

2024 Europe Community Meeting

The Hitchhiker's Guide to the Software Security Galaxy



Jake Marcinko

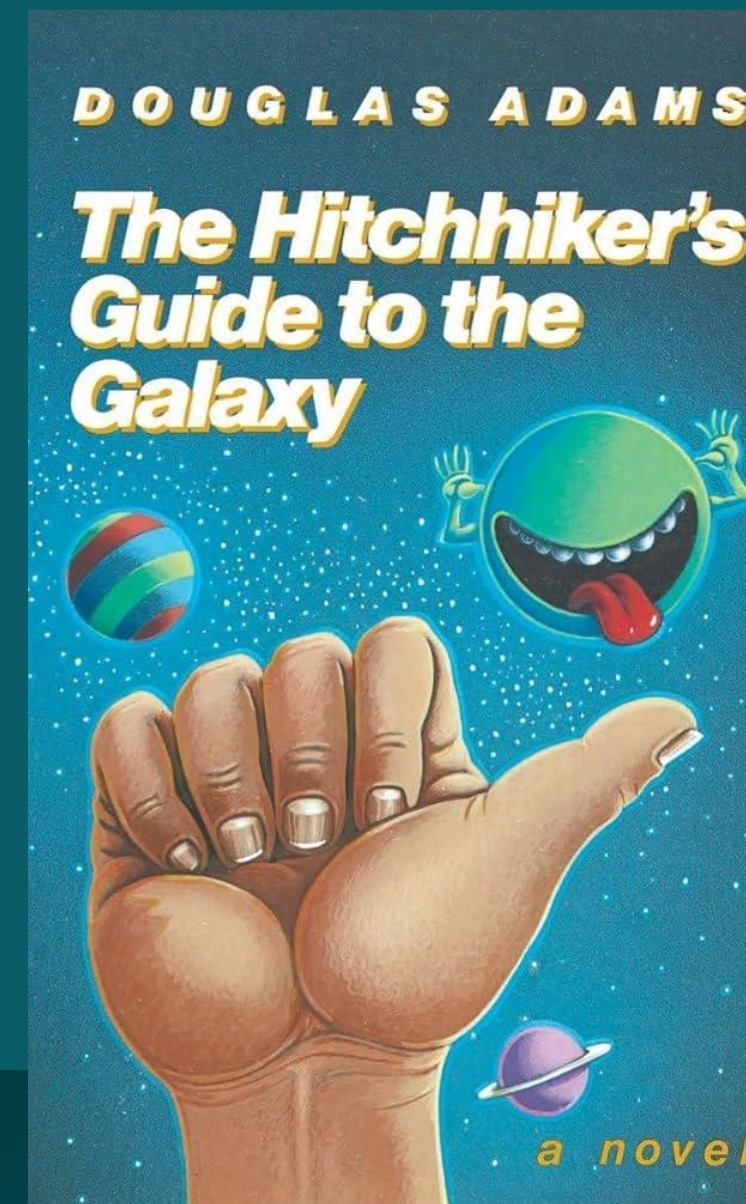
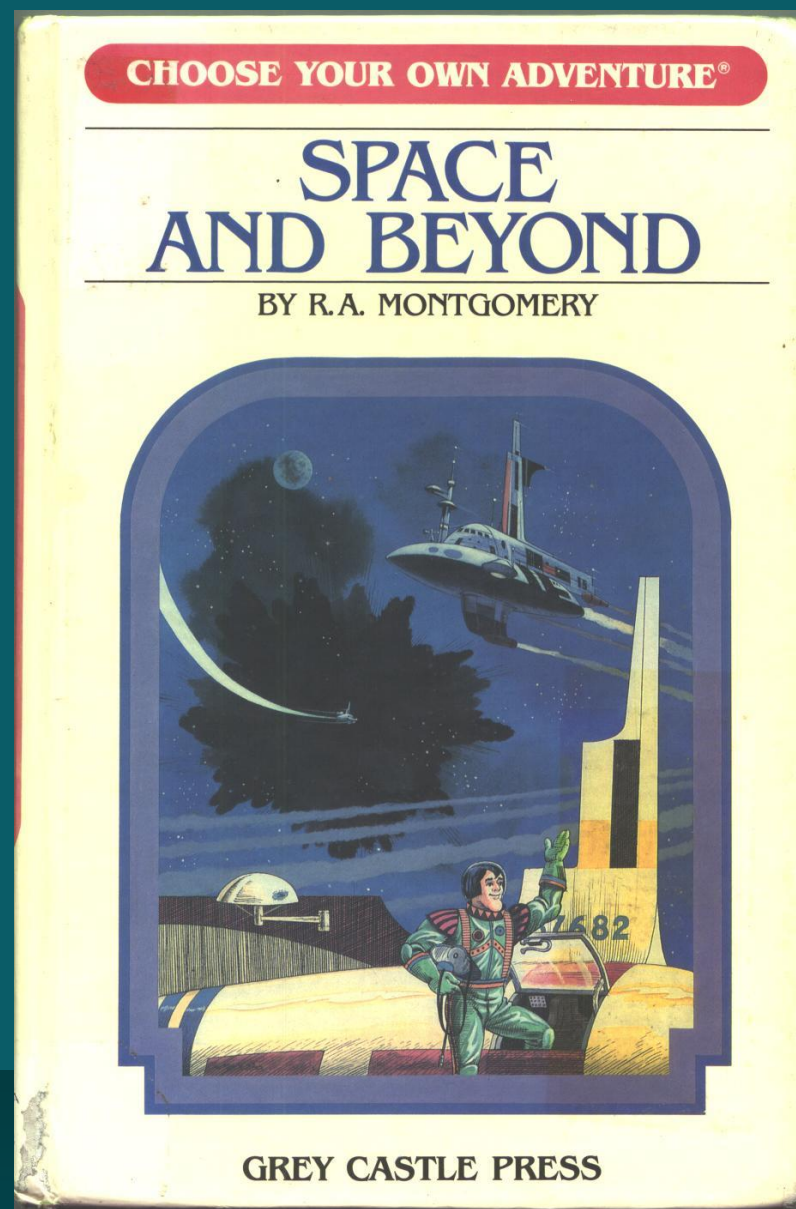
