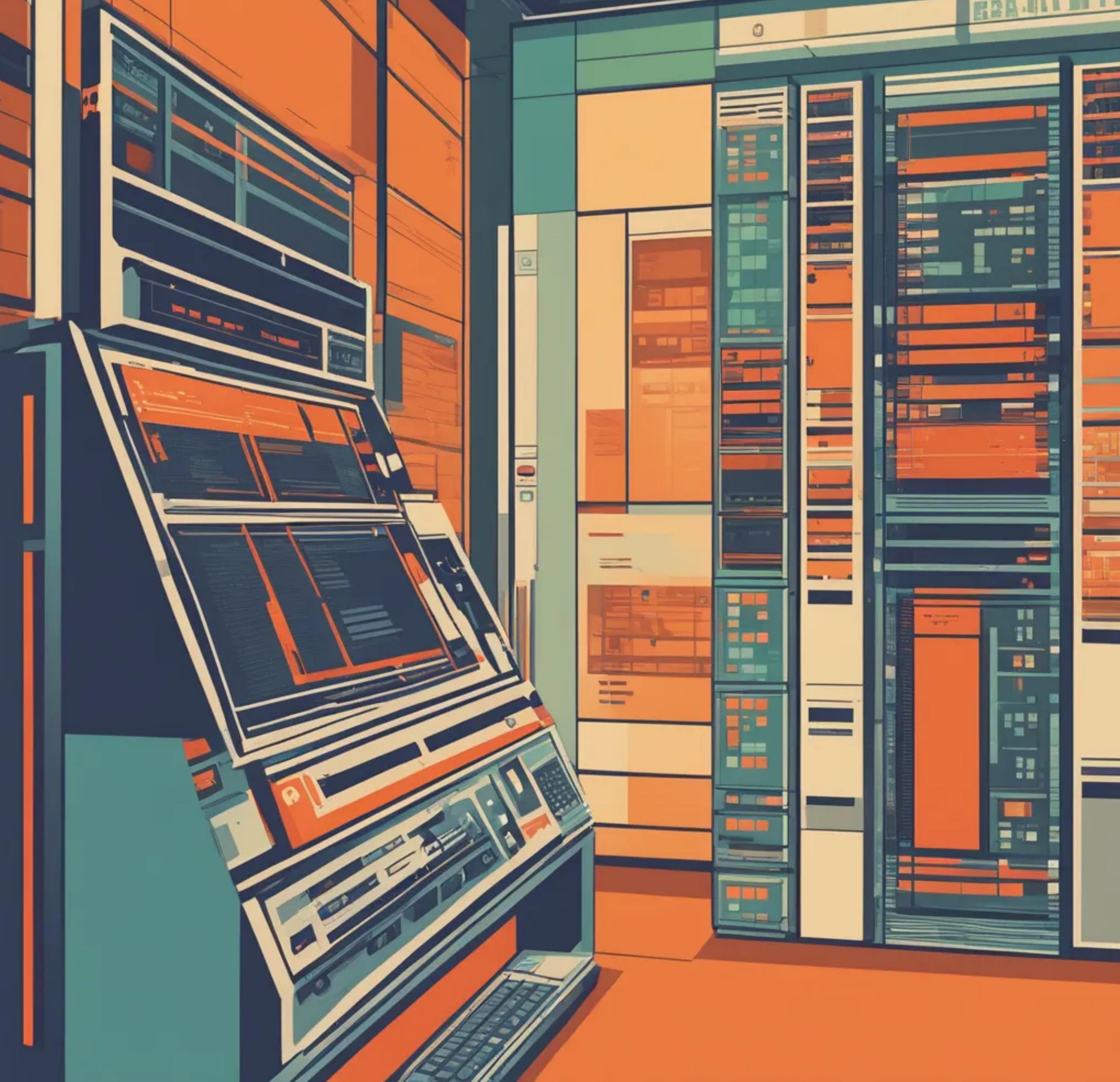


ZIGI

ISPF/GIT in Easy Mode

Lionel Dyck, Henri Kuiper
May 2024



Who are we?

- **Lionel Dyck**

- Software Artist, IBM Champion since 2023
- Builder of awesome tools -> <https://github.com/lbdyck>
- Also really cool and handy stuff on <https://cbttape.org>
- Currently Employed by Trident Services Inc.

- **Henri Kuiper**

- All round Mainframe Junkie, IBM Champion since 2019
- Chair (a.i.) for GSE NL-Security Workgroup, Co-chair for EU-AI Workgroup, Technical Coordinator for GSE-NL
- Proud co-founder of <https://mainframesociety.com>, Owner & Founder of zdevops
- Currently Employed by Dutch Tax Office



How did we end up here?



Sabine Diemt <Redacted>

to henrikuiper, wizard ▾

Tue, Apr 30, 2:09 PM (5 days ago)



Hello Henri,

I hope this email finds you well.

I'm one of the co-organizers of the Young Talents Mainframe Community of the Academic Mainframe Consortium (AMC). During our last meetup, Emma Skovgård talked about using VSCode for certain tasks. One topic that came up as well was Git, and Wolfram Greis mentioned your zigi project.

I'm therefore wondering if you would be interested in talking about Git on the mainframe and your zigi project at one of our next meetups, e.g. on Thursday, May 16th, at 6.30pm CEST? Our sessions usually take 1 hour, covering a talk and a subsequent discussion. It's organized on Zoom. It would be wonderful to welcome you for that!

Looking forward to hearing from you.

Best regards

Sabine Diemt

...so here we are



Young Talents Mainframe Community

the online meetup each third Thursday of the month with information and discussions
for young professionals, students, trainees, and everyone interested in mainframe topics

Topic:

zigi - Git on the Mainframe

Speakers:

Henri Kuiper (wizard / zdevops)
Lionel Dyck (software artist)

Date:

16.05.2024

Time:

6.30-7.30pm (CEST)

Join us:



<https://amc-ev.org/>
Membership free for students!



A close-up photograph of a woman with long, wavy brown hair, smiling warmly at the camera. She is wearing a dark-colored top. In her left hand, she holds a thick, dark book with a gold-colored spine. The background is dark and out of focus.

