**For Banner:**

Samsung’s advanced real-device testing service powered by Exynos enhances the quality of your models and apps by connecting them across diverse devices. This leads to a smarter and more innovative outcome.

**Getting Started**

This guide describes the complete process of reserving and managing devices within the Device Farm, thus ensuring a smooth and efficient user experience.

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## [Overview]

This guide aims to enhance users' understanding of the Device Farm and ensures to provide a smooth experience with the system by providing detailed information on the rules and usage of each feature.

## [Device Selection]

The Device Selection feature allows users to select from multiple devices. This feature can be accessed from the drop-down menu that is located at the top of the Device Farm page.

**Rules for using Device Selection feature**:

* Click the Device drop-down menu to display a list of registered devices in a drawer menu format.
* By default, the device listed at the top is selected.
* Only one device can be selected at a time. The details of the selected device is displayed in the Device area.
* Multiple Device types are displayed in the Reservation Status, however, only one device can be connected at any given time.

To select a device:

1. Click the Device drop-down menu, and select the required device.
2. The Device area is refreshed to display the information of the selected device.

## [Processor Specification Check]

Processor refers to the System on Chip (SoC) developed by Samsung Electronics. It integrates high-performance CPU, GPU, NPU, and memory management features, which provide enhanced processing power and graphics performance.

To check the processor specifications:

1. Click Learn more from the Device area.
2. You will be directed to a page that provides the details of the currently displayed processor.

## [Remote Service Launch]

The [Start now] feature enables users to instantly access and utilize the Remote Service.

**Rules for using [Start now] feature:**

* **Login Required**: You must login first and click [Start now] to access the device.
* Credit Required: You must have enough credits to use the device (1 credit = 30 mins). For more information on obtaining additional credits, refer to [Credit Management].
* **No Available Devices**: If there are no devices currently available, proceed with the device reservation using [Reservation] feature.
* **Maximum Number of Reservations:** The maximum number of device reservations allowed is 5.
* **Maximum Usage Time:** The maximum usage time available through [Start Now] is 4 hours.
* **Duration Settings**: The duration can be set in increments of 30 minutes up to 4 hours and adjusted according to available credits.
* **Credit Update**: After selecting the duration, the required credits are updated and displayed.
* **Starting Service**: After setting the Duration and confirming the credits, click Start to initiate the Remote Service.

To initiate the Remote Service:

1. After you are logged in, click [Start now].
2. Select the required duration.
3. Click Start to initiate the Remote Service.

## [Reservation Process]

The reservation feature allows users to schedule appointments with a minimum duration of 30 minutes and a maximum of 8 hours within a maximum of 30 days.

**Rules for using Reservation feature:**

* **Login Required**: You must login in first to make a device reservation.
* **Credit Required**: You must have enough credits to use the device (1 credit = 30 mins). For more information on obtaining additional credits, refer to [Credit Management].
* **Maximum number of reservations**: The maximum number of device reservations allowed is 5.
* **Start/End Time Settings**: Select a date, then choose the start-time to begin using the device. You can also select the end time that is within 8 hours of the start time.
* **Duration Display**: The total duration is displayed after the end time is selected.
* **Current Credits**: This displays the number of credits currently available.
* **Required Credits**: This displays the credits that will be used for the selected duration.
* **Reserve Button**: This is enabled only when all options are selected.
* **Calendar Navigation**: The calendar displays dates up to 30 days in advance and users can navigate between the current and next month.
* **Unavailable Dates**: The dates with no available devices or those with a complete 8-hour reservations are disabled.
* **Existing Reservations**: The duration that has already been reserved are disabled.
* **Reservation Time Settings**: Reservations can be made in increments of 30 minutes, starting from 30 minutes up to a maximum of 8 hours.
* **Daily Reservation Limit**: The maximum reservation time per day is 8 hours and it can be extended up to 16 hours with continuous reservation.
* **Refreshing**: Click Refresh to reset all selections.
* **Automatic Cancellation**: Reservations that are not connected within 30 minutes are automatically canceled.

To use the Reservation feature:

1. Click Reservation.
2. Select the required date from the calendar.
3. Select a start time.
4. Select an end time.
5. Review the required credits and click Reserve.

