Consumer Real Estate (CRE) Mortgage Process Improvement Simulation Overview [Process 360 Live Design Cloud]

The following instructions outline how to use Process 360 Live Design simulation for improving the USA Consumer Real Estate (CRE) Mortgage process.

Quick Summary Reminder

Once you're familiar with the detailed instructions below, this summary / reminder should help you remind yourself of what to do to show others the value of simulation:

1. Check Out Check Out the diagram, and have the Excel file ValidateDataTimes.xlsx ready if you're going to do a Fit Data.
2. Review the Simulation Properties for the diagram and steps, as desired.
3. Run simulation in Trace Mode, looking for bottlenecks (*Loan Specialist*, anyone?)
4. Review the simulation stat's; particularly Processes tab and Resources tab. Sort the *Wait Queue Size – Mean* column descending Wait Queue Size - Mean.
5. SAVE Save your simulation run; e.g., with a name of 'As-is'.
6. **Hire** a ***Loan Specialist*** *Person* (e.g., go from 1 to *2*).
7. Run simulation, **Review**, and SAVE your results; the bottleneck has simply moved to the ***Closer*** department!

	Wait Queue Size...	Util	Wait Queue Size Mean
Resource: Closer Person	1.54	97.32	18.77
	↑ 1178% 19.68	↓ 20% 77.84	↓ 100% 0.06

8. ***Hire*** a ***Closer Person*** (e.g., go from 1 to *2*).
9. Run simulation and SAVE your results.
Optional: Run in 'Trace' mode to show the bottleneck is gone!
10. We've *increased our productivity greatly and reduced our lead time through the process significantly* (by about 61% and 51% respectively)!

Baseline Run: As-Is with Fit Data

Run	Case Count	Cost Mean	Cycle Time Mean
As-Is with Fit Data	61	437.17	27.42 d
+1 Loan Specialist	61	↓ 1% 434.88	27.41 d
Hire Closer (+1 LS too)	↑ 61% 98	↑ 1% 440.55	↓ 51% 13.44 d

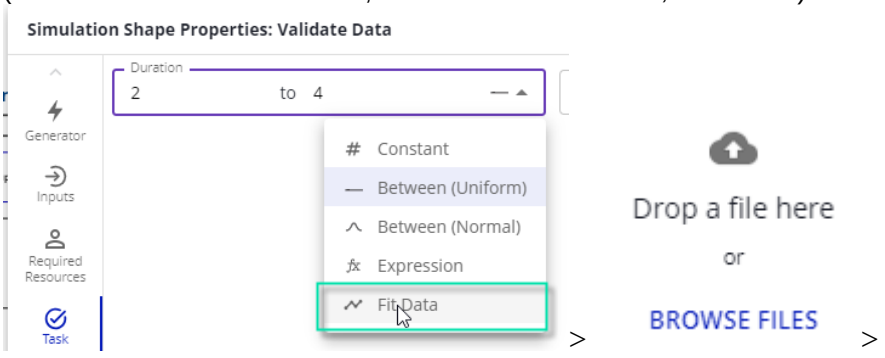
Detailed Instructions

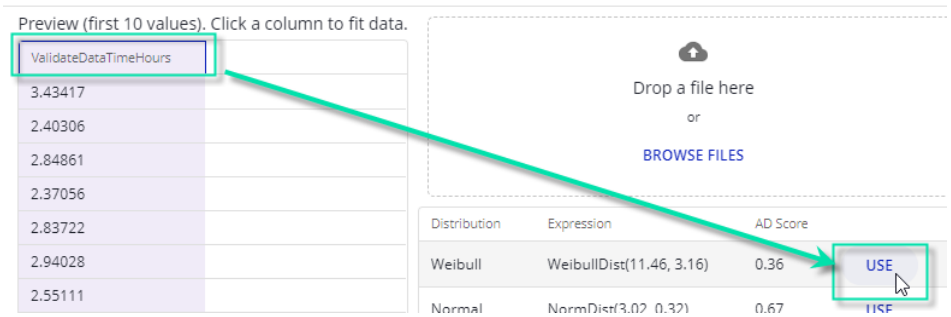
The following suggested steps should work to demonstrate simulation capability:

1. Check Out the diagram (remember to undo check-out and/or revert when done if you want to do this again 😉)

2. Review the process and simulation setup.
    a. Without anything selected, click the 'Simulation Properties' button and review Run Setup, Generators, and Resources.
    b. ***Optional***: Review process flow, Activity times, decision percentages, etc. by clicking on each shape with the Simulation Properties dialog box open.