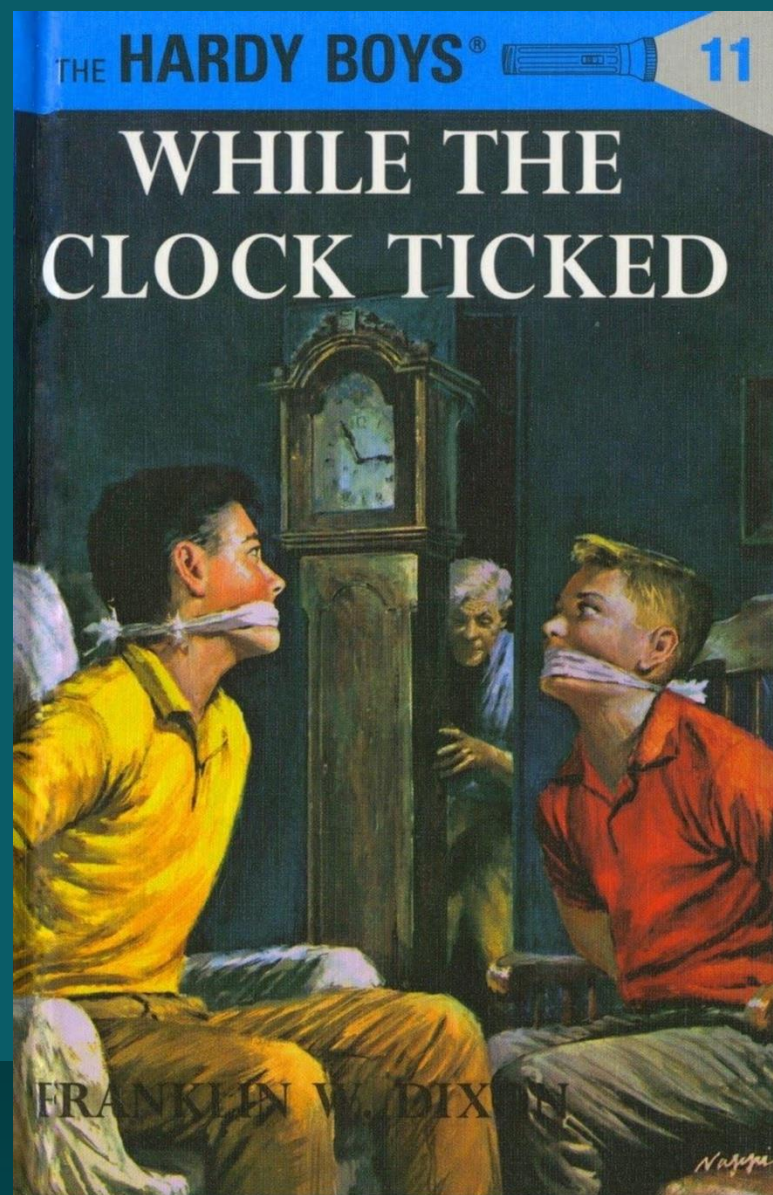
Senior Manager, Solution Standards
PCI Security Standards Council



Bhavna Sondhi

Director, Industry Technical Solutions
Coalfire, Inc.







