

ABSTRACT**PREDICTIVE QUERY PROCESSING FOR COMPLEX SYSTEM LIFECYCLE
MANAGEMENT**

5 Techniques for identifying relevant, natural language documents within a data repository.
An electronic document specifying natural language text describing an issue with a complex
system is received. One or more portions are removed from the electronic document, where the
portions are determined to satisfy one or more predefined filtering rules. A first set of terms are
determined using a data dictionary structure, and a second set of terms are determined, where at
10 least one term in the second set of terms satisfies at least one predefined pattern matching rule.
A third set of terms are determined by processing the electronic document as an input to a
machine learning model trained to recognize relevant terms within the electronic document. A
synthesized electronic document is generated from the first, second and third sets of terms, and
the synthesized electronic document is used to identify a set of relevant documents within the
15 data repository.

Fig. 2