Let's Get
Started

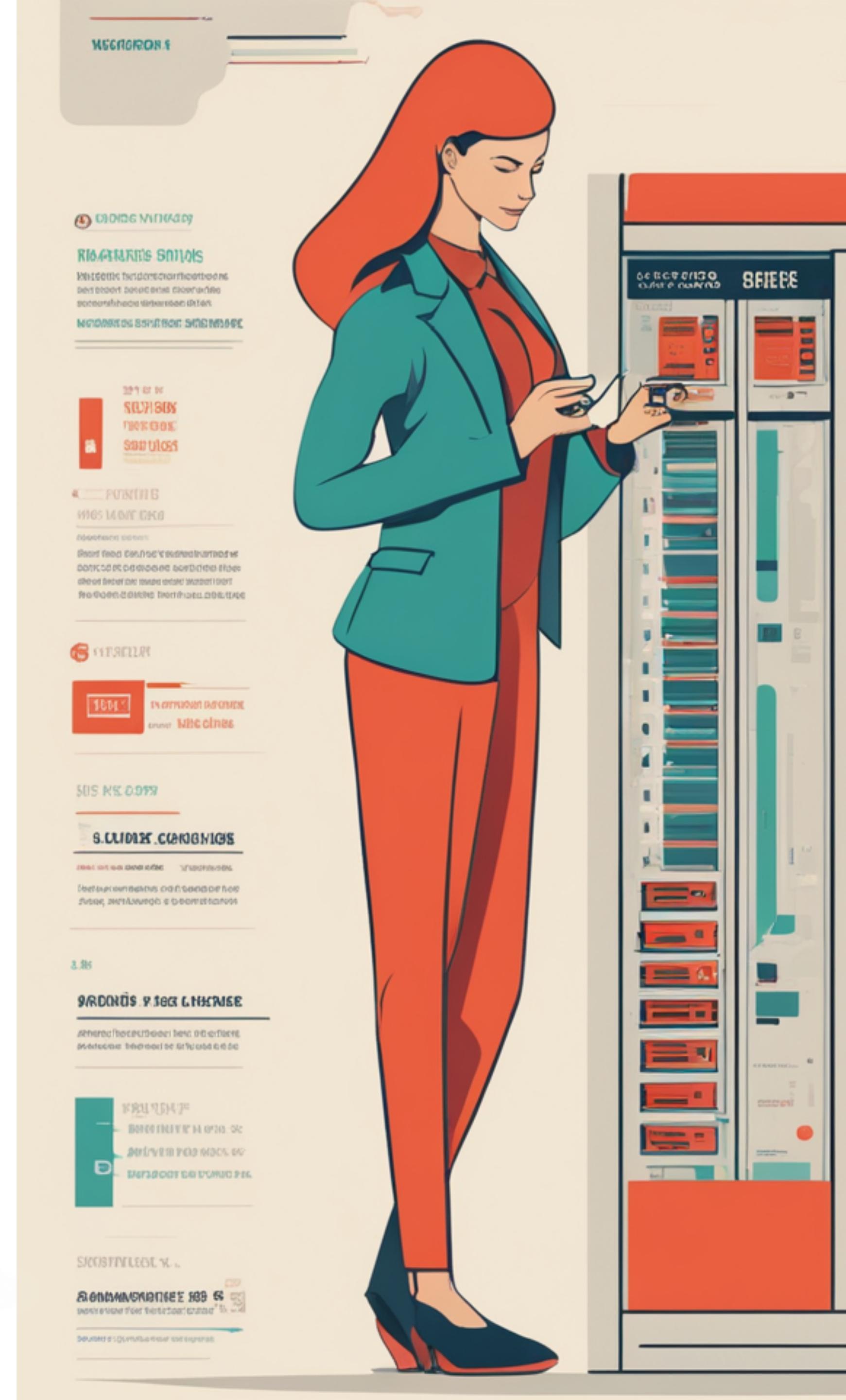
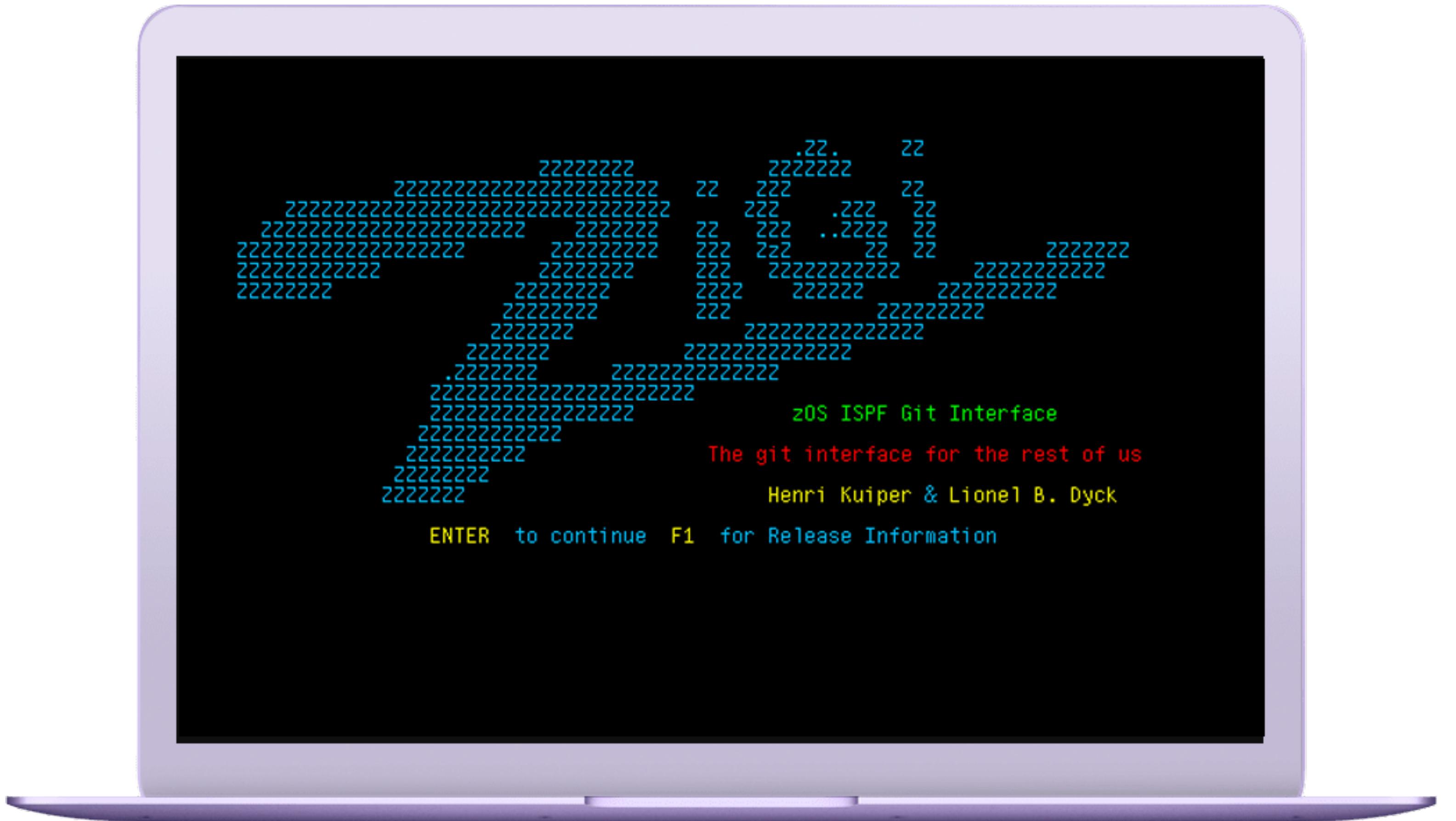
This is where the fun begins.



AGENDA

- Introducing ZIGI
- Features & Capabilities
- Prerequisites
- Installation Guide
- Let's see ZIGI in action

z/OS ISPF GIT Interface



ZIGI, also known as the **z/OS ISPF Git Interface**, brings the power and capabilities of git to the z/OS developer using the familiar, and trusted, ISPF development environment.

Written in REXX using ISPF Services and Unix System Services.

