

## SEQUENCE PLANNER WILL GIVE YOU THE POWER TO QUICKLY IDENTIFY BOTTLENECKS AND DISPATCH RELIEF OPERATORS TO AVOID PRODUCTION DELAYS.

Sequence Planner provides line management an advance view of the work required at each station based on a production schedule's model and option mix. Forewarned of where and when the work required exceeds takt, management can take action to keep production running smoothly.



Chart View Showing Time Required for Selected Units at Each Station

Date	Time	S110	S120	S130	S140	S150	S160	S170	S180	S190
1 1/14/2009	8:00 AM	15.44	16.71	19.14	18.30	16.30	19.71	21.99	17.99	15.55
2	8:19 AM	14.81	16.71	19.14	18.30	18.84	19.71	21.99	17.99	15.55
3	8:38 AM	15.44	16.71	19.14	18.30	18.84	17.49	21.99	17.99	15.55
4	8:57 AM	15.44	16.71	19.14	18.30	18.84	17.49	15.30	17.99	15.55
5	9:16 AM	15.44	16.71	19.14	18.30	18.84	17.49	15.30	17.99	15.55
6	9:35 AM	15.44	16.71	19.14	18.30	18.84	17.49	15.30	17.99	18.56
7	9:54 AM	14.81	16.71	19.14	18.30	18.84	17.49	15.30	17.99	18.56
8	10:13 AM	14.81	16.71	19.14	18.30	18.84	17.49	15.30	17.99	18.56
9	10:32 AM	14.81	16.71	19.14	18.30	18.84	17.49	15.30	17.99	18.56
10	10:51 AM	14.81	16.71	19.14	18.30	18.84	17.49	15.30	17.99	18.56
11	11:10 AM	14.81	16.71	19.14	18.30	18.84	17.49	15.30	17.99	18.56
12	11:29 AM	14.81	16.71	19.14	18.30	18.84	17.49	15.30	17.99	18.56
13	11:48 AM	14.81	16.71	19.14	18.30	18.84	17.49	15.30	17.99	18.56

Sheet View Showing work content at each station for each takt cycle (Time of Day)

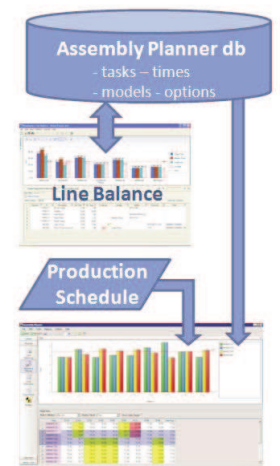
Would rearranging the sequence of units improve the work distribution? Try it by just dragging selected units earlier or later in the schedule. Need to add units that weren't in the schedule? Easy, the schedule editor lets you insert, remove, and hold units and change their sequence. Once satisfied with the adjusted schedule, you can save it for import to your production systems.

### 3-STEP PROCESS

USING SEQUENCE PLANNER IS AS SIMPLE AS 1, 2, 3.

1. Load a list of the activities required to produce your products, with the time they take and the models/options that use them, into the Assembly Planner database.
2. Use Assembly Planner's Line Balance module to assign the tasks to stations/operators based on your typical production mix and desired production rate.
3. Import the production schedule for a specific date range.

SEQUENCE PLANNER WILL AUTOMATICALLY CONFIGURE A BILL OF PROCESS FOR EACH UNIT IN YOUR PRODUCTION SCHEDULE, SUM THE TIME OF THE ACTIVITIES REQUIRED TO BUILD THAT UNIT AT EACH STATION, AND DISPLAY THE RESULTS IN SECONDS!



# AN ADVANCE VIEW OF MANPOWER REQUIREMENTS

Even though line balances help distribute work so that a worker maintains takt on average, the actual production schedule mix may cause bottlenecks when high labor content models or options are prevalent. Schedule Planner will apply the line balance work assignments to the actual order data, allowing you to see where and when any additional labor requirement occurs. Then you can adjust the schedule or dispatch relief workers to avoid production delays.

## SEQUENCE PLANNER

### BENEFITS TO USING SEQUENCE PLANNER

- Quickly see where unit configurations cause labor to exceed takt time. In the chart view, this is any task above the red takt line. In the sheet view, the colored cells provide warning and alarm flags.

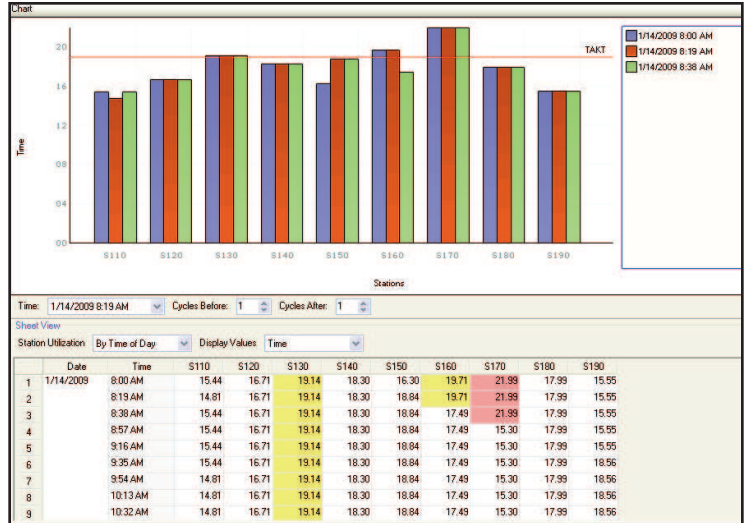
### FEATURES

- View the data multiple ways. Choose to look at station data per unit in the schedule or as a snapshot of the stations at a specific time of day. Display time as actual units or as a percentage of takt.

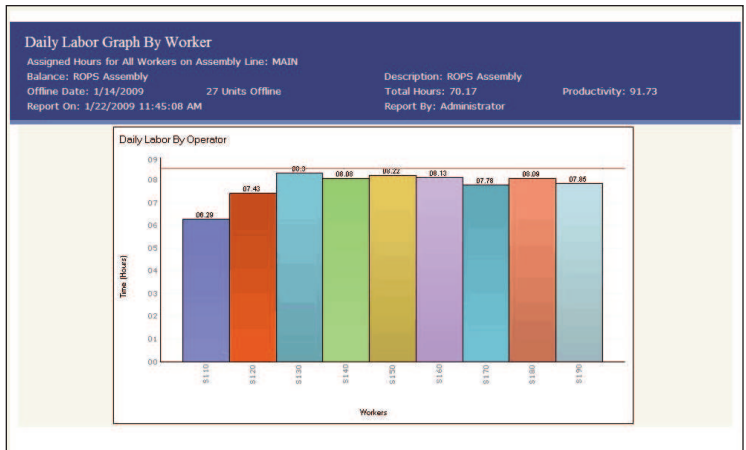
- Generate useful labor reports quickly and easily, including:

- Daily Labor By Worker
- Daily Labor For Orders By Worker
- Operator Task List by Order
- Operator Labor By Day
- Average Labor By Worker

- Sequence Planner studies are simple and quick to set up with an Assembly Planner line balance and external order data.



Consistent over-takt conditions are easily recognized



Sample Report: Daily Labor By Worker

Proplanner was founded by Dr. David Sly, a world-renowned expert in Process and Plant Engineering systems that extend and integrate the capabilities of current applications such as AutoCAD and Excel. Since Dr. Sly invented the first CAD-based material flow analysis application 20 years ago (a predecessor to Flow Planner), he has created a suite of powerful and integrated applications for Time Estimation, Process Management, Ergonomics Assessment, Line Balancing, and Workplace Design.

