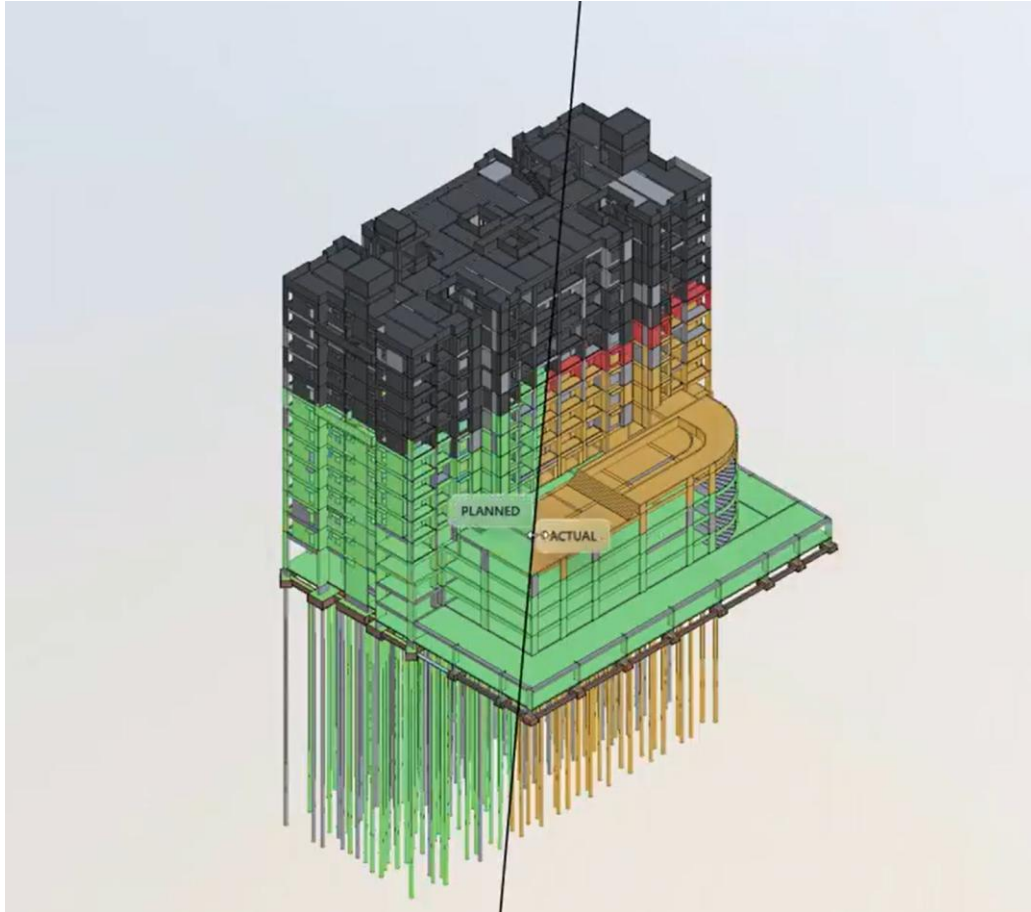
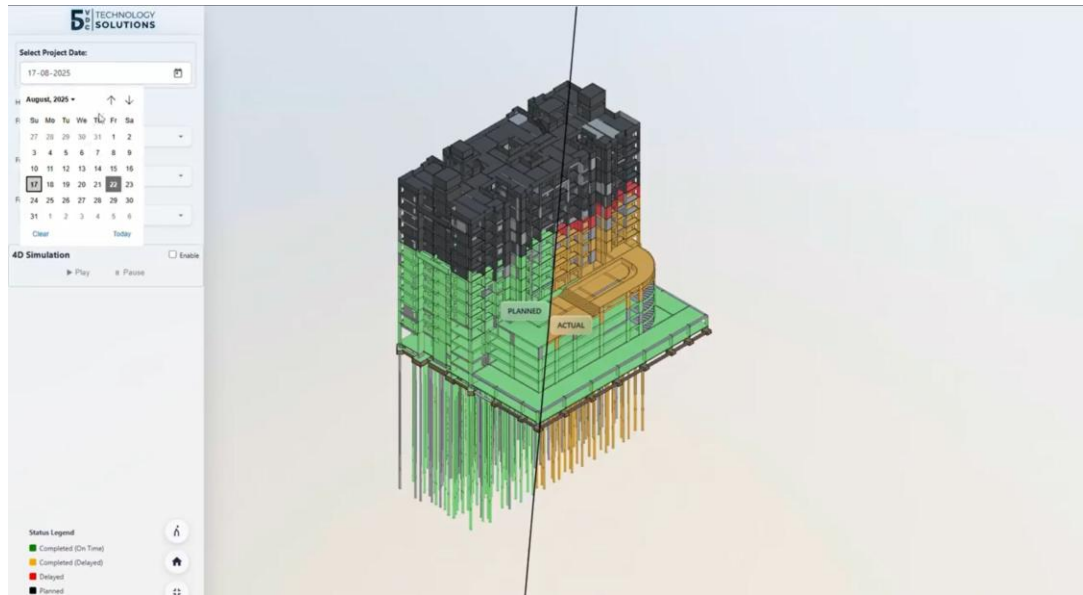


