

INTRODUCING A BPMN PROCESS REFERENCE MODEL FOR MICROSOFT DYNAMICS NAV

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Abstract: The aim of my presentation is to share with Dynamics Academic Alliance (DynAA) members the current state of development and to provide an overview of Microsoft Dynamics NAV Process Reference Model. Processes are available online at www.dynamicsnavprocesses.com¹ and can be used for non-commercial and academic purposes (Pajk, 2013).

Introduction

Enterprise Resource Planning (ERP) systems support standard functions of an enterprise such as finance, accounting, sales, service, procurement, warehouse and production. These systems are generic and the functionality they provide can serve a large variety of enterprises. The implementation of an ERP system involves a process of customizing the generic package and aligning it with the specific needs of the enterprise. Most ERP systems incorporate best practices that suggested effective and validated way to perform business operations. Best practices of ERP systems can be presented by ERP process reference models.

Microsoft Dynamics NAV (Dynamics NAV) is an ERP system for small and medium-sized enterprises (SMEs, 25-250 users). It is globally present, supporting more than 40 localizations – adaptations to specific country/region needs. More than 94,000 organizations use Dynamics NAV to support daily operations. The system is implemented and supported by Microsoft certified partners (Microsoft Corporation, 2013). Even though the ERP system Dynamics NAV is widely used, an overall reference model for Dynamics NAV has not been developed yet.

Reference models are generic conceptual models that formalize state-of-the-art or best practice knowledge of a certain domain (Fettke & Loos, 2003). They provide a set of generally accepted recommended practices, developed with the goal of being reused. Reference models play an increasingly important role in activities such as business engineering, information systems (IS) development, customizing of IS, training and academic research.

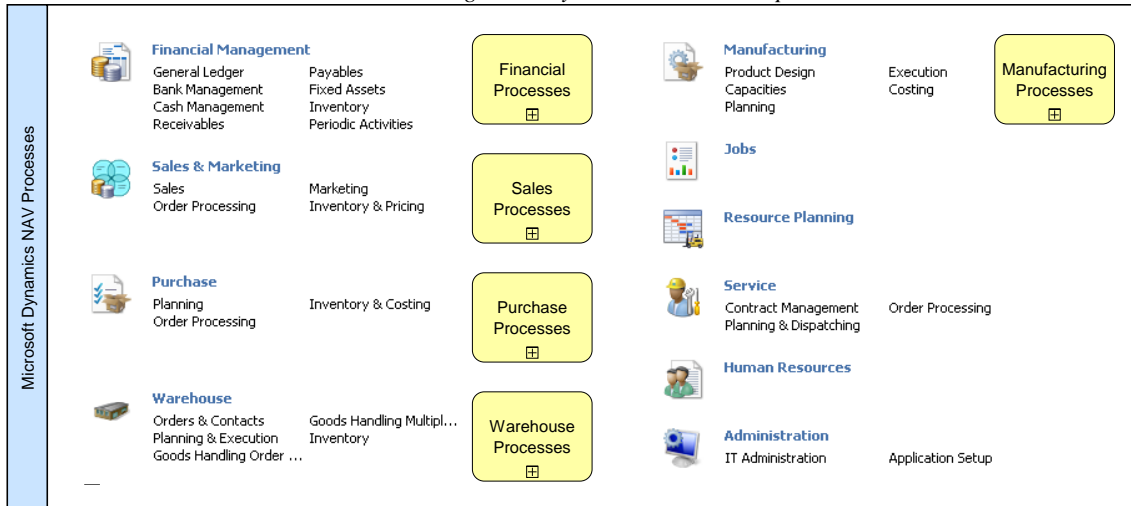
The use of reference models has positive economic effects (Fettke & Loos, 2003; Kirchmer, 2010):

- a decrease in costs (reference models can be reused so the development costs of the reference model can be saved);
- a shortening of modeling time (the knowledge contained in the reference model reduces learning and development time, allowing the identification of and a direct focus on critical processes);
- an increase in model quality (reference models are proven solutions and provide better model quality and an awareness of own deficiencies);
- a lessening of modeling risk (the risk of failures during reference model usage can be reduced because reference models are already validated); and
- the reference model content usually bridges the business and the IT domains. For example, business process models can be linked with predefined interface definition models and Web service models.

ERP reference models have been developed by vendors in order to improve the understandability of their systems. Depending on the underlying methodology these models include details about control flow (splits, joins), involved organizational units, input/output data, documents and business objects (Rosemann, 2000).

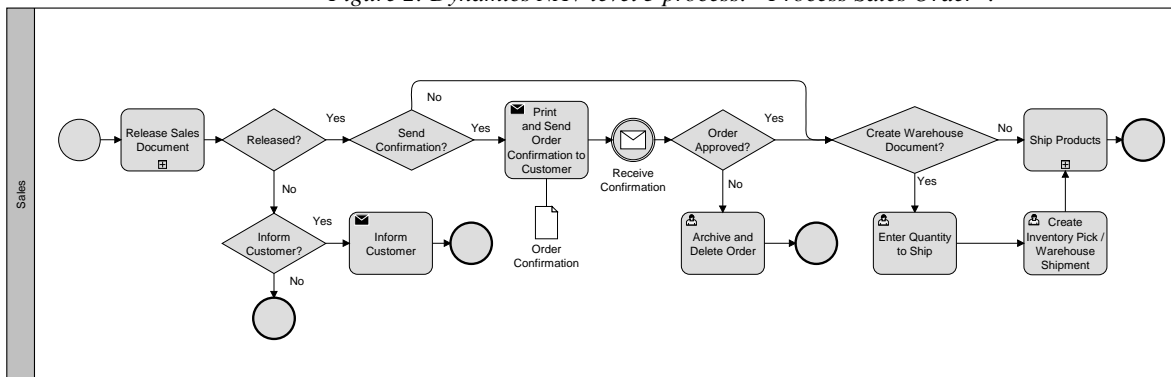
Dynamics NAV Process Reference Model describes on different levels of granularity the main business processes supported by Dynamics NAV. Reference model is organized hierarchically. First level represents Dynamics NAV application areas such as Financial Management, Sales, and Warehouse (Figure 1). Level 2 indicates next level of processes and categorizes processes into groups. Allowed elements on first and second level are subprocesses.

Figure 1: Dynamics NAV level 1 processes.



Third and fourth levels are designed using BPMN (Business Process Modelling Notation). BPMN is most widely adopted process modeling standard. Level three processes limits BPMN elements to basic set of shapes and symbols understood by business person. Processes describe typical order of Dynamics NAV activities e.g. Process Sales Order (Figure 2). Level four processes uses complete set of BPMN elements. They provide the common language for describing process behavior, shareable by business and IT.

Figure 2: Dynamics NAV level 3 process: "Process Sales Order".



Reference model is not designed only for Dynamics NAV specialists, but also for end users who can gain from the process architecture relevant information about ERP system capabilities and how processes are connected together. Dynamics NAV Process Reference Model is not practically validated yet. My motivation is to get feedback (ideas, comments, recommendations and critiques) in order to validate, improve and make reference model useful for theory and practice.

References

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¹ You can login using Username: DynAA and Password: dynaa2013