

OUTLINE OF THE SIAA PROFESSIONAL CERTIFICATION PROGRAM

Background

- The Simulation Industry Association of Australia (SIAA) is a not-for-profit organisation established to promote the development of the Australian simulation industry and the skills of the simulation workforce. The SIAA was formed in 1996 and has a strong membership with the main activity being the annual Simulation Technology and Training Conference with an average attendance of approximately 450 to 500.
- The 2005 SIAA AGM authorised work to investigate the establishment of an SIAA Professional Certification Program as an extension to the recently established SIAA Professional Development Program. The SIAA PD Committee studied options for implementation of an SIAA Professional Certification Program and presented a proposal to the SIAA Executive Committee on 18th April 2006. At this meeting the proposed SIAA Professional Certification Program was approved for commencement on 29th May 2006 in conjunction with SimTecT06.
- This paper outlines the key features and plans for the SIAA Professional Certification Program.

The Need for Professional Certification

- The need for professional certification of simulation professionals has been evidenced by:
 - 2003 survey of 86 SIAA individual members who rated professional certification as:
 - Essential – 10%
 - Important – 45%
 - Somewhat Important – 35%
 - Irrelevant – 10%
 - Anecdotal evidence of RFTs that call for people 'qualified' in simulation, but with no explanation of what this means.
 - 'In-principle' support from ADSO for the certification of simulation professionals and the offer of a formal letter of support.
 - Establishment of the Certified Modelling & Simulation Professional Program by the US National Training Systems Association. (Refer to later discussion of this program under the heading Professional Certification Framework).
- A Simulation Professional is defined by the PD Committee as:

“...anyone who both considers themselves to be involved in simulation through their employment, and who undertakes to maintain and improve their professional knowledge and skills in the field. Individuals decide to participate in the simulation community on the basis of their interests and employment aspirations. For example, someone who uses simulation in their employment might want to learn more about simulation techniques and technologies and even explore opportunities to develop their own

simulations and, therefore, seek professional development in the field. Conversely, this individual might consider the field to be one that contributes to their work, but might not feel a need to pursue specialist professional development in the field. Applying this definition, in the former situation the individual would be considered a Simulation Professional, while in the latter situation they would not.”

- Given this broad definition of a Simulation Professional, a need exists for clear standards to define the standing of individuals within the field and provide a framework for professional development.

Professional and Technical Certification

- The SIAA Professional Certification Program will recognise application of technical competencies to the field of simulation as distinct from the possession of specific technical competencies:
 - Certification of specific technical competence is the role of trade and professional bodies.
 - Certification of the application of technical competence to the field of simulation is the role of the SIAA.
- Components of SIAA Simulation Professional Certification will assert that an individual has achieved a combination of the following:
 - Has demonstrated a capacity to apply their technical competencies to the field of simulation.
 - Has demonstrated an ability to independently plan, manage and conduct tasks involving the application of their technical competencies to simulation.
 - Has demonstrated an ability to apply one or more aspects of their technical competencies to simulation in complex and novel circumstances.
 - Has demonstrated an ability to supervise and develop colleagues in the application of one or more aspects of their technical competencies to the field of simulation.
 - Is currently undertaking activities to maintain their knowledge and skills in relation to developments in the field of simulation.
 - Has demonstrated an ability to recognise when the advice of more experienced simulation professionals should be sought.

Key Skill Groups within the Field of Simulation

- The qualifications and experience of those employed in simulation are extremely diverse and this creates substantial difficulty in establishing criteria for certification. Consequently, the PD Committee has established three Skill Group Panels to provide focus on separate domains of expertise. The Skill Group Panels are a first attempt at defining key domains and it is understood that there is overlap between them and they may need to split, merge and morph as the field of simulation evolves.
- The three Skill Group Panels are:
 - Instructional Systems & Human Factors

- Project Management & Policy
- Systems Engineering & Support
- Each Skill Group Panel is currently working on detailed criteria for the certification of simulation professionals, based on the demonstration of abilities as described above.

Professional Certification Framework

- Certification of simulation professionals will be offered through three related components as illustrated in Figure 1. The rationale for three components is to:
 - Initially encourage formal association with the simulation community in Australia and application of pre-existing skills to the field. (Simulation Introductory Certificate)
 - Provide a basis for the development of simulation expertise in a chosen skill domain and recognition of standing by peers in the industry. (Simulation Practitioner Certificate)
 - Facilitate, publicize and recognize current participation in endorsed professional development activities. (Simulation Skills Currency Certificate)
- The Simulation Practitioner Certificate is intended to equate to the Certified Modelling & Simulation Professional standard issued by the US National Training Systems Association. Mutual recognition of these awards will be sought once the SIAA Program is established. The key differences between the SIAA and NTSA Programs, and the reason simple adoption of the NTSA Program was not pursued, are:
 - The SIAA Practitioner level certificate will be based on Australian industry practices and peer review.
 - The SIAA Program includes components to introduce individuals to the Australian simulation community and foster ongoing participation in SIAA endorsed professional development activities.

