



Structured Solutions INC

Understanding “Driving Slack” and its Uses

Kenny Arnold

Chief Information Officer, Structured Solutions Incorporated

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About Me

- Arizona Native
- Graduate of Arizona State University
- Started career doing scheduling work for Orbital Sciences, which was acquired by Northrop Grumman
- Currently serves as the Chief Information Officer of Structured Solutions Incorporated



Learning Objectives



Understand the concept of “Driving Slack” and how it’s different than Total Slack and Free Slack



Understand how Driving Slack can be used to calculate a Driving Path



Understand how SSI’s Dependency Analysis Tools Use Driving Slack to help analyze dependencies



What is Driving Slack?

- *Driving Slack* is the amount of *Schedule Flexibility* a task has before it begins to drive a *Focus Point*.
 - **Schedule Flexibility** = the amount of time that a task can be delayed
 - **Focus Point** = any task in the schedule chosen by the user.
- **Driving Slack** ≠ **Free Slack**
- **Driving Slack** ≠ **Total Slack**
- **Driving Slack** is *not* calculated by MS Project.



Why is Driving Slack Important?

- The calculation of **Driving Slack** is the most accurate way to calculate the project's **Critical Path** or any **Driving Paths**.
 - **Project's Critical Path** = the longest chain of tasks that drive the latest task/milestone in the schedule.
 - **Driving Path** = the longest chain of tasks that drive any task/milestone in the schedule.
- Other methods of calculating these paths that rely on **Total Slack** or **Free Slack** are unreliable.



Total Slack and Free Slack

- **Total Slack** is the amount of schedule flexibility any given task has to any tasks within its work stream that have a deadline set or the end item of the schedule.
- Total Slack was not designed to be calculated to a focus item. Here are things that factor into the Total Slack Calculation:
 - The Project End Date
 - Deadlines
 - Elapsed Duration
 - Constraints
 - Task Calendars
 - Resource Calendars
- Free Slack is the amount of schedule flexibility any given task has to its nearest successor.
 - This is different than Driving Slack because a task's nearest successor may be completely unrelated to or share no dependencies with the focus item.

