Icem Surf - Recent Highlights

6th of December 2018
Sylvain CARRE | Thomas FRISON | Laurent IGARZA
Surface refinement | Continuity & Innovation

Continue to deliver the **Best-in-Class “explicit” Class-A Solution** with ICEM know-how

Provide innovative Surface modeling solution & methodology to **unify explicit & associativity**

**ICEM Surf**
The art of surface modeling

**ICEM Design eXperience**
Innovative modeling User Experience

**CATIA Icem**
Empowered Surface modeling

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From explicit to Associative & integrated Class-A modeling
Surface refinement | Continuity & Innovation

Continue to deliver the market reference “Explicit” Class-A modeling solution

Sustain ICEM Surf customers Class-A excellence

Seamless ICEM Surf, CATIA, DELTAGEN interoperability workflow

Leverage the Workforce of the future Students & Academics
ICEM Surf – Evolution: customer focus

4.10
18 Enhancements
- HDR Light Sources
- Curve Blend
- Curve Matching
- Etc.

4.11
3 new commands
- 23 Enhancements
- New Tri-Tangent Fillet
- New Advanced Fillet
- New Styling Corner
- Etc.

4.12
1 new command
- 62 Enhancements
- New Global Fillet
- Advanced Fillet
- Copy & Paste
- Etc.

4.13
1 new command
- 57 Enhancements
- New Corner Blend
- Advanced Fillet
- 3DXM
- DSLS Licensing
- 8 Character
- Etc.

2015
38 Enhancements
- 2 New products
- Ref. Manager
- Diagnosis
- Copy & Paste
- Etc.

2016
30 Enhancements
- Ref. Manager
- ICEMDB
- Deltagen Direct Interface
- Coincidence
- Etc.

2017
34 Enhancements
- Ref. Manager
- ICEMDB
- Diagnosis
- Etc.

2018
22 Enhancements
- 1 New product
- Ref. Manager
- ICEMDB
- Diagnosis
- Etc.

2019
30 Enhancements
- 5 July 2019

Customer requirements
[ MODELING, ANALYSIS, VIZ, REF MGR, DATA EXCH ]

Customers’ requirements driven developments
ICEM Surf | Recent highlights

Class-A Modeling
- Patch blend
- Plane projection Control Points Row
- Filletting
- From scan to surface (Unified Modeling)

Diagnoses / Visualization
- Line width
- Sections options
- Safety analysis / Tornado line
- HMD

Ergonomic
- Drag and drop
- Soft Mirror
- Reference Manager

Data WorkFlow
- I/O Deltagen
- I/O CATIA

Not contractual - Subject to change
ICEM Surf | MODELING

Create Patch – Blend

- New manipulators for smooth modification & workflow
ICEM Surf 2018 | MODELING

MODIFY PATCH - plane projection of control points rows

Standard panel

Unified modeling panel

Projection mode

Alignment mode
ICEM Surf | MODELING
FILLETTING – ADVANCED FILLET + CORNER BLEND

- Multiple interactive filleting options
- Variants for streamline workflow
ICEM Surf | MODELING

UNIFIED MODELING - FROM SCAN TO SURFACE

- Scan Region as restricted reference
- Patch creation as region projection
- Keep the tolerance with scan
ICEM Surf 2018 | DIAGNOSES

DISPLAY SOFT MIRROR

- New capability to select geometry which should be mirrored or not
ICEM Surf | DIAGNOSES

