

第三届LS-DYNA中国论坛

2018年10月26日 上海



Livermore Software Technology Corporation



上海仿坤软件科技有限公司 (LS-DYNA 中国)



延锋安道拓
YANFENG ADIENT

LS Dyna 在汽车座椅研发中的应用

CAE-YFAS, 王海华, October 26th, 2018

Improving the experience of a world in motion



目录 CONTENTS

1. LS Dyna in Adient & Yanfeng Adient
2. LS Dyna与HPC的集成整合
3. 座椅仿真及LSTC产品应用规划

股权和投资 Equity Structure



50.01%



ADIENT

49.99%



成立时间：1997年12月18日
Founded Time: 18th Dec. 1997



注册资本：4.45 亿人民币
Registered Capital: 445 million RMB



产品体系 Product System



YFAS产品涵盖整个座椅产业链
YFAS products cover the entire seat industrial chain

业绩表现 Business Performance

NO.1

延锋安道拓是中国汽车座椅行业的领跑者，为国内几乎所有汽车制造商服务。我们旨在为客户提供卓越的质量、技术和市场表现

Yanfeng Adient is the largest seating supplier in China supporting all major OEMs in the differentiation of their vehicles through superior quality, technology and performance

累积销售额* Sales Revenue*

2250 亿元人民币
¥ 225 billion



2017销售额 2017 sales

320.4 亿元人民币
¥ 32.04 billion

客户分布 Customer Distribution

40+ 客户
Customer



累积产量* Yield*

4800 万辆份
Customer

2017出口额 2017 export volume

3.65 亿美元
\$365 million

市场份额 Market Share

Exceed
超过 **31%**

*数据截止至2017年底 DATA by 2017



目录 CONTENTS

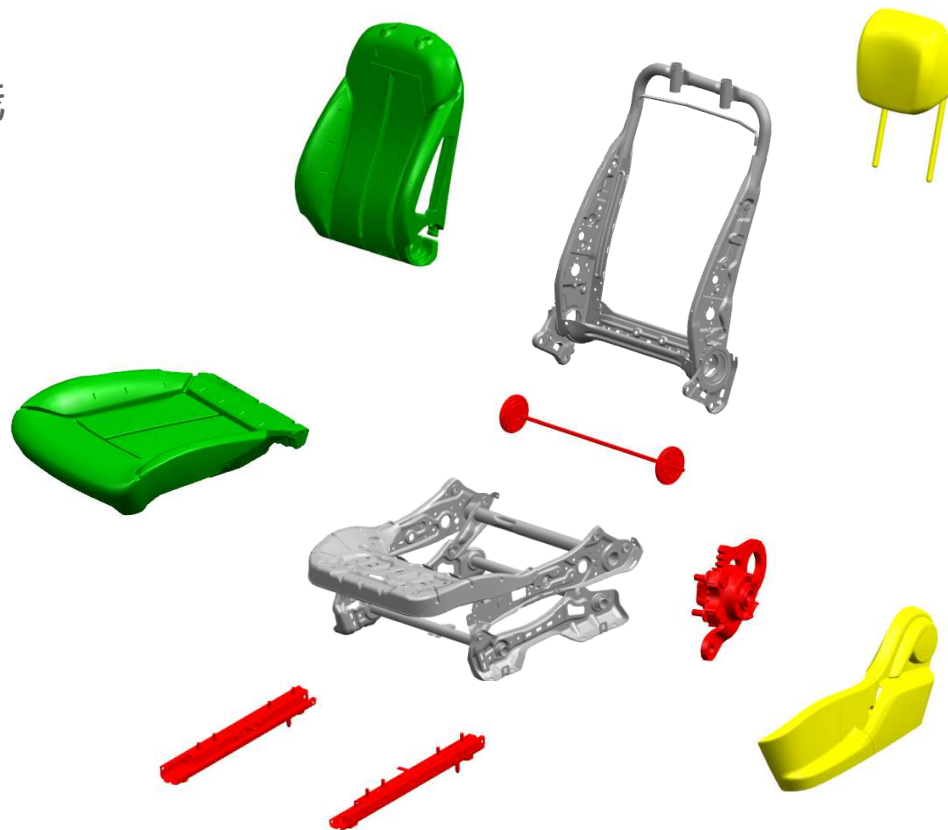
1. LS Dyna in Adient & Yanfeng Adient
2. LS Dyna与HPC的集成整合
3. 座椅仿真及LSTC产品应用规划