JEND OF WORLD PROCEDURES

DISK VOLUME 254

- *A 001 PANIC
- *I 002 LIQUIDATE ASSETS
- *T 003 STOCKPILE FOOD
- *I 004 FIND SHELTER
- *B 005 BUY ALL TOILET PAPER
- *A 006 THINK DARK THOUGHTS
- *B 007 POST ON SOCIAL MEDIA
- *T 008 PANIC 2
- *I 009 BUY COOL MASK
- *B 010 GATHER WEAPONS
- *A 011 CUT OFF ALL CONTACT
- *B 012 DISCONNECT FROM GRID

Files

master

Go to file

- COMPILED
- README.md
- earth.zil
- globals.zil
- heart.zil
- misc.zil
- parser.zil
- s4.errors
- s4.xzap
- s4.zil
- s4.zip
- s4freq.xzap
- syntax.zil
- unearth.zil
- verbs.zil
- vogon.zil

hitchhikersguide / README.md

Blame

historicalsource Update README.md

8943642 · 5 years ago History

- Preview
- Code 41 lines (24 loc) · 3.6 KB
- Blame
- Raw

The Hitchhiker's Guide to the Galaxy Source Code Collection

The Hitchhiker's Guide to the Galaxy is a 1984 interactive fiction game written by Douglas Adams and Steve Meretzky and published by Infocom.

Further information on The Hitchhiker's Guide to the Galaxy:

- [Wikipedia](#)
- [The Digital Antiquarian](#)
- [The Interactive Fiction Database](#)
- [The Infocom Gallery](#)
- [IFWiki](#)
- [The Infocom Cabinet: Hitchhiker's Guide to the Galaxy](#)

What is this Repository?

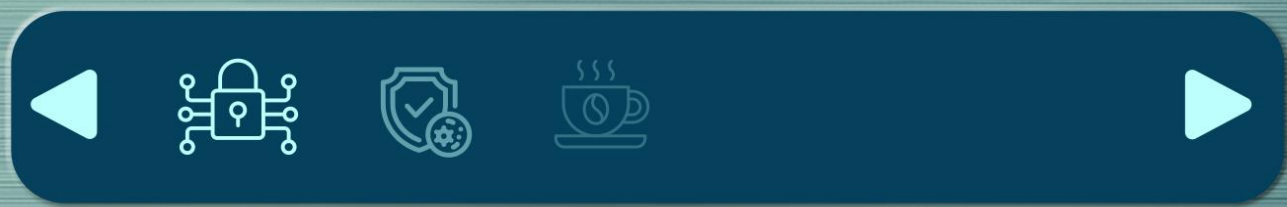
This repository is a directory of source code for the Infocom game "The Hitchhiker's Guide to the Galaxy", including a variety of files both used and discarded in the production of the game. It is written in ZIL (Zork Implementation Language), a refactoring of MDL (Muddle), itself a dialect of LISP created by MIT students and staff.

The source code was contributed anonymously and represents a snapshot of the Infocom development system at time of shutdown - there is no remaining way to compare it against any official version as of this writing, and so it should be considered canonical, but not necessarily the exact source code arrangement for production.

Basic Information on the Contents of This Repository



The Hitchhiker's Guide To The Software Security Galaxy



MOVES
0

SCORE
0

AWARDS
0

UP ↑ IN

← WAIT →

DOWN ↓ OUT

(()) ANY ESC



! " \$ % # & * () DEL

Q W E R T Y U I O P ↵

A S D F G H J K L ' ;

Z X C V B N M , . ?

NUM LOCK SPACE

THE HITCHHIKER'S GUIDE TO THE SOFTWARE SECURITY GALAXY

Infocom interactive fiction – a science fiction story

Copyright (c) 1984 by Infocom, Inc. All rights reserved.

Release 31 / Serial number 871119. Interpreter 6 Version E

Chapter 1: The Beginning of the End



The Hitchhiker's Guide To The Software Security Galaxy

Navigation bar with icons: left arrow, padlock, shield with checkmark, coffee cup, right arrow.

Virtual keyboard layout with keys: !, ", \$, %, #, &, *, (,), DEL, Q, W, E, R, T, Y, U, I, O, P, A, S, D, F, G, H, J, K, L, ' , Z, X, C, V, B, N, M, , ., ?, NUM LOCK, SPACE.

