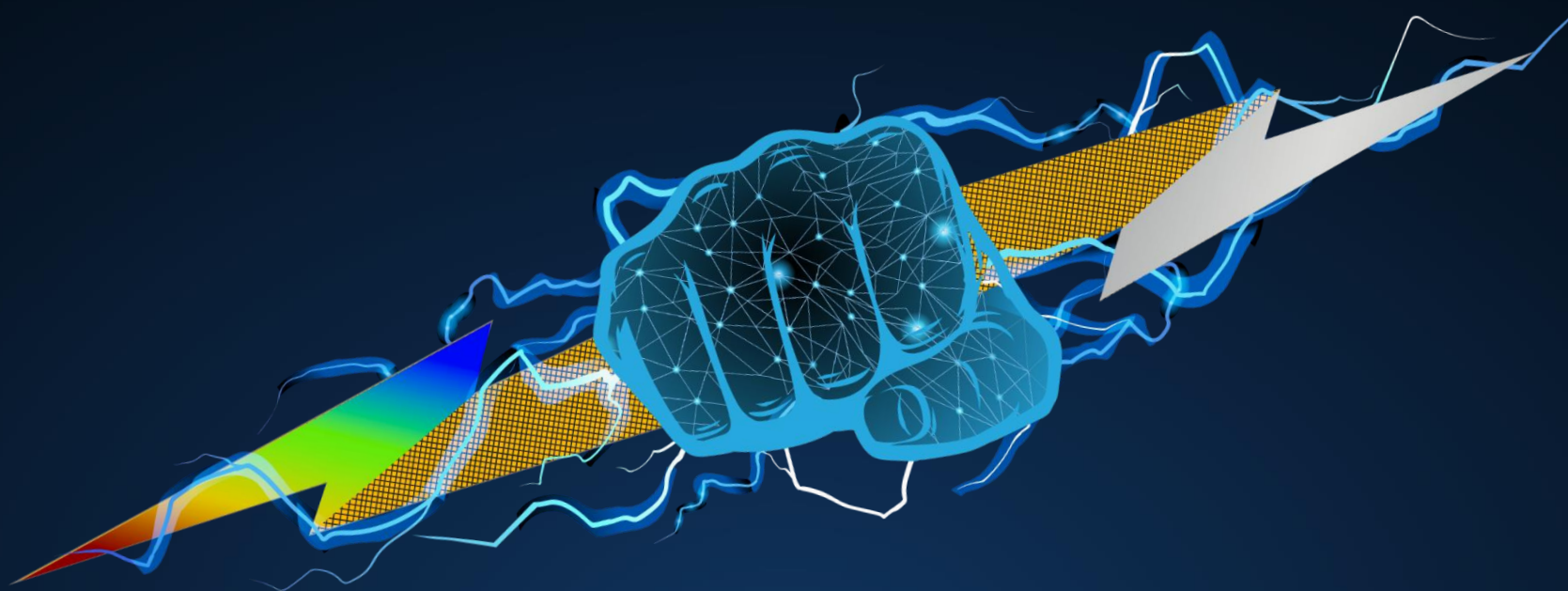




DEP
MeshWorks

The power of CAE to
ACCELERATE. TRANSFORM. AUTOMATE. INNOVATE.

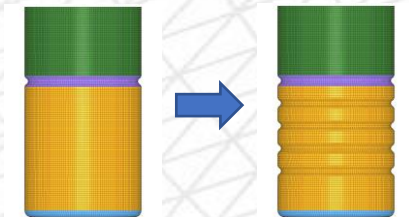
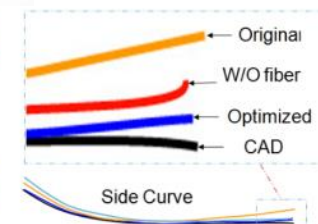
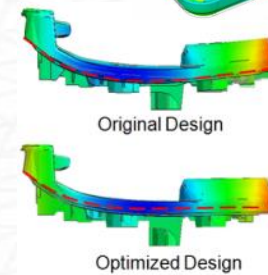
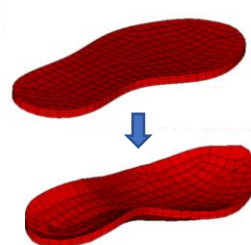
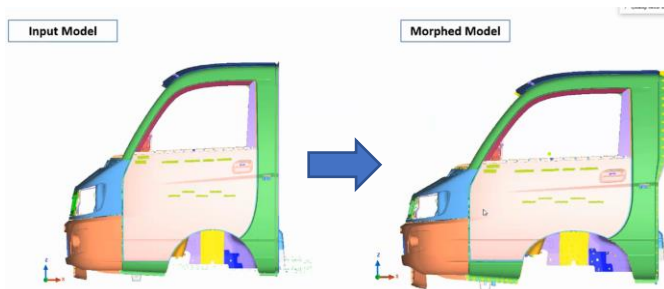
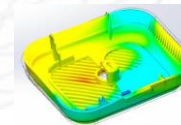
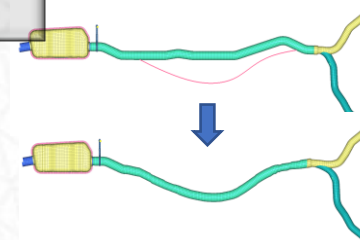
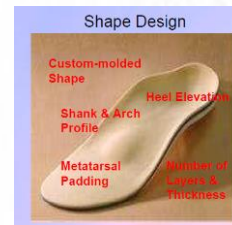
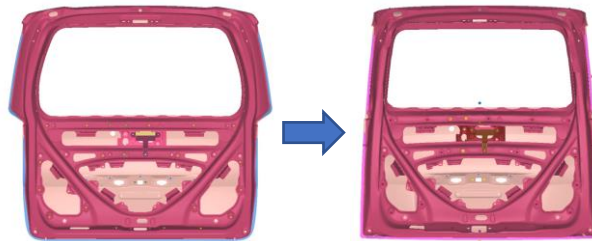
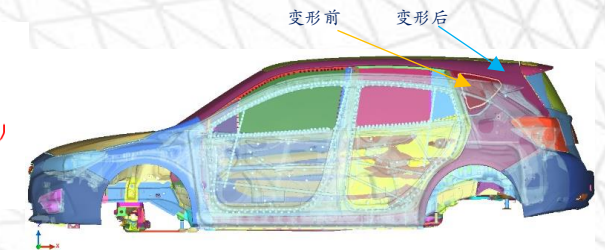
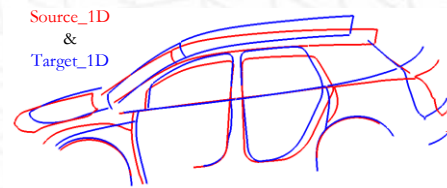
网格变形 Morphing