LINE WIDTH

- Section width available
- Global line width available
ICEM Surf | DIAGNOSES

SECTIONS - ROUGH GEOMETRY OFFSET

Section offset

Rough Geometry Offset

- Offset: 5.0
- Both
- On Plane
- Normal
ICEM Surf 2018 | DIAGNOSES

SAFETY ANALYSIS - TORNADO

\[ R_{\text{min}} > \frac{H}{10} \]
ICEM Surf | REF. MANAGER

DRAG & DROP CAPABILITIES 3D files & folders

Open the file
Import the file
Ref. Manager

Ref. Manager
ICEM Surf | REF. MANAGER

DRAG & DROP CAPABILITIES 3D files & folders

Open the file
Import the file
Ref. Manager

Ref. Manager
ICEM Surf | REF. MANAGER

PASSIVE MODE ➔ LOADING DATA BY REDUCING MEMORY

QUICK CHANGE ACTIVE / PASSIVE

Shift + Mouse
ICEM Surf | REF. MANAGER

DRAG & DROP CAPABILITIES RMS file
ICEM Surf | REF. MANAGER

MATERIAL REPLACE
ICEM Surf 2018 | REF. MANAGER

MERGE VARIANTS
ICEM Surf to DELTAGEN

Smooth & efficient workflow

• ICEM DB is supported
ICEM Surf to DELTAGEN

3D Modeling + Vizu preparation

ICEM Surf file supported
Auto Paint
Reference Manager
Live Update

High-end 3D visualization

IcemDB / Reference Manager session
Materials / Colors / Textures
Transformations / Geometry variants
Direct interface ICEM Surf to Deltagen
ICEM Surf to CATIA

ICEM Surf

- ICEM DB
- Native
- Export
- Open / Import / REF Mgr

ICEM DB

CATIA

- Open / Import
- Save / export
- Native
- CATPart

ICEM Surf converter (ICC)
Catia Icem (ICM)

ICEM converter (FIC)
Class-A modeler (ICC)
Class-A Expert (FFX)
Transportation Designer (CDT)
ICEM Surf 2018 | Product Portfolio Overview

Add-on modules

- K72 - ICEM Surf Scan Modeling
- K62 - ICEM Surf Realtime Renderer
- K76 - ICEM Surf Advanced Tools
- K77 - ICEM Surf Safety Analysis
- K46 - ICEM Surf Master
- K45 - ICEM Surf Magic

Data exchange

- K27 - Unigraphics
- K21 - CATIA V4
- K20 - CATIA V5 / 3DEXP

Ancillary modules

- K74 - PLM Link

Education

ICEM Surf Professional – (K24)

ICEM Surf for Academia (K49-EDU)

ICEM Surf Student Edition (K49-STU)
ICEM Surf 2018 | VIZUALISATION

HEAD MOUNTED DISPLAY

PURPOSE

✓ Design Review in Virtual Reality

KEY BENEFITS

✓ Faster, more efficient workflows due to review commands accessible directly in VR.

✓ Any 3D model loaded into ICEM Surf can be displayed and navigated in a stereoscopic visualization via the HMD device.
ICEM Surf | Immersive 3DEXPERIENCE

ICEM Surf

ICEM Surf Professional
ICEM Surf RTR
ICEM Surf HMD (CA)

3DEXPERIENCE

Immersive Visual Experience [ IHD ]
Visual Experience Designer [ CSX ]
Converter ICEM [ FIC ]
Business Innovation [ CSV ]
Industry Innovation [ IFW ]
ICEM Surf | Immersive 3DEXPERIENCE

Only sellable as SBO with the following Bundle

SBO has to be checked by Pricing team

ICEM Immersive 3D experience  (Licence Per user Nodelock)

<table>
<thead>
<tr>
<th>ICEM Surf HMD plug-in CA</th>
<th>3DEXPERIENCE 18x or 19x</th>
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<tbody>
<tr>
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<td>Immersive Visual Experience (IHD)</td>
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Value & benefits

With this offer, customer can take benefits of the Dassault Systemes Immersive technology to support their corporate vision and strategy for immersive Design.

Users will be able to use the 3DEXPERIENCE immersive capabilities and performances to address & prepare the implementation of immersive experiences & workflows for their current and future uses cases in Design. At the same time they will be able to run immersive navigation with HTC Vive within ICEM Surf.

Pre-Req.
ICEM Surf RTR 2018
(ICEM Surf professional 2018)
ICEM Surf 2018 | Product Portfolio Overview

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ICEM Surf Professional – (K24)

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** K63 is in Controlled Availability and therefore only available on ICEM Surf CA media