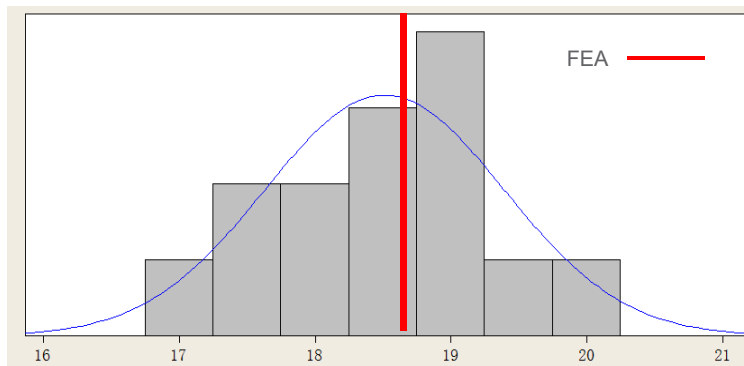
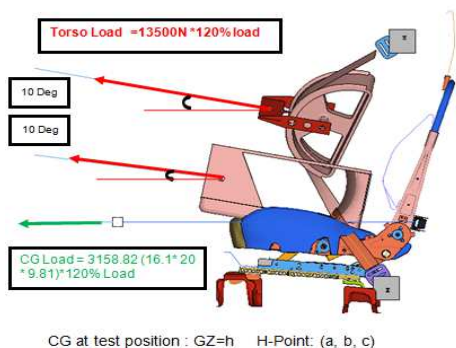
- 1990年代起引入LS Dyna
- 全球7个国家, 14个站点
- ~ 220名有限元工程师使用
- 全球共有4000+许可证

仿真分析方法覆盖所有产品线

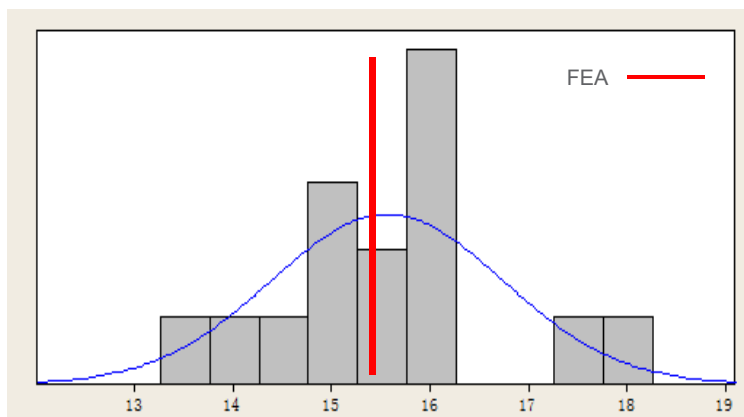
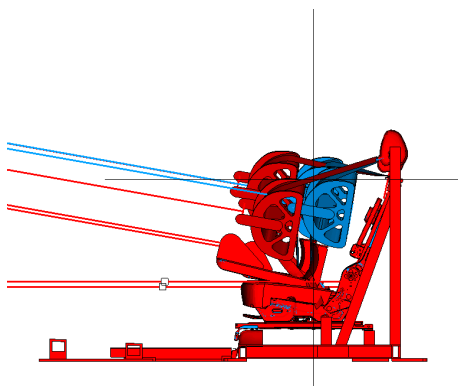
- 金属骨架
- 机械零件
- 发泡件
- 头枕
- 塑料件