业界最强的网格变形工具

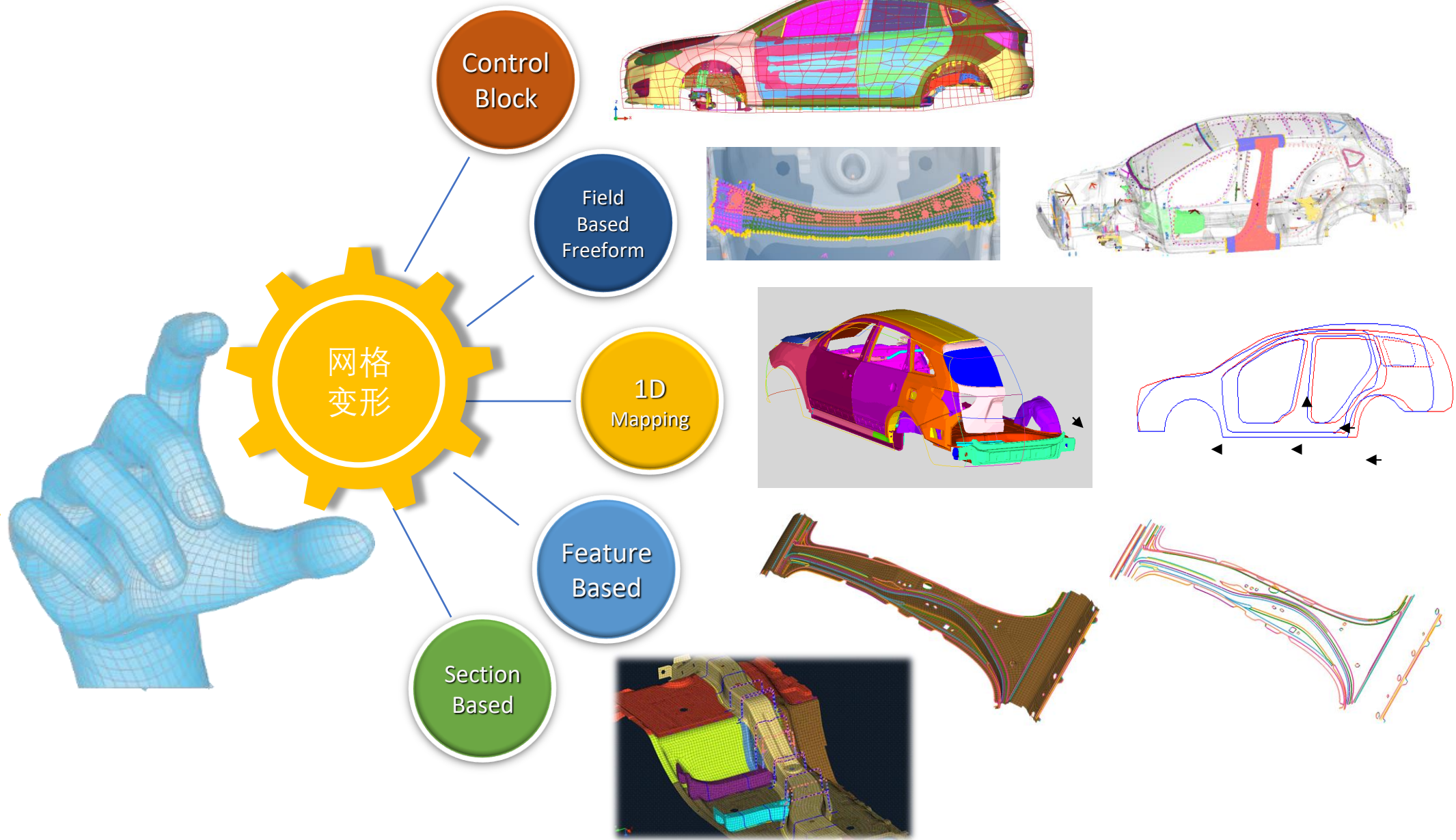
1. MeshWorks是全球公认最好的网格变形工具，是基于特征的Morph变形工具，可以快速变形现有的FE模型以匹配新的几何形状或新的比例。
2. 提供多种网格变形方案，如剪切缝合变形、快速自由变形、特征线映射变形、精确截面匹配等。
3. 提供多种变形方式，如 control block、freeform, field based morph, 1D mapping, section morph, feature
4. 专利的特征线映射变形技术和截面变形技术可对复杂如整车级的模型进行高精度变形，效率比传统方法提高60%以上。
5. 能够在变形过程中保留零件和装配体之间的拓扑关系，防止干涉并保持装配体结构。



整车
变形



King of Morphing



ROM
模型降阶



ConceptWorks
概念设计



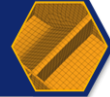
Morphing
网格变形



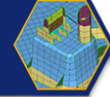
Optimization
参数/拓扑优化



Hex Modelling
六面体建模



Meshing
2D/3D 网格划分



AI/ML智能预测
平台开发



Generative AI
创建概念白车身



整车变形
驻场服务



模型参数化及轻量化
减重服务



自动化功能开发

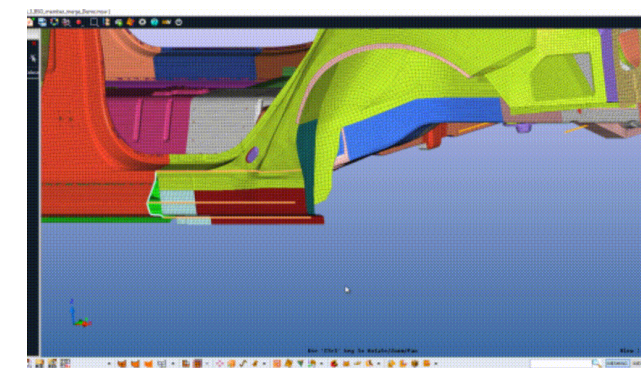
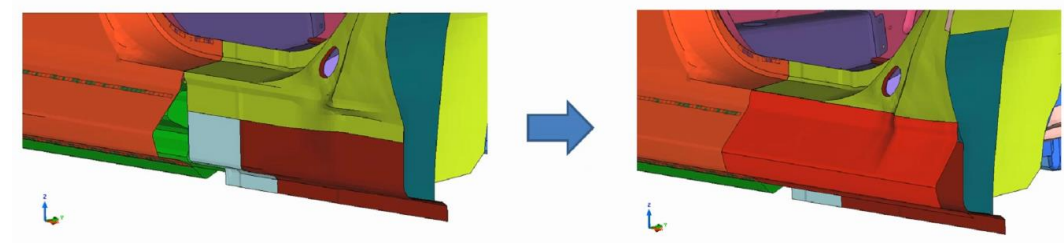
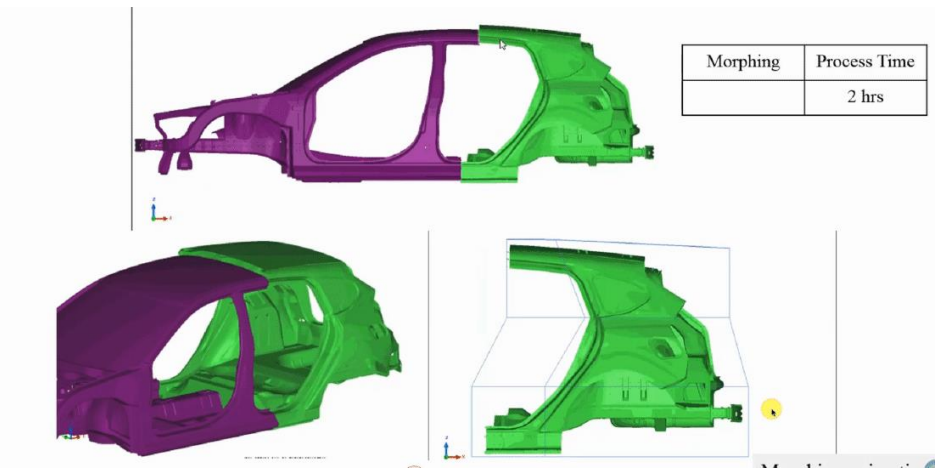
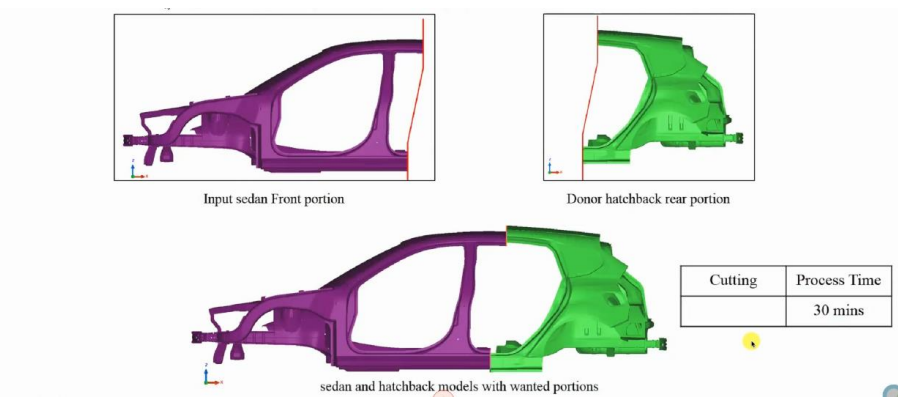
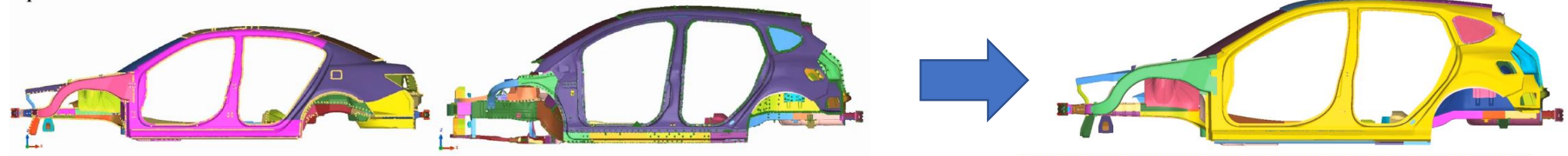


