

博士论坛

石油勘探开发领域本体的构建方法研究

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摘要 石油勘探开发领域涉及勘探、采油等二十多个专业, 由于信息术语不统一, 给专业之间信息共享和应用集成带来许多问题。采用本体论来解决上述问题。针对石油勘探开发业务的特点, 提出了一套石油领域本体Petro-Onto构建方法, 建立了该领域本体的顶层本体框架, 提出了以业务模型和数据模型为参照体系自动捕获本体的方法。Petro-Onto在油田信息集成中得到应用。

关键词 [石油](#) [勘探开发](#) [领域本体](#) [数据元](#)

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Method of building petroleum exploration and production domain ontology

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Abstract

The petroleum exploration and production domain includes more than twenty specialties such as exploration, production, etc. Difference information vocabulary among specialties results in problems about information sharing and application software integration among specialties. Ontology is introduced to solve above problem. According to the feature of petroleum business, the method of building Petro-Onto (petroleum exploration and production domain ontology) is proposed, the top-level ontology is designed, and an approach is proposed to capture concepts and the relationships among concepts automatically from business model and data model. Petro-Onto is applied in oil field information integration.

Key words [petroleum](#) [exploration and production](#) [domain ontology](#) [data element](#)

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