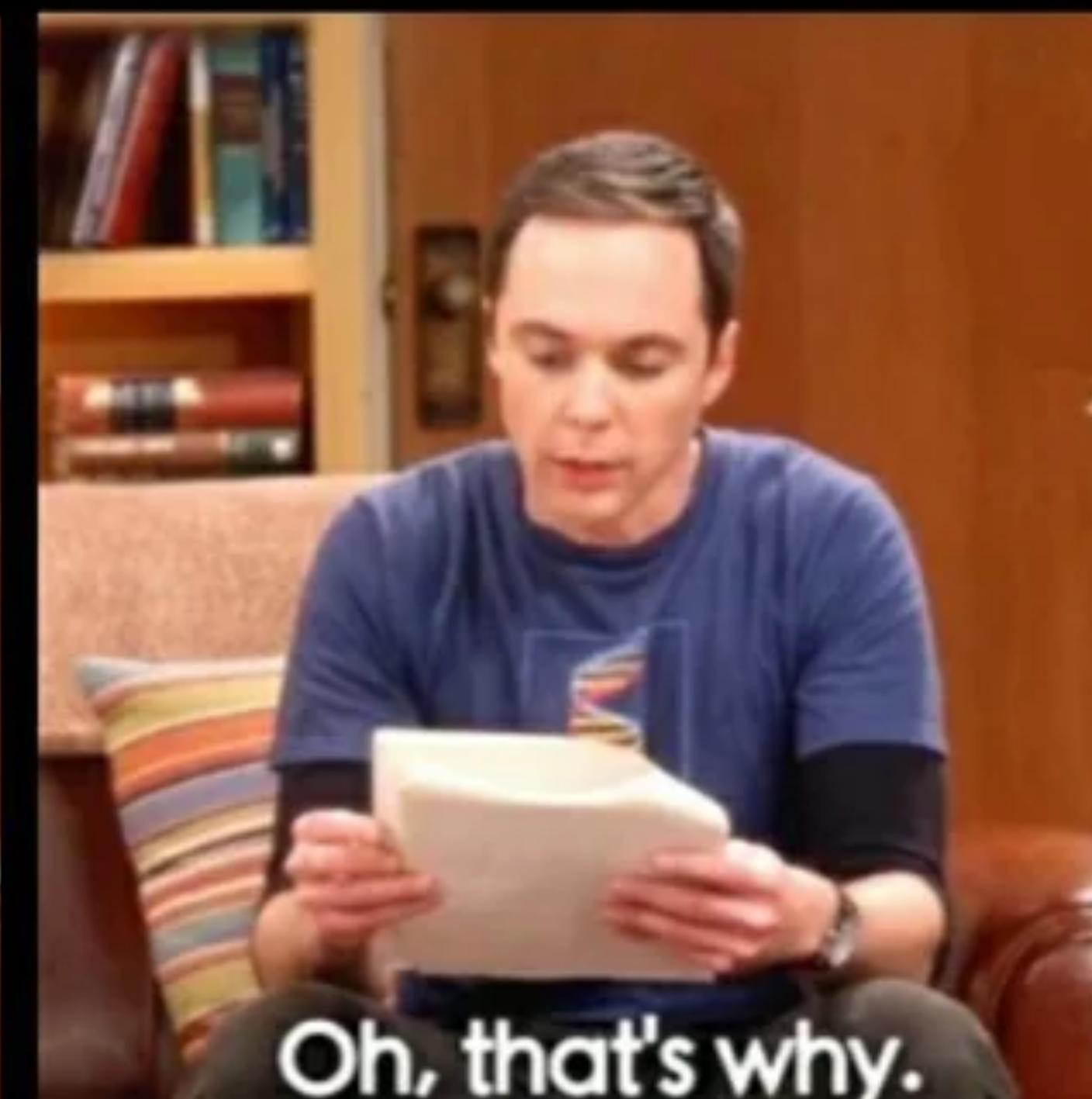
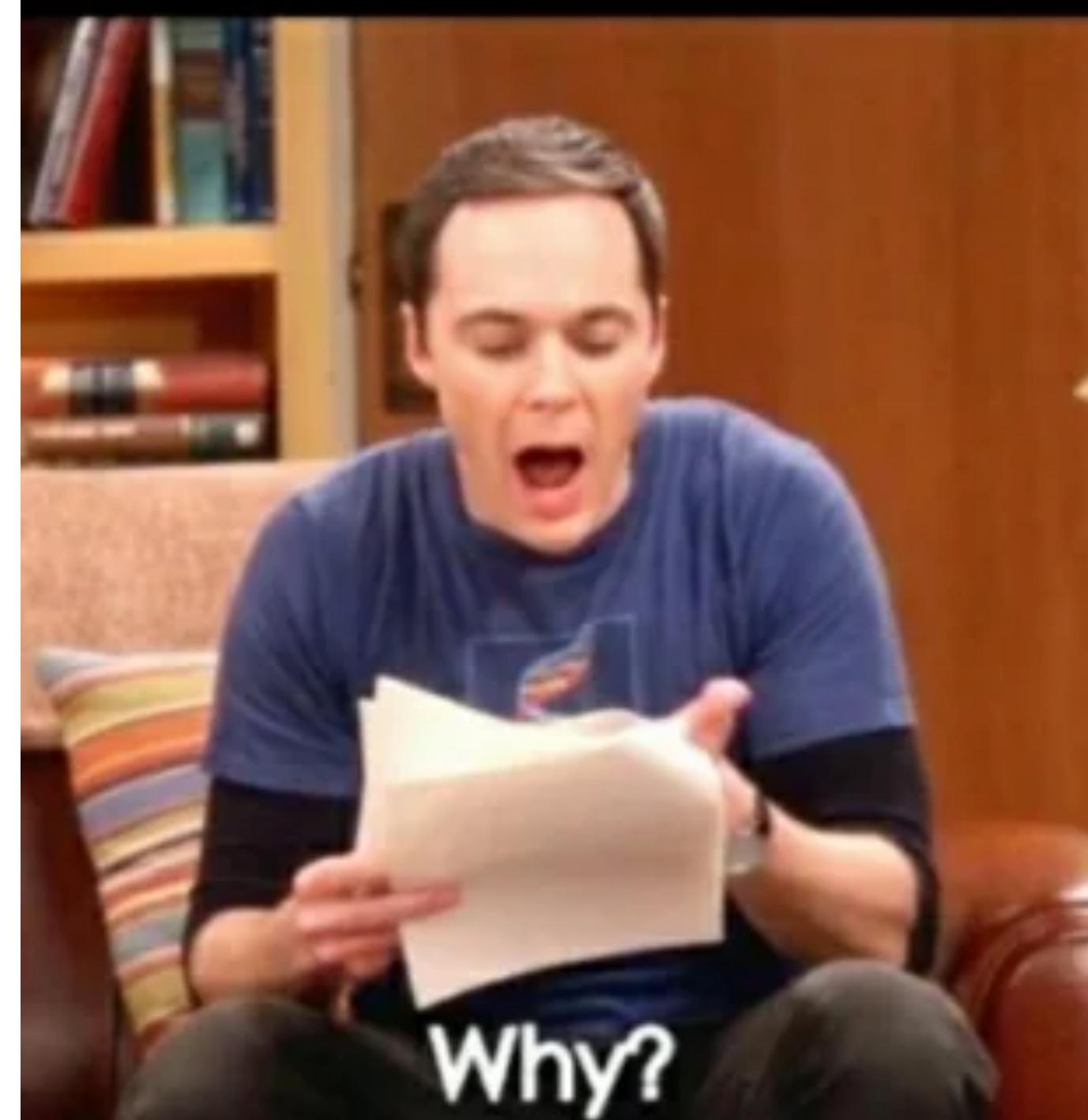
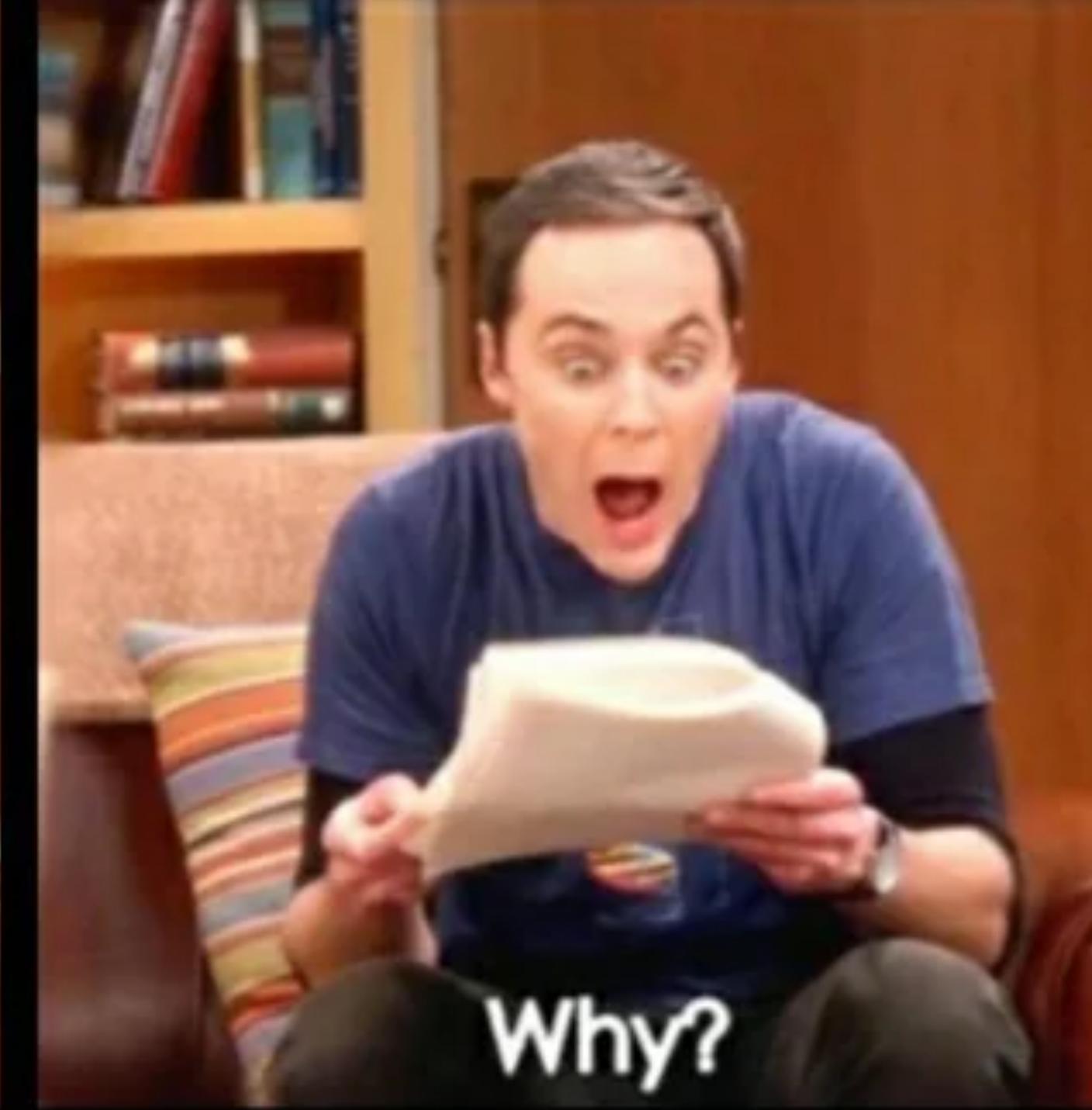
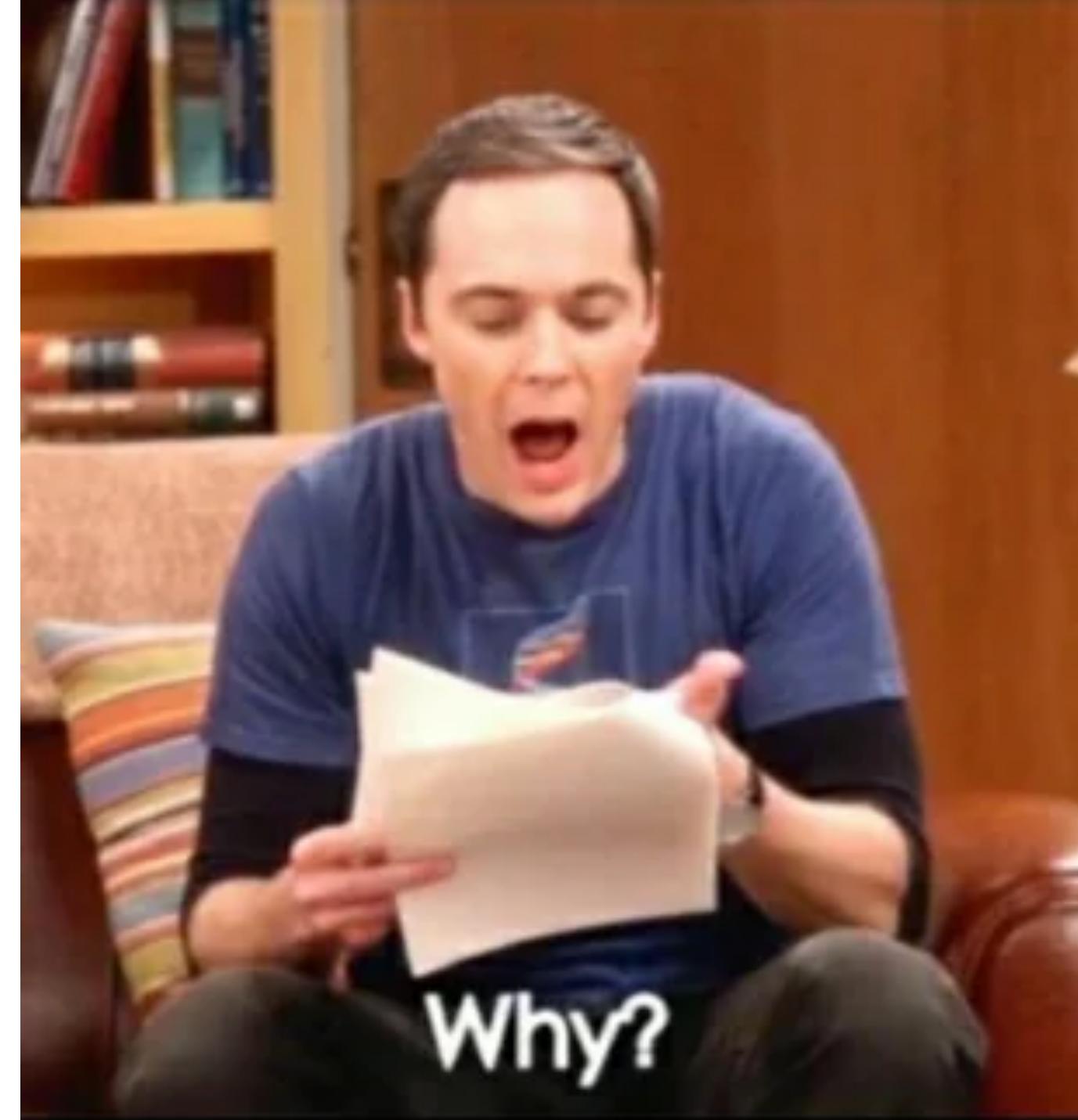
Developed by Henri Kuiper in 2018