工况简介 - 安全带锚定点强度

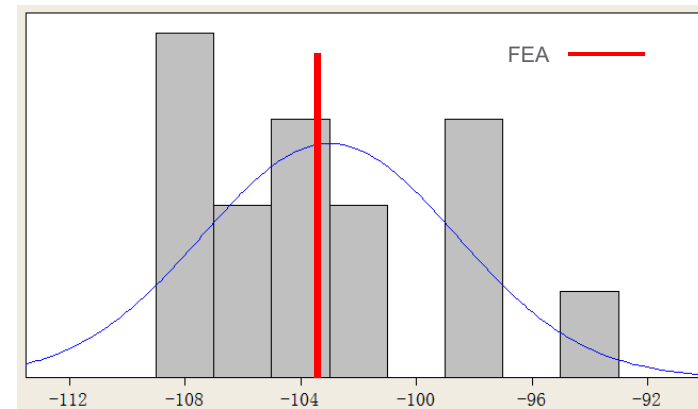
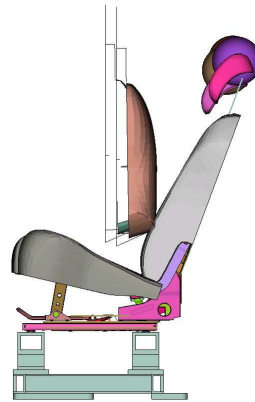
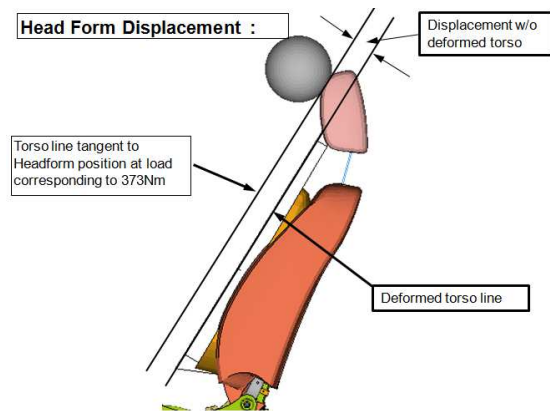