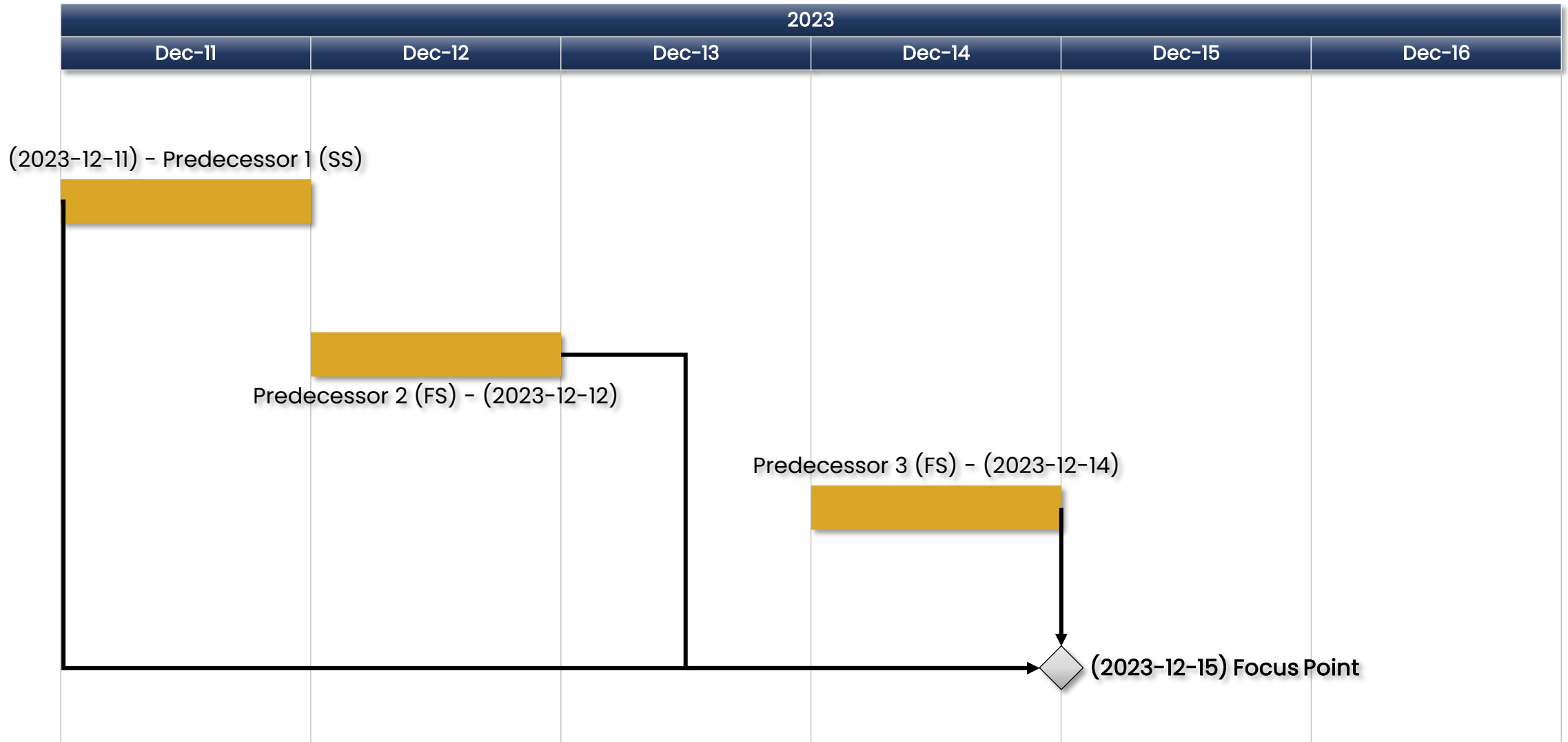


How is Driving Slack Calculated?

2023					
Dec-11	Dec-12	Dec-13	Dec-14	Dec-15	Dec-16

