

Activity System Overview

© 2015 Sony Computer Entertainment Inc.
All Rights Reserved.
SCE Confidential

Table of Contents

| | |
|---|-----------|
| 1 Activity System | 3 |
| Introduction to the Activity System | 3 |
| Provided Items | 3 |
| Reference Materials | 4 |
| Terminology | 4 |
| 2 Activity System Configuration | 5 |
| Status | 5 |
| User status | 5 |
| Announcement status | 5 |
| NP Activity library | 6 |
| Activity server | 6 |
| 3 Activity Display | 7 |
| Status Display Applications | 7 |
| Status List Display | 8 |
| Status Detail Display | 8 |
| New Arrival Display | 9 |
| 4 Communication | 10 |
| Privacy Settings | 10 |
| Subaccounts | 10 |
| Saving and Deleting Status | 10 |
| Announcement Status | 10 |
| Saving and Deleting Comments | 10 |
| Checking Comments for Prohibited Words | 10 |
| Like | 11 |
| 5 Gameplay and the Activity System | 12 |
| Gameplay and Status Postings | 12 |
| Delayed Status Posting | 12 |
| Contents of Posted Status | 13 |
| Status Posted by System Software | 13 |
| Status Posted by Activity Server | 14 |
| Action Links | 14 |
| Announcement Status Setting Information | 15 |
| Prohibited Status | 15 |
| 6 Overview of the Development Process | 16 |
| Before Using the Activity System | 16 |
| Preparing the Development Kit and Testing Kit | 16 |
| Application Development | 16 |
| Debugging Feature | 16 |
| Testing | 17 |
| 7 Data Definitions | 18 |
| Status Posted from a Game | 18 |
| Announcement Status Posted from the SMT | 18 |
| Comment Information | 19 |

1 Activity System

Introduction to the Activity System

The activity system is a service that enables users to share their play histories. A user can post information to the server in the form of status containing information such as the progress of a game or the purchase history at a store, and that status can then be made available to other users. Each status can contain a comment or "Like" evaluation which can be used to facilitate communication between users. Status is displayed by system software in areas such as the communication zone of LiveArea™.

The activity system has the following main features.

- Post status from a game
- Post status from system software
- Status can be saved locally when offline and automatically posted when online
- Display or manipulate status through system software
- Provide privacy settings which allow the visibility of status to be controlled
- Communication feature which enables comments or "Like" evaluations to be posted with status
- Browser/store can be launched via a status action link
- Announcement status can be posted from the Server Management Tools (SMT)

It is assumed that this document will be mainly read when designing an application. It explains the behavior of the entire activity system and how to post status from a game. The second part of this document presents an overview of the development process and explains data definitions relevant to specific activities.

Provided Items

The following items related to the activity system are provided.

System Software

Displays status lists and comments, posts comments and "Like" evaluations, and sends posted status to the activity server.

NP Activity Library

Provides functions for posting status from a game.

SMT LiveArea™ Tool

Web tool for posting activity announcement status.

Reference Materials

Refer to the following documents when using the activity system.

- NP Activity Library Overview, NP Activity Library Reference:
Library documentation explaining how to post status from a program.
- Server Management Tools NP LiveArea™ Tool User's Guide:
Document on the Web tool used for posting activity announcement status.
- System Software Overview:
Document that presents an overview of system software. Activity status is displayed by system software.
- PSNSM Commerce Service Overview:
Document that explains the PSNSM commerce service. It provides a description for PlayStation®Store.

