1 Preparation of SDK110 Environment

Update of the Software for the Communication Processor

In SDK110, the software for the communication processor of the Reference Tool must be updated with the reftool_cp_096.bin file included in the CP update package (PS3_CP_Update-094*).
If the update is correctly performed, the version of the Administration Tool is displayed as 0.9.6.
After updating the communication processor, please update the Flash Memory of the target system.
If a version other than 0.9.6 is displayed, please update again.
Note:

- When updating, please do not press the "Setting" button twice.
- During an update, please do not turn the power off.
- Even if the update is completed, the screen of the Administration Tool will not be updated automatically (there is no notification of the completion of the update). During the update, the POWER LED of the Reference Tool flashes. Therefore, when it stops flashing and becomes steady, it means that the update is completed.

Update of the Flash Memory

In order to update the Flash Memory of the target system to SDK110, the “System Update” feature provided with the System Software of SDK100 or later is used.

For the detailed updating procedure, please refer to “Reference Tool Software Setup Guide”.

Note on the Update (1)

If you are using the environment of SDK100 or before, please write the Flash Memory with the ebootrom included in SDK100 first, and then, update from SDK100 to SDK110 by using the update data (PS3UPDAT.PUP) included in SDK110.
Please note that the operation of when updated directly from the environment of SDK100 or before to SDK110 is not guaranteed.

Note on the Update (2)

If the update is performed while performing the output to D-SUB by using setmonitor.self of SDK096 or before, the video may not be output.

When performing the update to SDK096 or later in the environment in which the output to D-SUB is being performed, please write the Flash Memory with the ebootrom included in SDK100, execute setmonitor.self, and set the output to D-SUB. After that, please execute ”System Update” from the system software and update to the environment of SDK100 or later.

2 System Software (GUI)

New Features

- The feature of the Utility for SELF release check mode 1.00 package that is provided in a separate package from PS3 Developer Network (https://ps3.scedev.net) has been added to the system software.
  Settings -> System Settings -> SELF Check Mode
- A feature of formatting the system cache (Format System cache) has been added.
  Settings -> System Settings -> Format System cache

Specification Change

- In the case of when the game application is booted from the debugger, a change has been made so that a wait for the game process termination occurs before performing the system termination processing, when the power off processing is performed. The wait time is 15 seconds. When the time comes, a timeout occurs and the system is forcibly terminated with a warning sound.

3 System Utilities (libsysutil)

Message Dialog Utility

New Features

- As the error code for which a dialog is displayed with the error code specified, the following two have been added:
  - Error code to be notified with an API of the NP score ranking utility:
    0x8002a10f
  - Error code to be notified via an API of the NP score ranking utility and a callback handler of the NP matching utility:
    0x80710102

AV Chat Utility

New Features

- As the event parameter to be passed to the callback function, the following macro has been added:
  CELL_AVC_EVENT_PARAM_ERROR_INCOMPATIBLE_PROTOCOL
- It has been changed so that, when trying to connect to an AV chat whose version is different, CELL_AVC_EVENT_JOIN_FAILED is returned to the event ID of the callback function and CELL_AVC_EVENT_PARAM_ERROR_INCOMPATIBLE_PROTOCOL is returned to the event parameter of the callback function.

Specification Changes

- The size of the memory container to be required in the voice chat mode has been reduced from 16Mbyte to 8Mbyte.
- The protocol to be used with an AV chat has been changed.
  Since it is not possible to perform an AV chat between the environment before SDK110 and the environment of SDK110 or later, please perform an AV chat in the environment of SDK110 or later.

Disc Boot Game Utility

New Features

- Functions for setting disc exchange notification callback functions have been added:
  - Register the disc exchange notification callback:
    cellDiscGameRegisterDiscChangeCallback()
  - Unregister the disc exchange notification callback:
    cellDiscGameUnregisterDiscChangeCallback()

With these callback functions, the information that a disc has been ejected and the information that a disc has been inserted are notified. When a disc is inserted, the type of the disc and the product number information are notified.

Sample Change

- The sample programs of samples/sysutil/discgame have been moved to samples/sysutil/discgame/getbootdiscinfo.

