



# Game Preservation Best Practices

## *An EA Case Study*

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Software Engineer, Electronic Arts

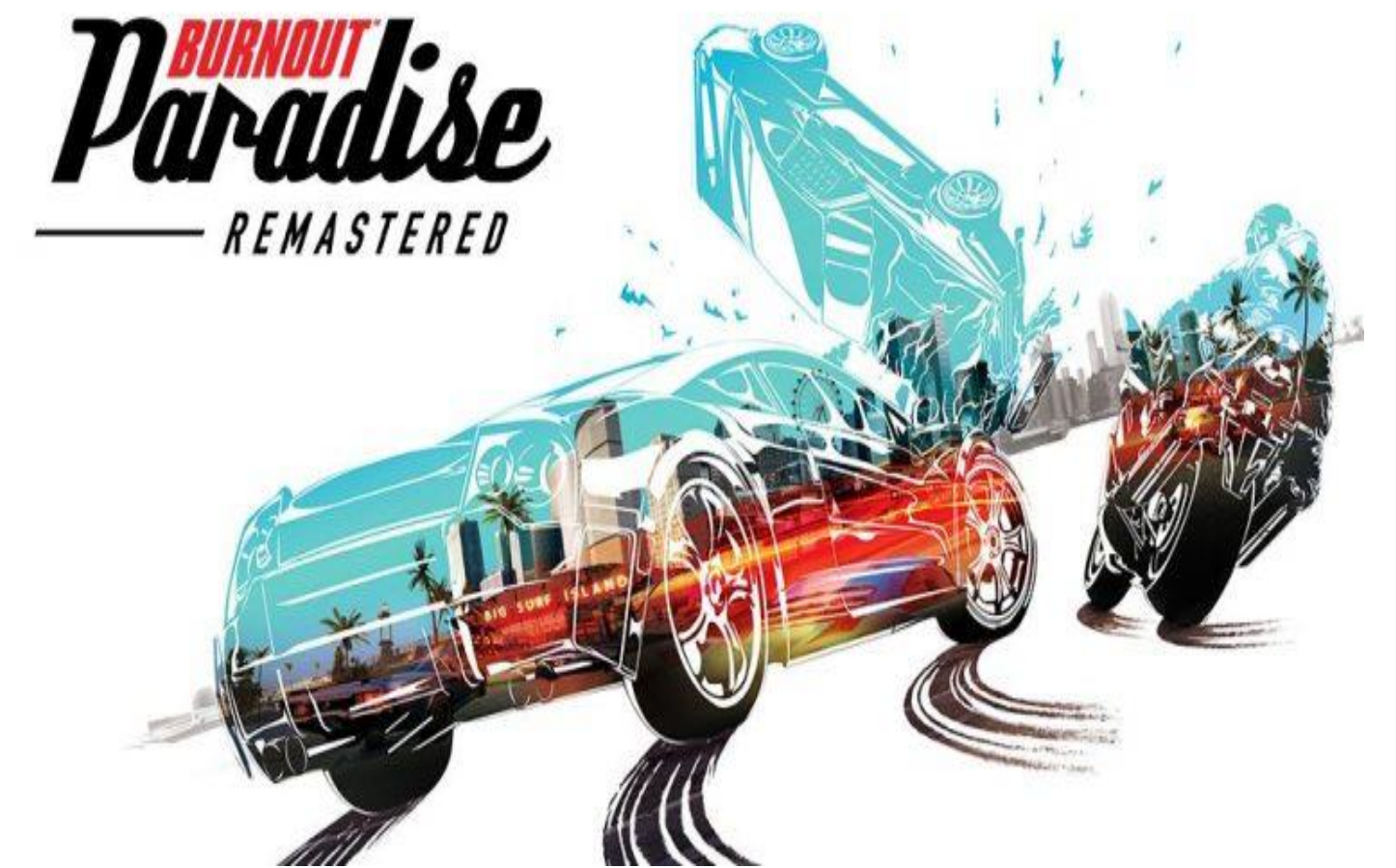
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01