轮胎全自动化建模
平台开发



- ROM
模型降阶
- ConceptWorks
概念设计
- Morphing
网格变形
- Optimization
参数/拓扑优化
- Hex Modelling
六面体建模
- Meshing
2D/3D 网格划分
- AI/ML智能预测
平台开发
- Generative AI
创建概念白车身
- 整车变形
驻场服务
- 模型参数化及轻量化
减重服务
- 自动化功能开发
- 轮胎全自动化建模
平台开发

Inputs:



Total: 4 hours

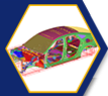
ROM
模型降阶



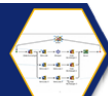
ConceptWorks
概念设计



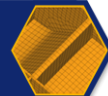
Morphing
网格变形



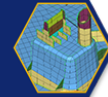
Optimization
参数/拓扑优化



Hex Modelling
六面体建模



Meshing
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AI/ML智能预测
平台开发



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整车变形
驻场服务



模型参数化及轻量化
减重服务



自动化功能开发

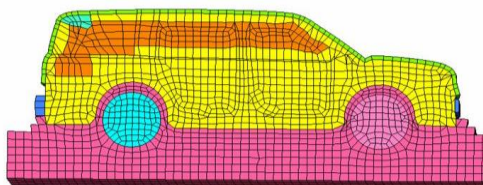


轮胎全自动化建模
平台开发

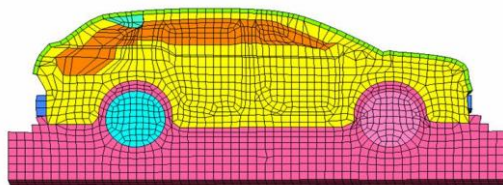


整车快速变形—传统Block变形方法

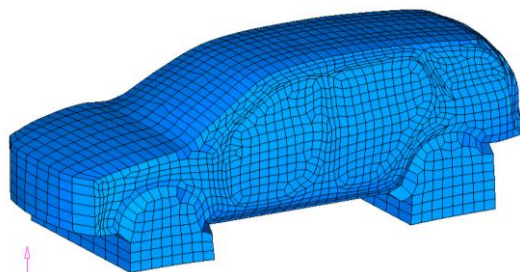
Original Control
Blocks (OCB)



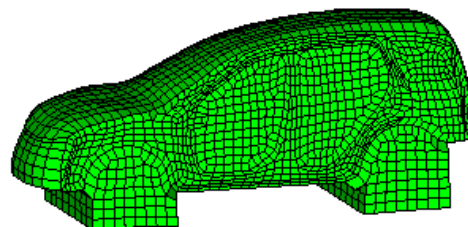
Deformed Control
Blocks (DCB)



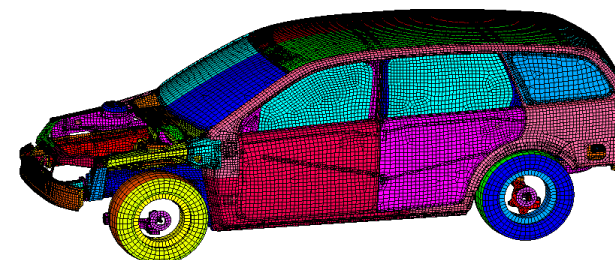
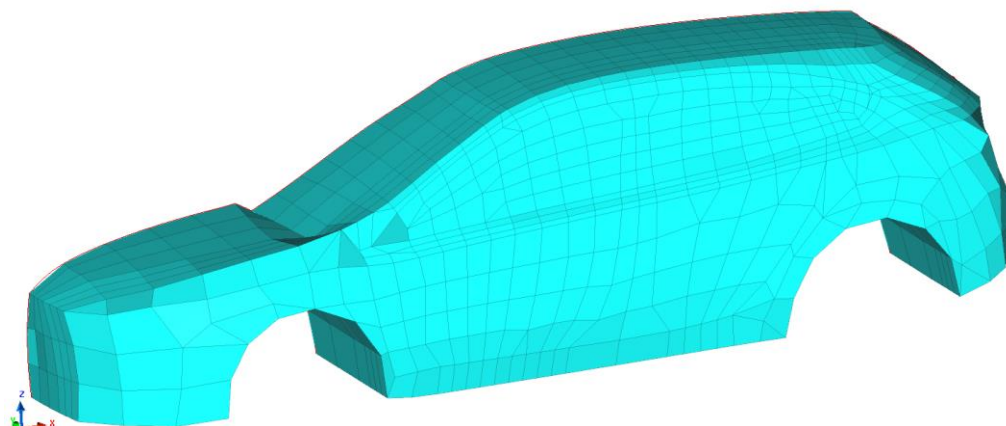
Original Control Blocks