◆ (2023-12-15) Focus Point

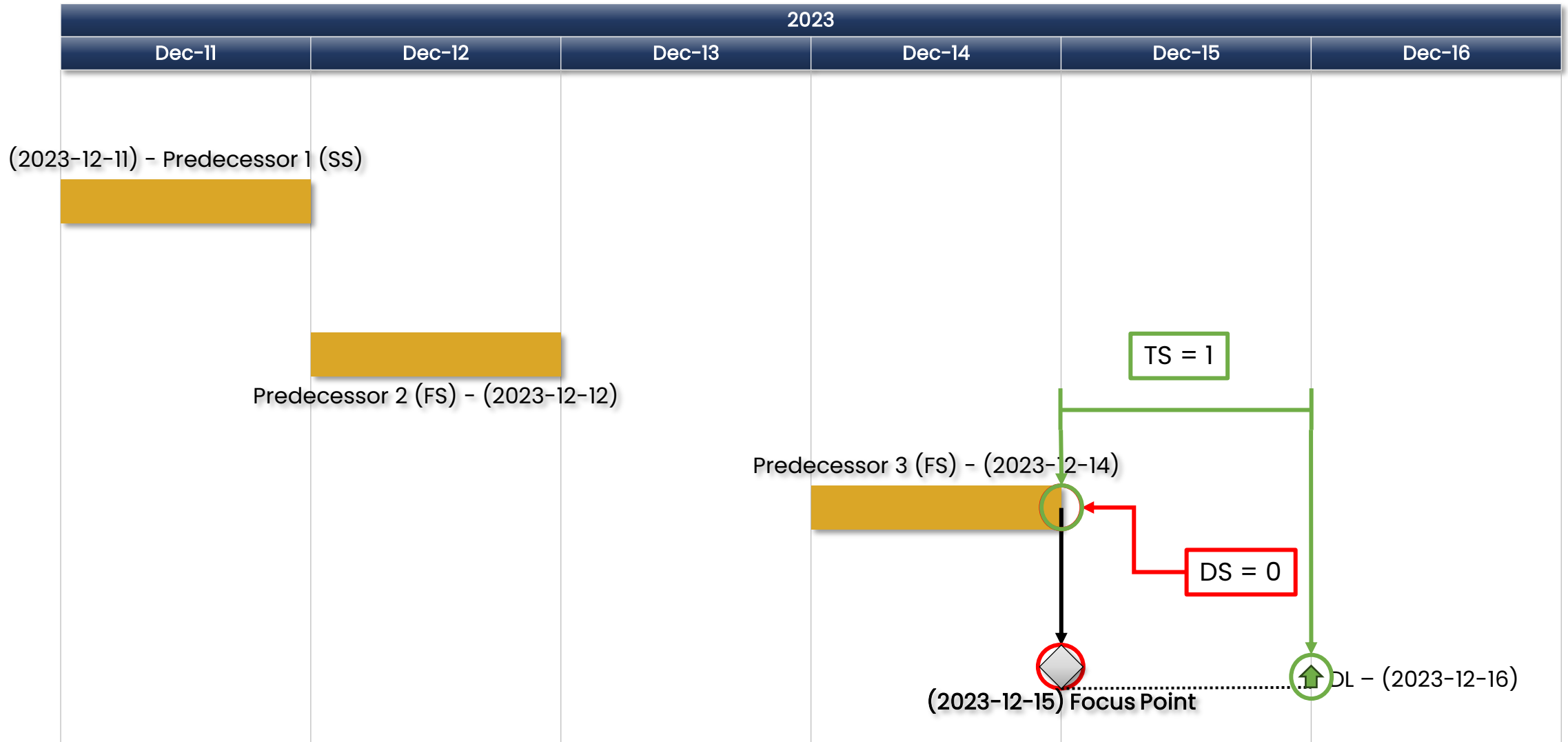
How is Driving Slack Calculated?



