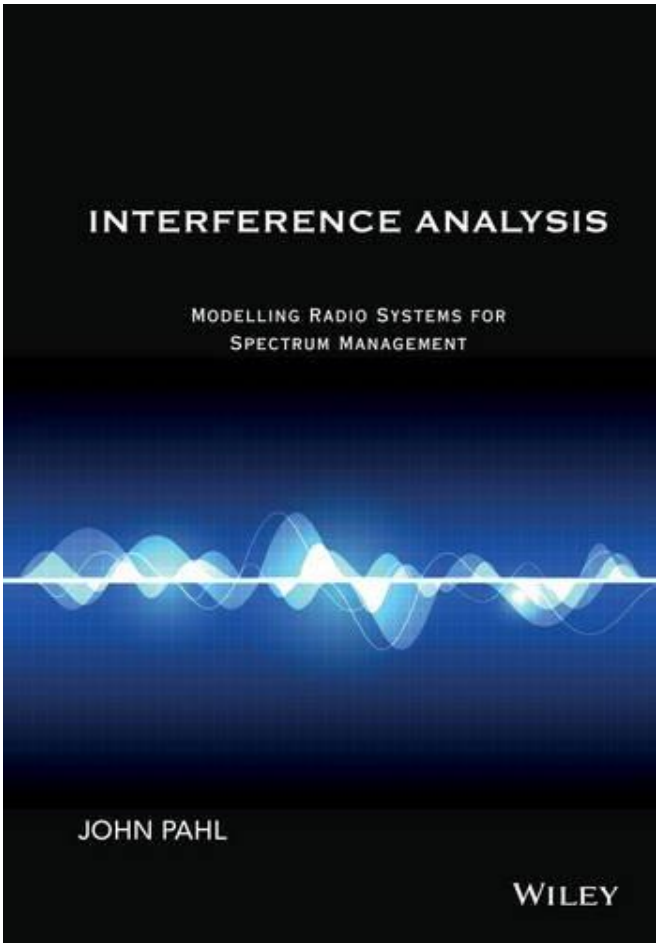
Interference Analysis Book Published

We are pleased to announce that the book "*Interference Analysis: Modelling Radio Systems for Spectrum Management*" by Transfinite's John Pahl is now available. Published by Wiley, this is the culmination of nearly 30 years of experience working in the field of interference analysis and contains over 500 pages and 160 examples. In this newsletter we look at the contents and description of this important new work.

Interference Analysis

Modelling Radio Systems for Spectrum Management



by John Pahl, Director

Transfinite Systems Ltd

This new book, published by Wiley in June 2016, contains over 500 pages, 300 figures, 100 tables, 600 equations and 160 examples.

It is available in hardback and eBook formats from a range of suppliers including Wiley and Amazon.

Overview

This book represents a comprehensive and unique all-in-one reference covering administrative and technical aspects of interference analysis within and between all the main types of radio systems

The book describes how interference can be managed so that radio systems co-exist, without harmful mutual effects, within a finite amount of spectrum. This is timely in view of the increasing proliferation of wireless systems.

It covers both the processes, such as regional or international coordination, as well as the engineering principles. Written by an author with extensive experience in the industry, it describes in detail the main methodologies for calculating or computing the interference between radio systems of the same type, and also between radio systems of different types.

Written to appeal to both the novice and experienced alike, it introduces the topics to those with little knowledge of interference analysis, but goes into more advanced concepts such as derivation of interference thresholds, mitigation methods, net filter discrimination (NFD) calculations and Monte Carlo methodologies.

The aim is to describe the field of interference analysis to help those interested to understand it better and it:

- Adopts a logical approach, progressing from motivation to fundamentals, elements of analysis, models, calculations, and verification, providing a unique all-in-one reference
- Blends narrative, detailed description, discussion and mathematical analysis including practical engineering calculations
- Describes how to calculate and assess interference within and between radio

systems of all major categories (terrestrial fixed, mobile, broadcasting, navigation and satellite, both GSO and non-GSO), with worked examples and detailed explanations of the processes involved

An accompanying web page provides example simulation files for the Visualyse Professional and Visualyse Coordinate software tools developed by Transfinite Systems. In addition, there are worked examples in Excel spreadsheets.

These resource files can be found together with more information about the book at:

http://www.transfinite.com/content/InterferenceAnalysisBook

The publisher's web page for the book is:

http://www.wiley.com/go/pahl1015

The book's table of contents is shown below.

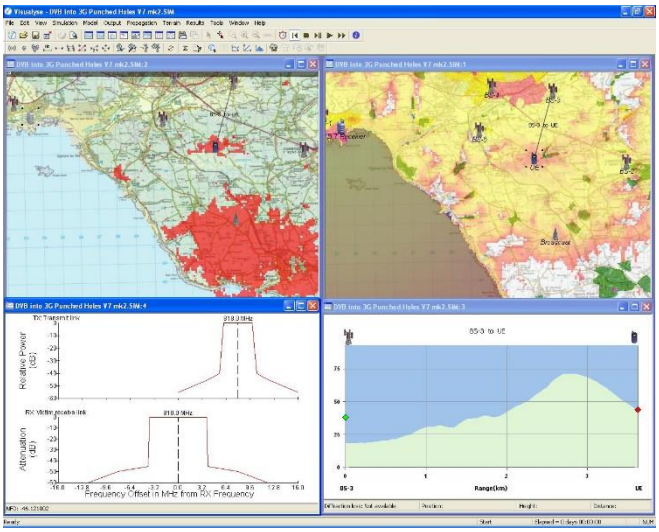
Table of Contents

Visualyse Professional

We have developed a range of radio engineering, spectrum management products including Visualyse Professional: the leading "Study Tool" for interference analysis able to model terrestrial and satellite systems using static, dynamic, area or Monte Carlo methodologies.

Visualyse Professional was extensively used in the preparation of this book and a number of example simulation files are available at the book's web site including:

- Link budget calculations
- Propagation model coverage predictions
- Static analysis examples
- Worst azimuth examples
- Monte Carlo examples
- Fixed link sharing example
- Radar coverage example



Visualyse Professional Screenshot

Other Transfinite software products used in the book including:

- Visualyse GSO
- Visualyse Coordinate
- Visualyse EPFD

Feedback

If you would like more information please do not hesitate to email us at:

info@transfinite.com

Email us at info@transfinite.com for further information or to give your views on this White Paper