



Platform for Internet Content Selection (PICS)

This document is not currently maintained as PICS has been superseded by the Protocol for Web Description Resources ([POWDER](#)). W3C encourages authors and implementors to refer to POWDER (or its successor) rather than PICS when developing systems to describe Web content or agents to act on those descriptions. A brief document outlining the advantages offered by POWDER compared with PICS is [available separately](#). The [Current Status Page](#) lists the PICS Recommendations and in each case includes a link to the document that supersedes it.

Contact details of the individuals named below and links to other documents may no longer be active.

The **PICSTM** specification enables labels (metadata) to be associated with Internet content. It was originally designed to help parents and teachers control what children access on the Internet, but it also facilitates other uses for labels, including code signing and privacy. The PICS platform is one on which other rating services and filtering software have been built.

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Introduction

For introductory materials, we suggest:

- [PICS Statement of Principles](#) and [Statement on Using PICS Well](#).
- [Technology Inventory](#). Lorrie Cranor and Paul Resnick.
- [Filtering Information on the Internet](#) [broken link as of July 2005]. Paul Resnick. *Scientific American*, March 1997, pp. 106-108.
- [PICS: Internet Access Controls Without Censorship](#), Paul Resnick and Jim Miller, *Communications of the ACM*, 1996, vol. 39(10), pp. 87-93.
- [PICS and Intellectual Freedom FAQ](#). Paul Resnick.

Participating

W3C maintains two electronic mailing lists for public use:

- **PICS-info@w3.org** is where we distribute public announcements related to the PICS project. Anyone may subscribe by sending email to **PICS-info-request@w3.org** with the word "Subscribe" in the Subject: field.
- **PICS-ask@w3.org** is for the public to send questions about the PICS project.

PICS also maintains special purpose [mailing lists for developers](#). There is also a [PICS Interest Group](#) for W3C members and invited participants.

The PICS Interest Group and mailing lists have now been closed but archives remain available:

- [PICS Info](#)
- [PICS Interest](#)

What's New

- [PICS Rating Vocabularies in XML/RDF](#) (W3C NOTE 27 March 2000)
- [Statement on Using PICS Well](#) (1 June 1998)
- [PICS Signed Labels \(DSig\) 1.0 Specification](#) (27 May 1998)
- [PICS Reference Code](#) (2/98)
- [PICSRules Language for Writing Filtering Rules](#); a W3C [Recommendation](#) (12/97)
- [Letter from Tim Berners-Lee to GILC](#) about PICSRules. Tim Berners-Lee (12/97)
- [PICS and Intellectual Freedom FAQ](#). Paul Resnick. Updated filtering section to include brief discussion of PICSRules. (updated 1/97)
- [PICSRules and Free Speech](#). Joseph Reagle. General comments and Joseph's responses to posts on the fight-censorship mailing list. (12/97)
- Free [Java implementation](#) of parsers for PICS labels, services, and rules, evaluator for PICSRules (12/97)
- [DSIG 1.0 specification for signing PICS labels](#); a W3C [Proposed Recommendation](#) (12/97)
- [SurfWatch](#) available in PICS format. [The PICS Application Incubator](#) [broken link as of March 2005] at The University of Michigan School of Information created a PICS label bureau to distribute SurfWatch labels. (12/97)
- [IBM's PICS-compliant proxy server](#) released (12/97)
- [Net Shepherd and Alta Vista offer filtered Internet search](#) (11/97) [broken link as of July 2005]

Information for the Media

For inquiries about PICS, please refer to [W3C's press contact information](#).

Please direct technical inquiries to:

- [W3C PICS expert](#), (pics-ask@w3.org)
- [Ralph R. Swick](#), (swick@w3.org), W3C metadata lead. + 1.617.253.2613

Inquiries about public policy issues surrounding content regulation may also be directed to

- [Joseph Reagle](#) (reagle@w3.org), W3C Policy Analyst. + 1.617.253.2613
- [Danny Weitzner](#), (djweitzner@w3.org), W3C Technology and Society Domain Leader. + 1.617.253.2613

What others are saying about PICS

Governments

- [European Commission Report \(follow-on document of 20 March, 1997\)](#)
- [Australian Broadcast Authority report on its investigation into on-line services](#)
- [European Parliament Green Paper: the Protection of Minors and Human Dignity in Audiovisual and Information Services](#)
- [European Union Communication on illegal and harmful content on the Internet](#) [broken link as of July 2005]
- [Report of European Commission Working party on illegal and harmful content on the internet](#) [broken link as of July 2005]
- [European Commission Forum for Exchange of Information on Internet Best Practices](#) [broken link as of July 2005]

Media

- [PICS Walks Fine Line on Net Filtering](#)
- [Good Clean PICS: The most effective censorship technology the Net has ever seen may already be installed on your desktop](#) (Simson Garfinkel in HotWired: February 1997)
- [College Hill interview with Joseph Reagle, W3C staff member](#) [broken link as of July 2005]

