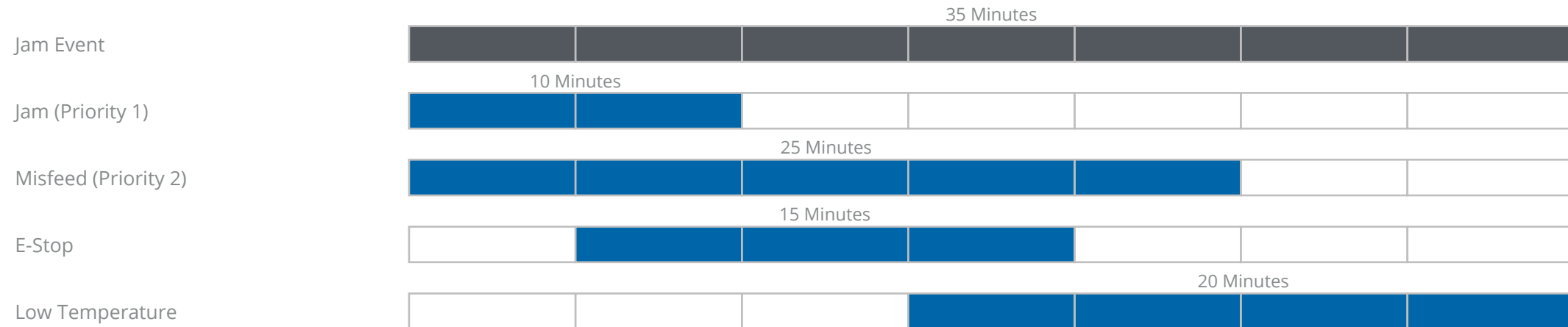# Sub Events and Priority

The Logic Service records active Event Definitions as Events and Sub-Events. An Event represents a contiguous period where one or more of a System's Event Definitions are active. When two or more Event Definitions become active at the same time, the Logic Service assigns the Event Definition with the highest Priority (lowest numerical value) as the root cause of the Event. It logs the remaining active Event Definitions (including the root cause) as Sub-Events.

The example below depicts a sample Event and its Sub-Events for a hypothetical Line 1 System with Jam, Misfeed, E-Stop and Low Temperature Event Definitions.
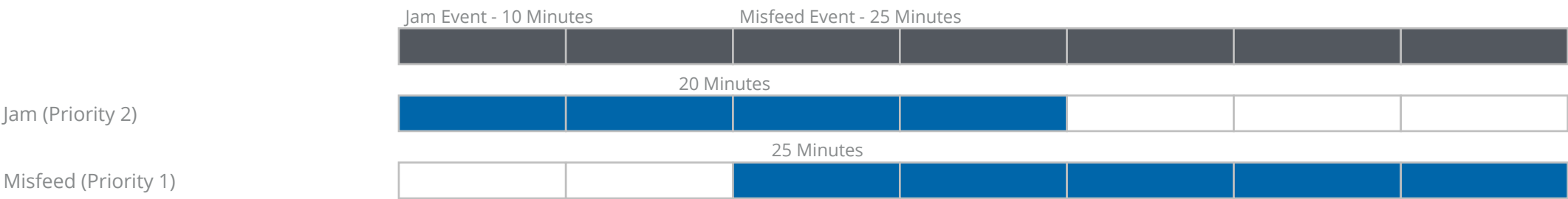

In the chart above, the Jam Sub-Event is the root cause because it has a Priority of 1, whereas the Misfeed Sub-Event has a Priority of 2. The Misfeed, E-Stop and Low Temperature Sub-Events are only visible in special detailed reports. For the purposes of general stoppage reporting, Jam is assigned as the Event Definition that is responsible for the entire 35-minute Line 1 stoppage.
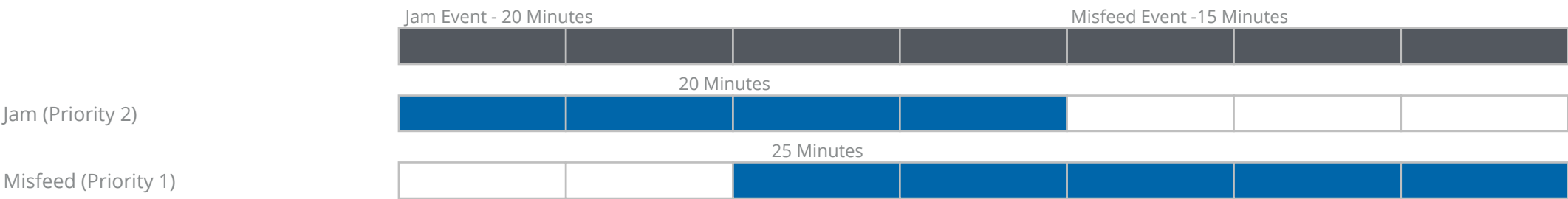
Splitting Events with Re-Evaluate

In some cases, a higher Priority Event Definition should override an Event caused be an already active lower Priority Event Definition. To achieve this, the Re-Evaluate System Event on Start and on Re-Evaluate System Event on End Event Definition properties can be used to split and start new Events as shown in the examples below...

In this first example, the Misfeed Event Definition is configured with Re-Evaluate System Event on Start, and since it is a higher Priority, splits and starts a new Event.

In this next example, the Jam Event Definition is configured with Re-Evaluate System Event on End. At this point, the Misfeed takes over as the new root cause.

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Sub-Systems

Sub-Systems provide an additional level of grouping for Events (and other TrakSYS Definitions) within a System. This is useful when attempting to organize and visualize many different Event Definitions across a large segmented piece of equipment (such as a Line). Reports allow the grouping of Events by Sub-System to gain a better idea of which portion of a complex System may be causing more stoppages.

Note that regardless of Sub-System configuration, a System can have only one active Event at any given time.

Filler | Jam Event - 15 Minutes   Case Packer | Error Event - 15 Minutes

Line 1 [System]

Filler [Sub-System]

Jam [Event Definition]

Low Temp [Event Definition]

Labeler [Sub-System]

E-Stop [Event Definition]

Misfeed [Event Definition]

Case Packer [Sub-System]

Error [Event Definition]