Core Model Workspace Layout



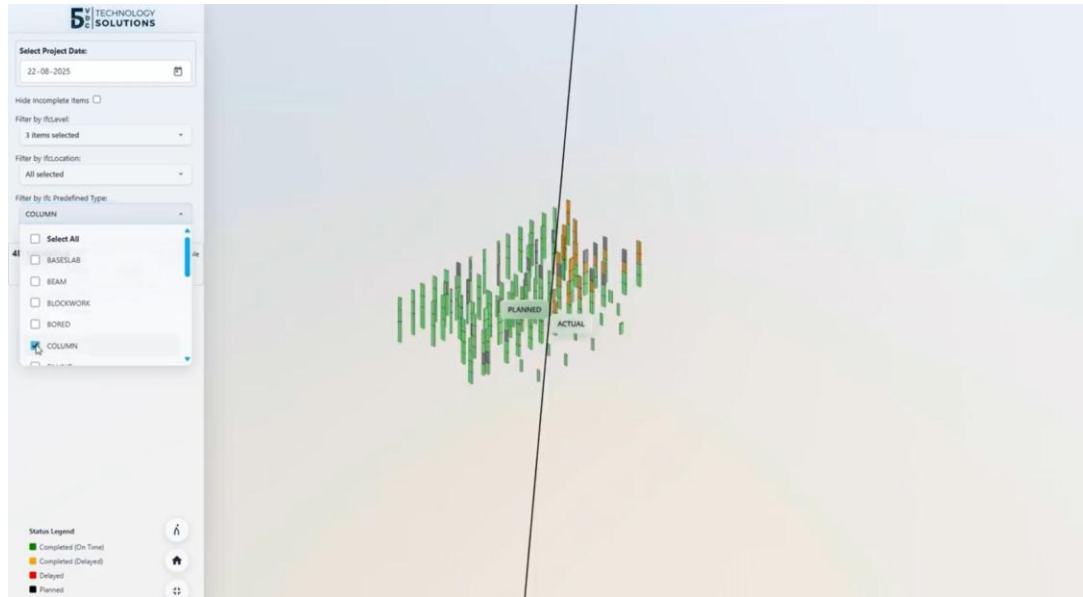
- The dashboard initializes with the comprehensive multi-family asset package loaded into memory:
- The Split Viewport Matrix: A vertical axis splits the engine canvas directly in half. The left-hand panel maps the master schedule benchmarks (Planned), and the right-hand panel reflects the verified physical progress reported from on-site engineering crews (Actual).
- Color Coding Convention:
 - Green = Finished On-Time;
 - Orange = Completed with structural delays;
 - Red = Active Critical Delay;
 - Grey = Unbuilt/ Upcoming stages.

