The Digital Enterprise Society

Request for Proposal

Development of a Certification Program for Siemens PLM Software Tools

Rationale

As the manufacturing industry sector at large moves towards a digital paradigm, it is encountering many challenges related to specification, creation, dissemination, and curation of product and process data. What was once paper-based, and therefore a stable and common interface, is now a data set that evolves and transforms as technology changes. The impact of those changes affects information architecture, job roles, business processes, and many other things inside a manufacturing enterprise. Given the nature of different commercial technologies and their associated nuances and behaviors, a general level of literacy and competency around the use of PLM technologies and methods is needed for a successful, stable integration and deployment.

Scope

The Digital Enterprise Society (DES) is now soliciting proposals for the certification of user's knowledge within the Siemens PLM user community. The scope for this proposal request will include knowledge related to the implementation of tools and processes as it relates to the Siemens PLM toolsets and their respective functionalities.

While the breath of the Siemens PLM software tools necessitate the need for multiple certifications, the initial focus shall be based on a "Mechanical Designer" role certification. The test shall be a practical test based on using NX (versions 11, 12 and 2019.01). The maximum points available for written questions and answers shall be a third of the overall exam. While the initial Mechanical Designer role will focus with the certification on the following integrated elements of the digital enterprise, it is anticipated that future RFP's will be released to address additional roles in the enterprise:

- Use of NX version 11, 12 and 2019.01 as a mechanical design tool
  - Modeling best practices
  - Expressions
  - Sketch
  - Constraints
  - Solid modeling features (extrude, revolve, extrude, . . .)
  - Fillets and chamfers
  - Shells
  - Linear, circular, and fill patterns
  - Combining features: coincident, parallel, perpendicular, tangent, concentric, distance, angle
  - Simple surfacing
  - Synchronous modeling
  - Assembly modeling

- o Analyzing the history and properties of a model
- o Model and Assembly Checking
- o Mass Properties Analysis
- o Application of Model Based Definition (PMI)

Suggested Pre-Requisites:

The student is heavily encouraged to be proficient in the following items (or their equivalent) prior to starting the certification course:

- Courses or assessments in the following areas:
    - o NX Gateway, Design, Sketcher, Drafting, etc.
    - o Others, etc.

Requirements

The following requirements will govern the solicitation, preparation, submission, and review of any proposals submitted against this request:

1. All proposals will address these elements:
    a. Assessment models and methods to ensure validity and reliability of the instruments, the process, and the user data.
    b. Alignment to existing training or education programs that relate to Siemens PLM tools
    c. Providing a sample test for users to access on-line
    d. Maintenance/update provisions as the PLM tools and methods evolve
    e. Infrastructure for designing, delivering, and evaluating the assessments for the user community.
    f. The ability to award appropriate credentials upon completion
    g. Security protocols for maintaining the integrity of the assessment and the data retention will comply with all applicable laws.
    h. Financial model between the proposer and the DES – ability to provide free access to testers by DES is needed.
    i. The relevant qualifications and expertise of the proposer(s) organizations relative to the Siemens PLM technology suite, technical education/assessment, business process and delivery mechanisms.
    j. Propose how future revisions after version 12 will be addressed
2. Each proposal package should follow these guidelines:
    a. All documents will be submitted in Adobe PDF format
    b. A maximum of 20 pages is allowed per proposal, which will include all elements above, as well as any figures, tables, images, literature citations, etc.
    c. Times New Roman or Calibri font; 11-point text size minimum; 8.5 X 11 page size, 1-inch margins all around, page numbers in page footer centered
    d. Any figures, images, tables, etc. must be embedded into the document (not linked)
    e. File size for proposal submission should not exceed 5 MB.

Key Dates and Process

The proposal solicitation will be issued on January 11, 2019. A proposer's call will be held to address any questions regarding the proposal solicitation. The intent of that phone call is to give insight into the intention and desired outcomes of the certification program, and to answer any questions about the submission development or process. Any revisions or addenda to the proposal solicitation as a result of the call, or any changes to the due dates or milestones, will be posted and communicated via the DES website.

Proposal Solicitation release   January 31, 2019

Proposer's submit questions   February 5, 2019

Proposer's call   February 12, 2019

Proposals due   February 19, 2019 (5:00PM Eastern Time)

Selection announced   March 19, 2019

Any questions during this time should be directed to: office@plmworld.org