Content Specification: Nexus-6 SDK Developer's Guide

Project: Nexus-6 SDK Documentation Set
Project/supported software: Nexus-6 SDK
Working title: Nexus-6 SDK Developer's Guide
Content owner: Applications Team
Technical publications support: Jana Owens
Approved by:

Please sign below to indicate approval of the Content Specification.

_____   _____
Approver's Signature   Date
_____
Title of Approver

_____   _____
Approver's Signature   Date
_____
Title of Approver

_____   _____
Approver's Signature   Date
_____
Title of Approver

Documentation Purpose

The purpose of this document is to provide a high-level overview of the Nexus-6 system architecture and operating system concepts, provide instructions and tips for using the development tools included with the SDK, and provide instructions for developing typical applications for portable audio devices. Readers of this document should gain thorough knowledge of how the Nexus-6 SDK can be used to develop custom applications.

Audience Profile

The target audience for this documentation includes engineers that use the Nexus-6 SDK to develop custom applications for portable audio devices. This documentation assumes that the audience has experience developing embedded C applications and has some knowledge of object-oriented programming concepts.

Publication Content

I. Preface

II. Tyrell SDK System Overview
This chapter provides a high-level description of the system architecture and operating system concepts, as well as a high-level description of each API (Component APIs, Operating System API, Device Driver API, and Hardware API), how they are organized, and how they interact with each other. Possible subtopics include:
   A. Introduction to the Tyrell System Architecture
   B. Component APIs
   C. Operating System API
   D. Device Driver API
   E. Hardware API
NOTE: Detailed descriptions of the system architecture and individual API systems should be included in the API reference documentation.

III. Using the development tools
This chapter provides instructions for building and downloading firmware and provides tips for using the Tyrell SDK development tools. Possible subtopics include:
   A. Introduction
      Includes an overview of the tools used with the SDK (including inhouse development tools that are distributed with the SDK).
   B. Creating projects
      Describes the procedure for creating a project within the MULTI IDE using Tyrell's inhouse development tool.
   C. Building and downloading firmware (shared with GS?)
      Describes the procedures for building and downloading the firmware.
   D. Compiling projects
      Describes high-level instructions for compiling projects in MULTI and includes a reference to the MULTI documentation; in addition, this section may include tips for using the MULTI IDE.
   E. Debugging projects
      Describes high-level instructions for debugging projects in using MULTI/Slingshot and includes a reference to the Slingshot documentation; in addition, this section may include debugging tips.

IV. Using the Tyrell SDK
This chapter provides instructions for completing typical usage scenarios (90% customer base), which mainly use the Component APIs and the Operating System API. Scenarios that use the lower-level APIs and are targeted to "expert" users (10%) should be provided in Application Notes.

Documentation Strategy & Resources

Strategy

The following items describe the process used to gather information for this document:

- Developers should create design documents for all software systems using the new software design template.
- Developers, managers, and System Architect should determine an initial set of procedures to include in the Developer's Guide and provide content as necessary.
- As additional functionality becomes available, developers should create application notes using the *Application Note Documentation Template* to describe the procedures that are performed using their software system(s).
- If adequate time remains before a release, the application note may be added to the Developer's Guide. Otherwise, application notes should be released through and remain on the Extranet until the next release of the SDK at which time they will be absorbed into the Developer's Guide for the following release.
  NOTE: Only application notes that are targeted towards our majority customer base (90%) will be rolled into the Developer's Guide. Application notes targeted to "expert" users (10% customer/partner base) should remain on the Tyrell Extranet (preferably in a section designated as "Developer's Center").
- Additional information, such as the system architecture overview and operating system concepts, will be documented with input from the System Architect.

Resources

The resources used to generate this information include (but are not limited to) the following:

- Applications development team
- Core development team

Test and Distribution Plan

This document should be reviewed and tested as described in the Technical Publications Test Plan.

This document should be released with each new version/release of the Tyrell NEXUX-6 SDK.