Lionel Dyck joined the project in 2019

1st Release November 1, 2019 (at GSE UK)

Current Release : V3R19 (Valentines Day Version 2024)

why ZIGI



Top 3 reason why ZIGI exists



Painter **Vincent Van Gogh** on pushing yourself:

"I am always doing what I can't do yet in order to learn how to do it."

Source: Letter to Anthon van Rappard (1885)



But wait, there's more...

Try it – You'll Like It

It's FREE! (As in beer **and** as in speech!)

Git for the big boys

ZIGI – The Git TUI you've been looking for

Know ISPF and TSO but no clue about UNIX then ZIGI is for you.

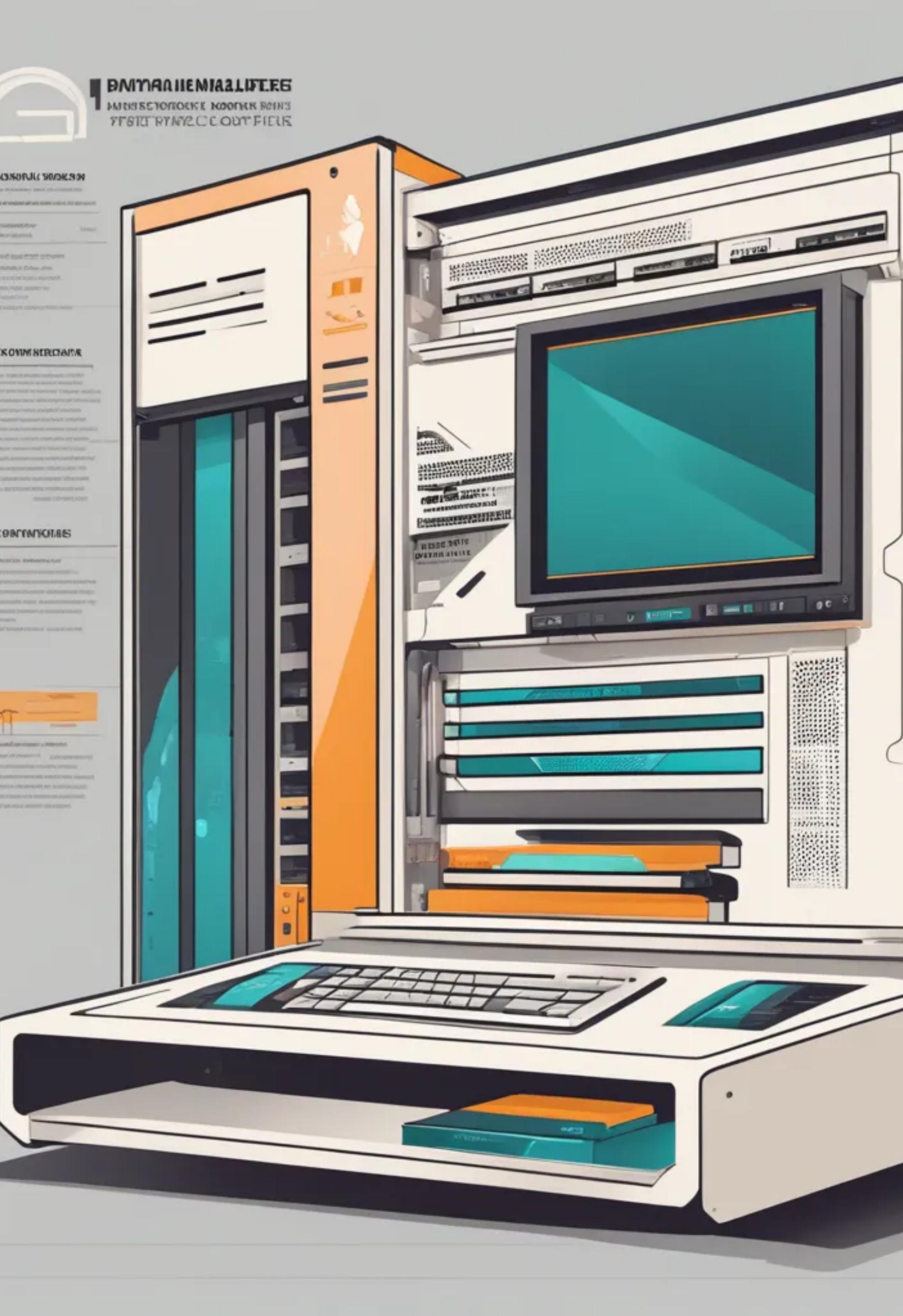
ZIGI teaches you GIT concepts

Seasoned developers can be productive using Git on Day ONE!

Git not just for the kids anymore.