Terminology

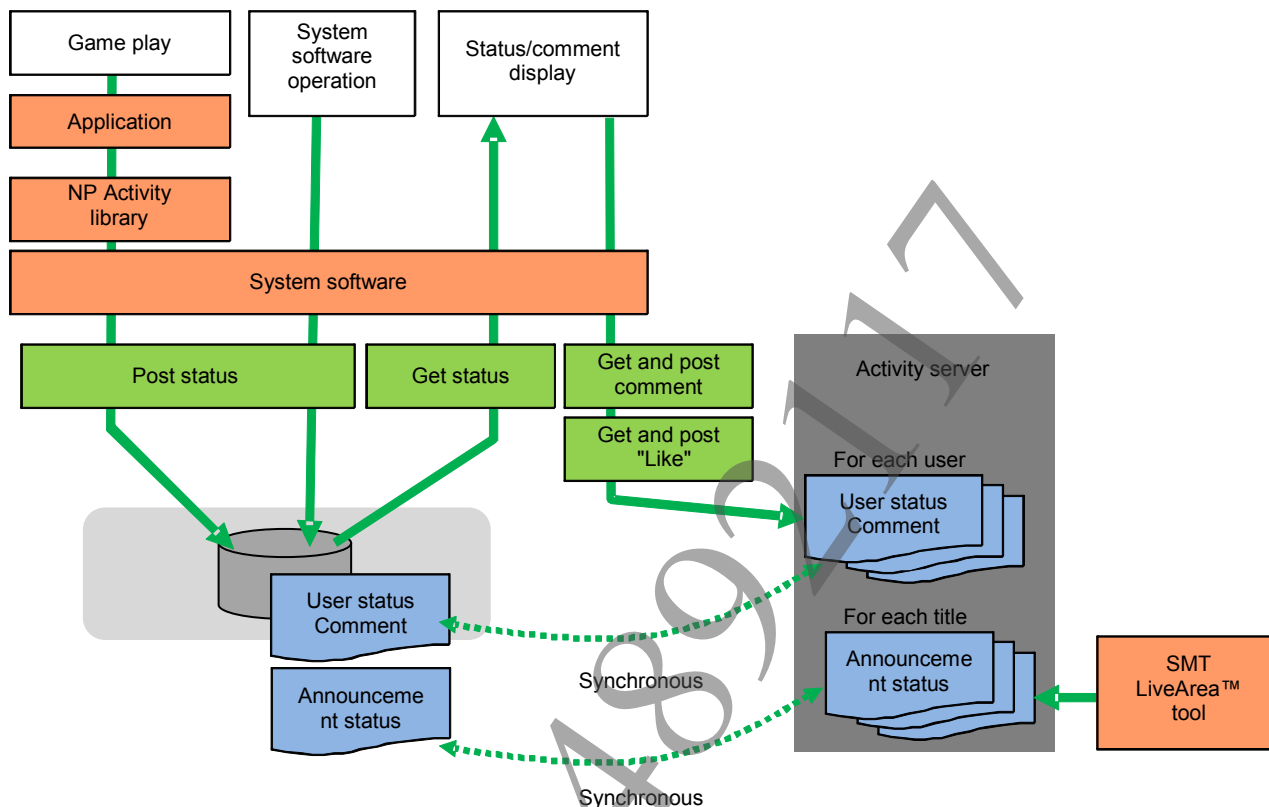
The main terms used in the activity system are shown below.

| Term | Explanation |
|---------------------|---|
| Activity | Service name of the activity system. |
| Status | Element that is the smallest unit of the user's game play history or store purchase history. Includes both user status and announcement status described below. |
| User status | Status related to user operations such as game play history posted from a title or store purchase history posted from system software. |
| Announcement status | Status posted from the SMT to a user who has the associated title. |
| Comment | Text posted from a user for a given status. |
| Like | Evaluation posted from a user for a given status. A user can post or remove a "Like" evaluation. A negative evaluation cannot be attached to a status. |

2 Activity System Configuration

Figure 1 shows the configuration of the activity system.

Figure 1 Activity System Configuration



Status

Status is the element that is the smallest unit of the user's game play history or system software operation history. It consists of information such as text describing the status, name of the poster, and action link URI. The data specifications for the status are described later.

User status

User status is status related to user operations such as game play history posted from a title or store purchase history posted from system software. For a given user status, other users can post comments or "Like" evaluations.

Announcement status

Announcement status is status posted from the SMT to a user who has a certain title. The title provider can post announcements or simple notices about newly added items, web pages, and small news. Unlike user status, no comment or "Like" evaluation can be posted for an announcement status. The data specifications for the announcement status are described later.

NP Activity library

The NP Activity library provides functions which enable an application to post status.