Deformed Control Blocks

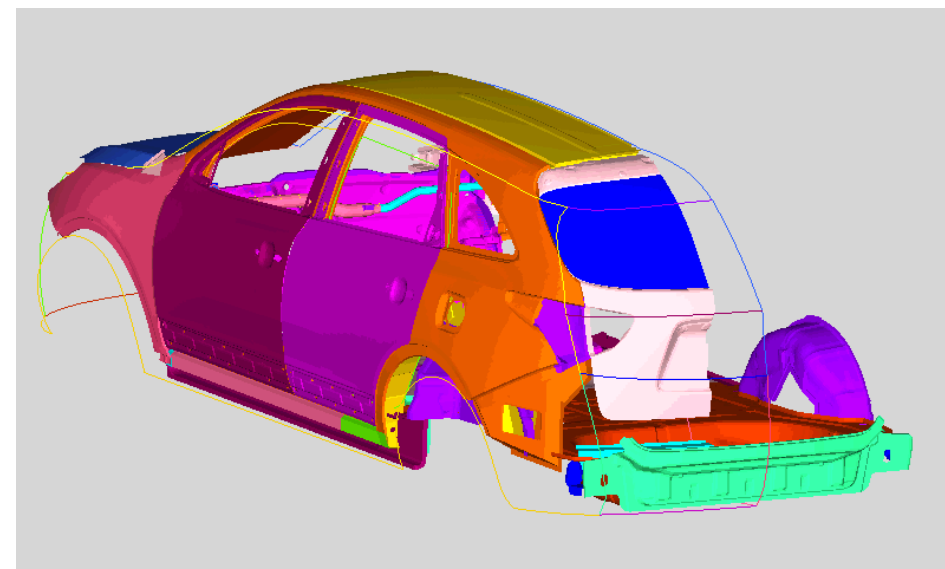


+



Original FE
Model

PROCESS



整车快速变形—最新专利特征线快速匹配技术

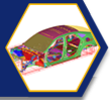
ROM
模型降阶



ConceptWorks
概念设计



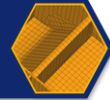
Morphing
网格变形



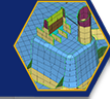
Optimization
参数/拓扑优化



Hex Modelling
六面体建模



Meshing
2D/3D 网格划分



AI/ML智能预测
平台开发



Generative AI
创建概念白车身



整车变形
驻场服务



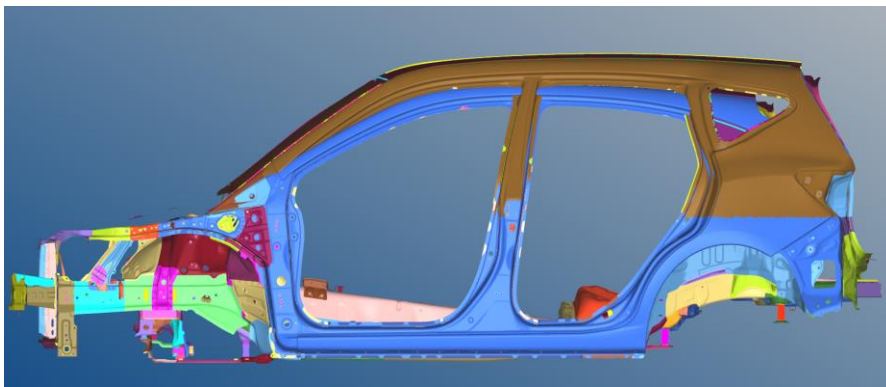
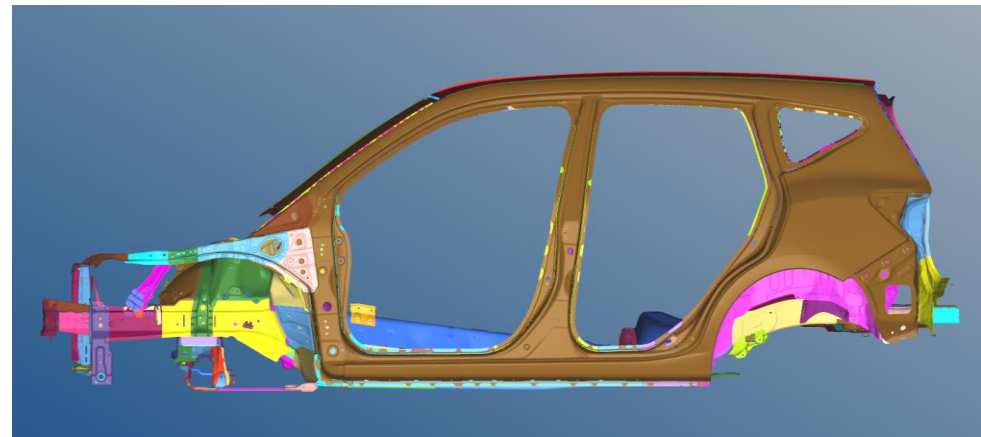
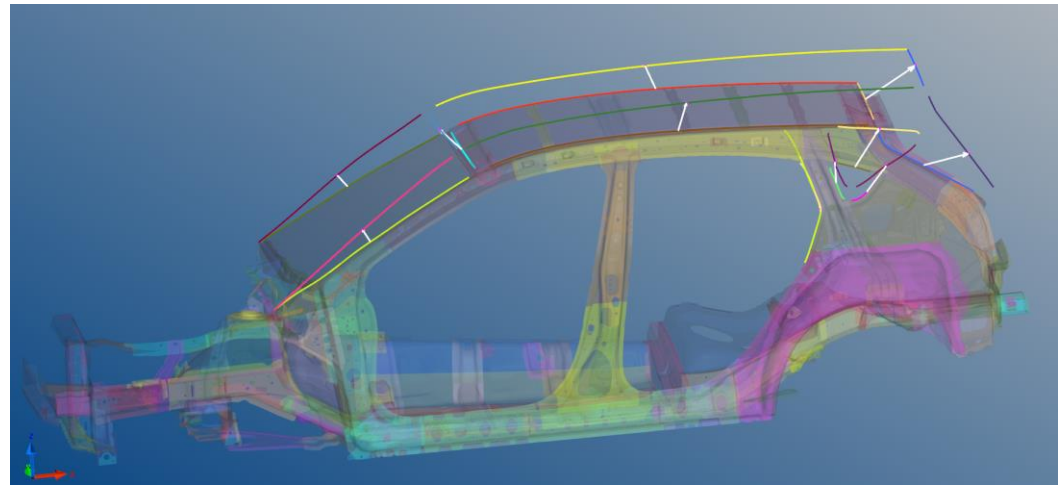
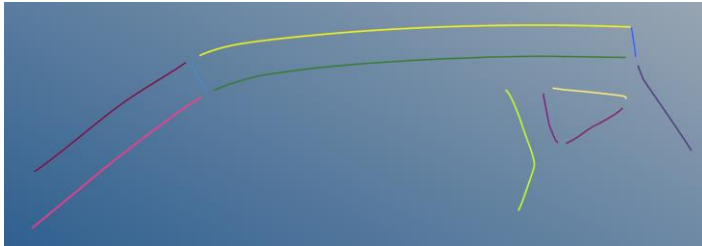
模型参数化及轻量化
减重服务



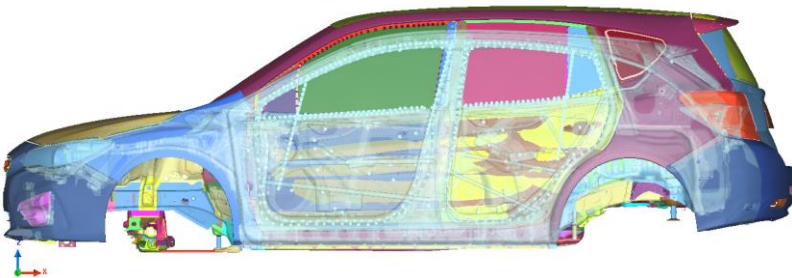
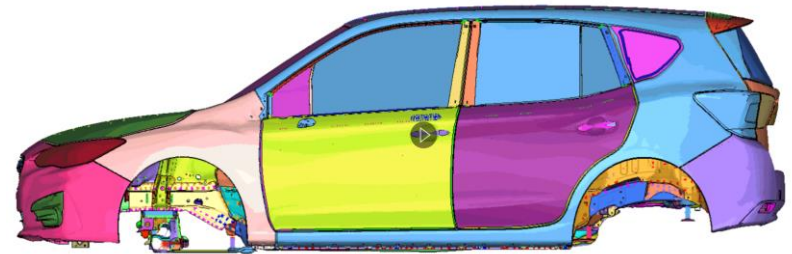
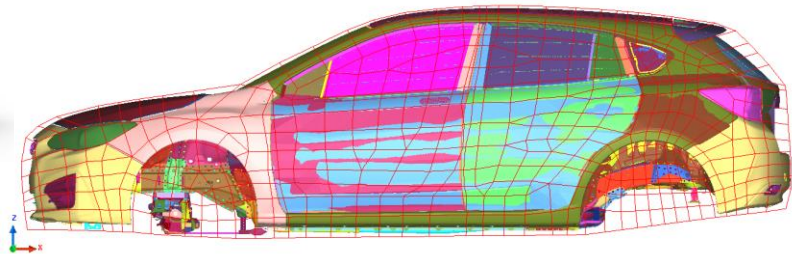
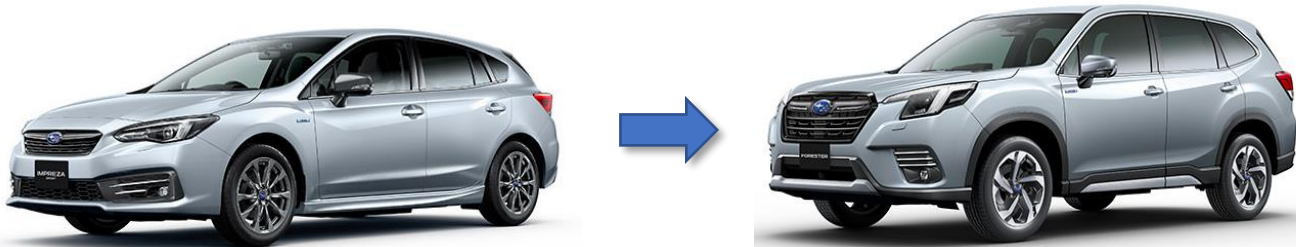
自动化功能开发