## [Credit Management]

Credits are necessary to use the Service on the Device Farm page. Following is the method to obtain the required credits:

* **Credit Allocation**:
  + 10 credits are received for logging in once per day.
  + One credit is received for each Forum post (up to a maximum of five credits per day).
  + 10 credits are received for each Lab project that is created (up to a maximum of 20 credits per day).
  + Two credits are received for each NNC Convert (up to a maximum of 10 credits per day).

Rules for governing credits:

* **Deduction**: One credit is deducted for every 30 minutes of Remote Service use.
* **Reservation Credits**: Credits used for reservations are not refunded if reservation is not connected within 30 minutes. The canceled reservations will refund all credits.
* **Service Stop**: Credits are deducted at a rate of 1 credit per 30-minute for service after the reservation time, and the remaining credits are refunded.
* **Validity**: Free credits expire after 90 days without any notification.
* **Credit Balance**: This is updated as soon as the credits are used.
* **Management**: You can verify the expiration details, acquisition, and usage from the My Credit menu of the My Page.

## [Reservation Status Check]

The Reservation Status List feature displays a list of your Remote Service reservations on the Device Farm page.

Rules for using Reservation Status Check feature:

* **Display**: This displays up to five available or reserved services at a time.
* **Connect**: This button is enabled at the scheduled reservation time.
* **Immediate Access**: Click Connect for immediate services or click Stop to end the service. Reserved services can be canceled by clicking Cancel.
* **More**: Click More to navigate to the page that provides the details of Reservation Status.

To use the Reservation Status List feature:

* Click Connect for immediate access.
* Click Stop to end a service.
* Click Cancel to cancel a reservation.

The Reservation Status Page is a detailed page that can be accessed by clicking More in the Reservation Status list. This page displays all the reservation history.

Rules for using Reservation Status Page:

* **Sort Order**: The default sorting is in reverse chronological order.
* **Connect/Stop/Cancel**: Click Connect to access the services that are available for immediate connection or click Stop to end the service. Click Cancel to cancel the reserved items.
* **Retention**: History is retained for 30 days and it is then automatically deleted.

To use the Reservation Status Page feature:

* Click Connect for immediate access.
* Click Stop to end a service.
* Click Cancel to cancel a reservation.

## [Remote Streaming Service]

The Remote Streaming Service feature allows you to remotely control devices and test customized applications.

Overview of the Remote Streaming Service page:

* **Status area**: This area is located at the top-left of the page and displays information about the current system status that includes the processor name, connection status, and the remaining usage time.
* **Stop button**: This button is located at the top-right of the page and it is used to terminate the streaming session.
* **Device Control Area**: This area is located on the left of the page and it contains buttons for controlling device functions such as mute and screen rotation.
* **Device Screen Area**: This area is located on the left of the page and displays the device screen. It allows you to control the device by clicking it with your mouse thus simulating a touch experience.
* **Dashboard Area**: This area is located on the right of the page. It provides file upload and installation functions, screenshot capture, screen recording, file directory access, and command shell functionality for better user convenience.
* Log Tab: This tab includes the Logcat feature to view real-time log. Click Log download to download the log files.

Rules for using Remote Streaming Service feature:

* When the remaining time reaches 0 and ‘Service usage time has expired’ message is displayed. Click OK to redirect to the Device Farm page.
* Click Stop to end the service. The remaining credits after excluding the usage time will be returned. Click End Connection to terminate the connection and redirect to the Device Farm page. Click Cancel to continue the service.
* The Remote Streaming Service does not support simultaneous access from multiple locations. If a connection attempt is made from another location, a pop-up message indicates a new connection has been detected. Click OK to redirect to the Device Farm page, while the new connection will continue to use the service.
* A pop-up message for service extension appears 15 minutes before the end of the service usage. This can be extended up to 2 hours of additional time within the maximum daily usage time of 8 hours. If there are not enough credits, only the possible extension duration is displayed. Click OK to extend the usage time based on the additional time that is selected. Click Cancel to end the service usage and a pop-up message indicates Service usage time has expired. Click OK to redirect to the Device Farm page.
* The Remote Streaming Service may redirect to the Device Farm page in case of network instability, detection of abnormal activities, or session expiration.

## [Uploading File/APP]

The Uploading File feature is available in the Remote Streaming Service, and enables File transfer from your local storage to the device for various purposes.