Professional Certification Fees

- The SIAA has committed more than \$120,000 over 2003-2006 to establishing an effective professional development capability, including investigation of professional certification. An SIAA Professional Certification Program must be self-funding in the long-term, with a minimal allocation of funds (approximately \$10,000 to \$20,000) to be requested at the SIAA 2006 AGM to support introduction of the Program and an aim of no allocation of funds from 2007 onwards.
- Self-funding must cover:
 - Administration Costs.
 - Ongoing evaluation of the Program in terms of validity and reliability.
 - An honorarium paid to members of Certification Assessment Panels.
 - Professional Indemnity Insurance Costs.
- The proposed funding approach comprises a Simulation Skills Certification Program Entry Fee, an Annual Renewal Fee, and an Upgrade Fee for progression from Introductory Level to Practitioner Level. Certification Fees are shown in Table 1.

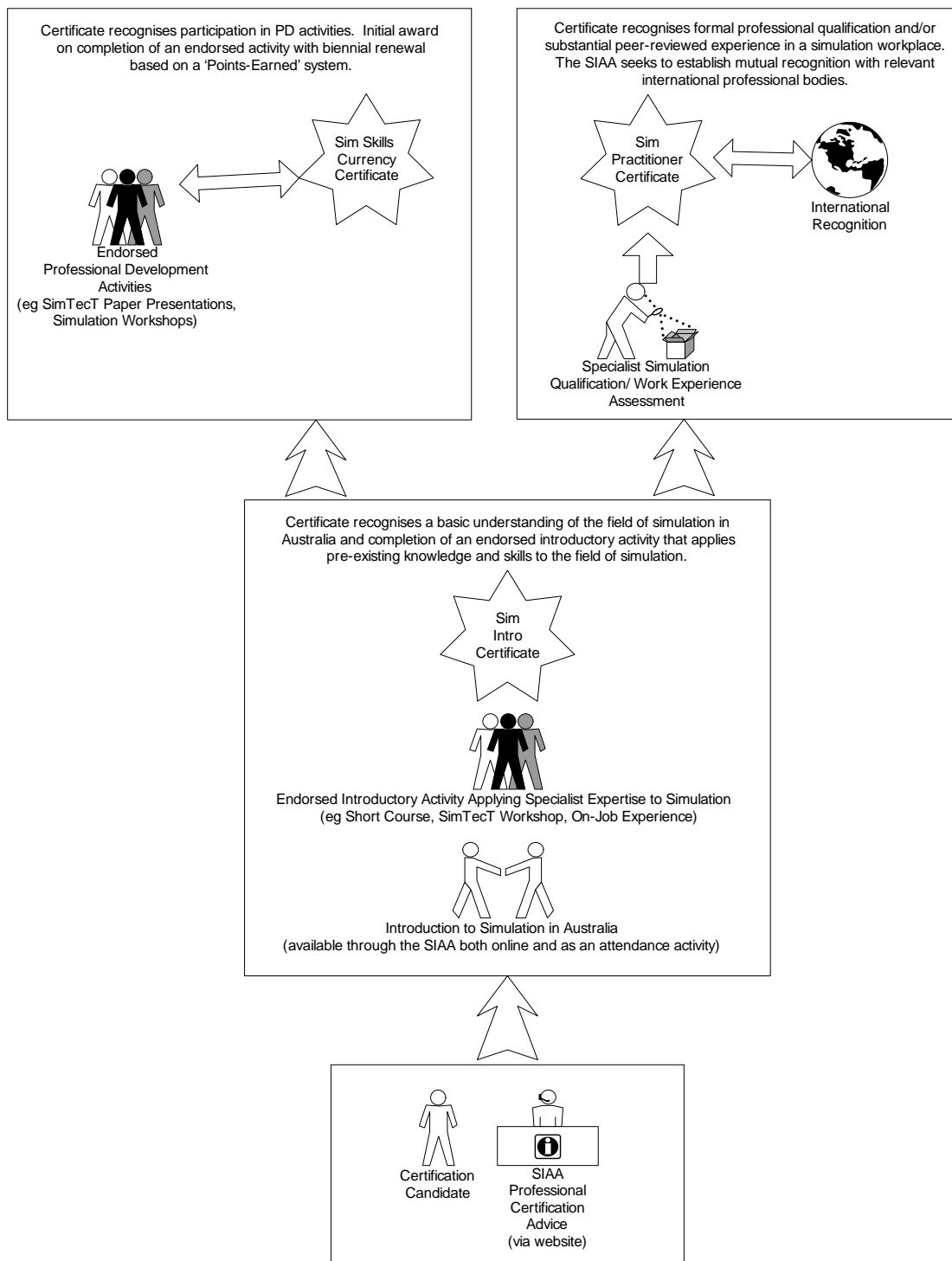


Figure 1. Proposed Simulation Professional Certification Framework.

Item	Description	Proposed Fee (\$)
Entry Fee (Includes SIAA Individual Membership)	Paid on entry to the Certification Program. Includes: 1) Annual Fee (normally \$125), 2) cost of the ISA Seminar (value \$295 when taken either online or by attendance), and 3) Introductory or Practitioner Level Certification (value approx \$175), subject to assessment.	500.00
Discounted Entry Fee (Before 1 st October 2006)	As above, but includes renewal for 2007.	250.00
Annual Renewal Fee (Includes SIAA Individual Membership)	Renews certification status and eligibility for Simulation Skills Currency Certificate.	125.00
Upgrade from Introductory to Practitioner Level of Certification	Subject to satisfaction of assessment criteria. Includes Annual Renewal Fee (normally \$125) for the following year.	300.00

Table 1. Simulation Skills Certification Program Fees.