项目A
对标数
据



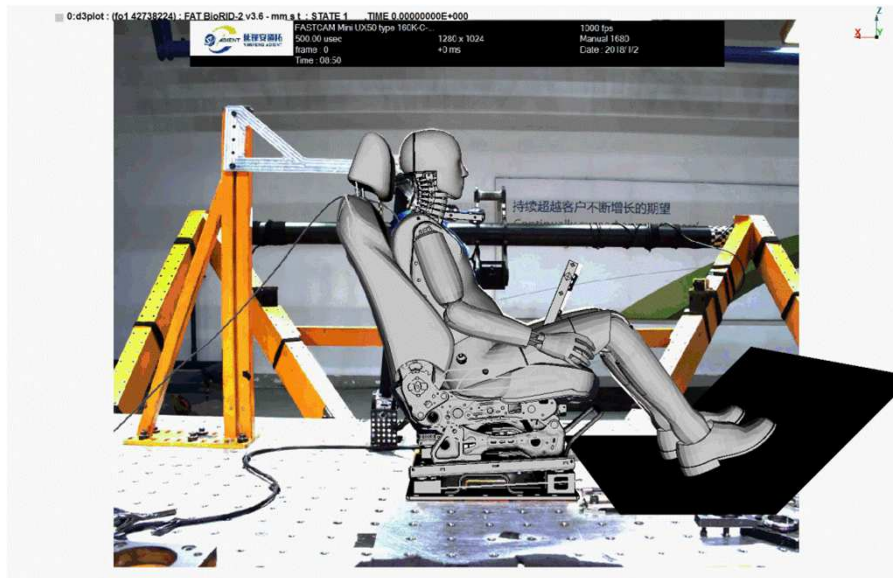
项目B
对标数
据

工况简介 - 头枕静强度



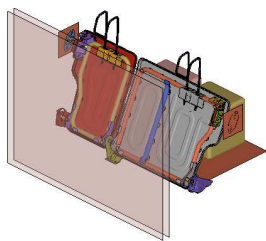
项目C对标数据

工况简介 – Whiplash

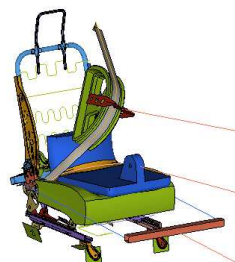


2018年总分对标数据

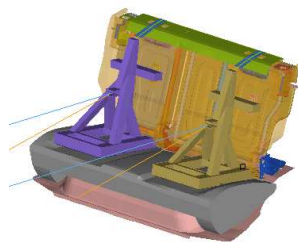
分析工况汇总



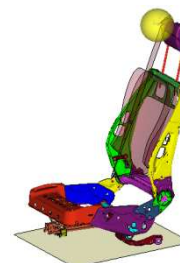
行李箱撞击保持



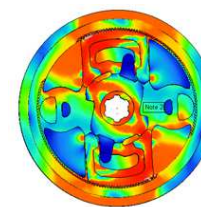
安全带锚定点强度



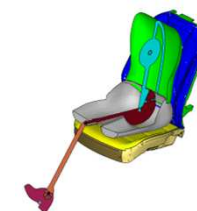
儿童座椅安装点强度



头枕静强度



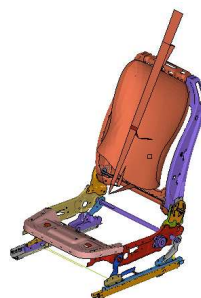
机械零件分析



H点计算



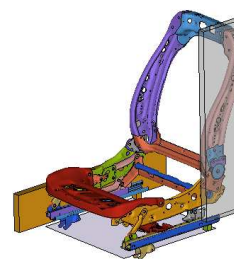
高速前/后撞



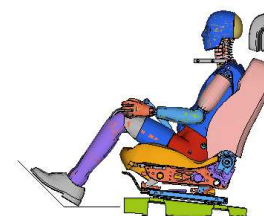
骨架极限强度



模态分析



侧向静强度



Whiplash



压力分布



目录 CONTENTS

1. LS Dyna in Adient & Yanfeng Adient
2. LS Dyna与HPC的集成整合
3. 座椅仿真及LSTC产品应用规划

传统集群模式

CAE分析部门



前处理

后处理

中心机房



计算

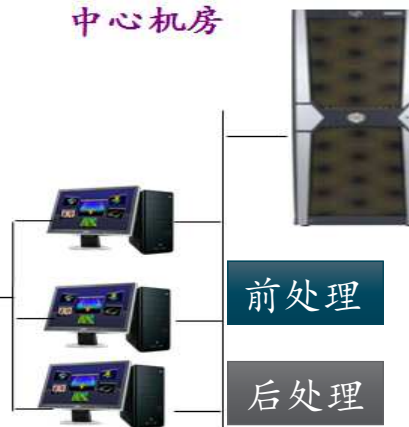
HPC服务器

云平台工作模式

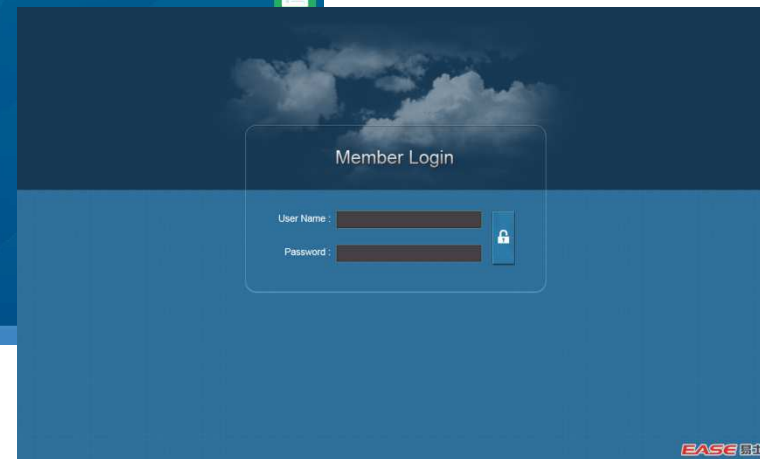
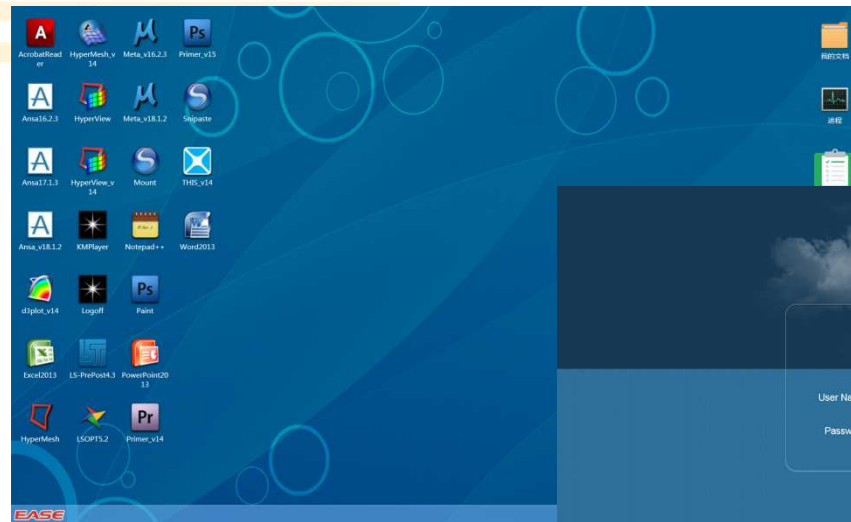
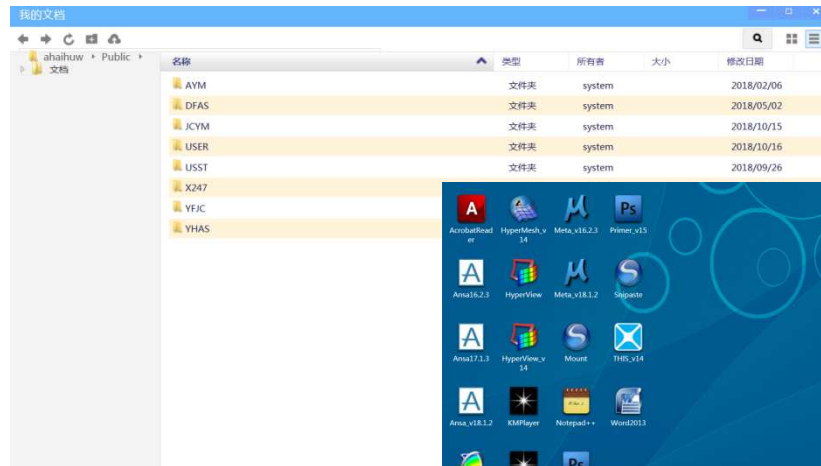
CAE部门