Web Browser Utility

Sample Changes (samples/sysutil/webbrowser)

- A change has been made so as to execute cellWebBrowserShutdown(), which used to be executed from main(), from gameexit_callback() that is registered as a common event callback.
- A change has been made so as to handle the following callback factor within system_callback() that is registered as a system callback.
  CELL_SYSUTIL_WEBBROWSER_SHUTDOWN_FINISHED

4 PLAYSTATION®Network

NP Score Ranking Utility

Specification Change

- It has been changed so that, even when the communication processing API is executed without polling cellSysutilCheckCallback(), a timeout occurs after a certain time.
  In addition, as the error to be returned from the communication processing API when a timeout occurs, the following macro has been added:
  SCE_NP_COMMUNITY_ERROR_TIMEOUT

5 Network

libssl

New Feature

- A function that loads the SSL CA certification, cellSslCertificateLoader(), has been added.

libnetctl

New Features

- With cellNetCtlGetInfo(), it has become possible to get the UPnP set value.
  In order to get the UPnP set value, please specify CELL_NET_CTL_INFO_UPNP_CONFIG for the first argument (code). The value will be stored in the member upnp_config of the union CellNetCtlInfo.
  For details, please refer to the reference document.
- With the network start dialog utility, a change has been made so as to check the insertion and removal of the network cable. When the network cable is not inserted, a message "An Ethernet cable is not connected." will be displayed.

Specification Change

- With the network start dialog utility, the size of the memory container that is required when using NP by specifying CELL_NET_CTL_NETSTART_TYPE_NP has been reduced from 16MB to 8MB. According to this change, the value of the macro constant CELL_NET_CTL_NETSTART_NP_MEMSIZE that represents the size of the memory container within libnetctl.h has also been changed.

6 libgcm

Sample Changes

- A function for returning the size of the color buffer that is allocated with the common utility, cellGcmUtilGetColorBufferSize(), has been added.
  samples/gcm/common/display.cpp
- A function for returning the size of the depth buffer that is allocated with the common utility, cellGcmUtilGetDepthBufferSize(), has been added.
  samples/gcm/common/display.cpp
- A function for initializing the internal offset pointer of the main memory that is mapped within the common utility, cellGcmUtilResetMainMemory(), has been added.
  samples/gcm/common/memory.cpp
- Since the PRX modules CELL_SYSMODULE_IO and CELL_SYSMODULE_GCM_SYS are loaded implicitly at the time of application boot-up, the codes for loading them explicitly have been deleted from the sample.
  samples/gcm/fwgcm/FWCellMain.cpp

7 codec

libdmux

Sample Changes (samples/codec/pamf_dmux)

- The I/P conversion of interlace images with the video post processing library (libvpost) has been supported. If the image output from the video decoder is an interlace image, it is converted into a progressive image before it is output to the display.
- The stream input method has been improved.
  It has been changed so that the streams within the specified path are read and played sequentially. By using the 64bit version low level file input function, it has become possible to play large-capacity stream files continuously.
- The specification of the Video/Audio buffer size has been moved to common.h.
- The trigger for retrying cellVdecDecodeAu() when the video decoder is busy has been changed from the PICOUT callback to the AUDONE callback.

libsail

Sample Change (samples/streaming/simple_player)

- With the setting of ES before cellSailPlayerOpenStream(), a change has been made so that more than one method is indicated by using the #if sentence.

8 MultiStream

New Feature

- An error code of when a stream cannot be opened has been added to mstream.h.
  #define CELL_MS_STREAM_CLOSED (32)

Specification Change

- It has been changed so that, when a stream cannot be opened, CELL_MS_STREAM_CLOSED is returned as the return value of cellMSStreamGetInfo().

9 Physics Effects Samples (samples/simulation/PhysicsEffects)

Sample Changes

- The operation of the light with the right analog stick has been removed from the tutorial.
- With the following sample, "height" field has been added to the rigid body simulation. In addition, the joints have been improved, and the types that can be used have been increased.
  samples/simulation/PhysicsEffects/Physics/Tutorials

10 Sample Programs

New Additions

- **samples/spu_library/libspurs/advanced/task_sort**
  This sample demonstrates how to perform the parallel distributed processing of Quick Sort by using the SPURS task.
- **samples/sysutil/discgame/discchange**
  This sample demonstrates how to get the disc exchange notification by using the disc boot game utility.
- **samples/network/http/simple_https**
  This sample demonstrates the basic flow of when using the HTTPS feature of libhttp.
- **samples/gcm/zcull**
  This sample demonstrates how to compare performance with zcull.
- **samples/simulation/PhysicsEffects/Tutorial/Tutorial5**
  This sample demonstrates how to use "height field", "raycast", and "contact filter".
- **samples/simulation/PhysicsEffects/Demo/ParallelOptimization**
  This sample demonstrates how to perform physics computations of about 3000 rigid bodies, in parallel, by using more than one SPU.
- **samples/simulation/PhysicsEffects/Demo/PhysHair**
  This sample demonstrates how to use physics computations for the hair of the character.
- **samples/simulation/PhysicsEffects/Demo/PhysWater**
  This sample demonstrates how to use fluid computations for the behavior of the surface of water.

Addition of Project Files

For ProDG for PLAYSTATION®3, project files have been added for some of the following sample programs.

As for the unsupported sample programs, project files will be added as soon as they become ready.
samples/simulation/PhysicsEffects/