

# 織物の糸変形挙動<sup>\*1</sup>シミュレーション

## Thread Deformation Behavior Simulation for Textiles

\*1 織糸の伸び、ずれなど  
\*1 Weaving thread elongation, displacement etc

織物負荷時の糸挙動を可視化、最適な織構造設計を支援。  
(袋織りカーテンシールドエアバッグの評価で活用)

Visualizes thread behavior at the time of textile loading and supports optimal weaving structure design.  
(Utilized in evaluation of hollow-weave curtain shield airbags)

### 特長 FEATURE

#### 1 複雑な多層織(袋織り)構造のモデル化が可能

Modeling of complex multi-layer woven (hollow-weave) fabric

#### 2 経糸・緯糸の相互作用を考慮した糸変形挙動シミュレーション

Deformation behavior simulation between warp and weft which considers the interaction between vertical thread and lateral thread

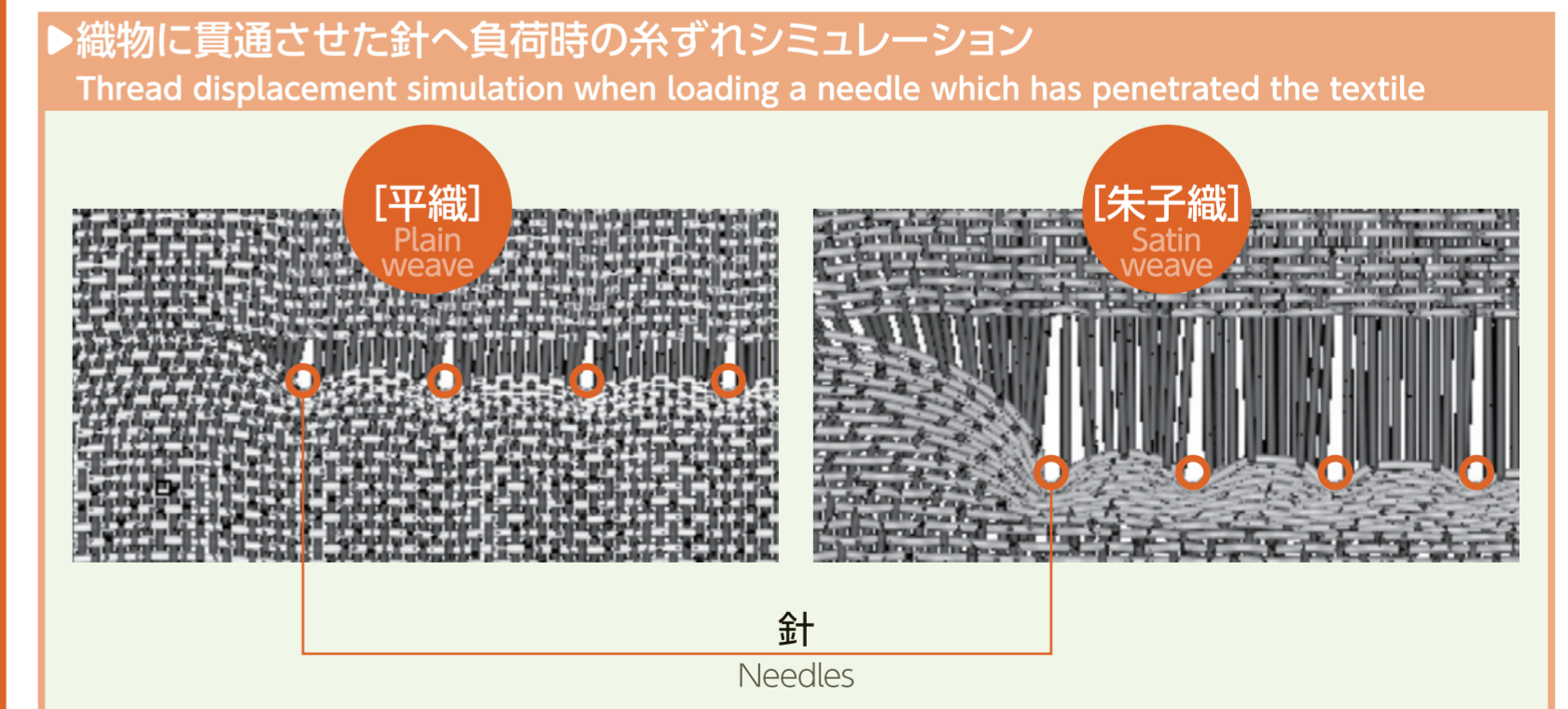
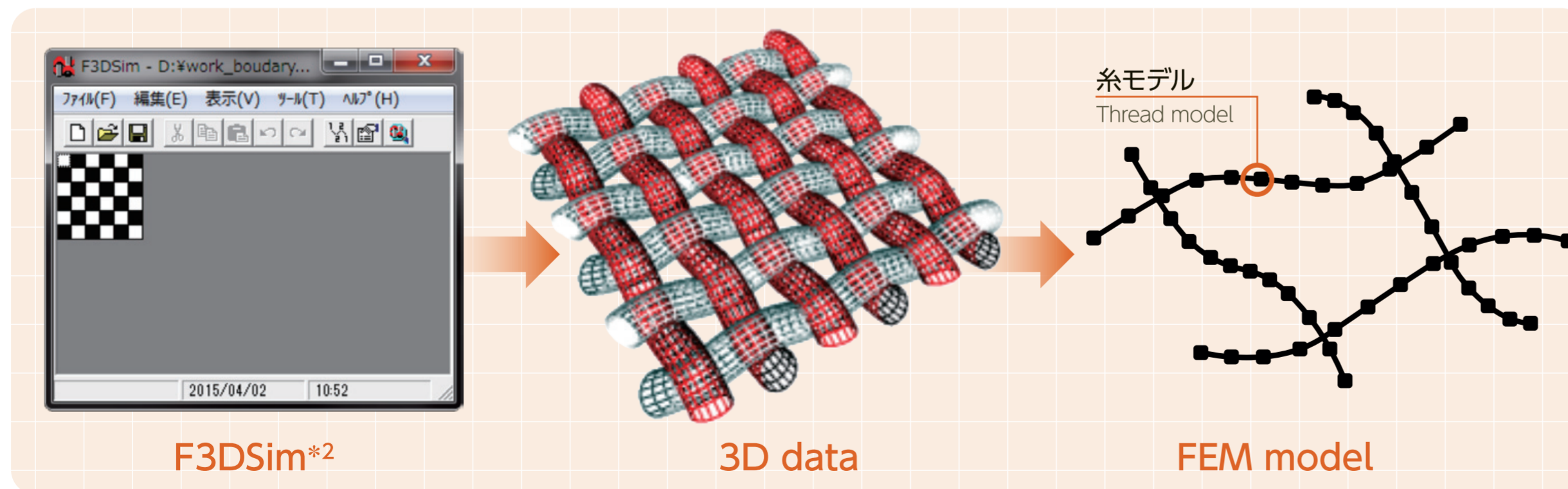
### 効果 RESULTS

#### 1 多様な織物の負荷を加えた時の糸挙動予測が可能

The thread behavior at the time of various textiles loading is predictable

#### 2 多様な織物の負荷特性予測<sup>\*3</sup>が可能

The load prosperities<sup>\*3</sup> of various textiles are predictable



\*2 織物シミュレーションソフト(岐阜市立女子短期大学 太田先生・あいち産業科学技術総合センター 尾張繊維技術センター)  
\*2 Textile simulation software (developed by Professor Ota, Gifu City Women's College, Aichi Center for Industry and Science Technology Owari Textile Reserch Center)

\*3 織物負荷時の荷重と伸びの特性  
\*3 Properties of load and elongation at the time of textile loading