# TEMPORAL VARIABILITY INDEX FOR THE 3WLA (IVT-3WLA)

*A Three-Dimensional Model for Assessing Weekly Schedule Stability*

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## 1. Executive Summary

This working paper introduces the Temporal Variability Index for the 3-Week Lookahead (IVT-3WLA), a model designed to assess weekly temporal stability and schedule credibility in construction and industrial projects. The index integrates three key dimensions: Magnitude of Shifts (ACF), Change Frequency (FC), and Accumulated Coefficient of Variation (CVF).

## 2. Introduction and Background

The 3-Week Lookahead (3WLA) is widely used as an operational planning tool. However, teams often overlook the historical behavior of planned dates. The IVT-3WLA quantifies temporal variability hidden within weekly updates to evaluate the reliability of reported dates.

## 3. Limitations of the Traditional 3WLA

Although the 3WLA presents activities, dates, and constraints, it does not reveal the full history of changes or the stability behind those dates. Date declarations without validation may create a false sense of control.

## 4. Concept of Temporal Variability

Temporal variability reflects successive changes applied to an activity, the frequency of those changes, and the historical dispersion. It is a direct indicator of operational stability within weekly planning.

## 5. The Three-Dimensional IVT-3WLA Model

The model integrates three metrics: ACF (Magnitude of Shifts), FC (Change Frequency), and CVF (Accumulated Coefficient of Variation). Each metric captures a unique dimension of planning behavior. These dimensions can be expanded for project-specific needs.

## 6. IVT-3WLA Methodology

The IVT-3WLA methodology involves comparing historical planned dates, accumulating changes, and evaluating statistical variability. The metrics are normalized and combined into a single index.

## 7. Interpreting the Index

Low IVT values indicate stability and credibility. Medium values highlight fluctuations, while high values represent unstable planning behavior and reduced confidence in reported dates.

## 8. Practical Applications

The IVT-3WLA supports activity-level evaluation, planning maturity assessments, temporal audits, and improved decision-making based on schedule stability.

## 9. Conclusions

The IVT-3WLA provides a significant advancement for Project Controls by offering a deeper reading of temporal stability and complementing traditional performance indicators.