Coverage
Inspec is a bibliographic reference database with very strong coverage in Computer Science. (A bibliographic reference database gives you references and usually abstracts (a short summary of the paper).)

You can read the full text of the paper by:
  o finding it online in the University’s electronic journal collection;
  o finding it on paper in the School or University Libraries;
  o find it online using Google Scholar;
  o requesting the paper through the Inter-Library Loan service. (Consult your supervisor first as this is an expensive service.)

Sometimes there is a direct link from a service such as Inspec to the University’s electronic journal collection (as is shown in the search performed here).

Inspec indexes journal papers and conferences well. It is usual for all papers in a publication to be indexed. As both journals and conferences are important in Computer Science, Inspec should be the first choice for general Computer Science searching.

Currency
Generally newly published journals and conferences are rapidly entered into the Inspec database.

Formulating a search
Inspec is a keyword based searching tool. You can search by authors but it is more usual to use subjects such as concurrency, “robot controllers”. It is important to avoid very common search terms. For instance, a search for “computer” found 2,765,810 items. It is plainly daft to use such a general keyword in a database that is largely about computing.

If you have difficulty in deciding what keywords to use, try the trick of completing this sentence:
  I want to find papers on ....
Setting the parameters for the search

The Inspec database is selected; only papers in English will be retrieved; the dates of papers will be from 2005-2011.
Searching for keywords in the title

The search is intended to find papers on the process of propagation in a programming language called Constraint Handling Rules (CHR). This search uses index entries from the title of the papers:

Keywords entered here

**Results of title-field search**

Searching in titles usually gives good precision but poor recall. There is only one item retrieved: it is relevant but there are probably more relevant papers in the database.

This gives access to the abstract of the paper.
Results of title-field search – accessing the abstract

By reading the abstract, we can decide whether the paper is relevant or not. (In this case, it is quite relevant because it mentions the semantics of CHR and propagation rules in the title.)

Refining by searching more fields

Changing the search fields from Title to Subject[constraint handling rules] gives access to many more words. However, these words may be used in many different contexts and so recall is increased while precision is likely to decrease. In other words: we will find more documents (in this case, 40) but some of them will be irrelevant.
Results of the broadened search

<table>
<thead>
<tr>
<th>#</th>
<th>Title</th>
<th>Source</th>
<th>Database</th>
<th>Abstract</th>
<th>Detailed</th>
<th>Full-text</th>
<th>Find It</th>
<th>Shibboleth</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>A compositional semantics for CHR with propagation rules</td>
<td>Oakley, T., Di, di, Linz, Bologna, Italy; Koc, T. C., Tachella, P.</td>
<td>Inspec</td>
<td>Abstract</td>
<td>Detailed</td>
<td>Full-text</td>
<td>Find It</td>
<td>Shibboleth</td>
</tr>
</tbody>
</table>

Note: items retrieved in the previous search turn up here too.

Accessing the full text.

Following the Find It & Shibboleth link to the University’s ejournal collection:

**UNIVERSITY OF BIRMINGHAM**

**Library Services**

- **Title:** Scheduling with uncertain durations: modeling <i><i>&beta;</i></i>-robust scheduling with constraints
- **Source:** Computers & operations research [0305-0548] Wu yr: 2009 vol:36 iss:8 pg:2348 - 56

**Full Text**

- Full text available via SwetsWise
  - Year: 2009 Volume: 36 Issue: 8 Start Page: 2348
- Authentication: IP & Shibboleth
- Full text available via NEIL2 Elsevier ScienceDirect Freedom Collection
  - Year: 2009 Volume: 36 Issue: 8 Start Page: 2348
- Authentication: IP & Shibboleth

**Click Here for Further Options**
until (via several other links) we get to the first page of the journal paper:
Getting an electronic copy of the results of the search

You can select references that seem interesting and have them emailed to you or you can download them to your machine. The first stage is to select one or more references:

Select the data elements you need.

Choose a downloading option.

Select the records you want.
Select your download format

Services usually provide several formats which are compatible with packages that enhance word processors (such as Word) or document preparation systems (such as LaTeX).

Download Selected Records
To download records, please select a format below.

- RIS, EndNote, ProCite, Reference Manager
- BibTeX format
- ReWorks direct import
- Plain text format (ASCII)

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and the data is delivered to your machine:

<RECORD 1>
Accession number:10623111
Title:Optimization of CHR propagation rules
Authors:Van Weert, P. (1)
Publication date:2008
Pages:485-500
Language:English
Document type:Conference article (CA)
Conference name:Logic Programming. 24th International Conference, ICLP 2008
Conference date:9-13 Dec. 2008
Conference location:Udine, Italy
Publisher:Springer-Verlag
Place of publication:Berlin, Germany
Material Identity Number:YXA8-1902-552
Abstract:Constraint Handling Rules (CHR) is an elegant, ... state-of-the-art CHR systems.
Number of references:14
Inspec controlled terms:constraint handling - high level languages - optimisation
Uncontrolled terms:optimization - CHR propagation rules - constraint handling rules - high-level programming language - forward chaining rules - propagation history
Inspec classification codes:C6110L Logic programming - C6140D High level languages - C1180 Optimisation techniques
Treatment:Practical (PRA)
Discipline:Computers/Control engineering (C)
DOI:10.1007/978-3-540-89982-2_42
Database:Inspec
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