not terminated. This problem has been fixed.
- When the stream pitch was extremely increased or the velocity was set to high, the application hung up with a DMA alignment error. This problem has been fixed.
- An exception error occurred when the following functions were used as follows. This problem has been fixed.

Set 0 to the argument addr in cellMSFXVocoderSetModulatorVolume() Set 0 to the argument addr in cellMSFXVocoderSetEQBand()

- Set 0 to the argument pSettings in cellMSFXFilterSet()
- Set 0 to the argument paramList in cellMSFXDelayInit() Set 0 to the argument paramList in cellMSFXParaEQSet()
- When NULL is specified to the argument of cellMSFXxxxx() an exception error occurred. This problem has been fixed.
- An illegal character code (0x06) was contained in samples/sound/multistream/simple_atrac/src/main.cpp. This problem has been fixed so that a warning message that was output when building the sample program will no longer be displayed.

- When the termination process was conducted after executing samples/sound/multistream/rain_sample using the following command, an exception error occurred. This problem has been fixed.
 - bedbg -T;
 dtpoff;

 - 3. bedbg -terminate;
- In samples/sound/multistream/simple_ducker, the vocoder DSP effect has been improved.
- In the following samples, because the stream data was not terminated successfully, the sound was not played when the stream data was closed. This problem has been fixed.

samples/sound/multistream/simple_envelope samples/sound/multistream/simple_playstream

USB

<USB Driver>

- The following problems have been fixed.
 - The maximum data length that cellUsbdBulkTransfer() can transfer is 4 KB.

According to this change, the maximum data length is now 64 KB as described in libusbd-Reference.

- HID Class devices except the mouse and the keyboard that have no HID descriptor are now not handled by the system LDD.

libmic

- Although the microphone level was changed by opening the Audio Device Settings using cellSysconfOpen(), the resulting value was not saved correctly. This problem has been fixed.
- When the Audio Device Settings was opened by cellSysconfOpen() to change the input device setting, then closed the dialog, the audio input from the microphone stopped. This problem has been fixed.
- The audio output level from libmic, for when the microphone level is 0, is now decreased.