Note

The NP Activity library can even be used when offline. Status posting information is stored in internal flash memory when the device is offline and sent to the activity server when the device is online again. Note that the NP Activity library does not provide any functions for receiving status. Status can only be posted from an application. The display and manipulation of status and the posting of comments is performed by system software.

Activity server

The activity server stores status information, comment information and "Like" evaluation information for each user.

Although status information is recorded in PlayStation®Vita internal flash memory, it can also be sent to and accumulated on the activity server and made available to other users. The activity server can receive and accumulate postings of comments or "Like" evaluations for status that is made visible to others.

The activity server can also post announcement status to users who have a certain title. Announcement status is distributed as a message from the title and displayed in a list of status for users who have that title.

Communication with the activity server is automatically performed on PlayStation®Vita by the NP Activity library and system software. A developer need not be aware that the activity server exists.

3 Activity Display

Status Display Applications

Status can be displayed or manipulated from several system applications. Some status display examples are described below.

- Only status pertaining to the title in a LiveArea™ is displayed in the communication zone of that LiveArea™. The status list that is displayed contains the status of that user, the status of the user's friends and the announcement status for that title, displayed from newest to oldest (note that the actual behavior will depend on the privacy settings of the user). When a status is tapped, the display transitions to the detail screen for that status where the complete text of the status and a list of comments for that status are displayed.
- The status list for a user whose profile is displayed can be displayed on the profile screen of the Friends application (note that the actual behavior will depend on the privacy settings of the user).
- The status of all friends is displayed chronologically on the LiveArea™ of the Friends application regardless of the title.

The following table shows how status is displayed by the main status display applications.

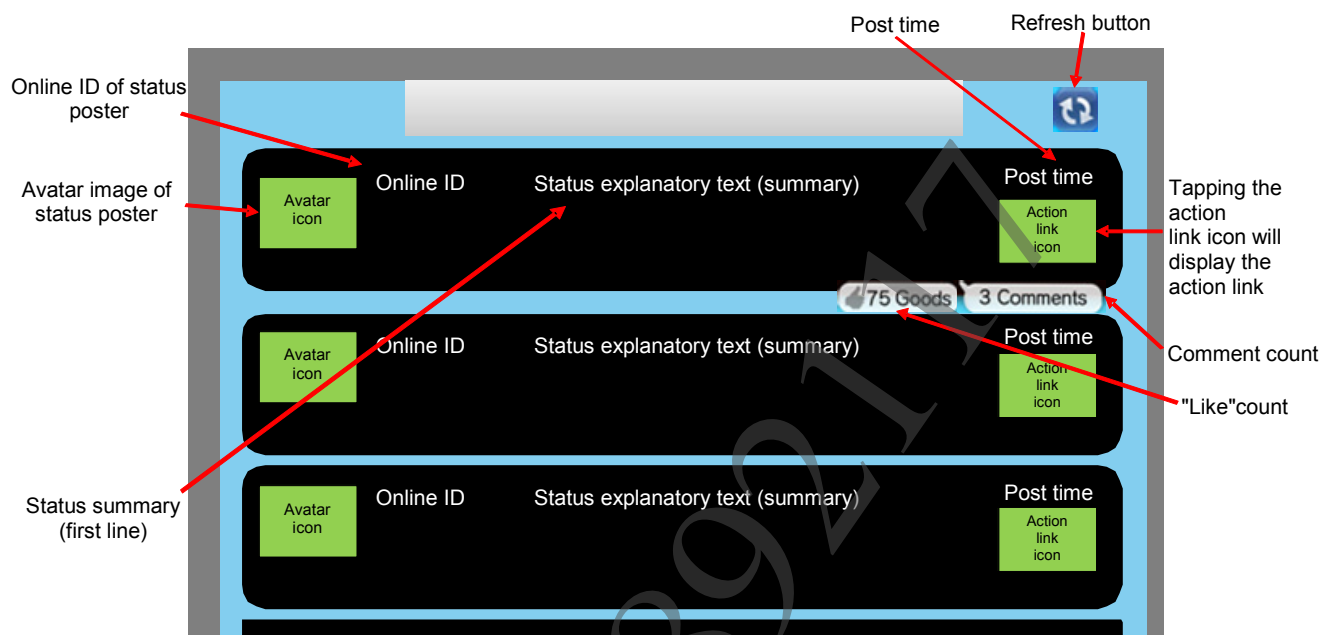
| | | System Software Name | | |
|-----------------|--|---|--|---|
| | | LiveArea™ Communication Zone | Friends Application Profile Screen | LiveArea™ of the Friends Application |
| Characteristics | Overview | Only displays status related to a title | Only displays status for users whose profile is displayed | Displays all status of all friends in chronological order |
| | Order | Displayed from newest to oldest | Displayed from newest to oldest | Displayed from newest to oldest |
| | User's own status | Included | Not included (included when user's own profile is displayed) | Included |
| | Announcement Status | Included | Not included | Not included |
| | Status Posted from a System Software Operation | Some status related to the title is displayed | Included | Included |
| | Friend's Status | Included *When friend is visible | Only displays status for users whose profile is displayed | Included *When friend is visible |
| | User that Passed by or Last User to Play | Not included | Only displays status for users whose profile is displayed | Not included |

