

# z/OS 3.1 IBM Education Assistant

Solution Name: Provide support for Z shell Zsh

Solution Element(s): z/OS Zsh

July 2023



# Agenda

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- Trademarks
- Objectives
- Overview
- Usage & Invocation
- Interactions & Dependencies
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# Trademarks

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- See url <http://www.ibm.com/legal/copytrade.shtml> for a list of trademarks.
- Additional Trademarks:
  - None

# Objectives

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- A stable version of Zsh v5.8 ported to z/OS.

# Overview

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- Who (Audience)
  - z/OS application programmers who want to use z/OS Zsh shell.
- What (Solution)
  - Providing a stable level of Zsh on zOS
- Wow (Benefit / Value, Need Addressed)
  - Zsh is known for its extensibility, good customization, and advanced features. Since Zsh is made from Bash, almost 90% of the scripting is similar, and it is compatible with Bash.
  - It has many features like Bash but some features of Zsh make it better and improved than Bash, such as spelling correction, cd automation, etc.
  - In order to provide more modern and powerful shell on z/OS, making Zsh available on z/OS is an important step of z/OS modernization.

# Usage & Invocation

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- Zsh is a UNIX command interpreter (shell) that is used as an interactive login shell and as a shell script command processor.
- It has command-line editing, built-in spelling correction, programmable command completion, shell functions (with autoloading), a history mechanism, and a host of other features.

# Usage & Invocation

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An example illustrates how to invoke z/OS Zsh:

1. Invoke Zsh interactive mode directly:

```
$zsh
```

2. Invoke Zsh with option '-c'

```
$zsh -c scr # scr is a shell script
```

Take the first argument as a command to execute, rather than reading commands from a script or standard input.

3. Invoke Zsh with option '-o'

```
$zsh -x -o shwordsplit scr
```

Run the script scr, setting the XTRACE option by the corresponding letter '-x' and the SH\_WORD\_SPLIT option by name

# Interactions & Dependencies

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- Software Dependencies
  - None
- Hardware Dependencies
  - None
- Exploiters
  - N/A



# Upgrade & Coexistence Considerations

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- z/OS 3.1 Zsh does not support:
  - Zsh extended Modules: zsh/cap, zsh/clone, zsh/compctl, zsh/complete, zsh/compllist, zsh/computil, zsh/curses, zsh/db/gdbm, zsh/deltochar, zsh/files, zsh/mapfile, zsh/newuser, zsh/pcre, zsh/net/socket, zsh/net/tcp, zsh/zftp, zsh/zle, zsh/zprof , zsh/zpty

# Installation & Configuration

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- No special considerations
- Verifying version:  
\$ zsh --version  
zsh 5.8.0.2

# Summary

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- The following z/OS Zsh Initiative has been explained:
  - Provide support for Z shell Zsh.
- Port Zsh v5.8 to z/OS.

# Appendix

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- z/OS Zsh User's Guide
- Open source reference guide: [https://zsh.sourceforge.io/Doc/zsh\\_us.pdf](https://zsh.sourceforge.io/Doc/zsh_us.pdf)