Game interface controls including: MOVES 0, SCORE 0, AWARDS 0, UP, IN, DOWN, OUT, WAIT, ANY, ESC, and a globe icon.

THE HITCHHIKER'S GUIDE TO THE SOFTWARE SECURITY GALAXY

Infocom interactive fiction – a science fiction story

Copyright (c) 1984 by Infocom, Inc. All rights reserved.

Release 31 / Serial number 871119. Interpreter 6 Version E

Chapter 1: The Beginning of the End

You wake up. The room is spinning very gently round your head. Or at least it would be if you could see it, which you can't.

It is pitch black.

>



The Hitchhiker's Guide To The Software Security Galaxy

Navigation bar with left and right arrow buttons and three icons: a padlock with a keyhole, a shield with a checkmark, and a coffee cup with steam.

Virtual keyboard with keys for punctuation, letters, and a spacebar. The keys are arranged in a standard QWERTY layout.

Game status and control panel. It includes a 'MOVES' counter showing '2', a 'SCORE' counter showing '5', and an 'AWARDS' counter showing '0'. There are also directional arrow keys (UP, DOWN, LEFT, RIGHT), a 'WAIT' key, and other keys labeled 'IN', 'OUT', 'ANY', and 'ESC'. A globe icon and a compass icon are also present.

You wake up. The room is spinning very gently round your head. Or at least it would be if you could see it, which you can't.

It is pitch black.

> **Turn on light**

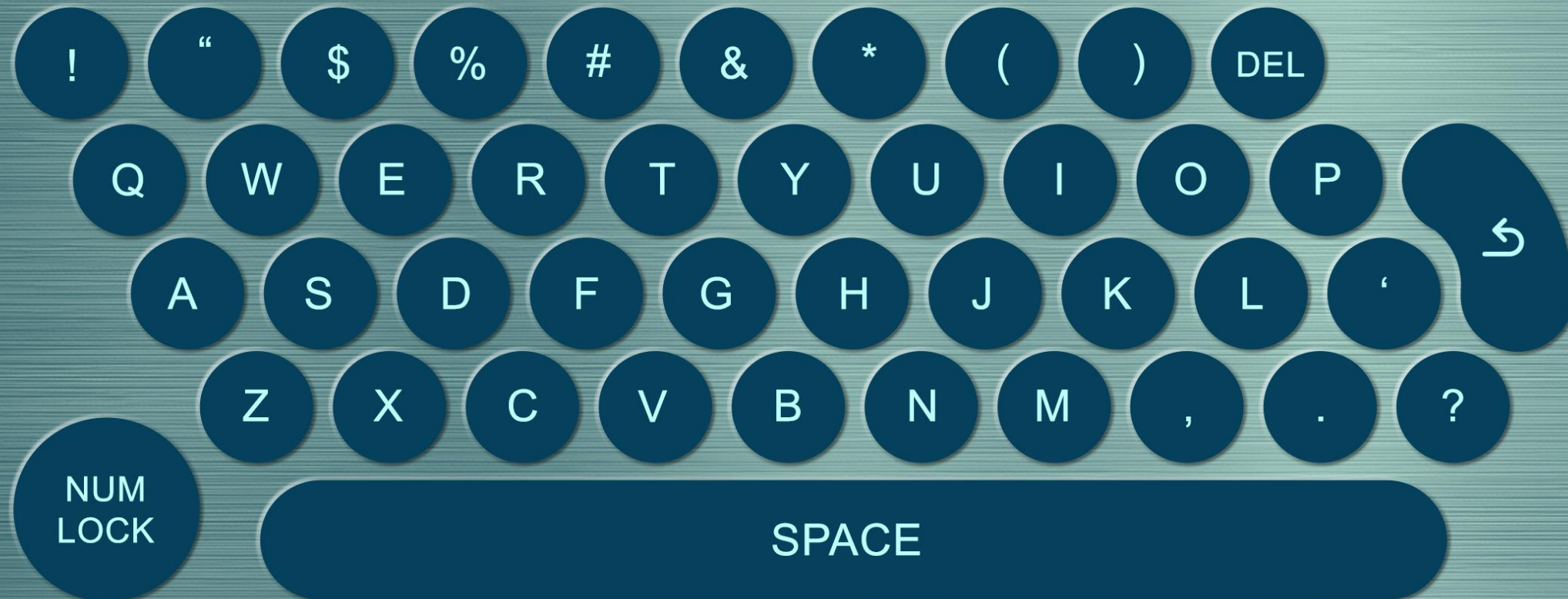
You manage to clumsily fumble for the light switch, and miraculously, you find it. Good start to the day. Pity it is going to be one of the worst days of your life. The light is now on.