Individuals and Organizations

- [EFF's Draft Policy on public interest principles for online filtration, ratings, and labeling systems](#) [broken link as of July 2005]. Suggested guidelines for responsible use of labeling and filtering.
- [The Internet Filter Assessment Project](#). A group of librarians with mixed feelings about filtering examined several products in detail and discussed the issues facing libraries.
- [ACLU White Paper Critical of Labeling and Filtering](#) [broken link as of July 2005]
- [PICS-Aware Proxy System vs. Proxy Server Filters](#). [broken link as of July 2005] Wayne Salamonsen and Roland Yeo, proceedings of INET '97.
- [Metadata, PICS and Quality](#). Chris Armstrong. Ariadne magazine, May 1997.
- [Rating the Net](#). Jonathan Weinberg. in Hasting Communications and Entertainment Law Journal, Vol. 19, No. 2, p. 453-482. (A balanced but critical academic's look at rating systems and their legal and social impact.)
- [The Net Labeling Delusion](#) (anti-PICS web site in Australia)
- [Fight-censorship mailing lists](#) [broken link as of July 2005] (Declan McCullagh's moderated and unmoderated lists; occasional discussion of PICS and related technologies).

PICS Technical Specifications

Completed Specifications for PICS-1.1

These are official W3C recommendations. They are stable. The normative specifications are in English. [Translations](#) of some of these are available.

1. [Service descriptions](#): Specifies the format for describing a rating service's vocabulary and scales; analogous to a database schema.
2. [Label format and distribution](#): Specifies the format of labels and methods for distributing both self-labels and third-party labels.
3. [PICSRules](#): Specifies an interchange format for filtering preferences, so that preferences can be easily installed or sent to search engines.
4. [PICS Signed Labels \(DSig\) 1.0 Specification](#): Specifies the syntax and semantics of digital signatures in PICS labels.

Special Supplements to the Specifications

These are not official W3C recommendations, but they do represent a consensus of the PICS working group.

5. [Default and Override Labels](#): Specifies what a user agent (e.g., filtering software) should do when multiple labels are available from the same service; Also suggests where filtering agents should look for self-labels if they do not arrive in or along-with a document.

Resources for Developers of Software and Labeling Services

There is a low-volume mailing list, pics-interest@w3.org for developers and potential developers of PICS related products and services. To join this list, send email to pics-ask@w3.org and say why you're interested in joining.

Resources for Software Developers

The [technical specifications](#) above are the most important resource for developers. In addition:

- Free [Java implementation](#) of parsers for PICS labels, services, and rules, evaluator for PICSRules
- [PICSLE](#), the PICS Label Editor, also written in Java, provided courtesy of [IBM T.J. Watson Research Center](#).
- [IBM's PICS-compliant proxy server](#) makes it easy to set up a label bureau against which you can test clients.
- [Protocol extensions](#). These are extensions that people have defined using the extension mechanisms provided in the technical specifications.
- [Hints to implementors](#)
- Various tools and free technical advice available from the [PICS Application Incubator](#) project at the University of Michigan School of Information.

Resources for Labeling Service Developers

To start a new labeling service, you will need to take the following steps:

1. Decide who will assign labels.
 - Web site operators who self-label *and/or*
 - A panel of raters that you recruit *and/or*
 - A computer program that analyzes the contents of materials and assigns labels
2. Decide the labeling vocabulary and criteria
3. Express the labeling vocabulary and criteria according to the format specified in the [technical specification](#). You can create this file from scratch, or you can fill out web forms at the [PICS Application Incubator](#) and the file will be created for you.
4. Create the labels
5. Arrange for distribution of your labels
 - Give your labels to someone else who is running a PICS label bureau *and/or*
 - Run your own PICS label bureau *and/or*
 - Convince web site operators to distribute the labels for their own pages, either by putting them into HTML META tags or sending them along with web pages.

The [PICS Application Incubator](#) project at the University of Michigan School of Information will provide a limited amount of free technical consulting to organizations that are considering establishing new labeling services.

Lists of PICS-compatible products and services.

[Technology Inventory](#) [broken link as of July 2005]. Lorrie Cranor and Paul Resnick. This inventory was first distributed at the December 1997 Internet On-line summit: Focus on Children. The on-line version was updated until the summer of 1999. It also lists some products and services that are not PICS-compatible.

The following resource lists are being maintained by members of the PICS developers' community. Contact the maintainer of each individual list with additional links. The maintainers have all agreed to be fast and fair in maintaining these lists (please send any unresolved complaints to pics-ask@w3.org).

- [Client software](#) [broken link as of July 2005] that reads PICS labels.
- [HTTP servers](#) that distribute labels along with documents.
- [Proxy servers](#) [broken link as of July 2005] that perform filtering based on PICSRules.
- [Label bureaus](#): HTTP servers that distribute third-party PICS labels through the PICS label bureau query protocol.
- [Rating services](#)
- [Search engine](#) that can use PICS labels in its selection criteria
- [more information](#) "for families and caregivers" from [GetNetWise](#) [broken link as of July 2005]

Innovative Uses of PICS Labels

The most common uses of PICS labels have been in filtering products that block access to certain materials based on labels associated with those materials. The [technology inventory](#), however, identifies a range of other actions that can be taken based on labels: suggest, search, inform, monitor/log, and warn.