A more detailed explanation is presented below mainly for status displayed by the LiveArea™ communication zone. The main displays and operations are also the same for the other applications (note that the layout can be different in some applications).

Status List Display

The status list for a given title in a LiveArea™ is displayed in the communication zone of that LiveArea™. Status related to other titles is not displayed. Status is displayed in chronological order from newest to oldest. Figure 2 shows an example of a status list display.

Figure 2 Status List Display Example



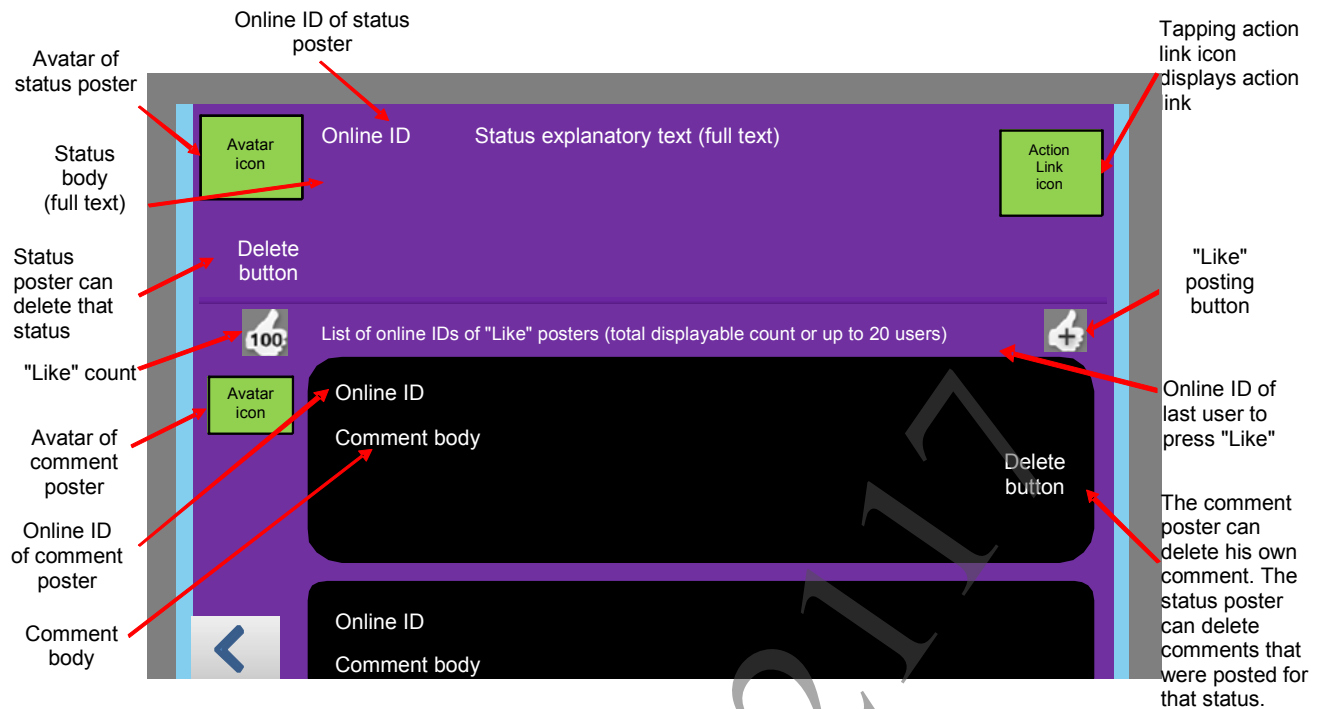
You can scroll the status in the status list display, receive the latest status by tapping the refresh button, or transition to a status detail display by tapping an individual status. You can also tap an avatar icon to display the profile of that user or tap an action link icon to execute the corresponding action associated with that action link (such as launching the browser).

