Using Structured ROUTEs

By Wane Wier • SKF

Introduction

Structured ROUTEs, a feature new to SKF Machine Analyst version 3.0 / SKF MARLIN version 4.0, provide greater data collection ROUTE management and control. Use structured ROUTEs whenever managed control over ROUTE data collection is desired, and especially when ROUTE management compliance is required, such as in Nuclear and Pharmaceutical industries.

In general, structured ROUTEs are executed in a fashion similar to unstructured ROUTEs, but in a more controlled manner, as detailed in **Table 1**.

Figure 1. The SKF MARLIN data manager.

Formal entry and exit

Starting a structured ROUTE is similar to starting an unstructured ROUTE, except the user is prompted to enter a password when data collection is initiated. ROUTE data collection commences only upon successful password entry.

During structured ROUTE data collection, if the user presses the **Skip** next POINT or **Cancel** ROUTE MARLIN buttons, the SKF MARLIN prompts the user to either **Suspend** or **Resume** data collection. Skipping POINTs is not allowed in structured ROUTEs.

When a partially completed structured ROUTE is re-entered, the user is prompted to enter his or her password to resume ROUTE collection.

Order in which measurements are collected

With a structured ROUTE, the sequence for measurement data collection is fixed by the order in which the measurements list in the ROUTE hierarchy. The user must start with the first POINT listed and sequence through the ROUTE without deviation.

- Conditional POINTs may be used in a structured ROUTE. In this case, dependent POINTs whose conditions are not met, and therefore are automatically skipped by design, are bypassed and credited against the total.

Table 1.

Feature	Structured ROUTE	Unstructured ROUTE
Formal entry and exit per ROUTE	Required	Not available
Order in which measurements are collected	Fixed (must be in sequence)	Non-fixed (any order)
Partially completed ROUTEs	ROUTE suspended and reported	Not reported
ROUTE history report	Lists all users who collected data	Lists only the first user since the last upload
ROUTE duration	Reported	Not reported

Partially completed ROUTEs

Before upload, the user can resume data collection on any partially completed structured ROUTE using the SKF MARLIN's **Resume** button. Simply highlight any of the partially completed structured ROUTE's hierarchy items and press **Collect**. The SKF MARLIN automatically resumes data collection at the POINT where the user suspended structured ROUTE data collection.

If a partially completed ROUTE is uploaded, the % complete value is recorded for the currently logged user, and the ROUTE is reset. Note that this does not occur with unstructured ROUTEs. With unstructured ROUTEs, if one user suspends a ROUTE and a different user finishes the partially completed ROUTE, only the first user is recorded with the uploaded data.

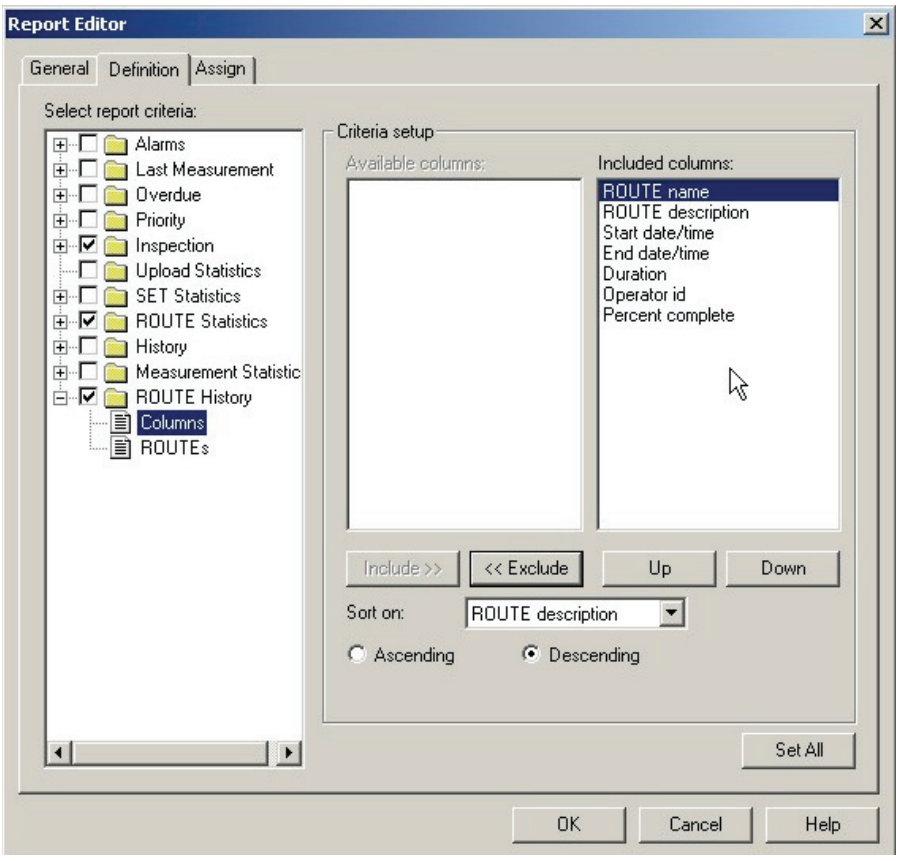

Figure 2. New ROUTE History Report in SKF Machine Analyst Version 3.0.

Reporting

Structured ROUTE data may be included in SKF Machine Analyst version 3.0 reports. The new **ROUTE History Report** provides the following column options (→**fig. 2**):

- ROUTE name
- ROUTE description
- Start date / time
- End date / time
- Duration
- Operator ID
- Percent complete

Creating the structured ROUTE

The process for creating a structured ROUTE is similar to creating an unstructured ROUTE. In addition, any new or existing ROUTE can be easily turned into a structured ROUTE.