轮胎全自动化建模
平台开发



整车变形案例：斯巴鲁



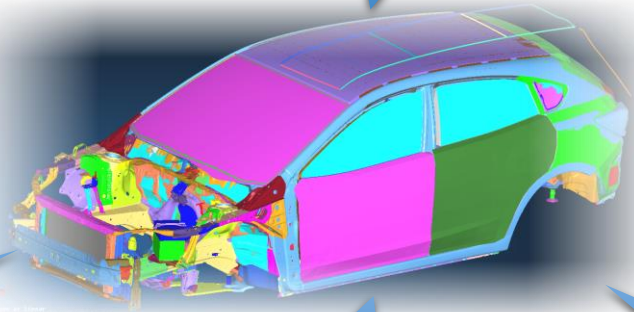
① 通过control block方法匹配新的造型线

② 后悬拉伸150mm

③ 仪表盘向上移动50mm

④ A柱、B柱、上边梁及门槛等截面变形

⑤ 门洞、B柱位置变化



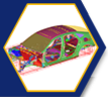
ROM
模型降阶



ConceptWorks
概念设计



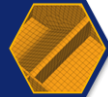
Morphing
网格变形



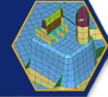
Optimization
参数/拓扑优化



Hex Modelling
六面体建模



Meshing
2D/3D 网格划分



AI/ML智能预测
平台开发



Generative AI
创建概念白车身



整车变形
驻场服务



模型参数化及轻量化
减重服务



自动化功能开发



轮胎全自动化建模
平台开发



上下车体匹配场景

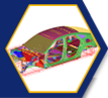
ROM
模型降阶



ConceptWorks
概念设计



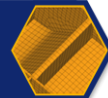
Morphing
网格变形



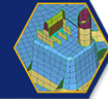
Optimization
参数/拓扑优化



Hex Modelling
六面体建模



Meshing
2D/3D 网格划分



AI/ML智能预测
平台开发



Generative AI
创建概念白车身



整车变形
驻场服务



模型参数化及轻量化
减重服务



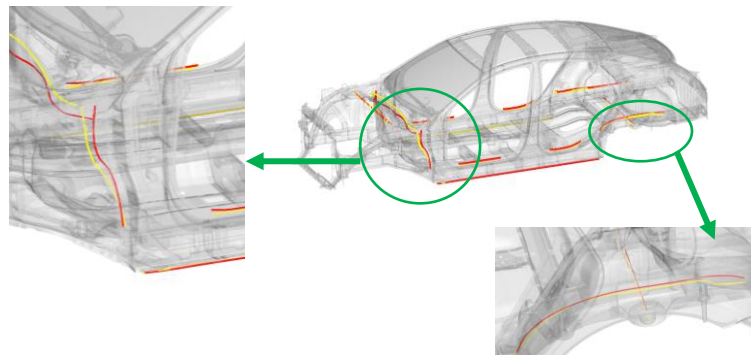
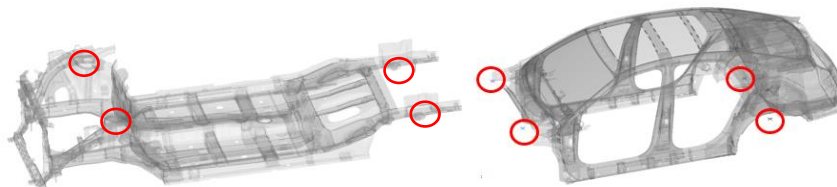
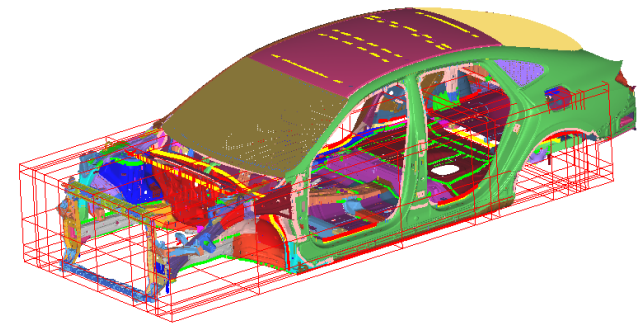
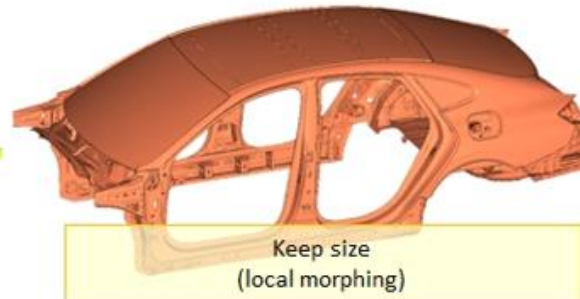
自动化功能开发



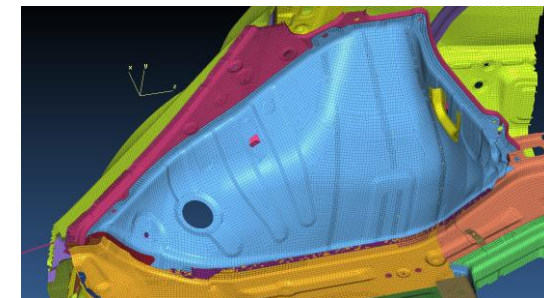
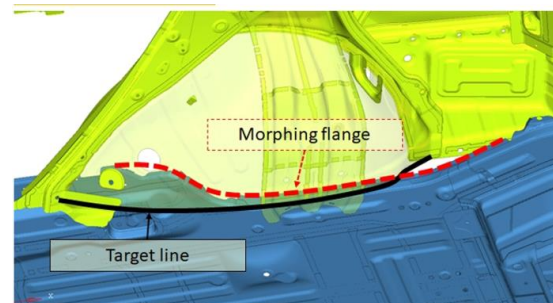
轮胎全自动化建模
平台开发



Scenario 1



搭边上下边缘特
征线



网格变形场景—车门变形

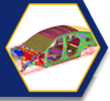
ROM
模型降阶



ConceptWorks
概念设计



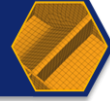
Morphing
网格变形



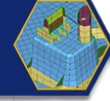
Optimization
参数/拓扑优化



Hex Modelling
六面体建模



Meshing
2D/3D 网格划分



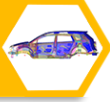
AI/ML智能预测
平台开发



Generative AI
创建概念白车身



整车变形
驻场服务



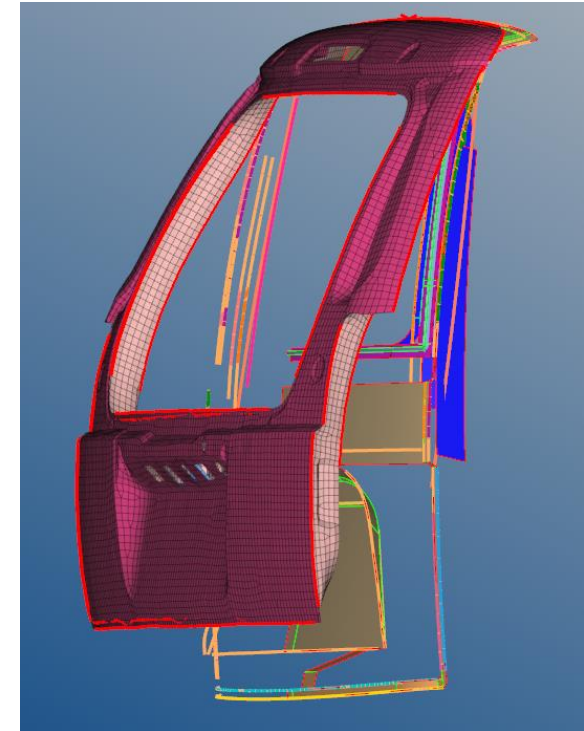
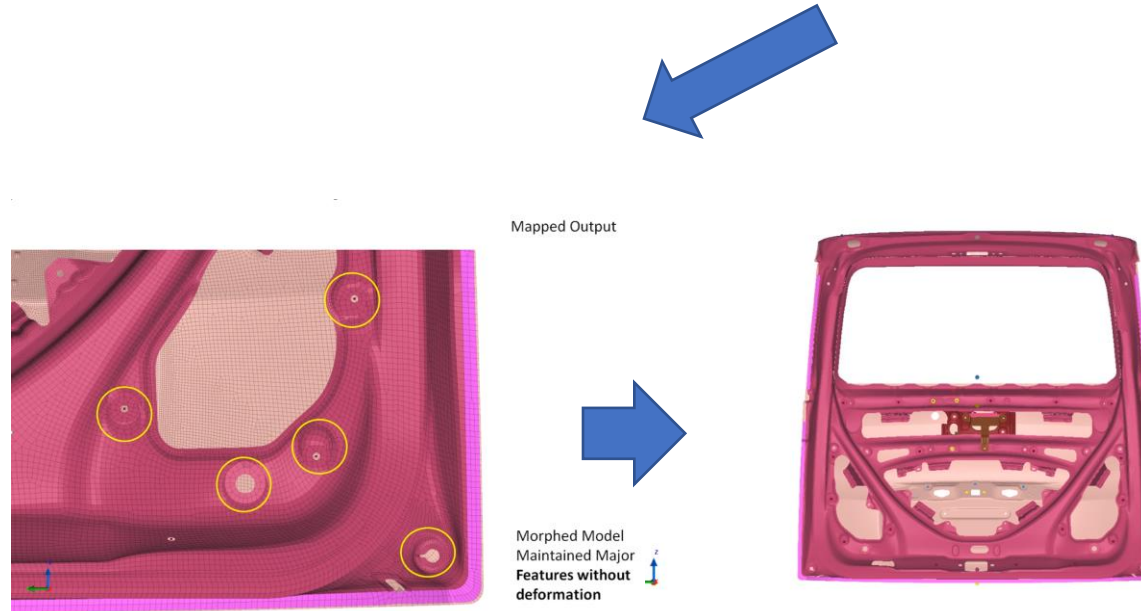
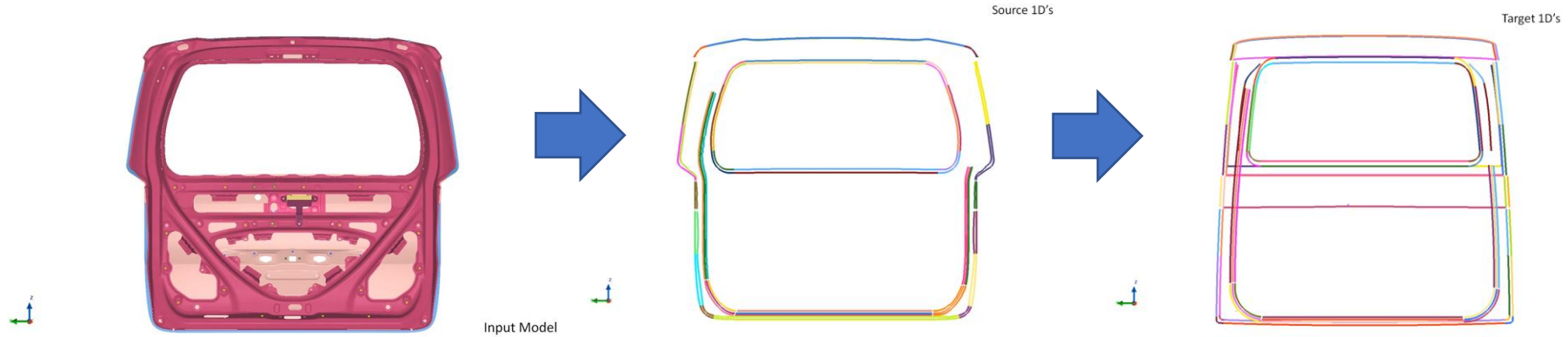
模型参数化及轻量化
减重服务