The first part of the status explanatory text up to the first new line (0x0A) is displayed as a summary in the status list. Subsequent explanatory text is displayed in the status detail display.

Status Detail Display

You can tap an individual status in the status list to display details of that status. The status detail display contains the full explanatory text of the status and a list of comments and names of users who posted "Like" evaluations. Figure 3 shows an example of a status detail display.

The full text of a status can contain at most 9 lines. The first line is used as a status summary. The remaining 8 lines are displayed together with the summary when the status details are displayed.

Figure 3 Status Detail Display Example

The following operations can be performed on the detail display screen.

- Tap an avatar icon to display the profile of that user
- Tap an action link icon to execute an action (such as launching a browser)
- Tap a **Like** icon (+/-) to post or withdraw an evaluation
- Display and scroll comments
- Post a new comment
- A status poster can delete that status
- A comment poster can delete that comment
- A status poster can delete comments for that status

Note

A comment or "Like" evaluation cannot be posted for an announcement status.

New Arrival Display

Status of the most recently played game is automatically obtained by system software in the background. When new status arrives, the new arrival icon is displayed for that status.

4 Communication

This chapter describes communication between users using the activity system.

Privacy Settings

The user must set a privacy setting before using the activity system. Any of the following values can be set.

| Privacy Setting | Status Visibility | Comment or "Like" |
|---------------------------|--|---|
| Anyone | Status is visible to all users. Status can even be viewed by a user who is passing by or the last user who played. | Postings of comments and "Like" evaluations are accepted from all users. |
| Friends of Friends | Status is visible up to friends of friends. | Postings of comments and "Like" evaluations are accepted from friends of friends. |
| Friends Only | Status is visible up to friends and is not visible to other users. | Postings of comments and "Like" evaluations are accepted only from friends. |
| Do Not Share | Status is not visible to any user. Only the user's own status and relevant announcement status are displayed in the status list. | Comments and "Like" evaluations are not accepted from any user. |

Subaccounts

Status cannot be displayed or posted for a subaccount set to **Do not allow chatting** by subaccount management.

Saving and Deleting Status

The activity server saves up to 30 statuses for each user. These are saved in descending order by creation date where the oldest statuses are automatically deleted.

The status poster can delete any status that he posted himself. He cannot delete the status of another poster or an announcement status.

Announcement Status

Up to 100 announcement statuses are saved for each title. They are saved in descending order by creation date where the oldest statuses are automatically deleted.

Saving and Deleting Comments

The activity server saves up to 20 comments for each status. More than 20 comments cannot be posted.

The comment poster can delete any comment that he posted himself. He cannot delete a comment posted by another user. The status poster can also delete comments for that status even if they were posted by another user.

Checking Comments for Prohibited Words

The activity server performs a prohibited word check for comments. Prohibited words are automatically replaced by asterisks ***.

SCE CONFIDENTIAL

Like

Up to 100 "Like" evaluations can be posted for each status. More than 100 "Like" evaluations cannot be posted. The online IDs of the last 20 users who posted "Like" evaluations are displayed on the status detail screen. Online IDs for more than 20 users are not displayed. A "Like" evaluation can be withdrawn. More than one "Like" evaluation cannot be posted from the same user for the same status.