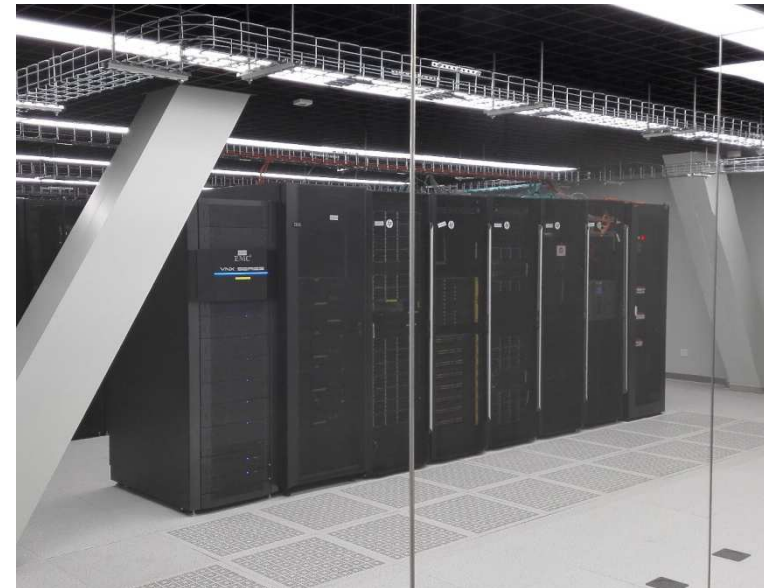
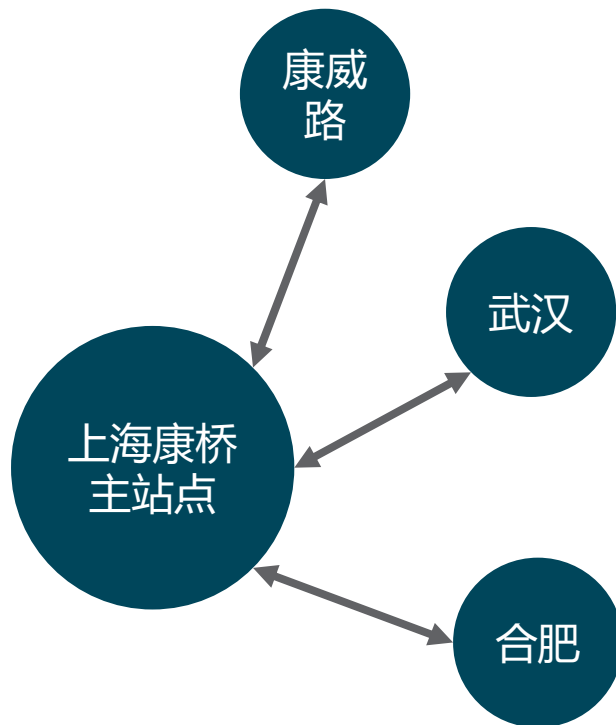