自动化功能开发



轮胎全自动化建模
平台开发



网格变形场景—快速匹配A面轮廓

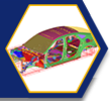
ROM
模型降阶



ConceptWorks
概念设计



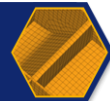
Morphing
网格变形



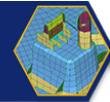
Optimization
参数/拓扑优化



Hex Modelling
六面体建模



Meshing
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AI/ML智能预测
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Generative AI
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整车变形
驻场服务



模型参数化及轻量化
减重服务



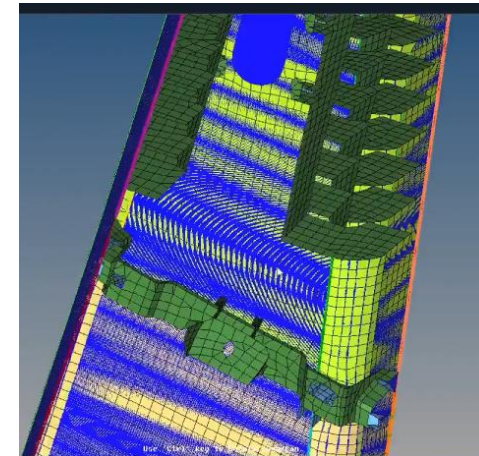
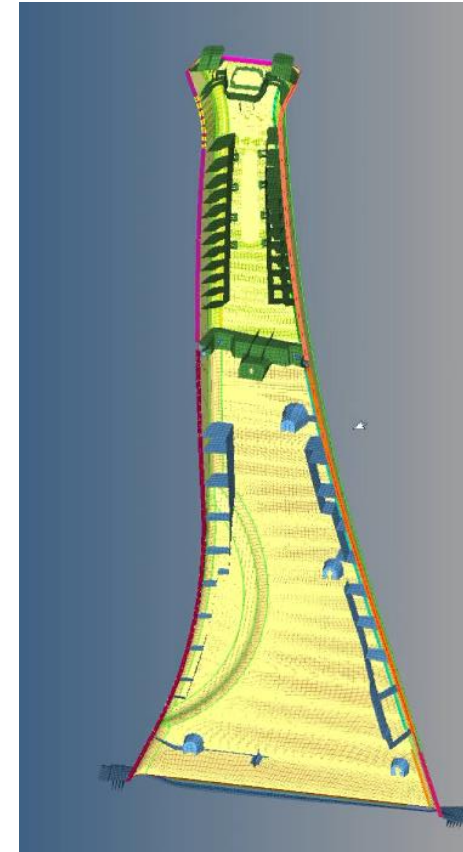
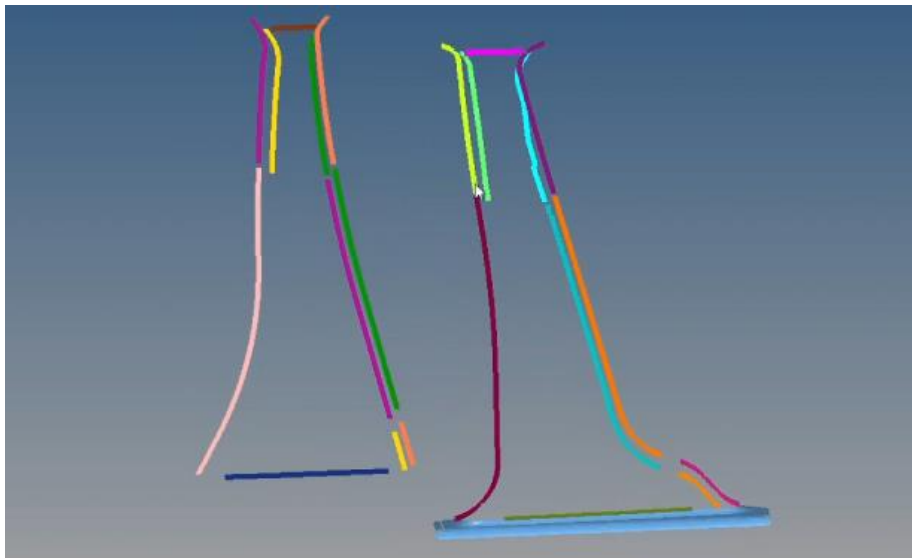
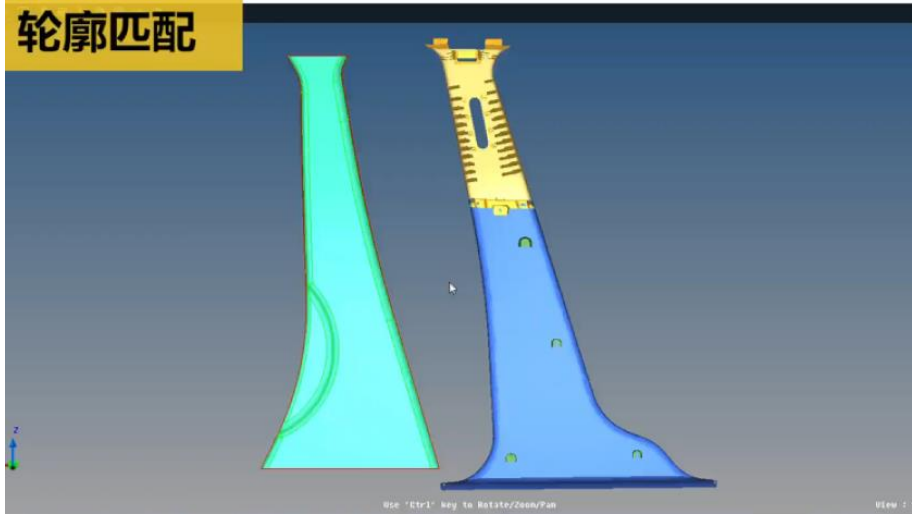
自动化功能开发