# What is 'Preservation'?



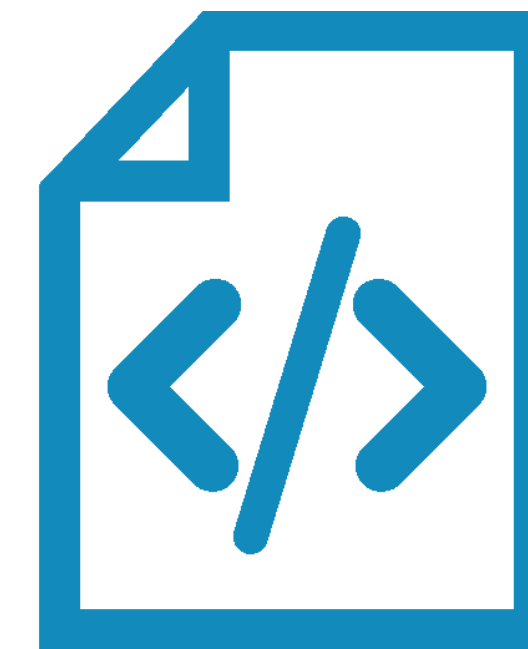




Raw Data



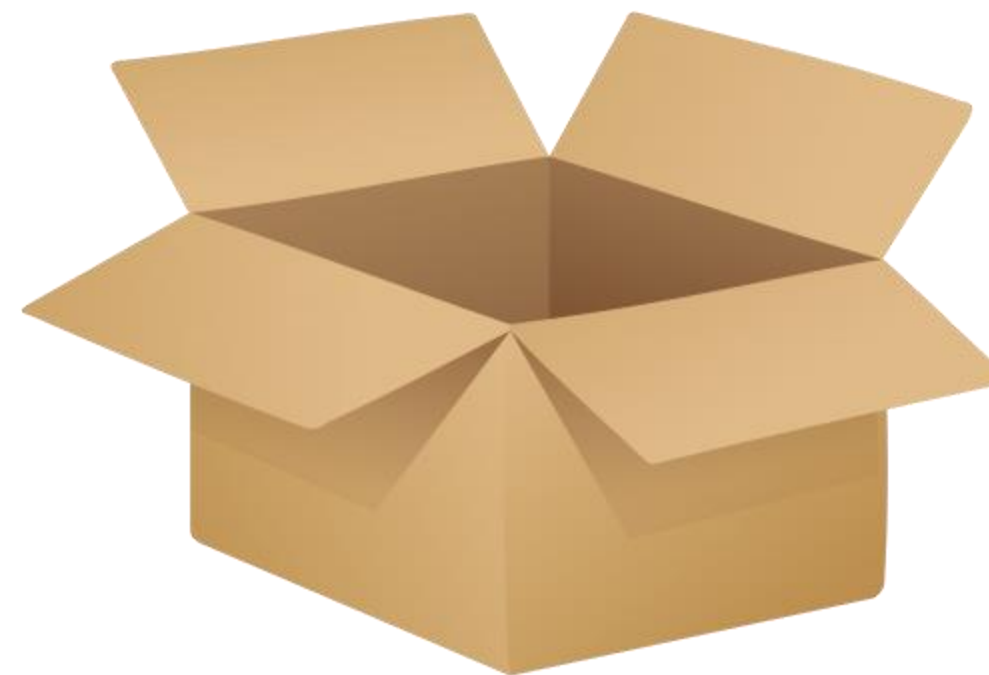
Code



Tools / Software



Sync and Place



Tools / Software



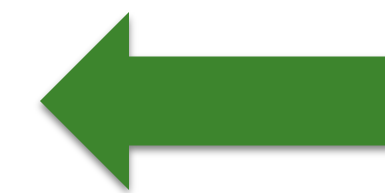
Install /  
Configure