000004892117

5 Gameplay and the Activity System

This chapter describes how the activity system works while the user is playing a game.

Gameplay and Status Postings

A user's play history can be disclosed by posting status corresponding to that user's gameplay progress. The same status can be posted any number of times so that the activity system can share the user's play history. However, since at most 30 statuses can be saved on the server, you should avoid posting status at an extremely high frequency.

An action link URI can be set for a status. Once it is set, the target of the URI can be displayed in the browser or at PlayStation®Store by tapping the status icon.

Status can be posted not only from an application but also from the activity server by the SMT. Status from the SMT will be posted to the user as an announcement status. The poster's name, avatar icon, and a panel can be created for each title in an announcement status. The announcement status is only displayed in the LiveArea™ communication zone of a user who has that title. It is not displayed for other applications or for users who do not have that title.

Status can also be posted as a result of system software operations. Examples of these operations include purchases at a store or the acquisition of trophies. These statuses are displayed in chronological order in the user's status list. The status list that is displayed will differ depending on the application. The LiveArea™ communication zone only displays status pertaining to the title in that LiveArea™. Other system software can display all status for a given user in chronological order, or the status of all titles that include friends in chronological order.

Note

Status cannot be obtained by a game. Status can only be posted from a game.

Note

No notification or other information is displayed on-screen when a status posting API is called. Also, immediately after a game ends, new status will not necessarily be displayed in the LiveArea™ communication zone. New status can be displayed after a game ends by pressing the refresh button in the LiveArea™ communication zone.

Delayed Status Posting

If a status is posted from a game when the device is not connected to the network, system software registers and saves the status in a system software database. After the device is connected to the network, saved status will be automatically posted to the activity server by system software.

Status is discarded under the following conditions.

- If the user is signed out when status is posted from the game
- If the user is signed out at the time of a delayed posting
- If status is posted more than 30 times while the device is not connected to the network
- For a subaccount set to **Do not allow chatting**

Note

Status that has been saved to the local database is not displayed by system software. Only status that was posted to the activity server is displayed. As a result, status that was posted while a game is being played is not always displayed when the game ends.

Note

Status that was posted from a game may be discarded depending on user operations or the device state.

Contents of Posted Status

Examples of content in posted status are shown below.

Examples of status content posted during gameplay

- "Cleared stage XXX"
- "Defeated monster XXX"
- "Won race XXX"
- "Got item XXX"
- "Got title XXX"
- "Competed with player XXX"

Note

For information about prohibited status, see the section "Prohibited Status".

Examples of announcement status content posted from the SMT LiveArea™ tool

- "XXX contest results announced! Tap the icon"
- "New stage XXX now available!"
- "New item XXX was added to the store!"
- "Sequel XXX launch date decided!"
- "Wallpaper was updated! Tap the icon"

Note

Status posted from the SMT is only displayed in the LiveArea™ communication zone for that title. It is not displayed by other status list display applications.

Comments or "Like" evaluations cannot be attached to status posted from the SMT.

Status Posted by System Software

The following status is automatically posted by system software. Similar contents need not be posted by titles.

| Type | Timing When Status is Posted | Sample Status Contents | Displayed in LiveArea™ Communication Zone of Title? |
|-----------------------------|---|--|---|
| Game start | Posted when game is first started up | User "xxx" is playing "(game title)" for the first time. | Displayed |
| Trophy acquisition | Posted when trophy is obtained | User "xxx" has earned a trophy in "(game title)". Trophy name (grade) | Displayed |
| Hidden trophy acquisition | Posted when hidden trophy is obtained | User "xxx" has earned a trophy in "(game title)". (Hidden trophy) | Displayed |
| Platinum trophy acquisition | Posted when platinum trophy is obtained | User "xxx" has earned a platinum trophy in "(game title)". Trophy name (Platinum) | Displayed |
| Store purchase | Posted when purchase is made in store | User "xxx" has bought "(game title)" from PlayStation®Store. | Displayed for the game contents |
| Store rating | Posted when rating is assigned in store | User "xxx" has given "(game title)" an n-star rating in PlayStation®Store. | Displayed for the game contents |

Note

Among the status that is posted by system software, game start and trophy acquisition are displayed as status in the LiveArea™ communication zone for a particular title.
Status that is unrelated to a title is displayed on that user's profile screen or on the LiveArea™ of the Friends application.