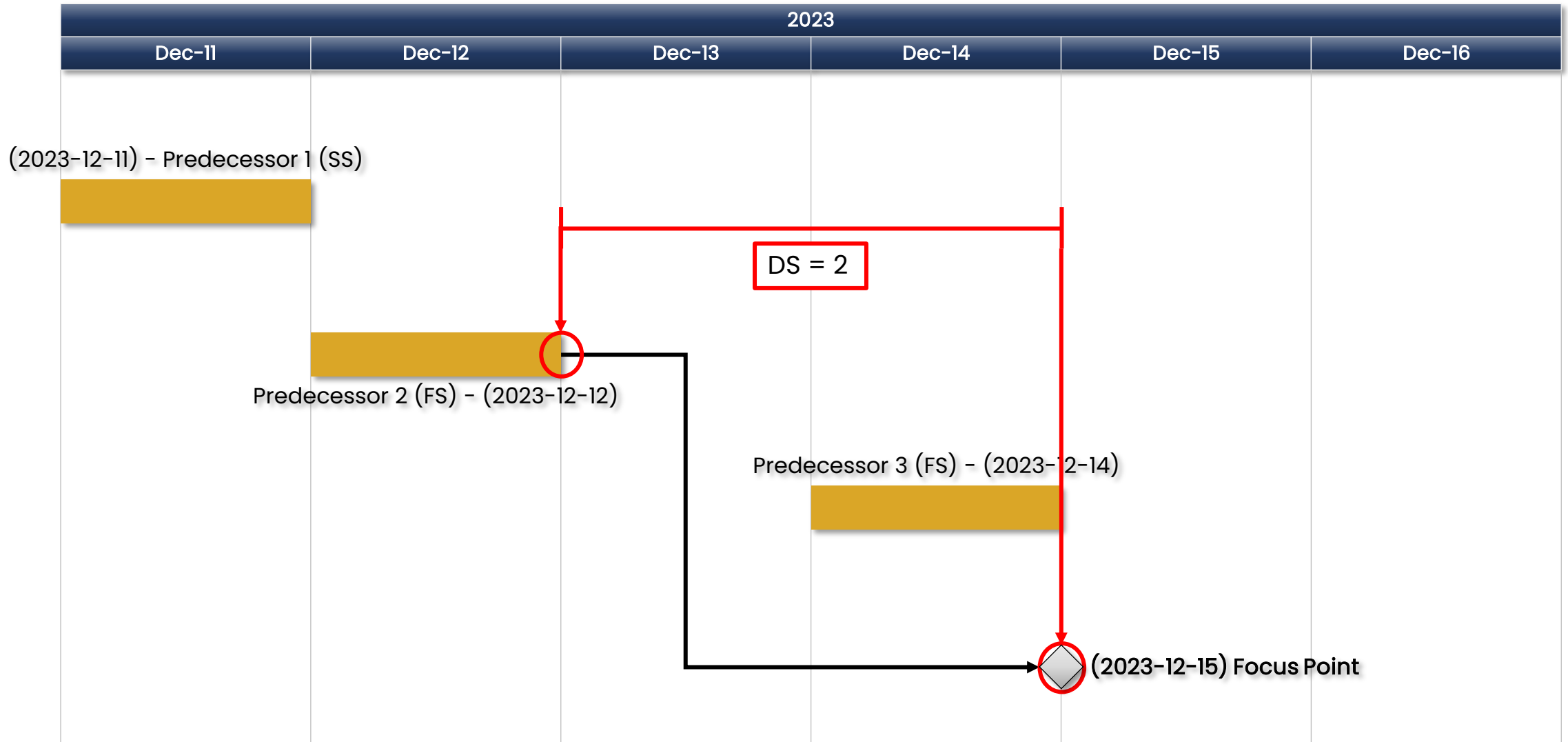
Task

Milestone

How is Driving Slack Calculated?



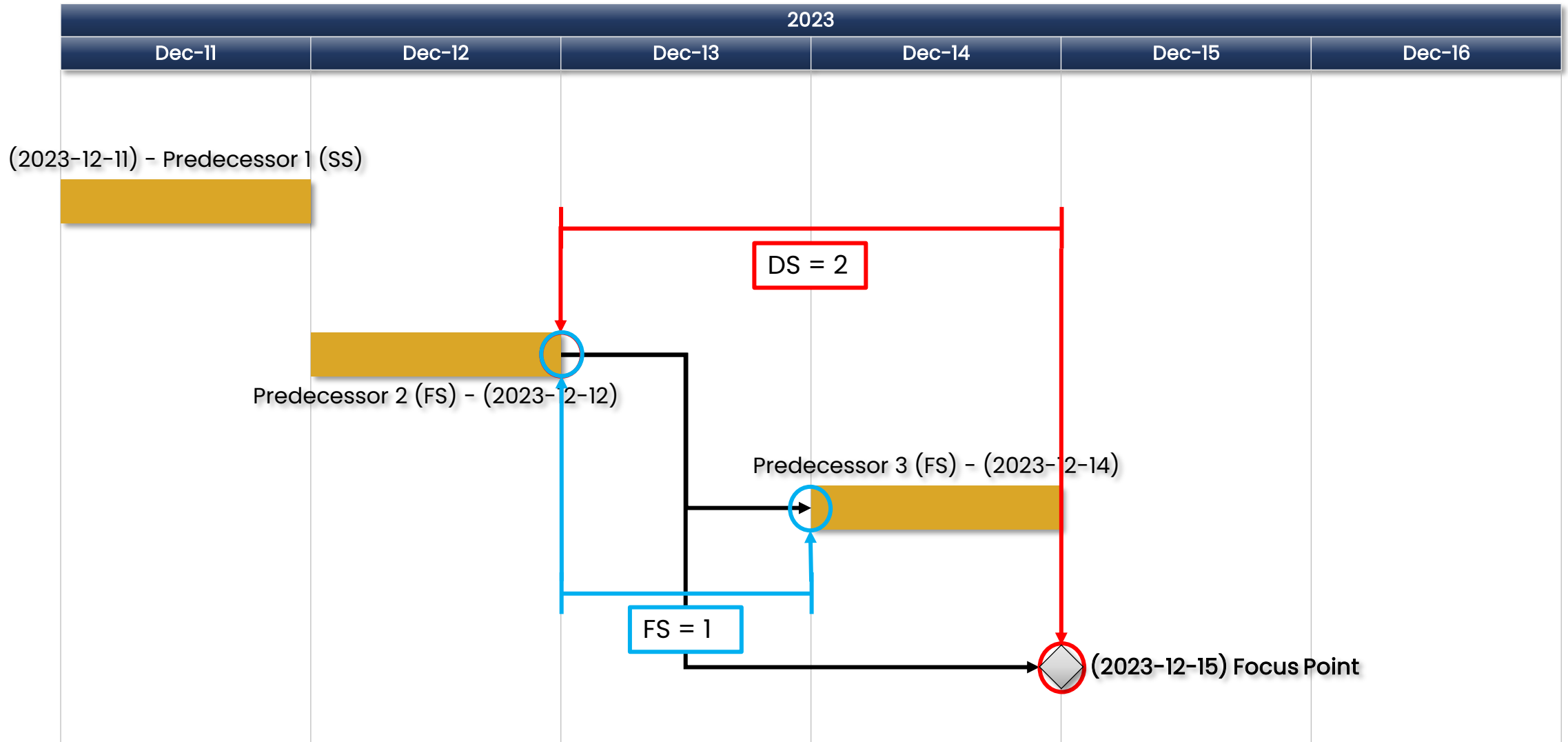
How is Driving Slack Calculated?



