DEP MeshWorks

# Achieving an optimized design of pawl and gear in an automotive parking system

## About the Client

Client is one of major global power train companies based out of North America.

## The Challenge

To achieve optimized design of pawl and gear in automotive parking system for enhanced maximum engagement speed besides improving its durability and fatigue behavior.

## The Solution

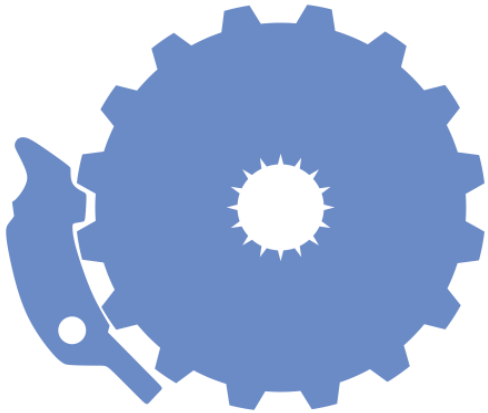
Engineers at DEP created complete process automation for the parking system optimization. This involved parameterization of pawl and gear for kinematic simulation model and ABAQUS durability model. The results from ABAQUS durability model were used for fatigue assessment. The parameterization of the ADAMS kinematic model and ABAQUS durability was carried out MeshWorks. The complete process automation was put together using Isight.

## The DEP Edge

DEP MeshWorks was used to create parametric FE model of the pawl and gear for the ABAQUS durability simulations. Meshworks was used to parameterize shell model from the ADAMS kinematic simulation. MeshWorks was made part of Isight process automation to generate parametric models for optimization.

## The Result

Parametric FE/ADAMS Model based automation process for optimization was built by DEP in a rapid turnaround time



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