Status Posted by Activity Server

The following status is automatically posted by the activity server. Similar contents need not be posted by titles.

| Type | Timing When Status is Posted | Sample Status Contents | Displayed in LiveArea™ Communication Zone of Title? |
|------------------------|--|--------------------------------------|---|
| Friendship established | Posted when a friend request is approved | User "xxx" is now Friends with "yyy" | Not displayed |

Note

The friendship-established status is posted to both the friend request sender and the friend request receiver.

Action Links

You can set a URI for an action link, which will display the URI target in a browser or at PlayStation®Store when the icon is tapped. You can also leave an action link URI unset for optional information.

For an action link URI, the http/https scheme, psts scheme, or psgm scheme can be set.

http/https scheme

Tap to start the Internet Browser application.

psts scheme

The psts scheme provides a means of accessing PlayStation®Store. Tap to start the PlayStation®Store Title Store. The format is shown below.

- psts:browse?type=value

The following can be specified for the type and corresponding value.

| Type | Value | Description |
|----------|-------------|---|
| category | Category ID | Opens the page of the category specified by the category ID |
| product | Product ID | Opens the page of the product specified by the product ID |

For more information about PlayStation®Store, refer to the "PSN™ Commerce Service Overview" document.

psgm scheme

The psgm scheme starts the application with arguments specified. Tap to start the application. If the application is suspended, resume will be executed. The application uses a function of the application utility library to parse application event parameters. For details on the application utility library, refer to the "Application Utility Overview" document.

Announcement Status Setting Information

The following can be set for each title in an announcement status.

Items that can be set for each title

- Poster name: Displayed in the online ID part of the status
- Avatar image icon: Icon displayed at the user's avatar icon position
- Panel texture image: Background texture image of the status
- Panel background color: Background color of the panel used in the status detail display screen.

For more information, refer to the "Server Management Tools NP LiveArea™ Tool User's Guide" document.

Prohibited Status

Do not post the following contents in status during gameplay or in announcement status.

Prohibited status

- Immoral contents
- Contents that are completely unrelated to the respective title.
- Contents that prevent the game from progressing unless the status information is viewed. For example, if a key is made available in the status while the game is progressing or a hint is provided that would prevent the game from progressing unless that status is read. This is because status may be discarded without being posted depending on the state of the device.
- Trophy acquisition status. Trophy acquisition status need not be posted from a game. System software is responsible for posting status related to trophy acquisition.
- Other contents that violate the TRC.

Prohibited action links

- Action links to immoral websites
- Other links that violate the TRC

Note

If you want to include some content in status that is not directly related to a title or if you want to create an action link to an unrelated website, contact technical support.

Non-recommended status

- Important information that only the user who is playing that game can know (such as an important keyword or character name or a hidden stage name). Since status is also visible to other users, a user who has not yet obtained that information may end up seeing it.
- Status with an extremely high posting frequency. Since at most 30 statuses are saved on the server, older status will end up getting deleted if a large number are posted. Note that there is no problem with posting the same status multiple times so that the activity system can share the user's play history.

If you are having any difficulty determining whether certain content is permitted, contact technical support through the PlayStation®Vita Developer Network website (<https://psvita.scedev.net/>).

6 Overview of the Development Process

This chapter describes the development process for applications that use the activity system.

Before Using the Activity System

To post status to the activity server, you must first obtain a title ID (product number) from the PlayStation®Vita Developer Network website (<https://psvita.scedev.net/>).

A debugging feature is provided so that you can post status before obtaining a title ID or if you are using a Development Kit that is not on the network. The debugging feature is described later.

Preparing the Development Kit and Testing Kit

To use the activity service you must sign in to PSN™. For information about signing in, refer to the "PSN™ Overview" document.