Task

Milestone

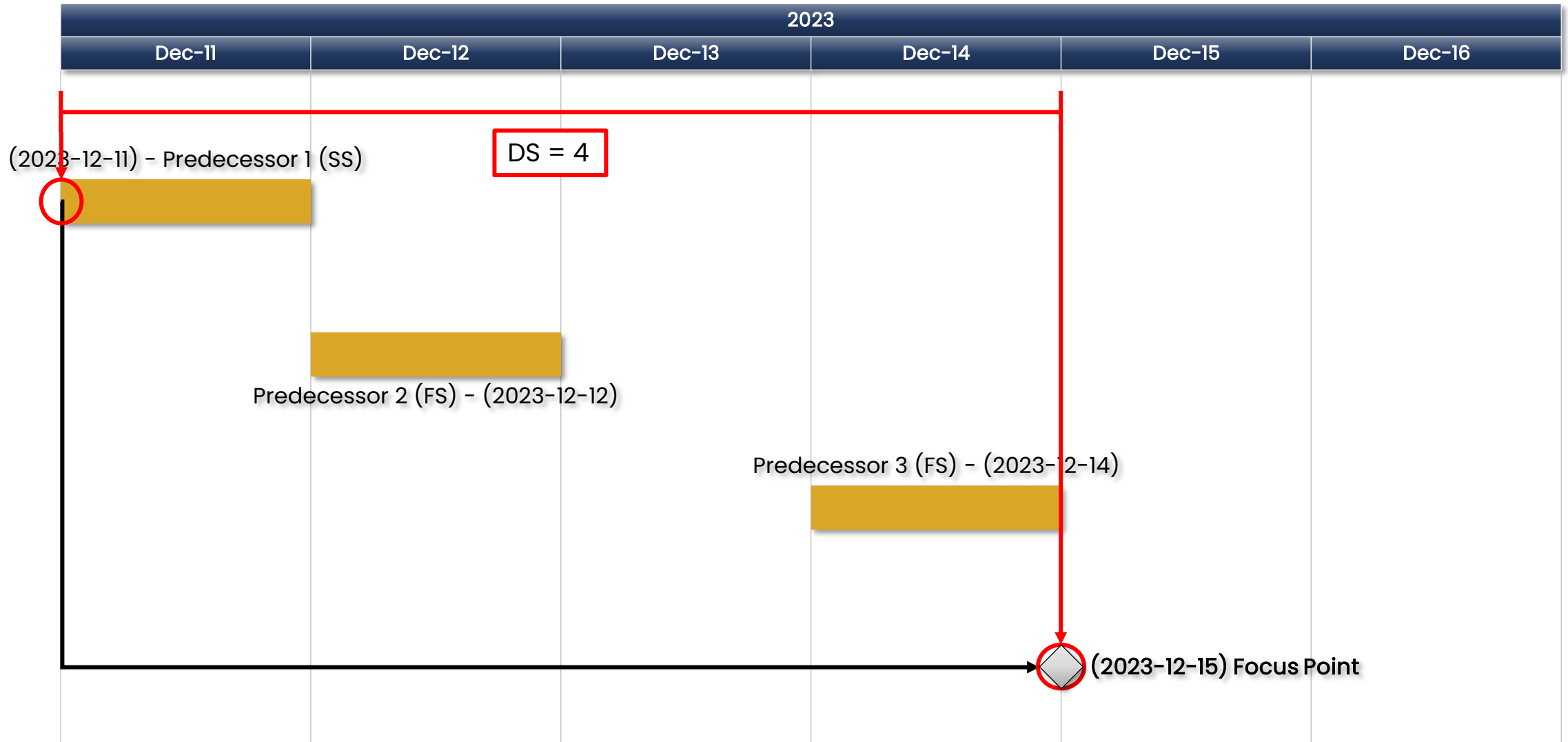
How is Driving Slack Calculated?