中心机房

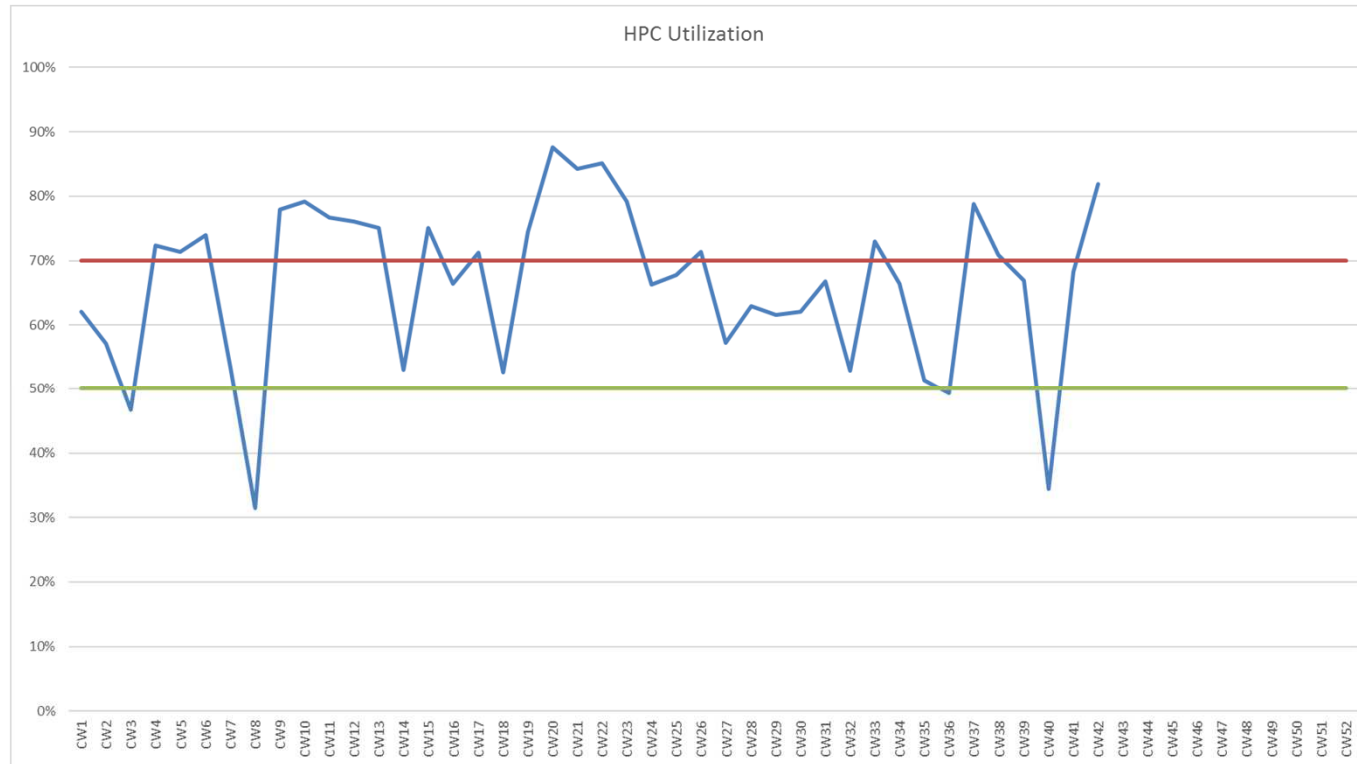


云平台工作模式





HPC利用率现状



2018年7×24利用率

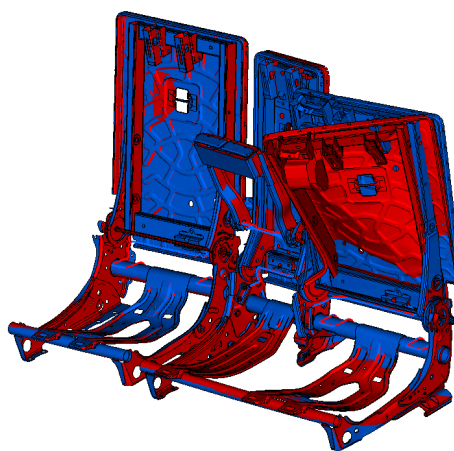
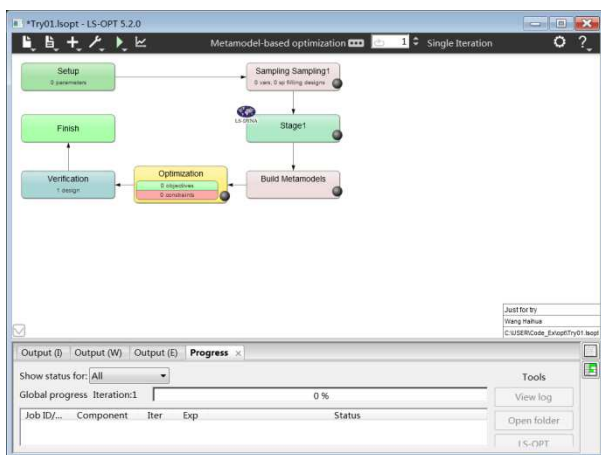
统计数据