3. ***Optional***: Use the 'Fit Data' capability to refine the time for the "Validate Data" step:
    a. ValidateDataTimes.xlsx Ensure the associated "ValidateDataTimes" Excel file is accessible on your computer.
    b. Click Properties, select the "Validate Data" step Validate Data
    c. Fit Data Go to the Task page, and use the 'Fit Data' option; browse to the Excel File, click the column header, and click USE for the option that has the best fit (a **Weibull** distribution fits best; *The lower the AD Score, the better!*)





4. Run simulation in Trace Mode
    a. Click the 'run simulation in trace mode' button

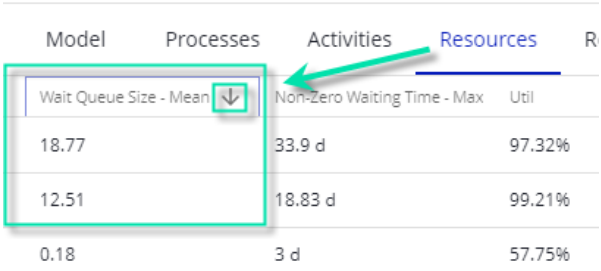
b. Play Click the 'Play' button to run simulation, adjusting speed as needed, to get a sense for *where the bottlenecks are*.

c. Pause Pause simulation, and *point out the 'red' steps with bottlenecks*.

d. Finish Click Finish to complete the simulation run.

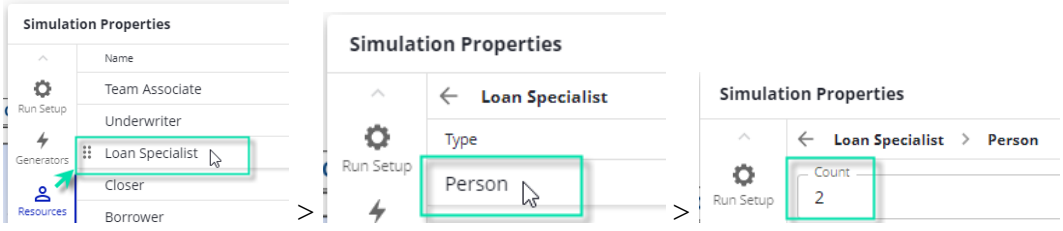
5. Review the Simulation Statistics report.
   a. Processes Review the various statistics gathered on the Processes tab; completed count, Cost, Cycle (Lead) Time, etc.
   b. Resources
      i. Click on the Resources tab, and note that there are several highly-utilized departments.
      ii. 

Sort the *Wait Queue Size – Mean* column descending. You can see the primary bottleneck occurs in the Loan Specialist Lane, with the Person resource:



6. SAVE Save your simulation run; e.g., name it 'As-is'. CLOSE Close the Simulation Statistics (report / results) window.

7. Hire a *Loan Specialist Person* (e.g., go from 1 to *2*).
   a. Make sure nothing is selected, and click Simulation Properties.
   b. Click the Resources Page.
   c. Click Loan Specialist.
   d. Click Person
   e. Change the Count from 1 to 2.

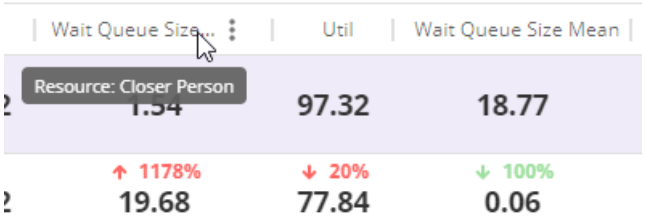


DONE Click Done to save your changes.

8. ▶ Run simulation.

   Optional: Run in 'Trace' mode to show the bottleneck is gone in the 'Loan Specialist' Lane and see where the bottleneck(s) show(s) up now. [e.g., in the 'Closer' Lane]

9. Review the simulation results:
   a. 🤔 Note that our productivity (**Case Count**) hasn't increased, and mean **Cycle Time** (lead time) has not decreased significantly.
   b. Scroll over in the report, and notice that the bottleneck has simply moved to the Closer department!



   Note: The prior bottleneck was simply 'protecting' the Closers from being too busy; this is often the case with bottlenecks that they simply move 'downstream.'

10. SAVE Save your simulation run; e.g., name it 'Hire Loan Spec.'. CLOSE Close the Simulation Statistics (report / results) window.

11. ***Hire*** a ***Closer Person***.

12. ▶ Run simulation.

    Optional: Run in 'Trace' mode to show the bottleneck is gone, and see if/where any bottleneck(s) show(s) up now.

13. 😲 We've *increased our productivity greatly and reduced our lead time through the process significantly* (by about 61% and 51% respectively)!