Task

Milestone

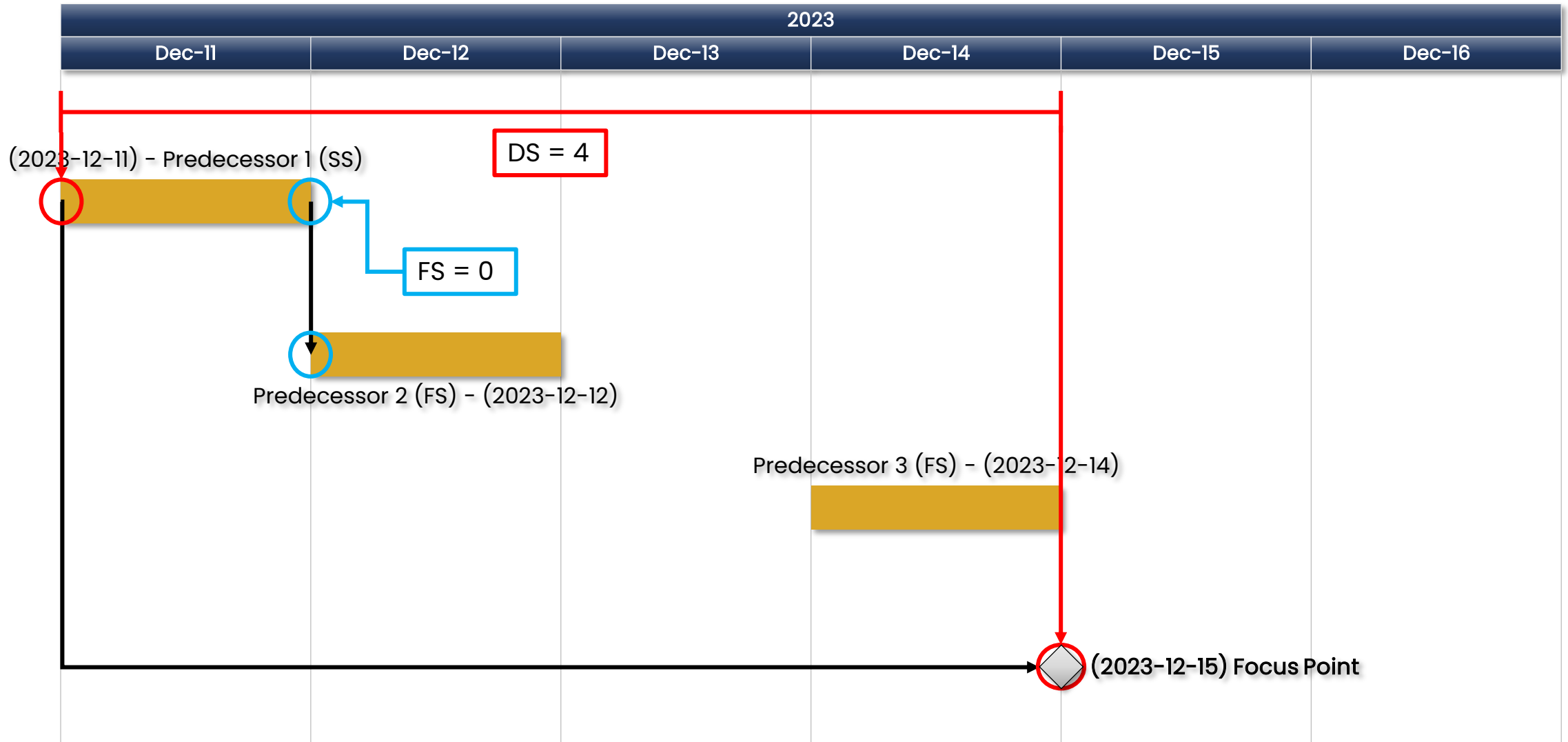
How is Driving Slack Calculated?