To specify a ROUTE as a structured ROUTE

Start by pressing Machine Analyst's ROUTE toolbar button, or by selecting the **View** menu's **ROUTE** option.

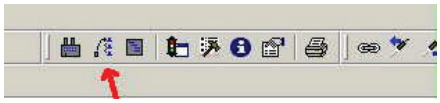

Figure 3. ROUTE button used for accessing ROUTEs.

The ROUTE dialog lists all existing ROUTEs (→**fig. 4**).

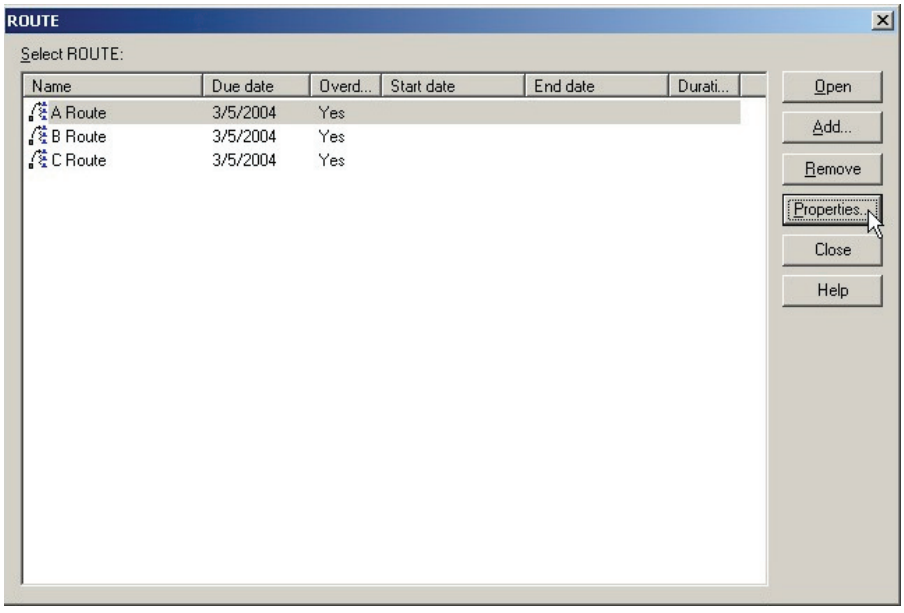

Figure 4. The ROUTE dialog.

Select the desired ROUTE and press **Properties**; the **ROUTE Properties** dialog displays the ROUTE's settings (**→fig. 5**).

In the **ROUTE statistics** area, enable the **Structured ROUTE** checkbox to specify the ROUTE as a structured ROUTE. Of course, disabling the checkbox returns an existing structured ROUTE back to unstructured ROUTE status.

Conclusion

ROUTE management is greatly improved with the introduction of structured ROUTEs in SKF Machine Analyst version 3.0 / SKF MARLIN version 4.0. Structured ROUTEs provide tighter control of SKF MARLIN ROUTE data collection and eliminate compliance violations due to incomplete ROUTEs or non-credited collections.

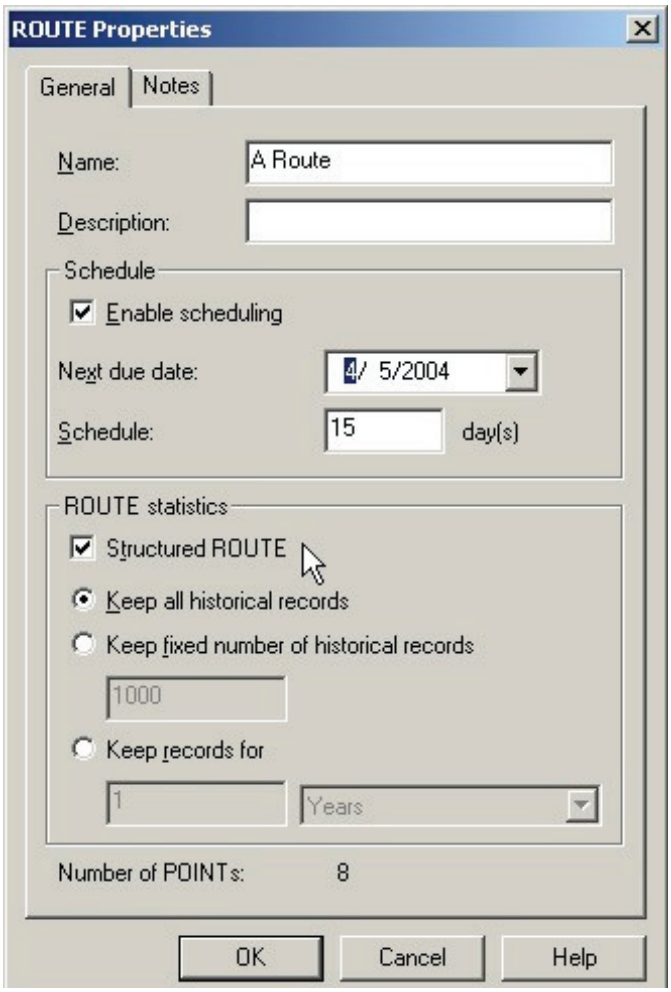

Figure 5. Specifying a structured ROUTE.

Please contact:

SKF USA Inc.
Condition Monitoring Center – San Diego
5271 Viewridge Court · San Diego, California 92123 USA
Tel: +1 858-496-3400 · Fax: +1 858 496-3531

Web: www.skf.com/cm

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