

scICN: Scientific Information Control Nets

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Abstract—In this paper, we propose a formal description for representing the scientific workflow model supporting process-driven scientific behaviors in data intensive experiment procedures and large scale computing environments. We try to make a conceptual extension of the information control net methodology so as to be applicable to the scientific workflow models and systems, and dub it scICN (Scientific Information Control Net). Upon the scICN-based scientific workflow model, we exemplify its application to a pseudo scICN-based scientific workflow model.

Keyword—scientific workflow; dominancy; load-balancing; verification; exception handling and recovery



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