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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ABHYUDAYA AGRAWAL,
RAVI MURTHY, NIPUN AGARWAL,
SIVASANKARAN CHANDRASEKAR, and ERIC SEDLAR

Appeal 2010-010759
Application 11/246,001
Technology Center 2100

Before: JOSEPH L. DIXON, ST. JOHN COURTENAY III, and
CARLA M. KRIVAK, *Administrative Patent Judges*.

DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1-7, 9-11, 23-29, and 31-33. Claims 8, 12-22, and 30 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

INVENTION

Appellants' claimed invention is generally related to "storing XML data in a database, and in particular, to storing XML schema instances that contain cyclic constructs." (Spec. ¶ [0003].)

Independent claim 1, reproduced below, is representative of the subject matter on appeal.

1. A method, comprising

a database server registering a XML schema, wherein registering the XML schema includes:

determining whether a declaration of a first element in the XML schema comprises a particular second element that belongs to a type within a hierarchy of inheritance of a certain type of the first element; and

in response to determining that the declaration of the first element in the XML schema comprises the particular second element, performing:

determining that said XML schema defines a cyclic construct;

determining a database representation capable of storing instances of said XML schema that contain said cyclic construct; and

generating a mapping between constructs of said XML schema and said database representation.

REFERENCE

Murthy US Pat. App. Pub. No. 2003/0140308 A1 Jul. 24, 2003

REJECTION

Claims 1-7, 9-11, 23-29, and 31-33 stand rejected under 35 U.S.C. § 102(b) as being anticipated Murphy.

ANALYSIS

Claims 1-7, 11, 23-29, and 31-33

Appellants contend that Murthy fails to disclose “determining whether a declaration of a first element in the XML schema comprises a particular second element that belongs to a type within a hierarchy of inheritance of a certain type of the first element,” as recited in claim 1 (App. Br. 4-10). We disagree.

Appellants’ arguments focus solely on the example in Murthy’s paragraphs [0052]-[0059] to show lack of anticipation (*see* App. Br. 5-6, 8-10; Reply Br. 1-3). However, the Examiner also cites Murthy’s Figure 9 and Appendix I in finding claim 1 anticipated (Ans. 5-6). Murthy’s Figure 9 shows an example of complexType self-referencing where a declaration of a complexType named “SectionT” includes an element of the same “SectionT” type (Murthy, ¶ [0028]; Fig. 9). In a similar example in Appendix I titled “XML Schema: Cycling Between complexTypes, Self-Referencing,” Murthy shows in more detailed fashion how a complexType “SectionT” declaration can include an element of “SectionT” type, which is

an “example of a cyclic complexType” (Murthy, Appendix I, p. 63). This type of cycling is similar to the cycling that Appellants point to in the Specification for descriptive support of the claim 1 limitation “a type within a hierarchy of inheritance of a certain type” (*see* App. Br. 6-8; Spec. ¶¶ [0055]-[0063]). Namely, the Specification describes an example “XML Schema A” in which a complexType “A1Type includes an element of the type A1Type, thus defining a cyclic construct” (Spec. ¶¶ [0057], [0060]).

Murthy further discloses that “[a]ccording to one embodiment, XML schema mapper **106** is configured to detect such cycles and break them by using REFs while mapping to SQL object types. A detailed description of how REFs may be used to break cycles is provided in Appendix I.” (Murthy, ¶ [0213]). Appellants do not specifically explain why this disclosure of detecting cycles and mapping them to SQL objects fails to disclose “determining whether a declaration of a first element in the XML schema comprises a particular second element that belongs to a type within a hierarchy of inheritance of a certain type of the first element,” as recited in claim 1.

We are therefore not persuaded that the Examiner erred in rejecting claim 1, and claims 2-7, 11, 23-29, and 31-33, not separately argued.

Claims 9 and 10

The Examiner cites Murthy’s Figure 9 and paragraphs [0185] and [0213] in finding that Murthy discloses the limitations of claims 9 and 10 (Ans. 7-8, 16-17). However, we agree with Appellants (App. Br. 10-11; Reply Br. 3-5) and find that none of the cited portions of Murthy disclose “while traversing said declarations, tracking on a stack a declaration of an

element,” as recited in both claims 9 and 10. While Murthy discloses detecting cycles in an XML schema and mapping them to SQL objects in a database representation, as discussed above, the cited portions of Murthy do not disclose that Murthy accomplishes this in the manner claimed, i.e., “tracking on a stack.”

We are therefore constrained to find that the Examiner erred in rejecting claims 9 and 10 as anticipated.

CONCLUSION

The Examiner erred in rejecting claims 9 and 10, but did not err in rejecting claims 1-7, 11, 23 -29, and 31- 33 under 35 U.S.C. § 102(b).

DECISION

The Examiner’s decision rejecting claims 9 and 10 is reversed.

The Examiner’s decision rejecting claims 1-7, 11, 23-29, and 31- 33 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

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