Task

Milestone

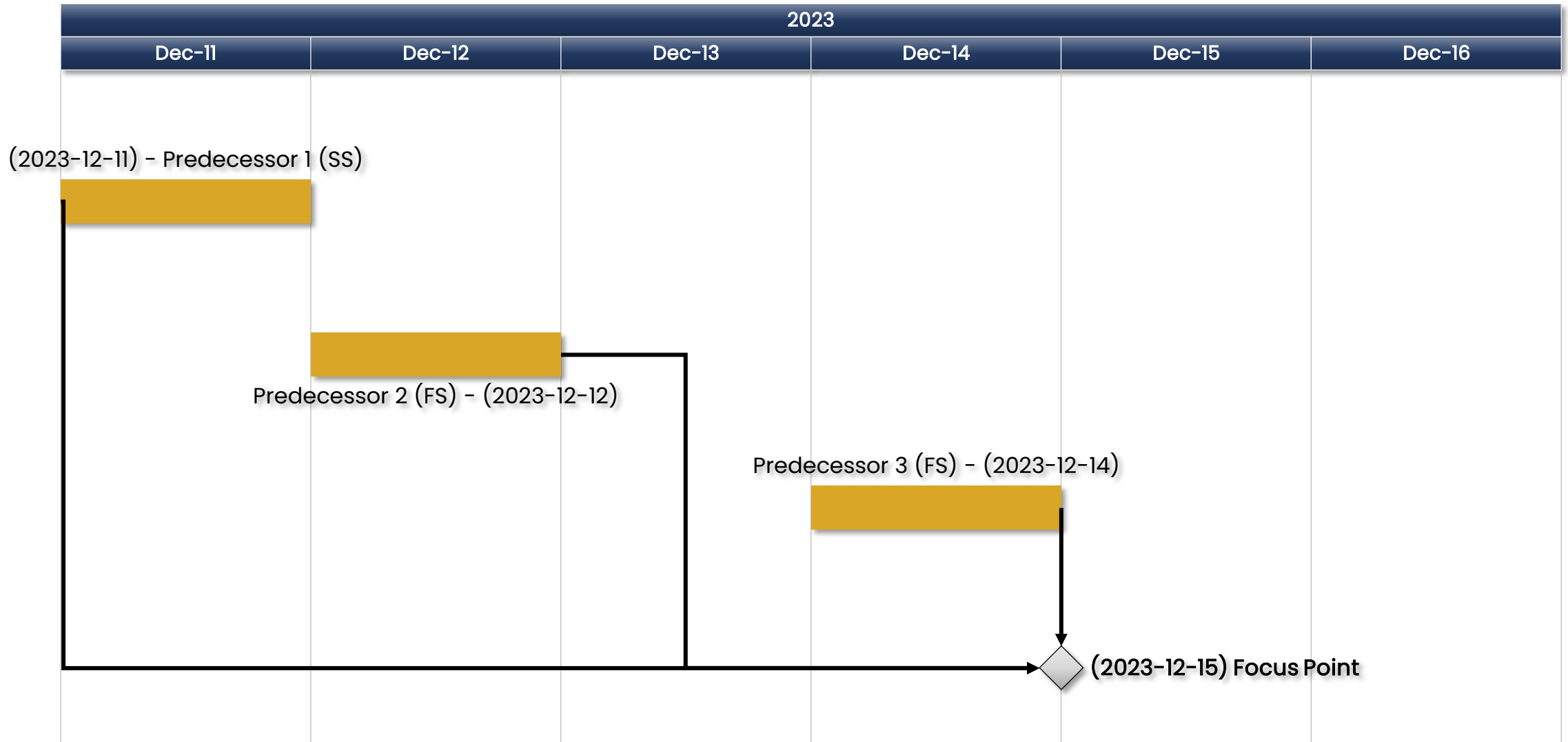
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Task