The activity privacy settings screen will appear when you sign in so you can set your privacy settings. An account that has not had its privacy settings set cannot use the activity service.

Note

Set an appropriate value on the Development Kit and Testing Kit for the activity visibility. Note that when the visibility is set to **Anyone**, it will be possible to view status from third party's Development Kit and Testing Kit.

Application Development

Use the NP Activity library to post status from a game. For information about the NP Activity library, refer to the "NP Activity Library Overview" document.

Note the following when developing code that posts status.

- The beginning of the status explanatory text up to the first new line (0x0A) is displayed as a summary in the status list. Place information that you don't want to display on the list on the second or subsequent lines (the second and subsequent lines are displayed when the status details are displayed).
- The full text of a status can contain at most 9 lines. The first line is used as the summary. Status containing more than 9 lines cannot be posted.
- Since status contains information that is also visible to other users, its contents should be meaningful even to users who do not have that title.
- Since at most 30 statuses are saved, do not post status that will occur very often over a short period of time.

Debugging Feature

The NP Activity library provides a debugging feature which allows you to debug status postings before you obtain a title ID, or if you are using a development environment that is not on the network.

- Among the applications that are started from the APP_HOME icon or from an application that is started directly from the development host computer, the posted status will be stored in a local database on the Development Kit and will not be posted to the activity server for an application for which a title ID is not specified with the param file (param.sfo).

By following the procedure described above, you can use this feature to post status and confirm its display without communicating with the activity server.

For information about the debugging feature, refer to the "NP Activity Library Overview" document.

Testing

Perform the following tests when you create an application using the NP Activity library APIs.

- Confirm that status is posted correctly depending on the game's play state.
- Confirm that status is displayed correctly by all system software that displays status. Verify the display not only in the LiveArea™ communication zone, but also in other applications with different layouts (for example, the Friends application). In particular, verify that the status summary is displayed as you intended in the list display and that the full text is displayed in the status details. Note that the full text of the summary may not be displayed in a status list that has a narrow layout.
- Confirm that action links work correctly.
- Do not just perform these tests using the debugging feature, but also confirm that status is posted correctly to the activity server.

000004892117

7 Data Definitions

This chapter gives specifications of setting information for data in status content.

Status Posted from a Game

Data specifications for status that can be posted from a game are shown below.

Status text

- UTF-8 string of at most 256 characters. The full text of a status can contain at most 9 lines (the number of linefeed codes can be at most 8). The text up to the first new line (0x0a) is displayed as a status summary in the status list. The remaining 8 lines are displayed together with the summary when the status details are displayed.

Action link URI

- ASCII string of at most 1024 bytes. This is the URI that is linked from the status.
- This can also be left unset for optional information.

The following data is added by the NP Activity library.

Online ID

- Online ID of the poster

Posting platform

- Posting platform name

Status type

- Status type. For status posted from a game, this value is set to "game".

Title ID, content ID

- Title ID and content ID of the posting game

Status creation time

- Status creation time

Announcement Status Posted from the SMT

The following can be set for each title in an announcement status.

Poster's name

- Up to 24 UTF-8 characters. This string is displayed in the online ID part of the status display.

Avatar icon

- Avatar icon that is displayed for the poster's avatar.

Panel texture image

- Background texture image of the status.

Panel background color

- Background color of the panel used in the status detail display screen.

The following data is set in an announcement status.

Status can be posted for each language or just for the default language.

Status text

- UTF-8 string of at most 256 characters. The specifications are the same as for status posted from a game.

Action link URI

- ASCII string of at most 1024 bytes. The specifications are the same as for an action link URI posted from a game.
- This can also be left unset for optional information.

The following information is automatically added by the SMT.

Status type

- Status type. This value is automatically set to "announcement".

Title ID

- Title ID of the game

Status creation time

- Status creation time

For more information about the announcement status, refer to the "Server Management Tools NP LiveArea™ Tool User's Guide" document.

Comment Information

Comments are posted by system software and displayed on system software screens. An application is not aware of the comment data structure.

The data specifications are shown below.

Text body

- UTF-8 string of at most 140 characters. This string is entered by the user.

Creation time

- Comment creation time.