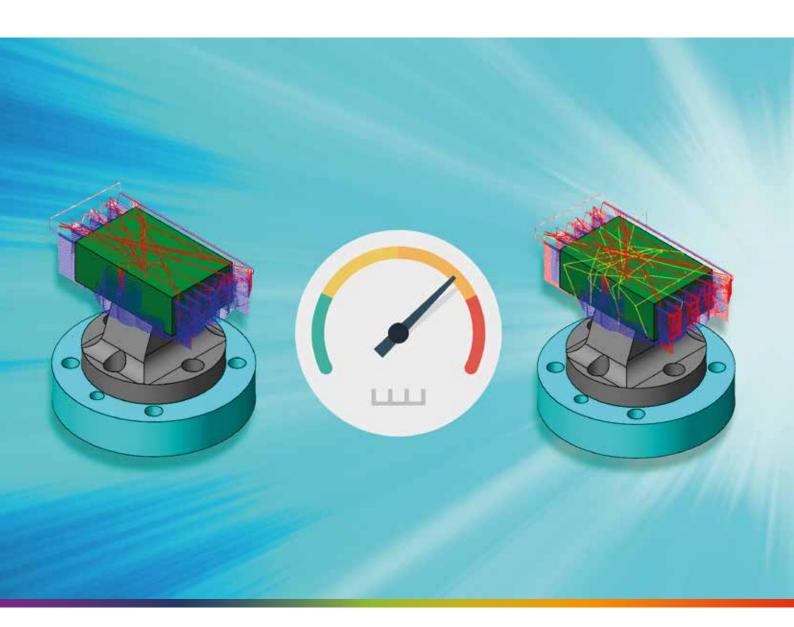


# OPTIMIZATION SAVE TIME - CUT FASTER



# YOUR TOOL PATHS OPTIMIZED



#### Set tool length offsets

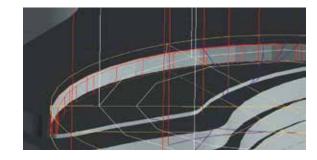
- Minimize tool deflection problems
- •Eliminate collision risks with the tool setup (holder + extension)





#### Analyse cutting conditions

- Set alerts on parameter limits exceeded and display all material removal in a comprehensive way
- •Segment the toolpath and analyze maximum values for all cutting parameters (Q, h, Fz, Ap, Ae, AD, Vc)





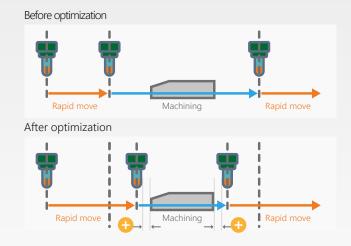
#### Remove air cutting

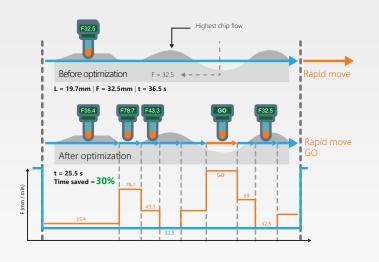
- Choose the best approach and retract motion strategies and minimize air cutting
- •Reduce working feed rate motions (G1) and maximize rapid motions (G0) safely around the cuts



### Optimize material removal

- •Generate new feed rates accordingly with the removed material analysis
- Achieve better surface quality by keeping a constant chip load
- Automatic "Learn Mode" requires no setup or know-how





Reduce your CNC machining cycle time by 20%. Enhance the quality of your machining operations. Increase your machine capacity.



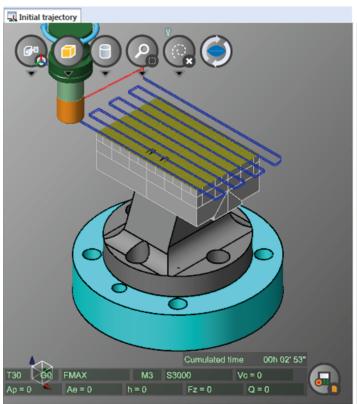
Use the right tool length offsets and secure your setup

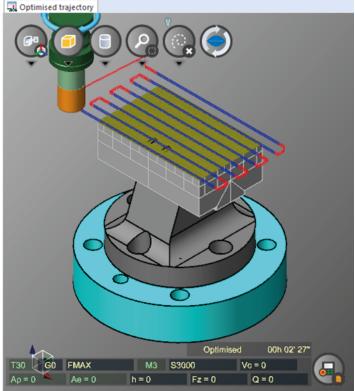


Extended tool breakage-safety: alerts on restricted center-cutting tools



Direct before-and-after comparison for a detailed overview on results and data analysis included in an automatic report:





Cut info

#### Optimisation synthesis of all operations :

	Initial	optimised	Difference
Time in rapid move	36"	45"	+09" (-25%)
Time out material	09'32"	02'38''	-06'54" (+72%)
Time in material	26'16"	26'29''	+13" (-1%)
Cutting time	35'48''	29'07''	-06'41" (+19%)
Various time	00"	00"	NA
Total time	36'24"	29'52"	-06'32" (+18%)

- Provide extended analysis features, with physics based factors
- •Capitalize on the actual cutting condition data in the library that will benefit future optimization, eliminating need for expertise
- •Take in consideration machine capabilities: feed rate is automatically adapted during a machine switch

## **BUILDING** CONFIDENCE

**SPRING Technologies** 

"With the use of OPTITOOL, we gained more than 10% (thus more than 8 hours of machine time) in productivity by automatically selecting the proposed federate and optimizing our previous programs. We know optimize every program out of NCSIMUL MACHINE before sending them for production (...) My cutting tools last longer and my machines also run smoother!"

**ALSTOM** 

"Striking a balance between machines and materials is sometimes complex and NCSIMUL helps us manage this better. The 10% gain delivered by simulating our tool paths before machining is substantial"

SAFRAN, Hispano-Suiza

**High-speed Machining** with Perfect Accuracy

#### 20 % Faster CNC Machining





FRANCE



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🚣 GERMANY



ASIA

**INTELLIGENT CNC MACHINING** FLEXIBILITY DRIVES PRODUCTIVITY