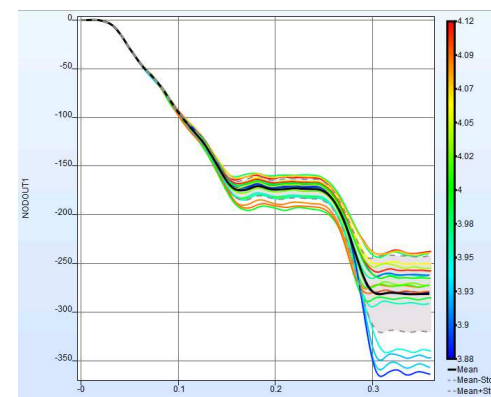
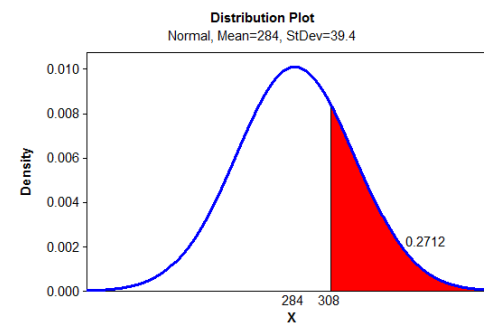
目录 CONTENTS

1. LS Dyna in Adient & Yanfeng Adient
2. LS Dyna与HPC的集成整合
3. 座椅仿真及LSTC产品应用规划

LS-OPT 与 Robustness Analysis



项目D应用

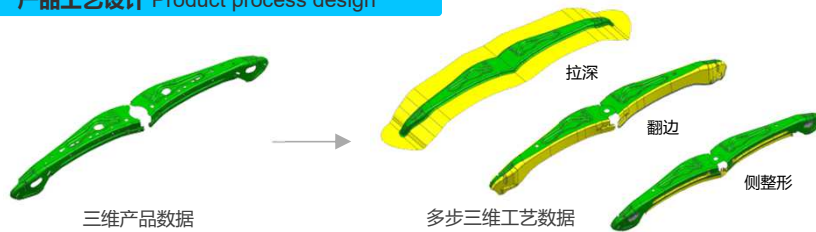




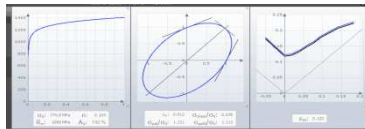
Forming Simulation by LS Dyna



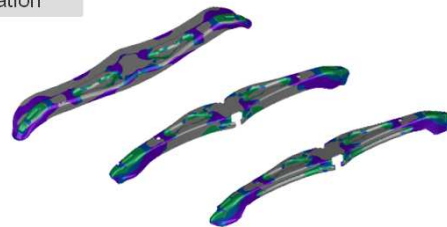
产品工艺设计 Product process design



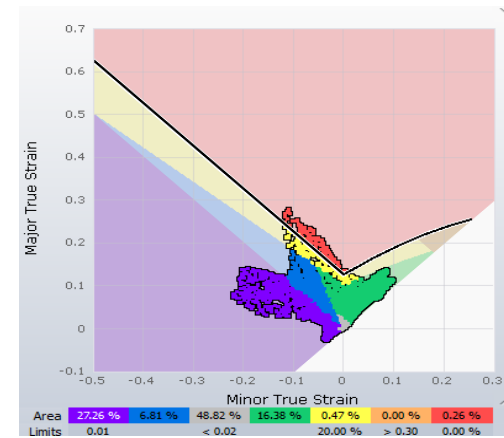
多步成形分析 Incremental CAE Simulation



输入产品工艺数模以及材料参数



多步成形分析





延锋安道拓座椅有限公司
YANFENG ADIENT SEATING CO., LTD.

www.yanfengadient.com

Thanks!