Git and ISPF – the perfect combination for 21st century
z/OS Inspired Git Interface

Makes the 'old folks' and the 'young ones' work with same GIT repo



Features & Capabilities

- Manage GIT repos with z/os datasets
- With fixed for variable record lengths
- Sequential or Partitioned
- As long as LRECL < 32.760
- Branching, Merging, Cloning, Blaming
- All in a neat ISPF application
- Dynamic git-manuals (from man-pages)
- GIT command panel
- Co:Z toolkit support (highly advised)
- Fully Open Sourced & Built with Love

Prerequisites

- GIT
- bash
- ncurses
- perl

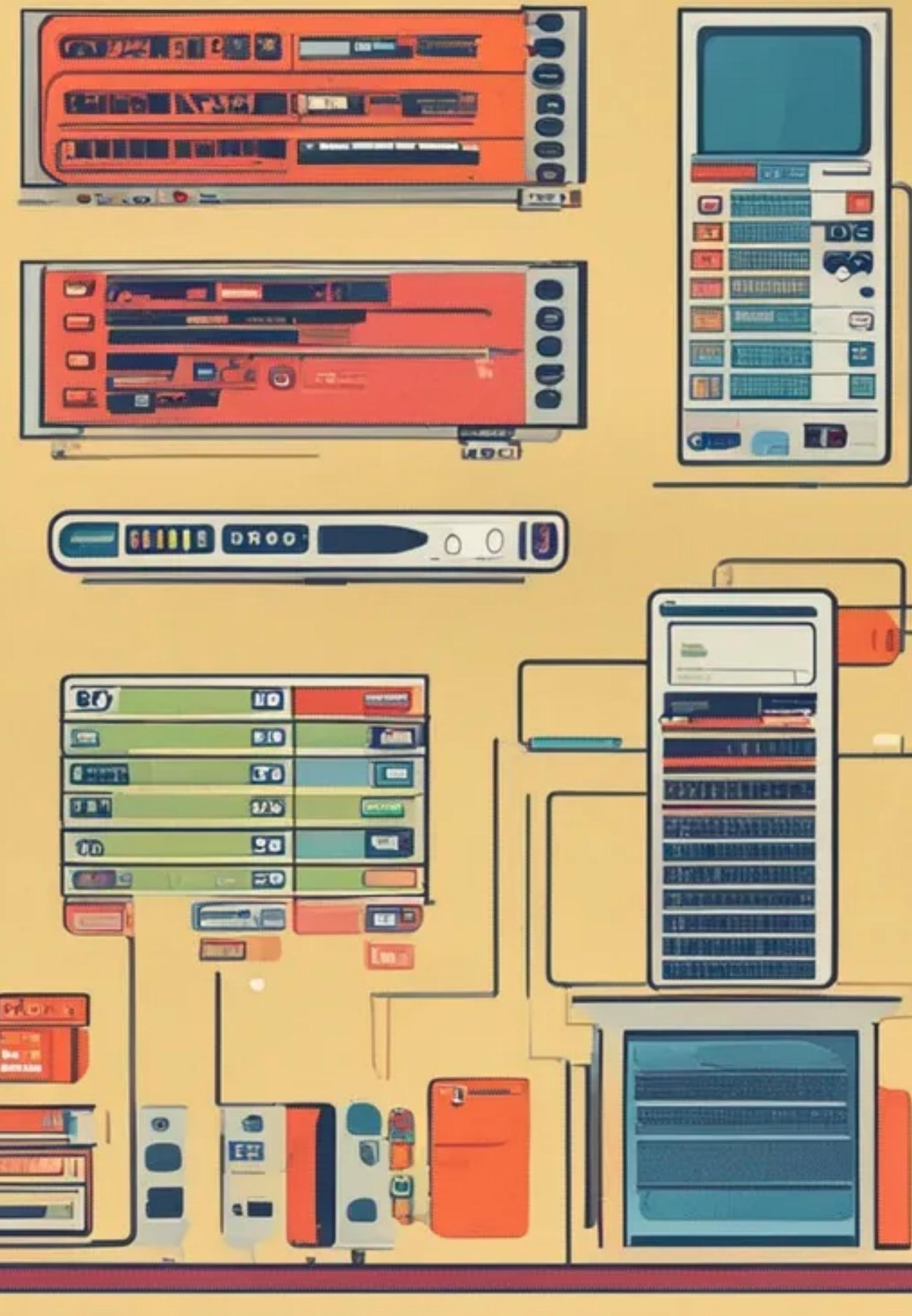


Nice to Haves

- Co:Z Toolkit from Dovetail Technologies.
- Network connection to external git-repo



Where to get those??



<https://github.com/ZOSOpenTools>

The GitHub page for z/OS Open Tools features a header with the repository name, a search bar, and navigation links for Overview, Repositories, Discussions, Projects, Packages, and People. Below the header is a section for the "z/OS Open Tools" project, which includes a logo, a brief description, and social media links. The main content area contains a README file with the title "Welcome to z/OS Open Tools" and the z/OS Open Tools logo.

<https://github.com/ZOSOpenTools>

<https://coztoolkit.com/>

The Co:Z Toolkit website has a header with the logo, navigation links for Components, Downloads, Documentation, and License/Support, and a "ENTERPRISE CUSTOMER SUPPORT LOGIN" link. The main content area features a large "Downloads" section with a blue background and a "Co:Z Co-Processing Toolkit for z/OS" section.

Co:Z Co-Processing Toolkit for z/OS

Release 8.0.0 - October 29, 2023

Review the [release notes](#) for possible migration actions.

Before installing the Co:Z Toolkit, review your license.

- Enterprise License

If you have an Enterprise or Outsourcing License and Support Agreement with Dovetailed Technologies, you can download the Co:Z Toolkit now by logging into the [Enterprise Customer Support System](#).

- Community License

If you are not party to an Enterprise or Outsourcing License and Support Agreement with Dovetailed Technologies, please review the [Community License](#). Note that the Community License does not allow an outsourcer or other third party to install, manage, operate, or support the software.

To download the current release of the Co:Z Toolkit software, [complete a request form](#) and a link will be sent to you by email.

<https://coztoolkit.com/downloads/coz/index.html>

A close-up photograph of a man's face, likely of African descent, wearing a military-style beret and a camouflage jacket. He is looking slightly to his right with a neutral expression. The background is blurred, showing what appears to be a military or industrial setting with various structures and equipment.

SHOW ME

HOW TO INSTALL ZIGI

Installing ZIGI via CBTTape

- Go to <https://www.cbttape.org/cbtdowns.htm> and get <https://www.cbttape.org/ftp/cbt/CBT997.zip>
- Unzip
- Pre Allocate <USERID>.ZIGI.XMIT as an 80 byte fixed 3MB
- Upload unzipped FILE997.XMI to the pre-allocated XMIT-dataset
- 'TSO RECEIVE' that XMIT file
- Execute the \$INSTALL member from received PDS

```
//ALLOCXMI EXEC PGM=IEFBR14
//*          THIS IS HOW WE DO IT...
//XMI        DD DSN=WIZARD.ZIGI.XMIT,
//           SPACE=(TRK,(30,15),RLSE),
//           DCB=(LRECL=80,RECFM=FB,
//           BLKSIZE=0)
```

Installing ZIGI via GitHub Release Page

- Go to <https://github.com/zigi/zigi/releases/latest> and get zigi-v3r19.xmit
- Pre Allocate <USERID>.ZIGI.XMIT as an 80 byte fixed 3MB
- Upload xmit file to the pre-allocated XMIT-dataset
- 'TSO RECEIVE' that XMIT file
- Execute the \$INSTALL member from received PDS

```
//ALLOCXMI EXEC PGM=IEFBR14
//*          THIS IS HOW WE DO IT...
//XMI        DD DSN=WIZARD.ZIGI.XMIT,
//           SPACE=(TRK,(30,15),RLSE),
//           DCB=(LRECL=80,RECFM=FB,
//           BLKSIZE=0)
```

Menu Options View Utilities Compilers Help

DSLIST - Data Sets Matching LBDYCK.DEMO.ZIGI

Row 1 of 1

Command ==> _

Scroll ==> CSR

Command - Enter "/" to select action

Message

Volume

LBDYCK.DEMO.ZIGI.XMIT

CBTU06

***** End of Data Set list *****

Menu Options View Utilities Compilers Help

DSLIST - Data Sets Matching LBDYCK.DEMO.ZIGI

Row 1 of 1

Command ==> _____

Scroll ==> CSR

Command - Enter "/" to select action

Message

Volume

receive inds(/) DEMO.ZIGI.XMIT

CBTU06

***** End of Data Set list *****

INMR901I Dataset LBDYCK.CBT.FILE997.PDS from LBDYCK on CBTTAPE

INMR906A Enter restore parameters or 'DELETE' or 'END' +
ds(demo.zigi.pds)

