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Modeling of Business Process Activities and Data: GSBPM, GSIM, and BPMN

Speaker: José de Jesús Luján-Salazar, National Institute of Statistics and Geography (INEGI, México)

Author(s):

Abstract

In the ongoing efforts to standardize and modernize production methods at INEGI, driven by the adoption of GSBPM, we have recognized the imperative to enhance the management of activities, data, and metadata. This necessitates seamless integration with stakeholders and software applications involved in generating statistical and geographic information.

To address this need, we aim to expand the utility of GSBPM through BPMN-based process modeling. BPMN offers a visually intuitive and structured approach to represent activity and data flows. Beyond mere graphical representation, this methodology enables the metadata association with each data object shown, facilitating comprehensive documentation of its attributes. The result is a coherent depiction of the process through a diagram and a database of activities and data objects.

Within the realm of process modeling, GSIM serves as a conceptual framework, standardizing the data inputs and outputs across phases and activities. This fosters a clearer understanding of data requirements for IT teams, promoting the delivery of technology services tailored to process needs. Furthermore, it establishes a robust communication conduit between production-focused business units and application and information systems personnel.

Moreover, process modeling aids in pinpointing areas for improvement, identifying redundancies and delineating critical process pathways. This groundwork lays the foundation for automating and reusing data, metadata, applications, and technological components.