



## Reduce/eliminate the need for part-specific dimensional check fixtures

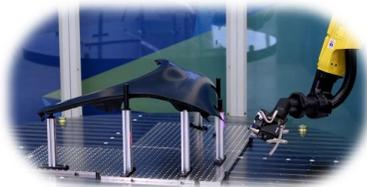
Leveraging simple, flexible fixtures, metrology (scan) data, and fixture process modeling to simulate the check fixture clamping process to predict dimensional conformance of:

- single parts
- sub-assemblies
- multiple parts/subs fit together in the check fixture

Hexagon Virtual Fixture redefines the traditional approach to checking dimensional accuracy. Instead of using complex, part-specific fixtures, parts are scanned in simple, flexible fixtures that can be reconfigured for many different parts.

## Solution use cases

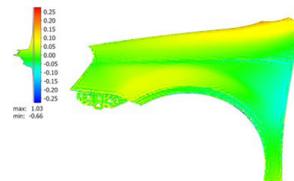
- Perform virtual check of components using flexible (generic) fixturing
- Understand the impact of manufacturing process on dimensional tolerances



**Scan on non-part-specific fixture**



**Morphed as scanned**



**Virtual dimensional check replaces part-specific fixture**



**Virtual Fixture****Key Capabilities**

- **Usability and automation** scan and go/no-go in a short time. The user doesn't need to perform any modeling or data manipulation to get an answer.
- **Advanced multi-physics** with nonlinear material handling to accurately reflect large deviations (>1.0mm)
- **Gravity re-orientation** enables scanning in non-vehicle orientation (e.g., flat vs upright)
- **Simplified, flexible fixtures** - leverage simple, flexible pin fixtures to hold the part during scanning, easily reconfigurable for different parts.



**Reduce Cost** - By eliminating the need for complex physical check fixtures for every part and sub-assembly, there is a corresponding significant cost reduction related to fabrication, storage, use, and calibration.



**Reduce Time** - The time required to perform physical checking in assembly orientation for both single parts and multiple parts is reduced.



**Improve Measurement Consistency** - By measuring in the simplified fixture in the flat orientation, the ability of the operator to influence the measurement is reduced and measurement consistency is improved.



**Reduce operator training** - The highly automated nature of the solution and elimination of the complex check fixture reduces the skills and training required from operators.