

Some articles I've authored

Table of contents

1 A Gentle Introduction to Orthogonals.....	2
2 Parsing non context free phrase structure grammars.....	2
3 A Quick Introduction to Generalized Deterministic Parsing: Take 1	2
4 An anatomy of knowledge representation and a theory of meaning	2
5 Towards Matrix Manipulation of Future Databases	2
6 A critical reading of The Third Manifesto	3
7 Amending my critical reading of The Third Manifesto with Codd's position	3
8 The ObjectTalks discourse representation system	3
9 Over rechtsbescherming en Informatiebeveiliging	3

1. A Gentle Introduction to Orthogonals

This paper introduces the concept of an orthogonal as a generalized application of the concept of an identifying relationship to accommodate both the notion of complex domains and higher order relations. By example, it will be illustrated, that concepts such as complex domains can be accommodated in relational databases without violating of first normal form constraint for relational databases. Also, an accessible intuition for higher order relations will be shown to be possible by the application of orthogonals. The concepts presented in this paper might serve as a partial confirmation that the primitives Codd provided in this paper [Extending Databases To Capture More Meaning](#) for extending relational databases can be made to serve their purpose well. Finally, the concept of an orthogonal also provides additional evidence that Date and Darwen erred, in their identification of the alleged *great blunders* in their book known as *The Third Manifesto*. This [document](#) is available in pdf format

2. Parsing non context free phrase structure grammars

This document introduces dotted grammars. A normal form for phrase structure grammars which allows for the implementation of efficient table driven parsers. Based on these grammars *Generalized Deterministic Parsing* is possible. The [Tiny](#) parser generator is a prototype implementation of a parser generator for dotted grammars.

This document is available in [pdf](#) format.

3. A Quick Introduction to Generalized Deterministic Parsing: Take 1

This paper presents a first take at introducing Generalized Deterministic Parsing based on a slight modification of Noam Chomsky's phrase structure grammars called dotted grammars. Using the toy language $anbncn$ ($n \geq 1$) and the Tiny parser generator a high pace introduction to Generalized Deterministic Parsing is presented. It is assumed that the reader is familiar with grammars and parsers. A PDF version is available [here](#).

4. An anatomy of knowledge representation and a theory of meaning

This [paper](#) introduces the theoretical foundation upon which The [ObjectTalks](#) discourse management system will be based.

5. Towards Matrix Manipulation of Future Databases

Why would one manipulate databases using only the unary and binary operators defined by relational algebra? This [paper](#) introduces a formal ontology for databases and suggests that matrices are an expedient vehicle for their manipulation. This articles surfs primarily as a means allowing me continue down this chain of thought at some other point in time...

6. A critical reading of The Third Manifesto

Some critical questions are asked about the Foundation for Future Database Systems presented in the Third Manifest by Date and Darwen. I wrote a paper entitled *A critical reading of the Third Manifesto* which addresses some issues I perceive with this book. This paper is [available](#) in PDF format. So [Check](#) it out.

The dutch magazine [DBM](#) published a version of my critique of The Third Manifesto in their september 2004 and october 2004 editions.

7. Amending my critical reading of The Third Manifesto with Codd's position

A Codd inspired [amendment](#) to my critical reading of The Third Manifesto presenting new argumentation by E.F. Codd, founding father of the relational model, supporting the position that the great alleged blunders identified by The Third Manifesto have been falsely identified as such.

The dutch magazine [DBM](#) published a version of my critique of The Third Manifesto in their september 2004 and october 2004 editions.

8. The ObjectTalks discourse representation system

Some information on the [ObjectTalks](#) discourse representation system is available here.

9. Over rechtsbescherming en Informatiebeveiliging

This is an [article](#) written in the Dutch language presenting a take on information security. Information security is presented as a vehicle for the protection of all that is lawfully ours not only as individuals but as a community as well. As a consequence this paper anchors IT security firmly within the boundaries of law and argues that IT security concepts and architecture should reflect general judicial principles.

A version of this article was published in the dutch magazine "InformationBeveiliging" by [GvIB](#) which is the Dutch society of professionals in information security.

I'm currently working a reference architecture for information security and a reference model for authorisation based on the foundation layed out in this paper.