Milestone

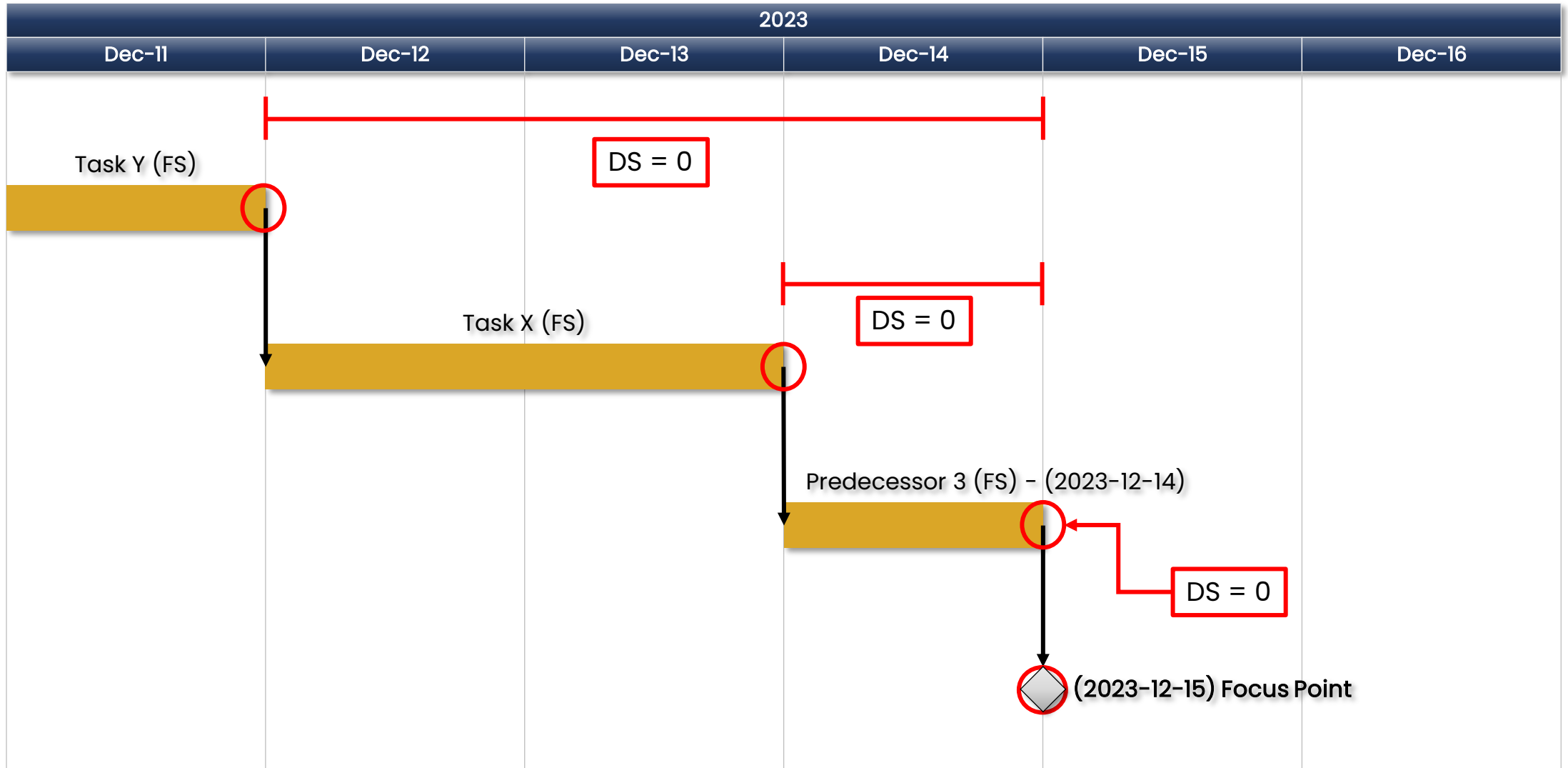
How is Driving Slack Calculated?



Task

Milestone

How is Driving Slack Calculated?



Task

Milestone



Questions?

Thank you.



Kenny Arnold
480-234-9029
kenny.arnold@ssitools.com

