



# Evaluation of ProcSee



Evaluation performed by Kongsberg Maritime

## Background

Kongsberg Maritime (KM) is a world market leader for supplying maritime training simulators. More information about KM at [www.km.kongsberg.com](http://www.km.kongsberg.com)

Institute for Energy Technology (IFE) is Norway's national research centre for energy and nuclear technology. More information about IFE at [www.ife.no](http://www.ife.no)

ProcSee is IFE's software product for developing and displaying dynamic graphical user interfaces. More information about ProcSee at [www.ife.no/procsee](http://www.ife.no/procsee)

In year 2000 Kongsberg Maritime started a project to establish a new software infrastructure for all their marine process simulation models. Part of this project was to replace the existing graphics display system, a previous IFE product. The project group identified three products that seemed to comply with their requirements for the new graphics display system. These products were:

- DataViews from GE Fanuc Automation NA
- SL-GMS from Sherrill-Lubinski Corporation
- ProcSee from IFE

To select the best tool, Kongsberg Maritime performed a thorough evaluation of all three products, and concluded that ProcSee was the best choice. An agreement between Kongsberg Maritime and IFE on the use of ProcSee was then established.

## Evaluation Method

Test criteria were selected and assigned a level of importance. Scores were classified in five categories.

Importance	
R	Requirement (absolute)
I	Important
N	Nice to have

Scores	
++	Outstanding functionality
+	Very good functionality
✓	Average functionality or The product has this functionality
-	Functionality below expected level
--	Bad functionality or The product does not have this functionality

Experienced developers tested the products over a two-week evaluation period per product. The tests included operations typical for the design and implementation of operator interfaces as well as examination of the resulting displays regarding performance, smooth update, and other aspects.

## Evaluation Results

Criteria	Importance	Evaluation Score		
		DataViews	SL-GMS	ProcSee
<b>Platforms</b>				
Unix	R	✓	✓	✓
Microsoft Windows	R	✓	✓	✓
Others (Linux)	N	✓	✓	✓
Import ActiveX components	N	✓	✓	-
Make GUI into an ActiveX component	N	✓	✓	--
<b>Installation &amp; Set-up</b>				
Easy installation	I	✓	✓	✓
<b>Graphics File Format</b>				
Well documented textual format	R	--	✓	+
Easy conversion from existing pictures	I	-	✓	+

Criteria	Importance	Evaluation Score		
		DataViews	SL-GMS	ProcSee
<b>Graphical Editor</b>				
Ease of use	R	++	✓	+
Scaling and resizing	I	✓	✓	-
Image import	I	✓	✓	✓
Dialogue editing from graphical editor	I	-	-	++
Pre-defined object libraries	N	+	✓	-
Building user-defined object libraries	R	+	-	++
Trend/Graph utilities	I	+	✓	-
Multiple windows	I	✓	✓	✓
On-the-fly testing	I	✓	✓	++
<b>Run-Time Module</b>				
Short start-up time	I	✓	✓	✓
Run-time program included	N	--	--	++
Possible to implement "remote instructor"	I	✓	✓	✓
High/Configurable picture update frequencies	R	✓	(+)	+
Automatic refreshing of background	I	✓	--	✓
Acceptable computer resource requirements	R	✓	✓	✓
Connection to simulator (API)	I	-	-	+
Multiple windows	I	✓	✓	✓
Built-in blink function	I	✓	--	--
<b>Documentation</b>				
On-line documentation/help	R	+	✓	✓
Fast and qualified response from technical support department	R	✓	✓	✓
<b>Maturity of Manufacturer and Product</b>				
Maturity of product	I	+	✓	-
History of HMI tools development	I	✓	✓	✓
Size of company / development department	N	✓	✓	-
Customer reference list	I	✓	✓	-
<b>Commercial Criteria</b>				
Product costs	I	--	✓	+

## Conclusion

The evaluation group concluded in its report:

*"ProcSee seems best to satisfy our requirements. It facilitates the conversion of the existing graphics and has beyond doubt the best qualities regarding object and dialogue functions. The project group therefore recommends ProcSee to be chosen as our new graphics tool."*

## Additional Remarks from IFE

The ProcSee system is continuously being improved and new features are added. After the evaluation was performed, built-in blink functionality, scalable text, and import of ActiveX components (items with negative remarks by Kongsberg Maritime in the table above) have been added or significantly improved.

In April 2005, after five successful years of co-operation, Kongsberg Maritime issued a very favourable letter of recommendation to IFE and the ProcSee development team.