

InTouch Log Parsing

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Overview

The Kronos InTouch device is a Linux based touch-screen time clock that integrates with different host based systems. When problems occur at with the device, Kronos Service and Engineering needs to gather information on what was occurring on the device at the time of the failure. One of the resources for gathering this information is the InTouch log(s), located on the device itself. Service will retrieve these logs, from the device for review. These log file(s) contain specific information about the operation of the device.

Device Startup Diagnostics

Scan the complete InTouch log file and create a text file report chronologically describing the each time the device was restarted. This report should be uniquely identifiable to the log file being scanned.

Device Boot up Timing

(a) When an InTouch device boots up, the first logging message that will be seen is:

(log.c.166) server started

(b) The completion of the boot up sequence can be seen via the log entry for the device SoftKeys being displayed on the UI:

oejs.AbstractConnector:Started SelectChannelConnector@0.0.0.0:9080

Use the timestamps from these two matching log entries to determine the elapsed time for each startup sequence. Take into account that these must be paired, with no nesting to have proper startup. Any incorrect pairings should be reported as startup failures. The report should contain the line number and time stamps for each boot start up and completion message.

Device Services Startups

When a device boots up, there are certain services that are required successfully start up. If any of these services do not start up successfully, the device may not function correctly. For each restart, insure that all the required services (see list below) successfully started.

Sample Service startup sequence

Starting Service. Logging 1.0

Service started successfully. Logging 1.0 (376 ms)

For each restart, list the result of startup status of each required service. For each service, report on the startup line number, the completion line number and the elapsed startup time (see example below).

Logging

Start: 498938(device2_intouch.log)

Completed: 498939(device2_intouch.log)

Elapsed Time: 273 ms

If all the services do not start successfully, identify that there was a failure.

HealthMonitorService

Start: Not started(device3_intouch.log)

Completed: Not completed(device3_intouch.log)

Elapsed Time:

Make sure to include a summary list of all the services that did not successfully start.

InTouch Startup Services

- Logging
- DatabaseInitialize
- MessagingService
- HealthMonitorService
- Persistence
- ConfigurationService
- LandingPadService
- PortConfigurationService
- CacheService
- ThemingService
- StagingService
- DeviceIOService
- BellService
- GateService
- ReaderDataService
- BiometricService
- StateManager
- OfflineSmartviewService
- AVFeedbackService
- DatabaseThreads
- SoftLoadService
- WATCHDOG
- ProtocolService
- DiagnosticsService

Device Upgrades

When the InTouch device software is upgraded or downgraded it is referred to as a *softload*. The new files are downloaded to the device from a host application. When new program files are downloaded, a log message is written to signal the beginning and end of the download process.

- (a) When a *softload* process begins, the first logging message that will be seen is:

SOFTLOADSERVICE;Install started

- (b) When a *softload* completes successfully, the following log message will be seen:

ExitValue from install command : 0

Identify the pairings of softload starts and completions, along with the appropriate timestamps. Take into account that these entries must be paired and un-nested. If they are not paired, then note the failures and report the line numbers and timestamps.

Softload versions

During the *softload* process, there will always be a single rpm update that signals the old and new versions for the device software. These log entries are written in the following format:

Processing XX of YY intouch-application-base-X.Y.Z-VV.armv6jel_vfp.rpm

...

removing intouch-application-base-A.B.C-DD.armv6jel_vfp.rpm.

The *softload* is an upgrade (or downgrade) from A.B.C-DD to X.Y.Z-VV. The A.B.C-DD and X.Y.Z-VV refer to the different software version numbers. These versions are not guaranteed to be all numbers, nor is there any guarantee that one is greater than the other, they also maybe the same.

The log sample provided below shows a device being downgraded from InTouch version 1.1.1-91 to 1.0.7-52923.1

Processing 1 of 2 intouch-application-base-1.0.7-52923.1.armv6jel_vfp.rpm

removing intouch-application-base-1.1.1-91.armv6jel_vfp.rpm

Sample softload report output

436276(device1_intouch.log) : Mar 25 19:17:55 Softload Start

Original version ==> 2.0.0-uix.6

New version ==> 2.0.2-14

Elapsed Time (sec) ==> 622

436427(device1_intouch.log) : Mar 25 19:28:17 Softload Completed