

# The Simulation Industry In Search Of Recognition: The Next Step

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# BACKGROUND

- **PAPER AT SCSC 2002. “THE SIMULATION INDUSTRY IN SEARCH OF ECONOMIC RECOGNITION”**
- **PAPER ALSO SUGGESTED BROAD DIRECTIONS TO IMPROVE THE INDUSTRY VISIBILITY.**
- **RECOMMEND A NAICS CODE STRUCTURE THAT WILL FAIRLY REPRESENT THE SIMULATOR INDUSTRY**
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- **SUPPORT FOR THE SIMULATION PROFESSIONAL CERTIFICATION PROGRAM**
- **DEVELOP A RESPONSE TO THE QUESTIONS POSED IN THE FEDERAL REGISTER OF DECEMBER 27, 2002.**
- **PRESENT THE ESSENTIAL ELEMENTS FOR A RESPONSE FOR DEVELOPMENT INTO A FINAL SUBMISSION.**

# INTRODUCTION

- **SIMULATION COMMUNITY CONSIDERS THEIR FIELD TO BE AN EMERGING BUSINESS.**
- **SIMULATORS ARE USED FOR CONCEPTUAL DESIGN, EDUCATION, TRAINING, AND ENTERTAINING.**
- **THE APPLICATIONS OF SIMULATION HAVE NOT REACHED THEIR FULL POTENTIAL.**
- **SIMULATION TECHNOLOGY MANIFESTED IN MANY ASPECTS OF SOCIETY.**
- **THE SPECIALIZATION REQUIRES MORE RECOGNITION.**
- **ADVANCED DEGREES PROGRAMS BEING OFFERED**
- **A CERTIFICATION PROGRAM HAS BEEN INITIATED TO CERTIFY MEMBERS OF THE SIMULATOR WORKFORCE.**
- **THE FEDERAL GOVERNMENT UPDATING THE ECONOMIC INDUSTRY**
- **THE ECONOMIC CLASSIFICATION POLICY COMMITTEE OF OMB RESPONSIBLE FOR REVISING NAICS**

# FEDERAL REGISTER ITEM (A)

- **Specific detail about the economic activities to be covered by the proposed industry, especially its production processes, specialized labor skills, and any unique materials used. This detail should demonstrate that the proposal groups establishments that have similar production processes that are unique and clearly separable from the production processes of other industries.**

# SIMULATOR MANUFACTURING

## Major Simulator components

- Computational system. H/S
- Crew station
- Interface with the crew station, the instructional system
- Special purpose processors for the motion, visual, and sensor systems.

# FEDERAL REGISTER ITEM (B) SIMULATION INDUSTRY REPORTING

- Found both in manufacturing and service industry sectors.
- For the most part, firms fall into one industry or the other.
- Service establishments that provide support for simulation are highly specialized.
- Simulator businesses in the services sector provide simulator life cycle logistic support.
- Specialized labor skills are required
- Educating simulation professionals

# NAICS CODES USED

- **NAICS Codes Used by a Significant Number of Society Members, 2001**

<b>Codes</b>	<b>Industry Title</b>	<b>%</b>
• <b>333319</b>	<b>Electrical components including simulators</b>	<b>65</b>
• <b>33400</b>	<b>Computer &amp; electronic product manufacturing</b>	<b>29</b>
• <b>33500</b>	<b>Electronic equip, appliances &amp; component mfg</b>	<b>24</b>
• <b>541510</b>	<b>Computer system design &amp; related services</b>	<b>53</b>
• <b>54160</b>	<b>Mgt., scientific &amp; technical consulting services</b>	<b>47</b>
• <b>54199</b>	<b>All other prof., scientific &amp; technical services</b>	<b>41</b>

# FEDERAL REGISTER ITEM (C)

**Documentation of the size and importance of the proposed industry in the United States**

- **Need to develop creditable data on industry size**
- **Need to address the importance of simulation**

# ESTABLISHMENTS BY STATE

- Number of Establishments in
- Simulator Specific NAICS Codes, 2001

–	33400	33500	54151	54190	333319
• State	#Estab	#Estab	#Estab	#Estab	#Estab
• CA	4,029	1,006	14,749	1,828	186
• FL	758	296	5,546	1,149	80
• MA	895	239	3,726	454	32
• TX	1,045	414	6,117	826	71
• VA	256	113	4,453	380	15
• Total	10,288	2,068	59,362	7,905	384
• US Tot	16,764	6,940	100,582	14,341	1,271
• State%ofUS	61%	30%	59%	55%	30%



# FEDERAL REGISTER ITEM (D)

- **Information about the proposed industry in Canada and Mexico, if available**
- **Canadian Office being contacted**
- **On contact with Mexico as yet**

# CONCLUSIONS

- The information presented addresses the four issues identified in the Federal Register
- Justify the proposed revisions with more accurate data
- Several areas require additional research
- Explore the simulation industry in Canada and Mexico

# THE NEXT STEP

- After the research is completed:
  - Draft a submission to Census addressing the 4 issues cited in the Federal Register
  - Coordinate draft with other M&S organizations
  - Submit a formal request for revision to the codes that will more accurately reflect the stature of the simulation industry in the economy

# ACTION ITEMS

- DEVELOP SUBMISSION RECOMMENDING REVISIONS TO THE NAICS CODE STRUCTURE FOR SIMULATION
- DEVELOP OCCUPATIONAL TITLES FOR SIMULATION PROFESSIONALS