The light reveals your bedroom, which is a mess. It is a small bedroom with a faded carpet and old wallpaper. There is a desk, a chair, and a window with the curtains drawn. Slung over the chair is a tatty dressing gown. On the desk is a phone.

>



The Hitchhiker's Guide To The Software Security Galaxy



MOVES
3

SCORE
10

AWARDS
0

UP ↑ IN

← WAIT →

DOWN ↓ OUT

(()) ANY ESC



on.

The light reveals your bedroom, which is a mess. It is a small bedroom with a faded carpet and old wallpaper. There is a desk, a chair, and a window with the curtains drawn. Slung over the chair is a tatty dressing gown. On the desk is a phone.

> Get out of bed

You stand up, still a bit woozy from the previous night's libations. As you put on the tattered gown, you notice a couple of analgesic pills in the left pocket. You quickly take them, while praising the small fortunes in life.

The brief moment of peace is interrupted abruptly by the skull shattering ring of the phone on your desk. You try to ignore it, but the sound is only exacerbating your already blistering hangover.

>



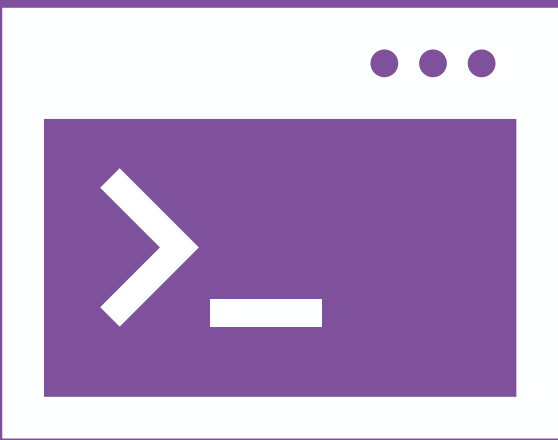
The Hitchhiker's Guide To The Software Security Galaxy

Navigation bar with left and right arrow buttons and three icons: a padlock with a circuit, a shield with a checkmark, and a coffee cup.

QWERTY keyboard layout with a numeric keypad on the left and a spacebar at the bottom.

Gameplay interface showing: MOVES 4, SCORE 20, AWARDS 0, and a grid of directional and action buttons (UP, DOWN, IN, OUT, WAIT, ANY, ESC, and a globe icon).