IEBCOPY MESSAGES AND CONTROL STATEMENTS

PAGE 1

IEB1135I IEBCOPY FMID HDZ2250 SERVICE LEVEL UJ05520 DATED 20210505 DFSMS 02.05.00 z/OS 02.05.00 HBB77D0 CPU 3932

IEB1035I LBDYCK TSOPROC TSOPROC 16:32:35 TUE 07 MAY 2024 PARM='WORK=4M,SIZE=1M'
COPY INDD=((SYS00122,R)),OUTDD=SYS00121

IEB1013I COPYING FROM PDSU INDD=SYS00122 VOL=WORK0A DSN=SYS24128.T163235.RA000.LBDYCK.R0102896

IEB1014I TO PDS OUTDD=SYS00121 VOL=CBTU05 DSN=LBDYCK.DEMO.ZIGI.PDS

IEB167I FOLLOWING MEMBER(S) LOADED FROM INPUT DATA SET REFERENCED BY SYS00122

IEB154I \$INSTALL HAS BEEN SUCCESSFULLY LOADED

IEB154I \$README HAS BEEN SUCCESSFULLY LOADED

IEB154I @FILE997 HAS BEEN SUCCESSFULLY LOADED

IEB154I EXEC HAS BEEN SUCCESSFULLY LOADED

IEB154I GPLLIC HAS BEEN SUCCESSFULLY LOADED

IEB154I PANELS HAS BEEN SUCCESSFULLY LOADED

IEB154I RELEASE HAS BEEN SUCCESSFULLY LOADED

IEB154I SAMPLES HAS BEEN SUCCESSFULLY LOADED

IEB154I STUB HAS BEEN SUCCESSFULLY LOADED

IEB1000I 0 OF 0 MEMBERS LOADED FROM INPUT DATA SET REFERENCED BY SYS00122

DSLIST - Data Sets Matching LBDYCK.DEMO.ZIGI

Row 1 of 2

Command ==> _

Scroll ==> CSR

Command - Enter "/" to select action

Message

Volume

LBDYCK.DEMO.ZIGI.PDS

CBTU05

LBDYCK.DEMO.ZIGI.XMIT

CBTU06

***** End of Data Set list *****

BROWSE

LBDYCK.DEMO.ZIGI.PDS

Row 0000001 of 0000009

Command ==>

Scroll ==> CSR

	Name	Prompt	Size	Created	Changed	ID
ex_	\$INSTALL		107	2020/02/03	2020/02/17 04:51:35	\$RUNME
	\$README		48	2024/04/28	2024/04/28 08:58:04	README
	@FILE997		25	2021/04/15	2024/04/28 08:58:33	CBT
	EXEC		21395	2024/04/28	2024/04/28 08:58:04	XMIT
	GPLLIC		677	2024/04/28	2024/04/28 08:58:04	GPL
	PANELS		10404	2024/04/28	2024/04/28 08:58:04	XMIT
	RELEASE		1100	2024/04/28	2024/04/28 08:58:04	README
	SAMPLES		783	2024/04/28	2024/04/28 08:58:04	XMIT
	STUB		17	2020/02/17	2020/05/16 12:35:25	SAMPLE
	End					

Enter desired hlq for target data sets (default is LBDYCK.ZIGI.NEW):

lbdyck.demo.zigi

Enter optional volser for target data sets default is to allow standard allocation to find a volume.

Enter optional SYSOUT class for RECEIVE messages, a null SYSOUT class is recommended.

Using HLQ: LBDYCK.DEMO.ZIGI

INMR901I Dataset LBDYCK.ZIGING.ZIGI.EXEC from LBDYCK on CBTTAPE

INMR154I The incoming data set is a 'DATA LIBRARY'.

INMR906A Enter restore parameters or 'DELETE' or 'END' +

IEBCOPY MESSAGES AND CONTROL STATEMENTS

PAGE 1

IEB1135I IEBCOPY FMID HDZ2250 SERVICE LEVEL UJ05520 DATED 20210505 DFSMS 02.05.00 z/OS 02.05.00 HBB77D0 CPU 3932

IEB1035I LBDYCK TSOPROC TSOPROC 16:33:26 TUE 07 MAY 2024 PARM=''

COPY INDD=((SYS00133,R)),OUTDD=SYS00132

IEB1013I COPYING FROM PDSU INDD=SYS00133 VOL=WORK0A DSN=SYS24128.T163326.RA000.LBDYCK.R0102900

IEB1014I TO PDSE OUTDD=SYS00132 VOL=CBTU06 DSN=LBDYCK.DEMO.ZIGI.EXEC

IGW01551I MEMBER GITHELP HAS BEEN LOADED

IGW01551I MEMBER SAMPLE HAS BEEN LOADED

IGW01551I MEMBER SAMPXITO HAS BEEN LOADED

TCW01551T MEMBER ZG HAS BEEN LOADED

IGW01551I MEMBER ZIGIRSID HAS BEEN LOADED

IGW01551I MEMBER ZIGIRSTH HAS BEEN LOADED

IGW01551I MEMBER ZIGIRTAG HAS BEEN LOADED

IGW01551I MEMBER ZIGISEL HAS BEEN LOADED

IGW01551I MEMBER ZIGISET HAS BEEN LOADED

IGW01551I MEMBER ZIGISNAP HAS BEEN LOADED

IGW01551I MEMBER ZIGISNPQ HAS BEEN LOADED

IGW01551I MEMBER ZIGISNPR HAS BEEN LOADED

IGW01551I MEMBER ZIGISPBD HAS BEEN LOADED

IGW01551I MEMBER ZIGISPLS HAS BEEN LOADED

IGW01551I MEMBER ZIGISSHK HAS BEEN LOADED

IGW01551I MEMBER ZIGISTAB HAS BEEN LOADED

IGW01551I MEMBER ZIGISTAQ HAS BEEN LOADED

IGW01551I MEMBER ZIGISTBQ HAS BEEN LOADED

IGW01551I MEMBER ZIGITAG HAS BEEN LOADED

IGW01551I MEMBER ZIGITAGQ HAS BEEN LOADED

IGW01551I MEMBER ZIGITAGT HAS BEEN LOADED

IGW01551I MEMBER ZIGITAGX HAS BEEN LOADED

IGW01551I MEMBER ZIGIVCNV HAS BEEN LOADED

TGW01551T MEMBER ZIGI1ST HAS BEEN LOADED



Please... there must be another way

**IF YOU HAVE GIT INSTALLED
AND YOU HAVE INTERNET CONNECTIVITY FROM YOUR MAINFRAME
THEN YOU CAN DO THIS**

A dark terminal window with a black background and a thin grey border. In the top-left corner, there are two small circular icons: a red one on the left and a green one on the right. The bottom-left corner of the window contains the text "/home/wizard \$ m" in a bright green color.

```
/home/wizard $ m
```

- Clone from github
- Verify
- Enter zigi directory
- Verify

```
/u/lbdyck/tmp>git clone git@github.com:zigi/zigi.git 1
Cloning into 'zigi'...
remote: Enumerating objects: 11973, done.
remote: Counting objects: 100% (2245/2245), done.
remote: Compressing objects: 100% (730/730), done.
remote: Total 11973 (delta 1601), reused 1906 (delta 1513), pack-reused 9728
Receiving objects: 100% (11973/11973), 10.12 MiB | 6.66 MiB/s, done.
Resolving deltas: 100% (8609/8609), done.
/u/lbdyck/tmp>ls -alT 2
total 48
drwxr-xr-x 3 LBDYCK ZOWEDEV 8192 May 16 08:46 .
drwxr-xr-x 15 LBDYCK ZOWEDEV 8192 May 16 08:44 ..
drwxr-xr-x 8 LBDYCK ZOWEDEV 8192 May 16 08:46 zigi
/u/lbdyck/tmp>cd zigi 3
/u/lbdyck/tmp/zigi>ls -alT 4
total 658
drwxr-xr-x 8 LBDYCK ZOWEDEV 8192 May 16 08:46 .
drwxr-xr-x 3 LBDYCK ZOWEDEV 8192 May 16 08:46 ..
drwxr-xr-x 8 LBDYCK ZOWEDEV 8192 May 16 08:46 .git
t IS08859-1 T=on -rw-r--r-- 1 LBDYCK ZOWEDEV 479 May 16 08:46 .gitattributes
t IS08859-1 T=on -rw-r--r-- 1 LBDYCK ZOWEDEV 8192 May 16 08:46 .github
drwxr-xr-x 2 LBDYCK ZOWEDEV 8192 May 16 08:46 .gitignore
t IBM-1047 T=on -rwxr-xr-x 1 LBDYCK ZOWEDEV 35147 May 16 08:46 .zigi
t IBM-1047 T=on -rw-r--r-- 1 LBDYCK ZOWEDEV 2299 May 16 08:46 License
drwxr-xr-x 2 LBDYCK ZOWEDEV 8192 May 16 08:46 README.md
t IBM-1047 T=on -rw-r--r-- 1 LBDYCK ZOWEDEV 35153 May 16 08:46 ZIGI.EXEC
drwxr-xr-x 2 LBDYCK ZOWEDEV 8192 May 16 08:46 ZIGI.GPLLIC
t IBM-1047 T=on -rw-r--r-- 1 LBDYCK ZOWEDEV 2106 May 16 08:46 ZIGI.PANELS
drwxr-xr-x 2 LBDYCK ZOWEDEV 8192 May 16 08:46 ZIGI.README
t IBM-1047 T=on -rw-r--r-- 1 LBDYCK ZOWEDEV 50788 May 16 08:46 ZIGI.RELEASE
drwxr-xr-x 2 LBDYCK ZOWEDEV 8192 May 16 08:46 ZIGI.SAMPLES
t IBM-1047 T=on -rwxr-xr-x 1 LBDYCK ZOWEDEV 8132 May 16 08:46 zgcvtenc.awk
t IBM-1047 T=on -rw-r--r-- 1 LBDYCK ZOWEDEV 1466 May 16 08:46 zginstall.readme
t IBM-1047 T=on -rwxr-xr-x 1 LBDYCK ZOWEDEV 81865 May 16 08:46 zginstall.rex
/u/lbdyck/tmp/zigi>
```

