

Path-Based Access Control

Under Construction

Path-based access control (or path-based *authorisation*) is a feature that allows repository administrators to control access to parts of the repository (i.e., the path in the repository) for certain users or groups of users.

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File Syntax

The syntax of the `authz` and `groups` files is similar to [the syntax of Subversion's configuration files](#), but there are some important differences:

- Authorisation files can not be empty and must contain at least one section header.
- Section and option names are **case-sensitive**.
- Sections can **not be reopened** — this means that rules can be defined only once.
- Value **expansion is not performed**.
- Default values, and the `[DEFAULT]` section itself, **can not be used**.

Future change: [SVN-4795](#) proposes changing how section headers are parsed.

Differences from previous versions:

- Section and option names are case-sensitive since version **1.7**; they were case-insensitive in previous versions.
- Before version **1.10**, rules could be redefined, and value expansion and `[DEFAULT]` values were supported.

Groups

Aliases

Rules

Formal Definition

The following is a formal definition of the authorisation file syntax, in BNF:

Subversion Authorisation File Syntax

```
<authz-file> ::= <records> | <ignored> <records>
<ignored> ::= <empty> | <comment> | <ignored> ( <empty> | <comment> )
<records> ::= <section> | <records> <record>
<record> ::= <empty> | <comment> | <section> | <entry>
<empty> ::= <opt-space> <line-end>
<comment> ::= "#" <opt-text> <line-end>
<section> ::= "[" <section-name> "]" <opt-text> <line-end>
<entry> ::= <option> | <option> <continued>
<option> ::= <key> <opt-space> <key-sep> <opt-text> <line-end>
<continued> ::= <continuation> | <continued> <continuation>
<continuation> ::= <space> <text> <line-end>

<section-name> ::= "groups" | "aliases" | <rule>
<rule> ::= <opt-glob> <opt-repos> <path>
<opt-glob> ::= ":glob:" | ""
<opt-repos> ::= <repos> ":" | ""
<repos> ::= <repos-char> | <repos> <repos-char>
<path> ::= "/" | <path> <path-char>

<line-end> ::= <LF> | <end-of-file>
<space> ::= <space-char> | <space> <space-char>
<text> ::= <non-space> | <text> <text-char>
<key> ::= <key-start> | <key-start> <key-cont> <key-end>
<key-cont> ::= <key-char> | <key-cont> <key-char> | ""
<opt-space> ::= <space> | ""
<opt-text> ::= <opt-space> <text> | ""
<end-of-file> ::= (the end of the file)

; Character classes
<space-char> ::= <BS> | <TAB> | <VT> | <FF> | <CR> | <SPC>
<text-char> ::= (any character except <LF>)
<path-char> ::= (any <text-char> except "]")
<repos-char> ::= (any <path-char> except ":")
<non-space> ::= (any <text-char> except <space-char>)
<key-sep> ::= "=" | ":"
<key-start> ::= (any <non-space> except <key-sep>, "#" and "[")
<key-end> ::= (any <non-space> except <key-sep>)
<key-char> ::= (any <text-char> except <key-sep>)

; Characters (ASCII and Unicode names)
<BS> ::= U+0008 BACKSPACE
<TAB> ::= U+0009 CHARACTER TABULATION
<LF> ::= U+000A LINE FEED
<VT> ::= U+000B LINE TABULATION
<FF> ::= U+000C FORM FEED
<CR> ::= U+000D CARRIAGE RETURN
<SPC> ::= U+0020 SPACE
```

HowTo

Validating In-Repository Authorisation Files

References

- From The Book ([Version Control with Subversion](#)): [Path-Based Authorization](#)
 - Does not cover new features and restrictions in version 1.10 and later.
- Release notes:
 - 1.3: [Path-based authorization for svnserve](#)
 - 1.7: [Case sensitivity of authz access rules](#)
 - 1.8: [In repository authz](#)
 - 1.10: [Improved path-based authorization](#)
- Design documents:
 - [In-Repo Authz](#) (1.8 and later)

- [Authz Improvements](#) (1.10 and later)
- Mailing list discussions:
 - [Subversion AuthZ Wildcards](#)
 - [authz changes between 1.9 and 1.10](#)
- Related issues:

- [SVN-4762](#) - Getting issue details... [STATUS](#)
- [SVN-4793](#) - Getting issue details... [STATUS](#)
- [SVN-4794](#) - Getting issue details... [STATUS](#)
- [SVN-4795](#) - Getting issue details... [STATUS](#)
- [SVN-4802](#) - Getting issue details... [STATUS](#)
- [SVN-4803](#) - Getting issue details... [STATUS](#)
- [SVN-4204](#) - Getting issue details... [STATUS](#)