轮胎全自动化建模
平台开发



轮廓匹配



网格变形场景—快速匹配前保险杠轮廓

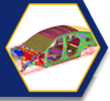
ROM
模型降阶



ConceptWorks
概念设计



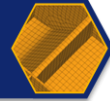
Morphing
网格变形



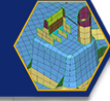
Optimization
参数/拓扑优化



Hex Modelling
六面体建模



Meshing
2D/3D 网格划分



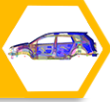
AI/ML智能预测
平台开发



Generative AI
创建概念白车身



整车变形
驻场服务



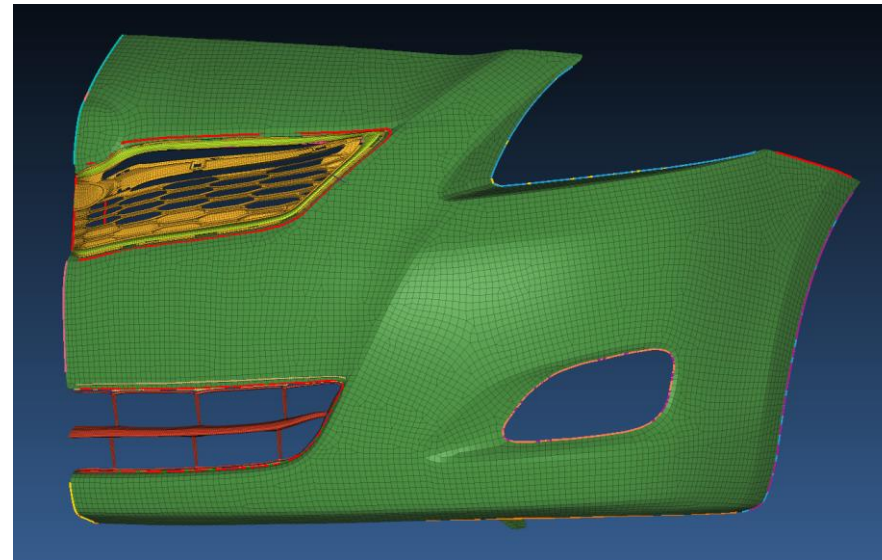
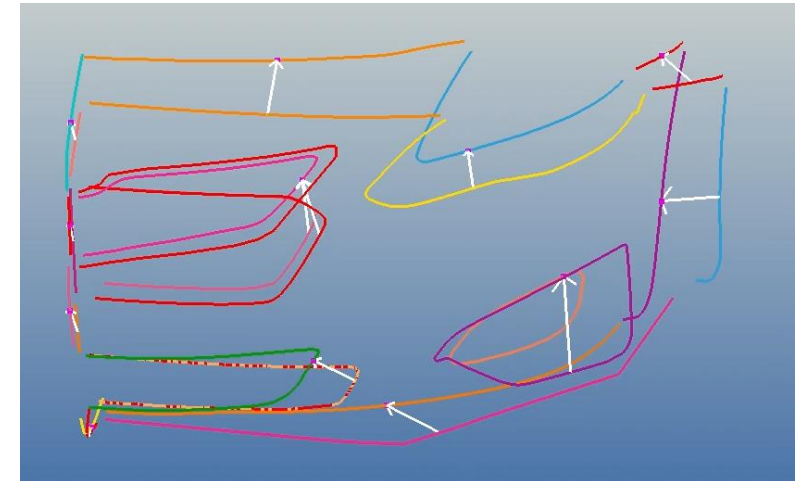
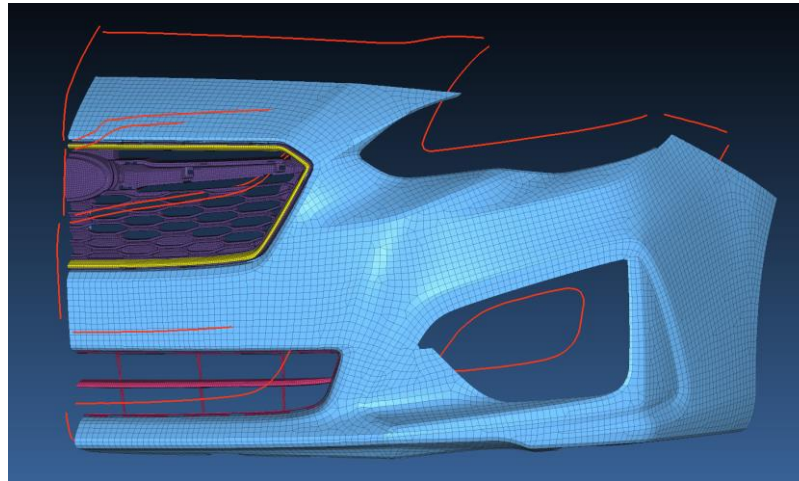
模型参数化及轻量化
减重服务



自动化功能开发



轮胎全自动化建模
平台开发

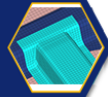


网格变形场景—快速B柱截面变形

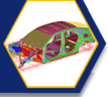
ROM
模型降阶



ConceptWorks
概念设计



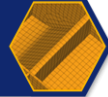
Morphing
网格变形



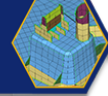
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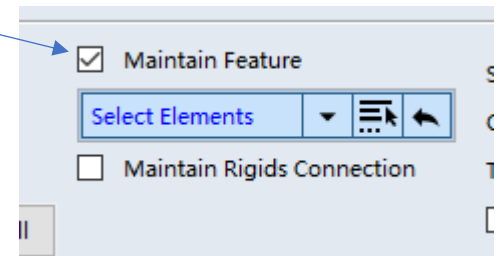
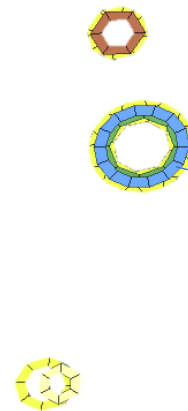
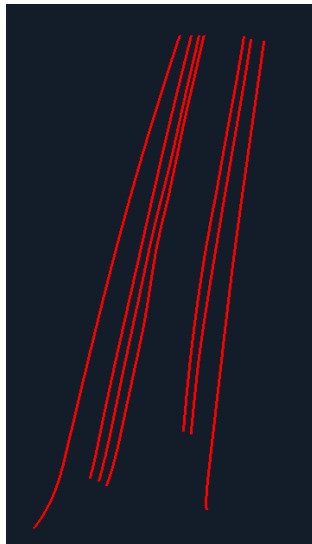
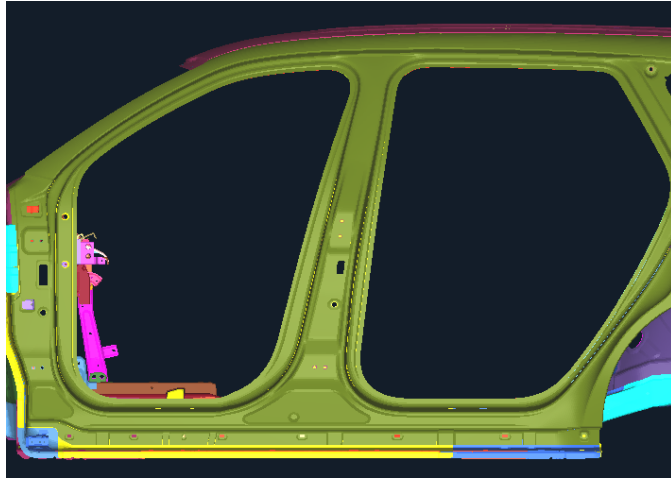
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Advanced Morphing

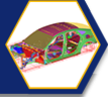
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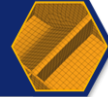
Morphing
网格变形