Install (aka copy) the z/
OS elements from USS
to z/OS Datasets.

```
/u/lbdyck/tmp/zigi>./zginstall.rex
```

Install (aka copy) the z/
OS elements from USS to
z/OS Datasets.

```
          .zZ.   Zz
          ZZZZZZZZ   ZZZZZZZZ
          ZZZZZZZZZZZZZZZZZZZZ  ZZ  ZZZ   zZ
          ZZZZZZZZZZZZZZZZ  ZZZZZZZZ  ZZ  ZZZ  ..zzZ  Zz
          ZZZZZZZZZZ,   ZZZZZZZZZZ  ZZZ  ZzZ  ZZ  ZZ  ZZZZZZZZ
          ZZZZ       ZZZZZZZZZZ  ZZZ  ZZZZZZZZZZ  ZZZZZZZZZZ
          ZZZZZZZZ  ZZZZZZZZ  ZZZ  ZZZZZZZZ  ZZZZZZZZg
          ZZZZZZZZ  ZZZZZZZZ  ZZZ  ZZZZZZZZ
          ZZZZZZZZ  ZZZZZZZZ  ZZZZZZZZZZ  Common
          ZZZZZZZZ  ZZZZZZZZ  ZZZZZZZZZZ  Installation
          .ZZZZZZZ  ZZZZZZZZ  ZZZZZZZZZZ  Tool
          ZZZZZZZZZZ  ZZZZZZZZZZ
          ZZZZZZZZZZ  ZZZZZZZZZZ  zOS ISPF Git Interface
          ZZZZZZZZZZ  ZZZZZZZZ
          ZZZZZZZZZZ  ZZZZZZZZ  The git interface for the rest of us
          ZZZZZZZZ  ZZZZZZZZ
          ZZZZZZZZ  ZZZZZZZZ  Henri Kuiper & Lionel Dyck
          * -----
          * This appears to be a git-created directory
          * No encoding conversion is required
          Enter the z/OS High Level Qualifier to use:
lbdyck.zigitest ←
          * -----
          * If the repository being installed has partitioned datasets
          * with a large number of members, the copy operation will take
          * longer than the TN3270 polling expects. This will cause
          * the OMVS Shell to change from RUNNING to INPUT.
          * Just press the F10 key to return to a RUNNING state.
          *
          * -----
          * Do not worry, however, as the copy operation is still running
          * and will report out when it completes (but only if the shell
          * is in a RUNNING state.
          *
          * -----
          * The following Datasets will be Created or Recreated:
          * 'LBDYCK.ZIGITEST.ZIGI.GPLLIC'
          * 'LBDYCK.ZIGITEST.ZIGI.README'
          * 'LBDYCK.ZIGITEST.ZIGI.RELEASE'
          * 'LBDYCK.ZIGITEST.ZIGI.EXEC'
          * 'LBDYCK.ZIGITEST.ZIGI.PANELS'
          * 'LBDYCK.ZIGITEST.ZIGI.SAMPLES'
          *
          * -----
Enter Y to Proceed or anything to Retry:
```

Watch the magic

```
Copying 197 of 198      Member: ZIGITAGX as Text
Copying 198 of 198      Member: ZIGIVCNV as Text
Copying '/u/lbdyck/tmp/zigi/ZIGI.SAMPLES/' to 'LBDYCK.ZIGITEST.ZIGI.SAMPLES'
Copying 3 members as Text

lrhg.rex -> LBDYCK.ZIGITEST.ZGSTAT.EXEC: text

Completed - z/OS datasets created:

'LBDYCK.ZIGITEST.ZIGI.GPLLIC'
'LBDYCK.ZIGITEST.ZIGI.README'
'LBDYCK.ZIGITEST.ZIGI.RELEASE'
'LBDYCK.ZIGITEST.ZIGI.EXEC'
'LBDYCK.ZIGITEST.ZIGI.PANELS'
'LBDYCK.ZIGITEST.ZIGI.SAMPLES'

Note that using this installation path does not allow the ISPF
statistics to be recreated. Other than the missing ISPF statistics
everything has been successfully installed on z/OS.

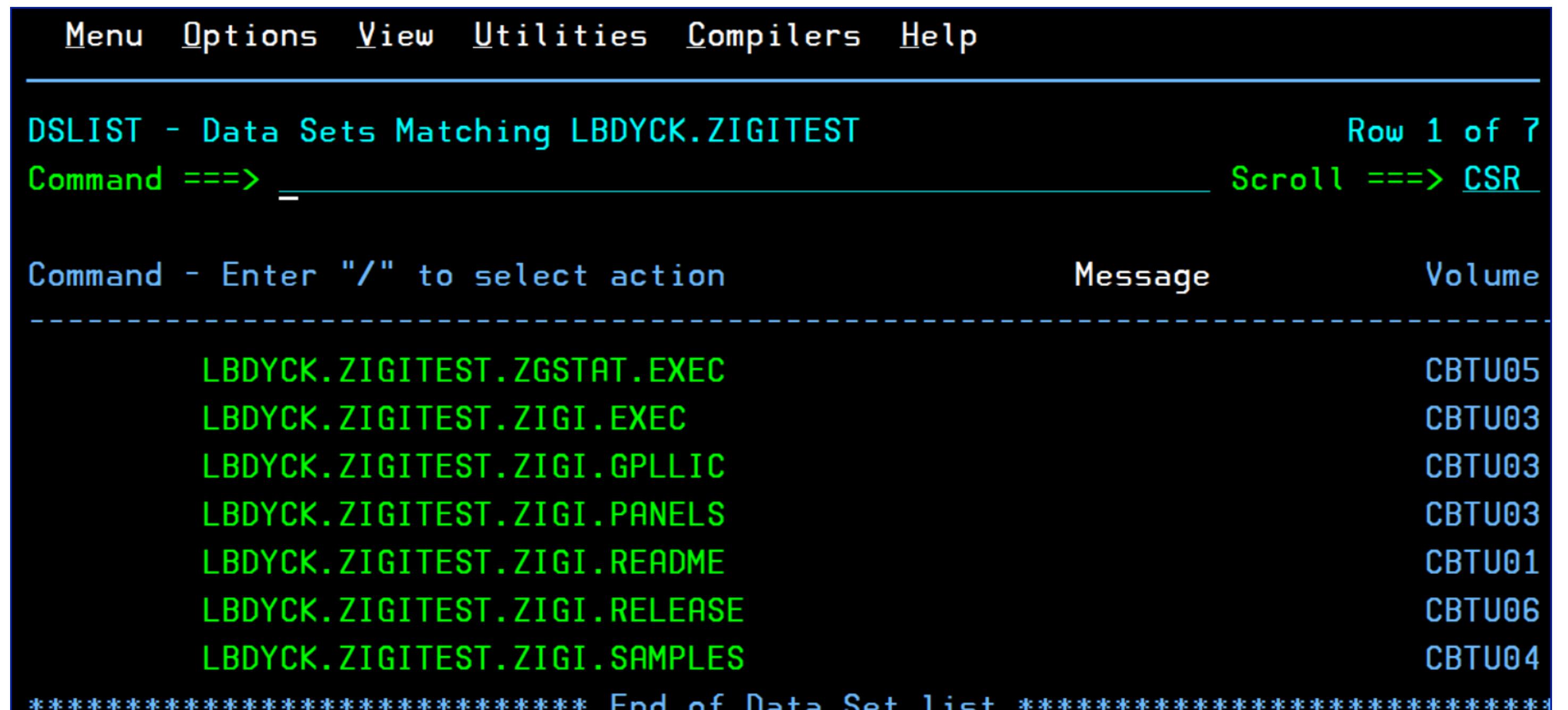
One, or more, partitioned datasets (PDS) had both text and binary
members. This prevented the ISPF statistics from being created
for that PDS.

To recreate the ISPF statistics execute the following command
after returning to TSO/ISPF:

TSO EX 'LBDYCK.ZIGITEST.ZGSTAT.EXEC' EX

After it completes successfully it can be deleted.
/u/lbdyck/tmp/zigi>
```

The z/OS Datasets are there.



