

NAME

ippfind - find internet printing protocol printers

SYNOPSIS

ippfind [*options*] *regtype*[,*subtype*][*.domain*.] ... [*expression*
...]
ippfind [*options*] *name*[.*regtype*[*.domain*.]] ... [*expression*
...]
ippfind --help
ippfind --version

DESCRIPTION

ippfind finds services registered with a DNS server or available through local devices. Its primary purpose is to find IPP printers and show their URIs, show their current status, or run commands.

REGISTRATION TYPES

ippfind supports the following registration types:

_http._tcp

HyperText Transport Protocol (HTTP, RFC 2616)

_https._tcp

Secure HyperText Transport Protocol (HTTPS, RFC 2818)

_ipp._tcp

Internet Printing Protocol (IPP, RFC 2911)

_ipps._tcp

Secure Internet Printing Protocol (IPPS, draft)

_printer._tcp

Line Printer Daemon (LPD, RFC 1179)

EXPRESSIONS

ippfind supports expressions much like the **find**(1) utility. However, unlike **find**(1), **ippfind** uses POSIX regular expressions instead of shell filename matching patterns. If *--exec*, *-l*, *--ls*, *-p*, *--print*, *--print-name*, *-q*, *--quiet*, *-s*, or *-x* is not specified, **ippfind** adds *--print* to print the service URI of anything it finds. The following expressions are supported:

-d *regex*

--domain *regex*

True if the domain matches the given regular expression.

--false

Always false.

-h *regex***--host** *regex*

True is the hostname matches the given regular expression.

-l

--ls Lists attributes returned by Get-Printer-Attributes for IPP printers and traditional *find* "-ls" output for HTTP URLs. The result is true if the URI is accessible, false otherwise.

--local

True if the service is local to this computer.

-N *name***--literal-name** *name*

True if the service instance name matches the given name.

-n *regex***--name** *regex*

True if the service instance name matches the given regular expression.

--path *regex*

True if the URI resource path matches the given regular expression.

-P *number*[-*number*]**--port** *number*[-*number*]

True if the port matches the given number or range.

-p**--print**

Prints the URI if the result of previous expressions is true. The result is always true.

-q

--quiet

Quiet mode - just returns the exit codes below.

-r

--remote

True if the service is not local to this computer.

-s

--print-name

Prints the service instance name if the result of previous expressions is true. The result is always true.

--true Always true.

-t *key*

--txt *key*

True if the TXT record contains the named key.

--txt-key *regex*

True if the TXT record contains the named key and matches the given regular expression.

-u *regex*

--uri *regex*

True if the URI matches the given regular expression.

-x *utility* [*argument* ...] ;

--exec *utility* [*argument* ...] ;

Executes the specified program if the current result is true. "{foo}" arguments are replaced with the corresponding value - see SUBSTITUTIONS below.

Expressions may also contain modifiers:

(*expression*)

Group the result of expressions.

! *expression*

--not *expression*

Unary NOT of the expression.

expression expression

expression --and expression

Logical AND of expressions.

expression --or expression

Logical OR of expressions.

SUBSTITUTIONS

The substitutions for "{foo}" in *-e* and *--exec* are:

{service_domain}

Domain name, e.g., "example.com.", "local.", etc.

{service_hostname}

Fully-qualified domain name, e.g., "printer.example.com.", "printer.local.", etc.

{service_name}

Service instance name, e.g., "My Fine Printer".

{service_port}

Port number for server, typically 631 for IPP and 80 for HTTP.

{service_regtype}

DNS-SD registration type, e.g., "_ipp._tcp", "_http._tcp", etc.

{service_scheme}

URI scheme for DNS-SD registration type, e.g., "ipp", "http", etc.

{ }

{service_uri}

URI for service, e.g., "ipp://printer.local/ipp/print", "http://printer.local/", etc.

{txt_key}

Value of TXT record *key* (lowercase).

OPTIONS

ippfind supports the following options:

--help

Show program help.

--version

Show program version.

-4 Use IPv4 when listing.

-6 Use IPv6 when listing.

-T seconds

Specify find timeout in seconds. If 1 or less, **ippfind** stops as soon as it thinks it has found everything. The default timeout is 1 second.

-V version

Specifies the IPP version when listing. Supported values are "1.1", "2.0", "2.1", and "2.2".

EXIT STATUS

ippfind returns 0 if the result for all processed expressions is true, 1 if the result of any processed expression is false, 2 if browsing or any query or resolution failed, 3 if an undefined option or invalid expression was specified, and 4 if it ran out of memory.

ENVIRONMENT

When executing a program, **ippfind** sets the following environment variables for the matching service registration:

IPPFIND_SERVICE_DOMAIN

Domain name, e.g., "example.com.", "local.", etc.

IPPFIND_SERVICE_HOSTNAME

Fully-qualified domain name, e.g., "printer.example.com.", "printer.local.", etc.

IPPFIND_SERVICE_NAME

Service instance name, e.g., "My Fine Printer".

IPPFIND_SERVICE_PORT

Port number for server, typically 631 for IPP and 80 for HTTP.

IPPFIND_SERVICE_REGTYPE

DNS-SD registration type, e.g., "_ipp._tcp", "_http._tcp", etc.

IPPFIND_SERVICE_SCHEME

URI scheme for DNS-SD registration type, e.g., "ipp", "http", etc.

IPPFIND_SERVICE_URI

URI for service, e.g., "ipp://printer.local/ipp/print", "http://printer.local/", etc.

IPPFIND_TXT_KEY

Values of TXT record *KEY* (uppercase).

EXAMPLES

To show the status of all registered IPP printers on your network, run:

```
ippfind --ls
```

Similarly, to send a PostScript test page to every PostScript printer, run:

```
ippfind --txt-pdl application/postscript --exec ipptool  
-f onepage-letter.ps '{ }' print-job.test \;
```

SEE ALSO

ipptool(1)

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