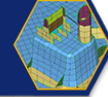
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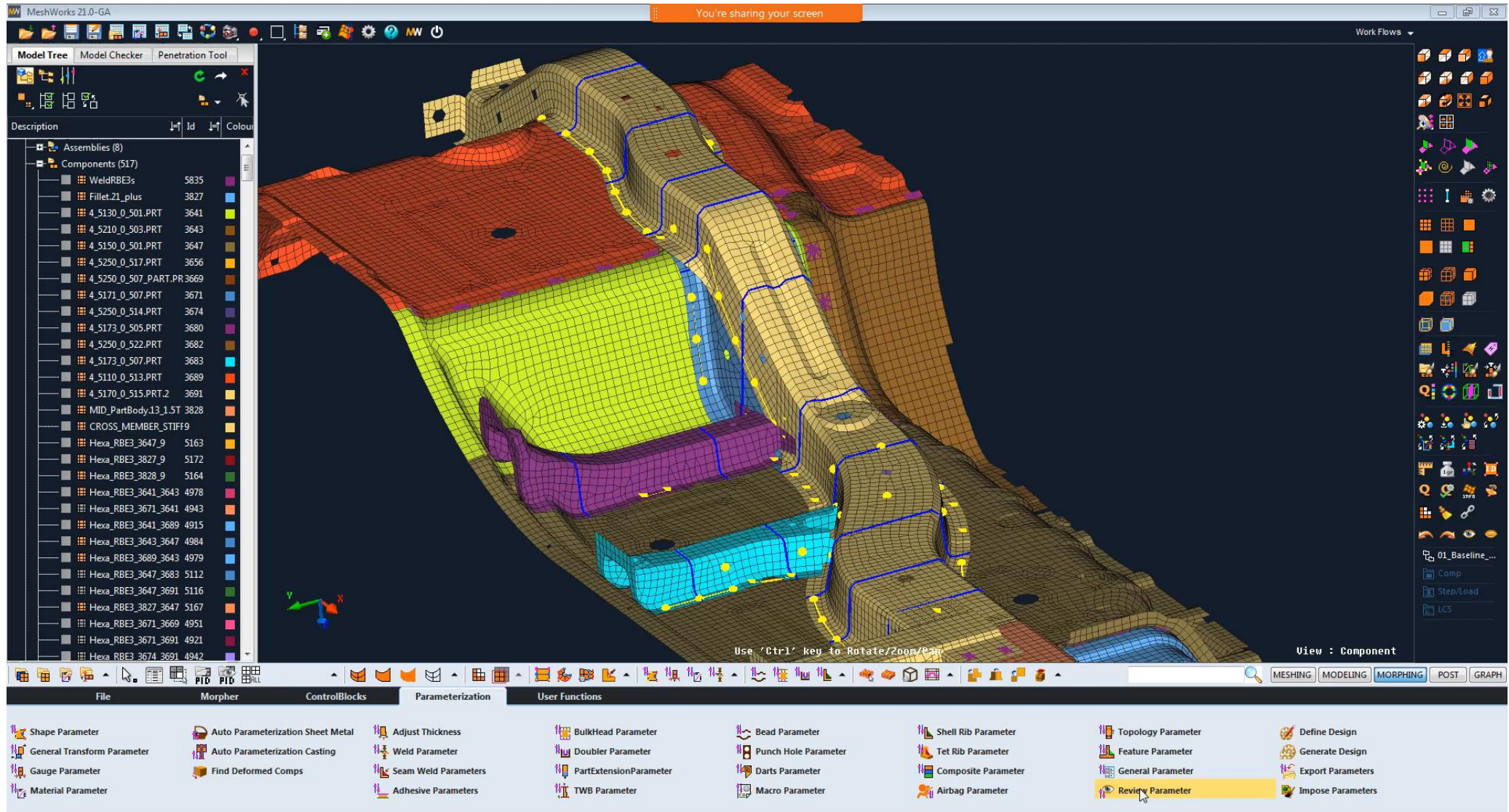
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引擎盖变形

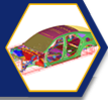
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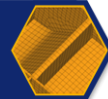
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网格变形



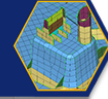
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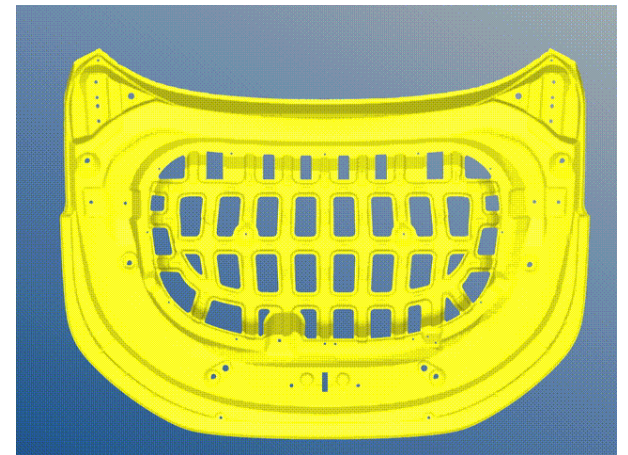
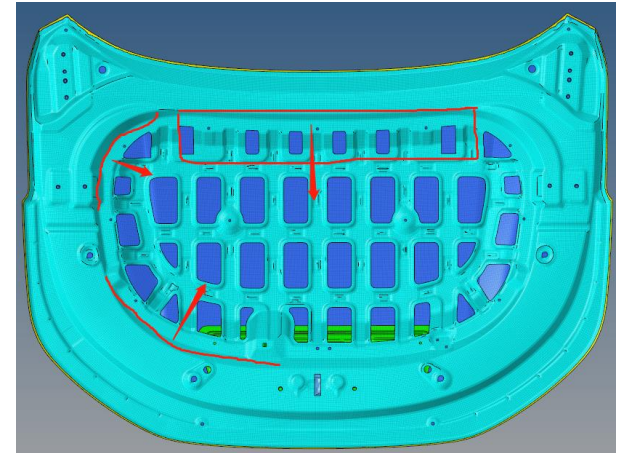
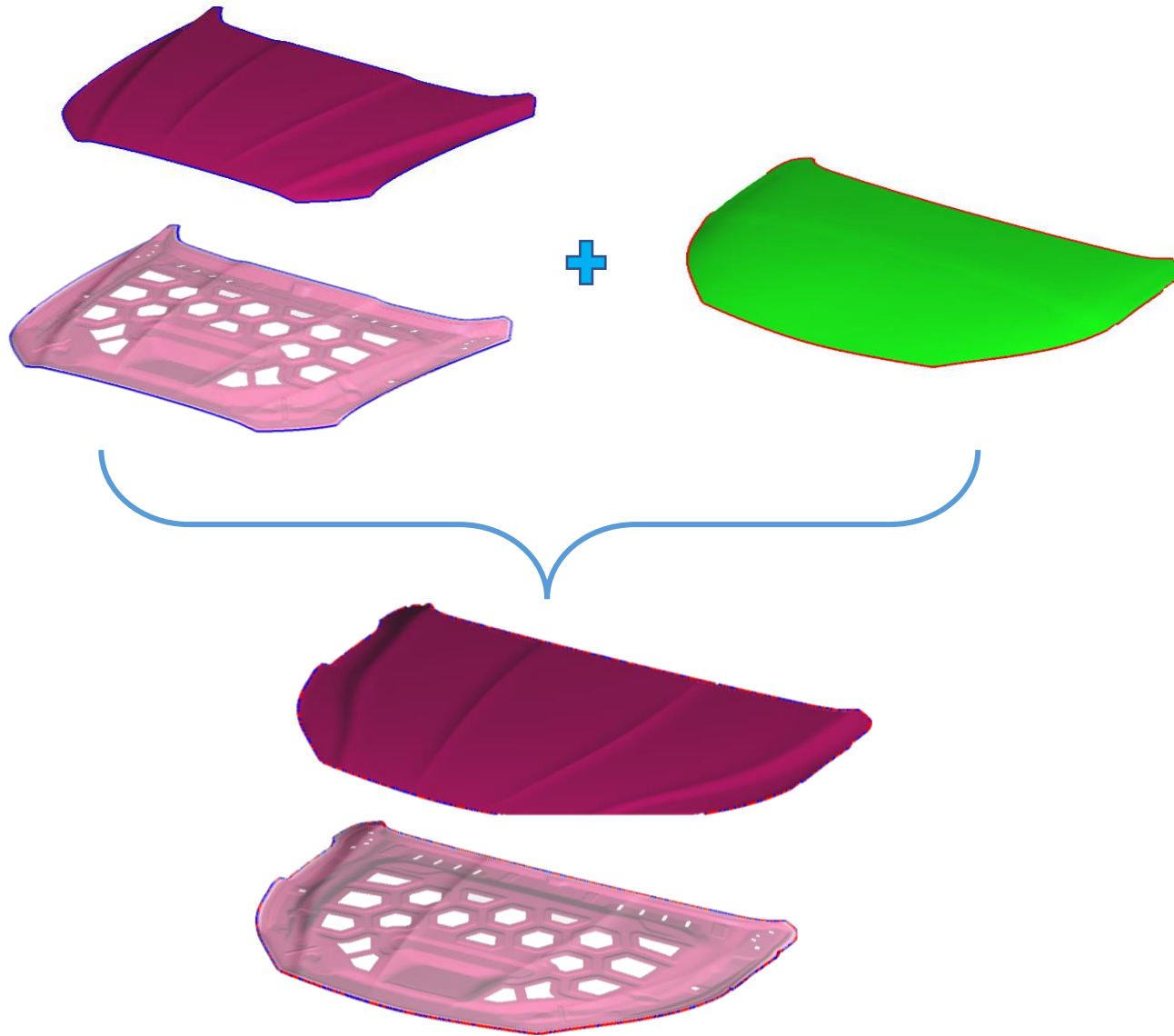
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CAD Morphing 变形技术

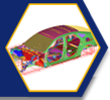
ROM
模型降阶



ConceptWorks
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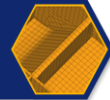
Morphing
网格变形



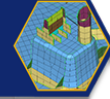
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