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Knowledge Base Article

Product Category: Software
Product: CMSW7400 – SKF @ptitude Analyst
Version: 8.1.3136.3 (Maintenance Release 3)

Abstract

SKF @ptitude Analyst 2013 MR3 introduces three new functions to reduce inaccuracy of timestamps caused by drained batteries resetting the clock on SKF Microlog Analyzer and SKF Microlog Inspector data collectors. This document describes these new functions.

Overview

What is it?

Three new functions in SKF @ptitude Analyst 2013 MR3 include:

- Automatic time synchronization with the system clock whenever a SKF Microlog Analyzer connects to either SKF @ptitude Analyst or SKF @ptitude Analyst Thin Client Transfer (TCT).
- The addition of a warning in TCT when uploaded SKF Microlog Analyzer measurements have timestamps that are out of a user-defined tolerance.
- The ability to adjust 'out of tolerance' timestamps for SKF Microlog Analyzer and SKF Microlog Inspector to the current day (Year, Month, Day).

How does it work?

Synching the clock on the device with current system time:

The adjustment of the SKF Microlog Analyzer clock is done whenever the user connects to the device. No configuration is required. SKF Microlog Inspector already does this as part of its sync operation.

Displaying a warning on upload in TCT:

When TCT detects a measurement that is out of tolerance (for example, if data is taken immediately after the battery has been depleted), the following message is displayed upon uploading:

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"Due to incorrect date settings on the device, some of the measurements have invalid dates. These may be adjusted when the data is processed if the processing system (Transaction Server) has been set to adjust this data.

The clock on the device has been reset."

- This feature is specific to TCT, and is not available in SKF @ptitude Analyst.

The warning message displayed by TCT requires a change to configuration parameters in order to activate.

After TCT connects to a device the first time, two configuration parameters are added to the configuration file's Communication section.

To activate this feature:

- Launch SKF @ptitude Analyst Configuration Tool.
- Select 'General Configuration' from the left tree control.
- In the 'SKF @ptitude Analyst Master Settings' section, locate the section Software > SKF Condition Monitoring > SKF Machine Analyst > Communication Preferences and expand it by clicking the [+].
- Scroll to the bottom and locate the keys "WarnInvMeasDateEnable" and "WarnInvMeasDateToleranceDays"
- WarnInvMeasDateEnable defaults to 0 (off). To activate, highlight the key and set its Value data to 1 (on) and then click Save.
- WarnInvMeasDateToleranceDays defaults to 60 days. To change, highlight the key and change the Value data to the desired tolerance. [Figure 1]

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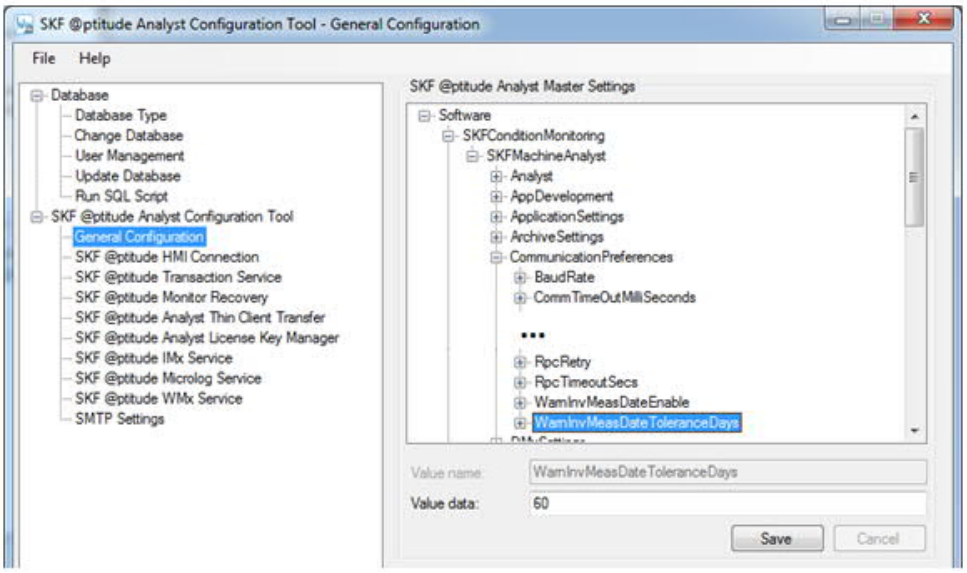

Figure 1. Adjusting the tolerance value

- Exit and restart TCT to use the new settings.