A screenshot of a z/OS MVS command line interface. The title bar shows "DSLIST - Data Sets Matching LBDYCK.ZIGITEST". The menu bar includes "Menu", "Options", "View", "Utilities", "Compilers", and "Help". Below the title bar, there are status messages: "Row 1 of 7" on the right and "Command ===> _" below it. A scroll bar on the right has "CSR" at its bottom. The main area displays a list of datasets:

Command	- Enter "/" to select action	Message	Volume
LBDYCK.ZIGITEST.ZGSTAT.EXEC			CBTU05
LBDYCK.ZIGITEST.ZIGI.EXEC			CBTU03
LBDYCK.ZIGITEST.ZIGI.GPLLIC			CBTU03
LBDYCK.ZIGITEST.ZIGI.PANELS			CBTU03
LBDYCK.ZIGITEST.ZIGI.README			CBTU01
LBDYCK.ZIGITEST.ZIGI.RELEASE			CBTU06
LBDYCK.ZIGITEST.ZIGI.SAMPLES			CBTU04

At the bottom, a footer message reads "***** End of Data Set List *****".

Execute the
ZGSTAT.EXEC to add/
update the ISPF Statistics
for the z/OS Partitioned
Datasets

```
-----  
ex      LBDYCK.ZIGITEST.ZGSTAT.EXEC  
          LBDYCK.ZIGITEST.ZIGI.EXEC
```

Execute the ZIGI primary exec to validate

LBDYCK.ZIGITEST.ZIGI.EXEC						
BROWSE			Row 0000001 of 0000025			
Command ==>			Scroll ==> CSR			
	Name	Prompt	Size	Created	Changed	ID
	GITHHELP		918	2020/03/11	2023/06/15 07:15:23	ZIGI
	SAMPLE		17	2020/02/13	2020/02/13 13:06:00	ZIGI
	SAMPXITO		50	2020/09/20	2020/09/28 07:03:00	ZIGI
	ZG		2223	2022/03/27	2024/05/14 10:00:43	ZIGI
	ZCVTENC		226	2024/04/23	2024/04/24 06:59:14	ZIGI
	ZGINSTAL		2245	2020/11/17	2024/05/14 10:02:19	ZIGI
ex_	ZIGI		10245	2024/05/06	2024/05/14 10:03:31	ZIGI
	ZIGICHG		48	2020/03/11	2020/04/30 05:24:00	ZIGI
	ZIGICKOT		967	2020/01/24	2024/05/14 10:06:56	ZIGI
	ZIGICNVT		434	2021/02/05	2024/05/14 10:05:02	ZIGI
	ZIGIEM		56	2020/03/11	2020/04/27 06:20:00	ZIGI
	ZIGIEME		87	2020/03/11	2020/04/27 06:20:00	ZIGI
	ZIGIEMMD		64	2021/06/01	2022/08/03 12:30:22	ZIGI314
	ZIGIEMS		81	2020/03/11	2020/04/27 06:20:00	ZIGI
	ZIGIEXIT		67	2020/09/07	2020/09/20 15:22:00	ZIGI
	ZIGIEXTR		802	2020/06/12	2023/06/15 05:36:40	ZIGI
	ZIGIGCMD		324	2020/03/11	2023/02/02 09:13:26	ZIGI
	ZIGIGENI		355	2020/06/11	2024/04/23 14:04:32	ZIGI
	ZIGIMRGM		112	2020/03/11	2020/07/12 10:38:00	ZIGI

We have ZIGI

Commands Help		Git 2.45.1		
Local Repositories ----- [ZIGI v3r20] ----- Row 1 of 17				
Command ==> _		Scroll ==> CSR F3		
Co:Z active	Repository	Prefix	Category	Last Access
	demo	LBDYCK	demo	16 May 2024
	zigi	LBDYCK.ZIGING		15 May 2024
	omvsman	LBDYCK		14 May 2024
	ztsohelp	LBDYCK		14 May 2024
	omvscmd	LBDYCK		14 May 2024
	lstproc	LBDYCK		14 May 2024
	pdsegen	LBDYCK		14 May 2024
	ispftips	LBDYCK		14 May 2024
	tryit	LBDYCK		14 May 2024
	ftp&	LBDYCK		14 May 2024
	dsfsadm	LBDYCK		14 May 2024
	zfstools	LBDYCK		14 May 2024
	xmitip	LBDYCK.XMITIP		14 May 2024
	whoson	LBDYCK		14 May 2024
	inews	LBDYCK		13 May 2024
	cbtview	LBDYCK		6 May 2024
	racfadm	LBDYCK		6 May 2024
***** Bottom of data *****				

Confirmation

Current ALTLIB Allocations:
Application-level EXEC (SYS00239)

LBDYCK.ZIGITEST.ZIGI.EXEC

— LIBDEF Utility —

ISPF LIBDEF Display

Row 1 to 8 of 8

Command ==> _____ Scroll ==> CSR

Library	Type	USR Identifier
ISPFILE		** LIBDEF not active **
ISPLILIB		** LIBDEF not active **
ISPLLIB		** LIBDEF not active **
ISPMLIB		** LIBDEF not active **
ISPPLIB	DATASET	LBDYCK.ZIGITEST.ZIGI.PANELS
ISPSLIB		** LIBDEF not active **
ISPTABL		** LIBDEF not active **
ISPTLIB		** LIBDEF not active **

Deployment

```
Menu Utilities Compilers Help
BROWSE LBDYCK.ZIGITEST.ZIGI.EXEC(SAMPLE) - 01.0 Line 0000000000 Col 001 080
Command ==> _____ Scroll ==> CSR
***** Top of Data *****
/* ----- REXX ----- */
|
| This is a REXX exec that may be copied into a system level,
| group level, or personal SYSEXEC or SYSPROC library for the
| purpose of making it easy to invoke zigi.
|
| To use customize the exec and panels variables.
* -----
arg opt
exec  = "'hlq.exec'"          /* <== update */
panels = "'hlq.panels'"        /* <== update */

Address TSO 'altlib act application(exec) dataset('exec')
Address ISPexec
'libdef isplib dataset id('panels') stack'
"Select CMD(%zigi" opt") Newappl(ZIGI) Passlib Scrname(zigi)"
'libdef isplib'
Address TSO 'altlib deact application(exec)'
***** Bottom of Data *****
```

Some things worth mentioning

- ZIGI needs to 'find git' via /etc/profile OR ~/.profile (or equivalent).
- If needed you can specify a user specified envfile for ZIGI to find GIT
- This is needed for the Z Open Tools GIT
- Add in BINARY if you use any of there chars (ISPF-panels often):
 - x'0D' Carriage Return (CR)
 - x'15' New Line (NL)
 - x'25' Line Feed (LF)
- ZIGI was not meant as an IDE, though it still uses ISPF Edit
- Repo boundary is the 'prefix boundary'

ENVFILE for ZIGI with Z Open Tools

(ZIGI v3r20)

Command ==> _

Specify the Location of an Environment File that points to Git. This is used when you wish to use a Git that isn't defined in your /etc/profile or your home/.profile , or it can be the zopen tools ..//etc/zopen-config file.

Location of env-file: /u/lbdyck/zopen/etc/zopen-config

Your Git installation should have an env-file located somewhere on your system. This file contains things like:

```
export PATH=/zdo/rocket/bin:$PATH
export MANPATH=$MANPATH:/zdo/rocket/man
export PERL5LIB=/zdo/rocket/lib/perl5:$PERL5LIB
export LIBPATH=/zdo/rocket/lib/perl5/5.24.0/os390/CORE:$LIBPATH
```

Use start option /ENV to be prompted to change, or use /ENVR to nullify or use the GITEnv command on the primary menu to access.

Press Enter to update and continue, or F3 to cancel

GITINFO command

```
00.2 active
----- ZIGI Git Information Summary -----
ZIGI Version    : v3r20
Git Version     : 2.45.0
Git Location    : /u/lbdyck/zopen/usr/local/bin/git
Git ZFS         : LBDYCK.ZOPEN.ZFS
CoZ Status      : Co:Z active
CoZ Location    : /usr/local/coz/bin/
CoZ ZFS         : CBT.OMVS.COZ.V800.ZFS
Encoding        :
Custom Env Var : /u/lbdyck/zopen/etc/zopen-config
```

Contributing?

Want to **fix one of the open issues**?

Or maybe implement a **new feature**?

Just fork our GitHub repository, then pull your forked version (with ZIGI) into your z/OS environment.

Code, commit, push then send a PR via GitHub (not a ZIGI feature yet)



YES PLEASE!

IT'S

DEMO TIME

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QUESTIONS?



THANK YOU