No Code / Low Code Software Development



LOW - CODE

VS

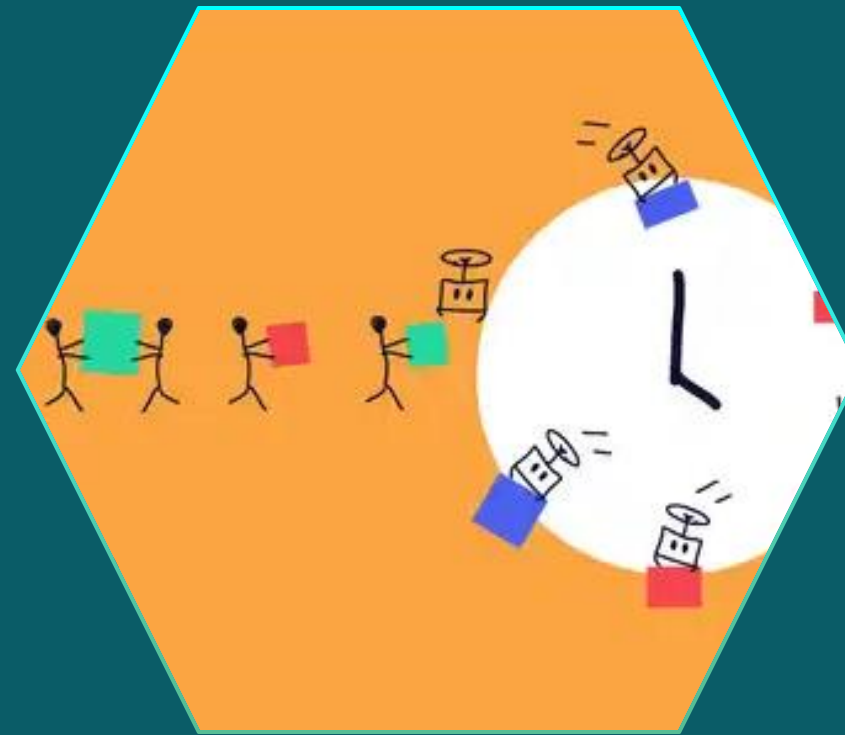


NO - CODE

No Code / Low Code

Capabilities and Benefits

- Easier to use
- Faster development
- Lower cost
- Better customer experience



No Code / Low Code

Security Issues and Considerations



Vulnerabilities in NCLC platforms and components



Insecure authentication and communications



Insecure coding practices



Lack of visibility and control



Misconfigurations

No Code / Low Code

Security Issues and Considerations



Vulnerabilities in NCLC platforms and components



Insecure authentication and communications



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Misconfigurations

No Code / Low Code

Key Takeaways





The Hitchhiker's Guide To The Software Security Galaxy



MOVES
10

SCORE
30

AWARDS
0

UP ↑ IN

← WAIT →

DOWN ↓ OUT

(()) ANY ESC



! " \$ % # & * () DEL

Q W E R T Y U I O P ↵

A S D F G H J K L ' , . ?

NUM LOCK SPACE

Chapter 2: Shadows in Darkness

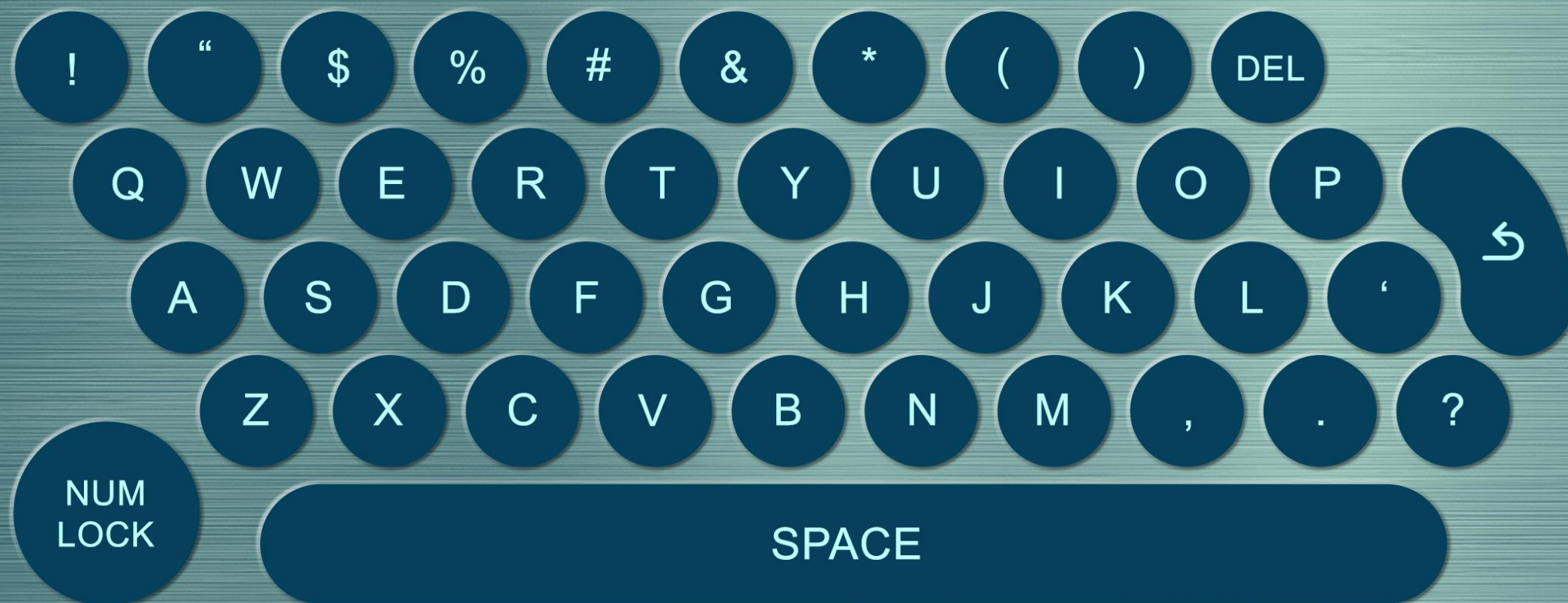
Having dealt with the latest crisis created by your boss, you can now continue working on your favorite project: the incredibly popular role-playing game titled *42: Adventures in the Infinite Improbability*.

After pushing a few updates to the production code, the Technical Support Team has discovered several intermittent issues with the game's operation. There have been reports of random data glitches, missing information, and even a few system crashes in the payment functions for the "Utter Mayhem" gameplay feature and other expansion offerings. You suspect it may be an API conflict causing the issue, but you aren't quite sure.