Snapshot Historical Querying



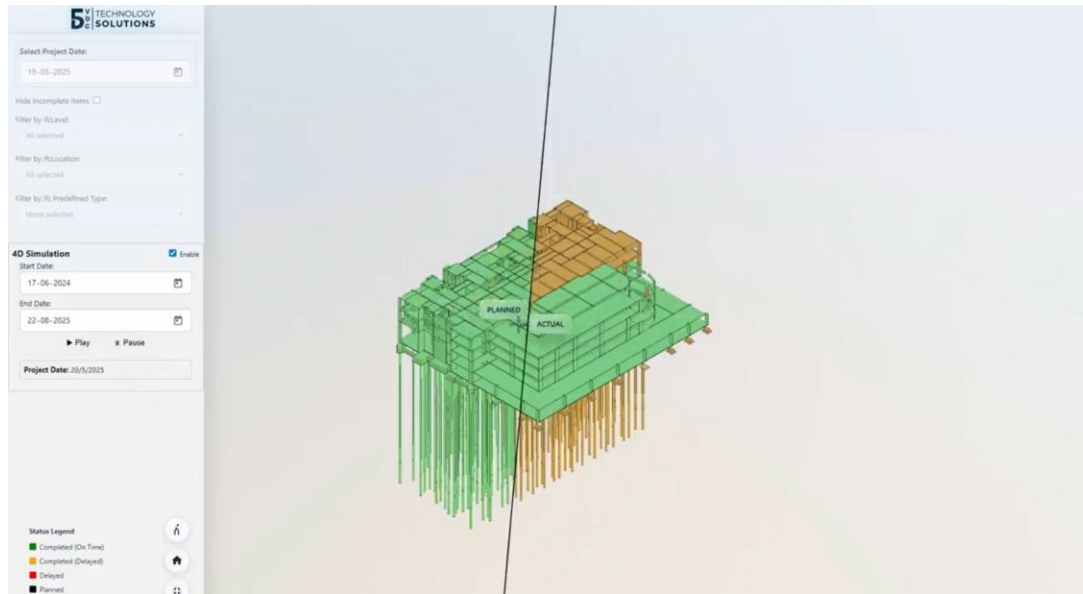
- The user interacts with the top-most configuration widget ("Select Project Date"):
- Action: The user overrides the default project milestone cursor, allowing them to view the state on earlier project dates
- System Response: The data model re-queries the database instantly, stripping away top structures to isolate precisely what elements were structurally slated to exist vs. what elements were physically erected on that exact calendar day.

Dynamic Filtering & Asset Isolation



- The user executes deep data filters via the nested side panels to audit foundation progress:
- Level Isolation: The user can check per-level progress
- Category Matching: The user can also additionally filter by element type and other element properties
- Engineering Value: This proves the multi-threaded capacity of the application—allowing VDC specialists to check structural integrity and concrete schedules block-by-block while eliminating visual noise.

4D Time-Lapse Simulation Run



- The user checks the "Enable" button within the dedicated 4D Simulation block, initiating automated rendering cycles:
- Parameters Settled: System maps a rolling sequence between Start Date and End Date and triggers the Play loop.
- Analyzing Schedule Slippage: As the simulation marches ahead, a severe project variance becomes visible across the dividing line. The Planned structure on the left rises cleanly in solid green. The Actual side on the right falls behind by multiple slabs, rendering vast clusters of orange and red markers.
- Insight: This provides an immediate, irrefutable visual indicator of sub-structure execution lag, signaling project managers to reallocate trade resources immediately.

Summary Review Note

- This 4D simulation engine functions as a central verification interface. When reviewing these demo videos in the future, remember that the core objective is checking the balance across the split line. If the right-hand panel matches the left-hand panel in green, the project is perfectly synchronized with the master schedule.
- Any deviation into orange or red requires an immediate review of procurement and labor pipelines.