
Information technology — JPSearch —
Part 1:
System framework and components

Technologies de l'information — JPSearch —
Partie 1: Cadre système et composants

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Published in Switzerland

This is a preview of "ISO/IEC TR 24800-1:2...". [Click here to purchase the full version from the ANSI store.](#)

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

In exceptional circumstances, when the joint technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide to publish a Technical Report. A Technical Report is entirely informative in nature and shall be subject to review every five years in the same manner as an International Standard.

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ISO/IEC TR 24800-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

This second edition cancels and replaces the first edition (ISO/IEC 24800-1:2007) which has been technically revised.

ISO/IEC TR 24800 consists of the following parts, under the general title *Information technology — JPSearch*:

- *Part 1: System framework and components [Technical Report]*
- *Part 2: Registration, identification and management of schema and ontology*
- *Part 3: Query format*
- *Part 4: File format for metadata embedded in image data (JPEG and JPEG 2000)*
- *Part 5: Data interchange format between image repositories*
- *Part 6: Reference software*

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Introduction

JPSearch aims at providing a standard for interoperability of still image search and retrieval systems. Many systems provide functionalities for storing, annotating, sharing, searching and retrieving images on computer desktops, on the World Wide Web, on imaging devices, and in other consumer and professional applications. Existing systems are implemented in a way that tightly couples the different functionalities, often providing only proprietary and restricted interfaces to the users and third-party applications. This severely constrains the users capacity to freely migrate their data and metadata between different systems. Moreover, it also limits the capacity of the different systems to interoperate.

JPSearch provides a set of standardized interfaces of an abstract image retrieval framework, facilitating the use and reuse of metadata and the use and reuse of metadata schemas to provide a common context for image data and metadata searching and interchanging. JPSearch also provides a common query language and a repository information interchange format, facilitating the deployment of distributed repositories and allowing users to easily migrate their data and metadata between different applications and devices.

In order to help the reader to understand the scope and usage of this part of ISO/IEC 24800, the informative Annexes A and B are provided. Annex A clarifies the scope of JPSearch by providing several use cases in different application domains. Annex B illustrates how to use ISO/IEC 24800 by presenting a representative use case and the way it would be implemented using ISO/IEC 24800.