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The Hitchhiker's Guide To The Software Security Galaxy



APIs in the Cloud

Capabilities and Benefits

Enhance data accuracy

Improve efficiency

Scalable

APIs in the Cloud

Capabilities and Benefits

Enhance data accuracy

Improve efficiency

Scalable

APIs in the Cloud

Security Issues and Considerations



Zombie and Shadow APIs

Exposed functionality

Data protection and privacy

Suggested mitigations

APIs in the Cloud

Security Issues and Considerations



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APIs in the Cloud

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Zombie and Shadow APIs

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POS in the Cloud / API Security Key Takeaways

Benefits

Security Issues & Considerations

Stay updated on API security!



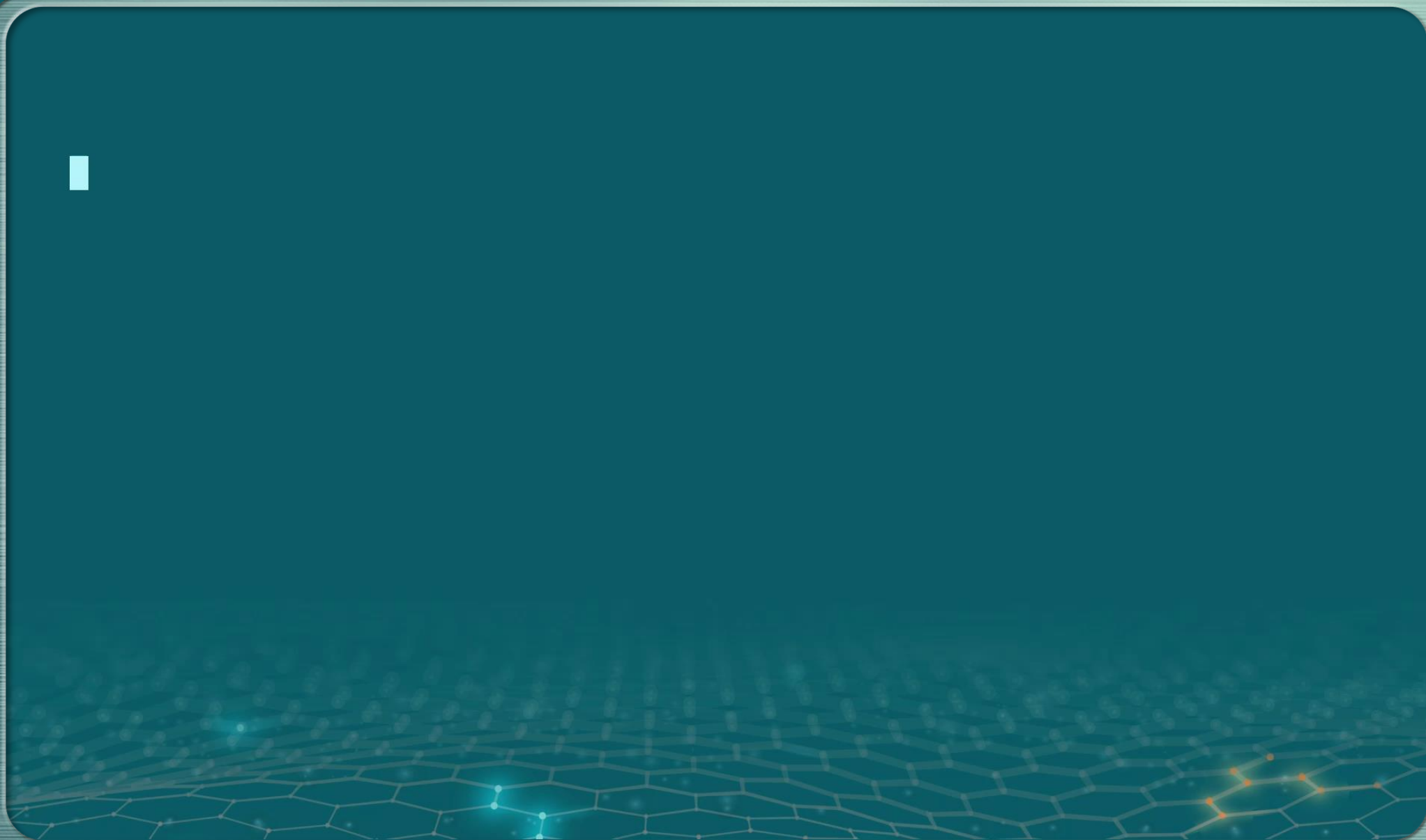
POS in the Cloud / API Security Key Takeaways