**Rules for using Uploading File feature:**

* Remote Streaming Service supports most of the file types. APK files are automatically installed and launched on the device.
* If an APK file does not install after upload, it may be an unsupported APK.
* APK files are not uploaded to the device storage separately.
* All files other than APKs are uploaded to the /sdcard/download/ directory.
* Files up to 200 MB can be uploaded with the total upload capacity of up to 2 GB.
* Files can either be dragged and dropped from the local directory to the upload area or they can be selected using the file dialog that is launched when you click the upload area located at the right corner of the screen.

**User Workflow:**

To use the Uploading File feature:

1. To upload the files, do one of the following:
   1. From the upload area, drag and drop the required files from the local directory.
   2. Click upload area to open the file dialog, then select a file, and click OK.
2. After uploading is complete, click OK. Navigate to the /sdcard/download/ directory within the service page to verify the uploaded files.
3. To upload the APK file, do one of the following:
   1. From the upload area, drag and drop the APK file from the local directory.
   2. Click upload area to open the file dialog, then select a file, and click OK.
4. The APK will be installed and launched, click OK. From the device screen, verify that the APK application is being automatically installed and launched.

## [Screenshot / Recording]

The Screenshot feature in the Remote Streaming Service enables you to capture images of the device screen for documentation or review purposes.

**Rules for using Screenshot feature:**

1. Click Screenshot to capture the device screen. The captured screenshots are downloaded to your PC and saved to the /sdcard/image/ directory.

**User Workflow:**

To use the Screenshot feature:

1. Click Screenshot to capture the device screen as an image file.

The Record feature in the Remote Streaming Service enables you to record the device screen in real-time and save it in a video file format.

**Rules for using Record feature:**

1. Click Record to start the device screen recording. After the recording starts, this button changes to Stop, and it displays the recording time.
2. Click Stop to end the device screen recording. The recorded file is downloaded to your PC and saved to the /sdcard/image/ directory.

**User Workflow:**

To use the Record feature:

1. Click Record to start the recording of the device screen.
2. Click Stop to save and end the recording.

## [File Directory Management]

The File Directory feature in the Remote Streaming Service enables you to access and manage files on the remote device.

**Rules for using File directory feature:**

* Double-click the folders to access them.
* Double-click the captured or uploaded files from the file directory to download them to your PC.
* The file directory is synchronized in real-time with the file browser application of the device and the file updates are immediately reflected.
* You cannot access the file directory path.

**User Workflow:**

To use the File Directory feature:

* Double-click any folder to access its location.
* Use the Back to navigate to the parent folder.
* Use the forward button to navigate to the previous folder.
* After uploading the files, access the /sdcard/download/ directory and double-click the uploaded files to download them.
* After capturing the files, access the /sdcard/image/ directory and double-click the captured files to download them.

## [Command Shell Access]

The Command Shell feature in the Remote Streaming Service enables you to control the device through command-line inputs.

**Rules for using Command shell feature:**

* Only commands necessary for device control are supported.
* Commands can be continuously entered similar to entering commands in a PC command window.
* Commands can be sent by pressing Enter key or clicking Send.
* Click Command Shell to open a modal window to enter the commands and control the device.

**User Workflow:**

To use the Command Shell feature:

* Enter the commands and press Enter key on the keyboard.
* Enter the commands and click Send.
* Click Command Shell to open the modal window.
* Enter the commands in the modal window and press Enter key on the keyboard.
* Enter the commands in the modal window and click Send.

## [Logcat Window]

The Logcat Window feature in the Remote Streaming Service records the usage history of the remote service in real-time and enables you to review the usage logs.

**Rules for using Logcat window feature:**

* Logcat starts recording immediately after the remote service connection is established.
* Logs can be downloaded only when the remote service is connected.
* Logs cannot be downloaded after the remote service is disconnected.
* Click Log download to save the log file to your PC.

**User Workflow:**

To use the Logcat Window feature:

* Navigate to the Logcat Window section.
* Review system logs and debugging information as required.
* Click Download to save the system log file to your PC.

## [Streaming Service Termination]

To stop the Remote Streaming Service:

1. Click Stop from the Remote Streaming Service area.
2. In the pop-up message that is displayed, confirm the termination to end the session.

## [Returning to Streaming Page]

If you want to return to streaming after exiting from the streaming screen without clicking Stop:

1. Find the reservation you want to resume and click Connect.
2. You will be redirected to the main streaming page, and you can resume streaming from the point where you left off.