➢ The file C:\ProgramData\SKF\@ptitude Analyst\skfMasterSettings.xml can be edited using Notepad (remember to make a backup copy of your database) to configure the values instead, if the SKF @ptitude Analyst Configuration Tool (skfAnConfigTool program) is not present.

Adjusting measurement timestamps during processing:

When the SKF Transaction Service processes MAULF (Machine Analyst UpLoad Format) files from SKF Microlog Analyzer transfer and SKF Microlog Inspector sync operations, this new feature (when enabled) compares the timestamp of each measurement with the current system time. If the measurement being processed is out of tolerance (either more days in the past or in the future), then the current year, month, and day, is substituted for the timestamp provided by the device. An optional POINT Note and/or Event Log entry is created for every measurement whose timestamp has been adjusted.

Due to environments where multiple SKF Transaction Services are running (for example, RDC environments), the configuration to turn on this feature is done from within the SKF Transaction Service's configuration file (default application directory is C:\Program Files (x86)\SKF-RS\SKF @ptitude Analyst]\skfTransact.exe.config).

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Currently, there is no convenient way to edit this file, so the section for each named SKF Transaction Service must be created manually (using Notepad or a similar text editing application). The following is an example configuration file with two sections – one for the default SKF Transaction Service, and one with an SKF Transaction Service called TS1:

```
<?xml version="1.0" encoding="utf-8"?>
<configuration>
  <configSections>
    <section name="dataConfiguration"
type="Microsoft.Practices.EnterpriseLibrary.Data.Configuration.
DatabaseSettings, Microsoft.Practices.EnterpriseLibrary.Data,
Version=3.1.0.0, Culture=neutral,
PublicKeyToken=b03f5f7f11d50a3a" />
    <section name="Transact_default"
type="System.Configuration.NameValueSectionHandler" />
    <section name="Transact_TS1"
type="System.Configuration.NameValueSectionHandler" />
  </configSections>
  <dataConfiguration defaultDatabase="SQL_Server" />
  <connectionStrings configSource="skfDbConnections.config"
/>
  <startup>
    <supportedRuntime version="v4.0.30319" />
  </startup>
  <appSettings configSource="skfAppSettings.config" />
  <system.diagnostics>
    <switches>
      <add name="enableAssert" value="4" />
      <add name="enableMail" value="0" />
      <add name="enableEventLog" value="4" />
    </switches>
  </system.diagnostics>
  <Transact_default>
    <add key="ServiceName" value="" />
    <add key="TS_AdjustMeasDateEnabled" value="1" />
    <add key="TS_AdjustMeasDateNote" value="0" />
    <add key="TS_AdjustMeasDateEvent" value="1" />
    <add key="TS_AdjustMeasDateToleranceDays" value="55"
/>
  </Transact_default>
  <Transact_TS1>
    <add key="ServiceName" value="TS1" />
    <add key="TS_AdjustMeasDateEnabled" value="0" />
    <add key="TS_AdjustMeasDateNote" value="0" />
    <add key="TS_AdjustMeasDateEvent" value="0" />
    <add key="TS_AdjustMeasDateToleranceDays" value="60"
/>
  </Transact_TS1>
</configuration>
```

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In this example, the default SKF Transaction Service (Transact_default) has the feature turned on (TS_AdjustMeasDateEnabled = 1), POINT Notes notification is turned off (TS_AdjustMeasDateNote = 0), Event Log notification is turned on (TS_AdjustMeasDateEvent = 1), and the tolerance days set to 55 days (TS_AdjustMeasDateToleranceDays = 55). The second SKF Transaction Service (TS1) has the feature turned off.

For further assistance, please contact the Technical Support Group by phone at 1-858-496-3627, or by e-mail at TSG-CMC@skf.com.