Benefits

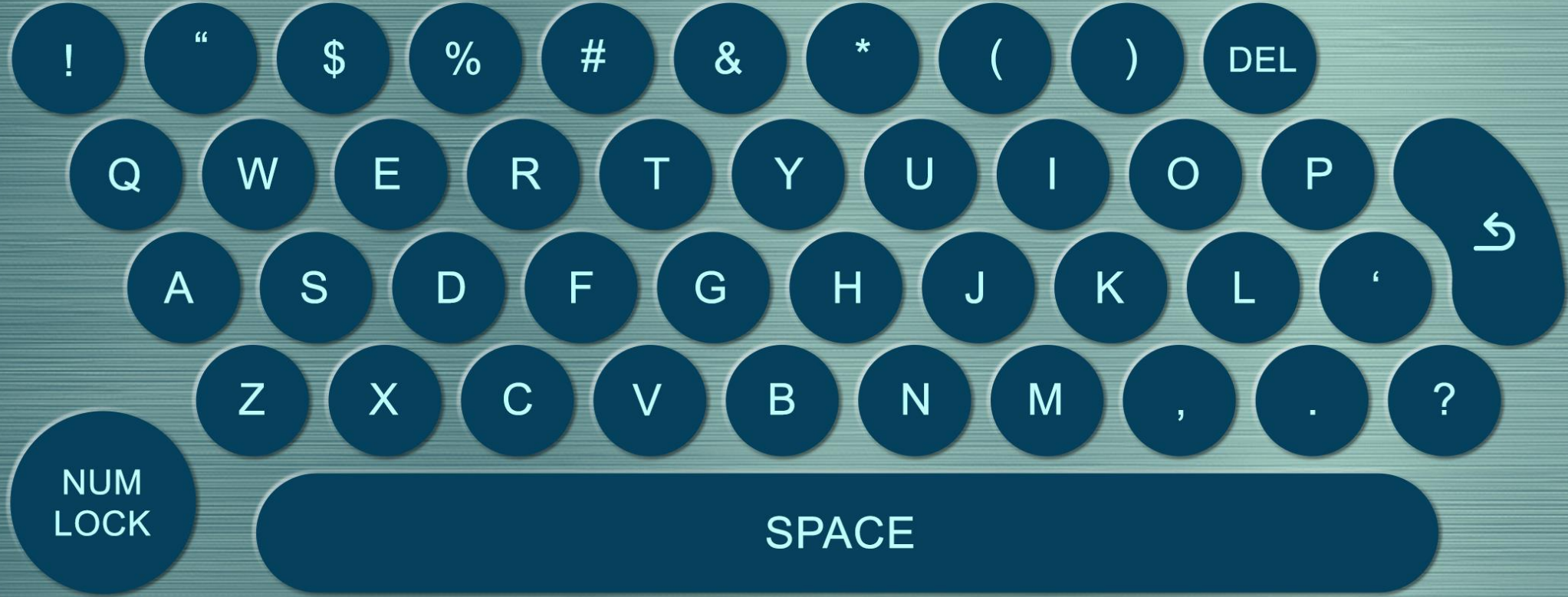
Security Issues & Considerations

Stay updated on API security!





The Hitchhiker's Guide To The Software Security Galaxy



MOVES 22	UP ↑	IN	Globe icon
SCORE 55	←	WAIT	
AWARDS 3	DOWN ↓	OUT	Compass icon
	(())	ANY	

Automated Software Assessments & Attestations

Capabilities and Benefits



Cost Savings

Increased productivity

Greater scalability

Simplified GRC management

Automated Software Assessments & Attestations

Capabilities and Benefits



Cost Savings

Increased productivity

Greater scalability

Simplified GRC management

Use of AI and Automation in Assessments

PCI SSC Position

- PCI SSC *does not* permit the use of AI for decision-making functions in PCI security assessments.
 - Pass / fail determinations
 - Compensating control analysis and justification
- PCI SSC *may* permit the use of automation in PCI security assessments for other assessment functions:
 - Automated security testing (vulnerability scans, static analysis, dynamic analysis, etc.)
 - Evidence generation through automated means (e.g., build tools, logging mechanisms, security testing outputs, etc.)
- PCI SSC is currently working on guidance to address this issue.

Use of AI and Automation in Assessments

Future considerations

- PCI SSC is evaluating how to support broader use of automation and AI in future PCI security assessments.
 - Reporting
 - Attestations
 - Listing updates
- More information on how these could be supported to be provided in another session titled, “You dropped a BOM on me, baby.”

Key Takeaways

Know the risks associated with the use of No Code / Low Code tools.

Know what APIs are exposed to the Internet and secure them.

Don't rely on automation for decision-making functions.

Thank You!



CALFIRE



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