- Inform: [med-PICS](#); a collaboration for critical appraisal of medical information on the Internet
- Search: [Net Shepherd and Alta Vista offer filtered Internet search](#) [broken link as of July 2005]
- Inform: [Alexa Internet](#) displays PICS labels visually, but does not block access based on those labels.
- Inform: The Test-a-URL feature created by the [PICS Application Incubator](#) lets you see what labels have been assigned to any URL by several different rating services. (A [similar test-a-URL feature](#) is available for other, non PICS-based services.)

Hints for Web Site Authors Who Want to Self-Label

Many authors and web site operators offer materials that they realize will not be appropriate for all audiences. We encourage them to label their materials to make it easier for filtering software to block access. As an added inducement to labeling, we note that some future applications may use labels for searching as well as filtering. Thus, labeling your site will make it easier both for some audiences to avoid your site or documents and for others to find you.

PICS is able to remain value-neutral by refusing to endorse any particular labeling vocabulary. As a web site operator, you will not have that luxury. You'll want to adopt one or more of the rating vocabularies that other sites are using. You may want to use one of the [self-rating vocabularies](#).

Once you have created a label, you will need to distribute it along with your document(s). PICS has defined several ways to do that. The recommended method, if your HTTP server allows it, is to insert an extra header in the HTTP header stream that precedes the contents of documents that are sent to web browsers. The correct format, as documented in the specifications, is to include the two headers, Protocol and PICS-Label:

HTTP/1.0 200 OK
Date: Thu, 30 Jun 1995 17:51:47 GMT
Last-modified: Thursday, 29-Jun-95 17:51:47 GMT
Protocol: {PICS-1.1 {headers PICS-Label}}
PICS-Label:
(PICS-1.1 "http://www.gcf.org/v2.5" labels
on "1994.11.05T08:15-0500"
exp "1995.12.31T23:59-0000"
for "http://www.greatdocs.com/foo.html"
by "George Sanderson, Jr."
ratings (suds 0.5 density 0 color/hue 1))
Content-type: text/html

...contents of foo.html...

The server can send these headers even if the browser has not specifically request them.

The next best method is to run a label bureau at a specific location on your server, as specified in a [supplement](#) to the PICS specs, distributing labels only for documents on your server.

If neither of these methods is not available to you, a simpler but more limited method is to embed labels in HTML documents using a META tag. With this method, you will be able to send labels only with HTML documents, not with images, video, or anything else. You may also find it cumbersome to insert the labels into every HTML document. Some browsers, notably Microsoft's Internet Explorer versions 3 and 4, will download the root document for your web server and look for a generic label there. For example, if no labels were embedded in the HTML for this web page (they are), Internet Explorer would look for a generic label embedded in the page at <http://www.w3.org/> (generic labels can be found there). Be sure to read the [supplement](#) for information on when specific labels override generic labels and when they don't.

The following is a an example of the right way to embed a PICS label in an HTML document:

RIGHT!

```
<head>

<META http-equiv="PICS-Label" content='

(PICS-1.1 "http://www.gcf.org/v2.5"

  labels on "1994.11.05T08:15-0500"

    until "1995.12.31T23:59-0000"

      for "http://w3.org/PICS/Overview.html"
```

```
ratings (suds 0.5 density 0 color/hue 1))

'>

</head>

...contents of document here...
```

The following is incorrect, because the label is in the body of the document rather than in the HTML header (delimited by <head> and </head>).

WRONG!

```
<head>

</head>

<META http-equiv="PICS-Label" content='

(PICS-1.1 "http://www.gcf.org/v2.5"

labels on "1994.11.05T08:15-0500"

until "1995.12.31T23:59-0000"

for "http://w3.org/PICS/Overview.html"

ratings (suds 0.5 density 0 color/hue 1))

'>

...contents of document here...
```

It is OK to include more than one META tag in a single HTML document, so you can provide labels according to several services. There also is a way to combine several labels into a single label list. See the [technical specifications](#) for details.

RDF

Separate W3C working groups are developing a new label format, called RDF; the Resource Description Framework, based on XML. [RDF labels](#) will be able to express everything that PICS labels can express, but will also permit string and structured values, and some other nifty features. The latest information on this available at <http://www.w3.org/RDF>.

Frequently Asked Questions

A separate [PICS FAQ](#) document is available, offering answers to a number of common questions about PICS. In addition a [separate FAQ](#) addresses intellectual

freedom implications of PICS.

Comments to PICS-ask@w3.org.

[Webmaster](#)

\$Date: 2009/11/20 13:45:12 \$ by \$Author: phila \$

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