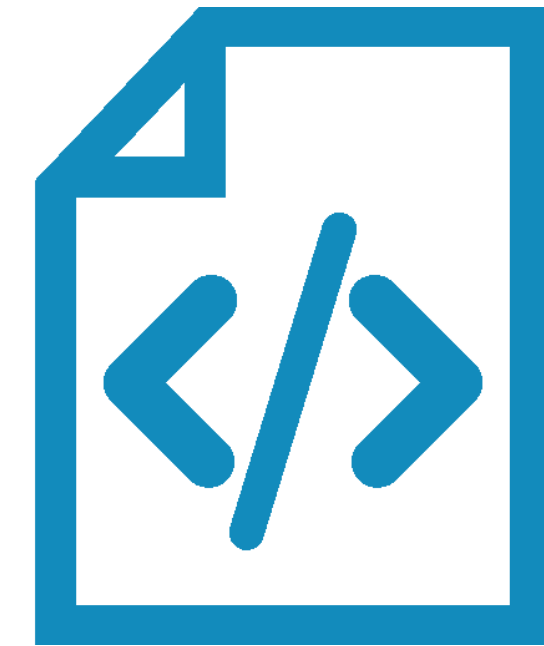
Raw Data



Build



Code



Compile

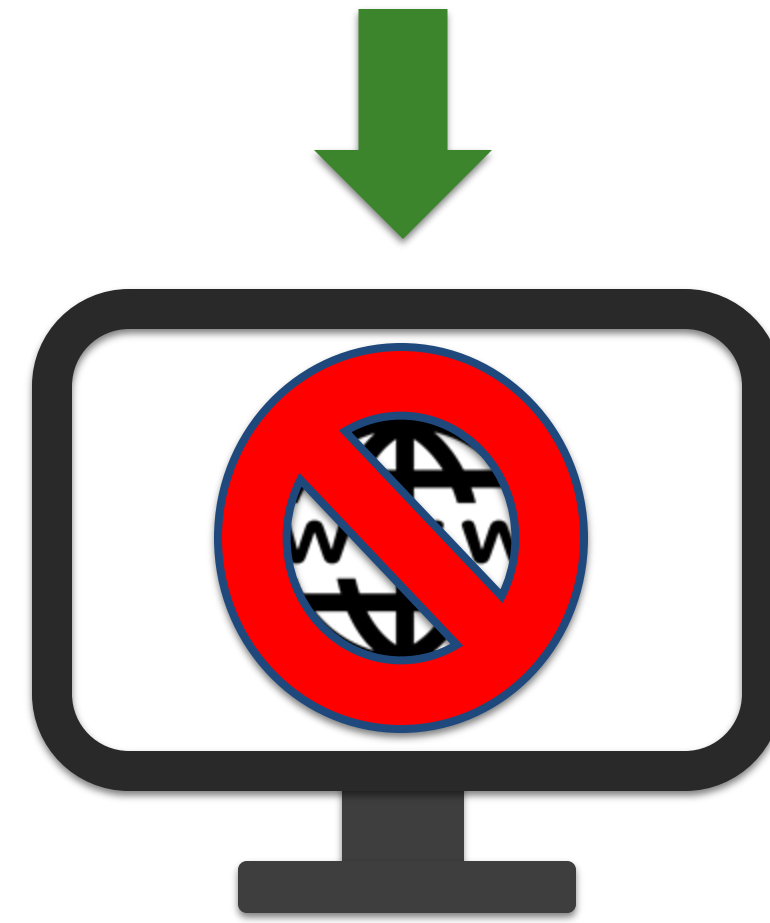
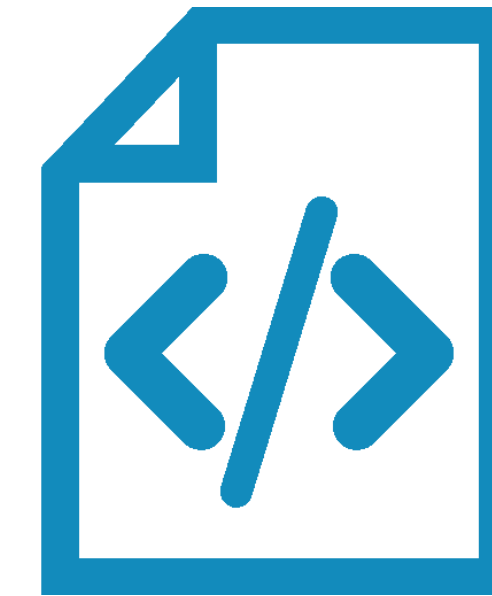
Tools / Software



Raw Data



Code



Server



Install /  
Configure



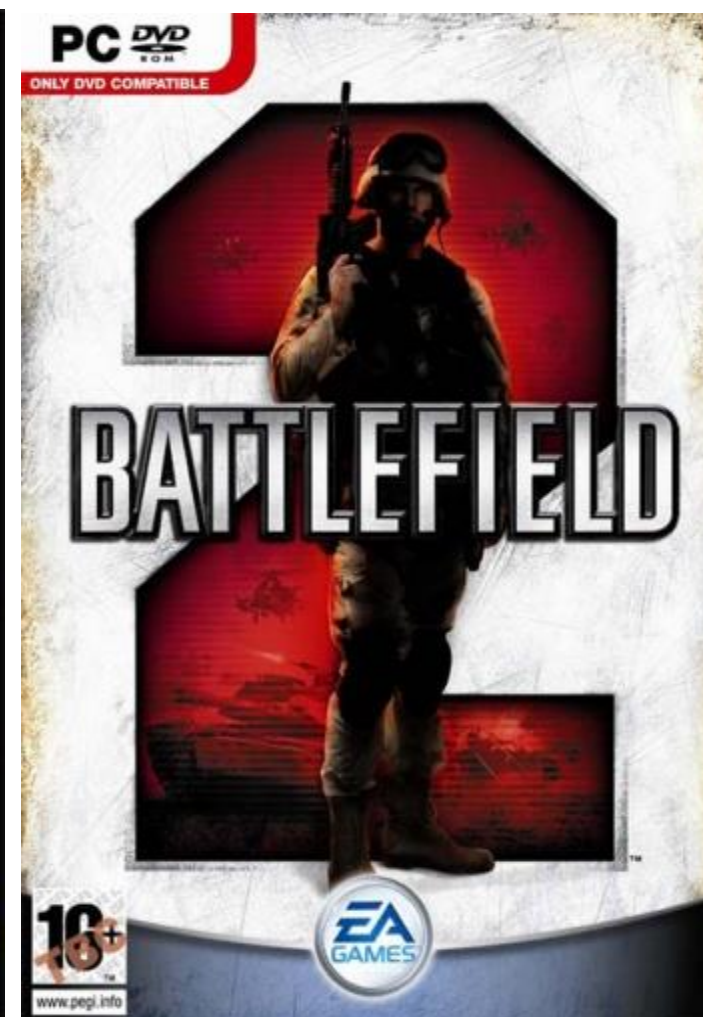
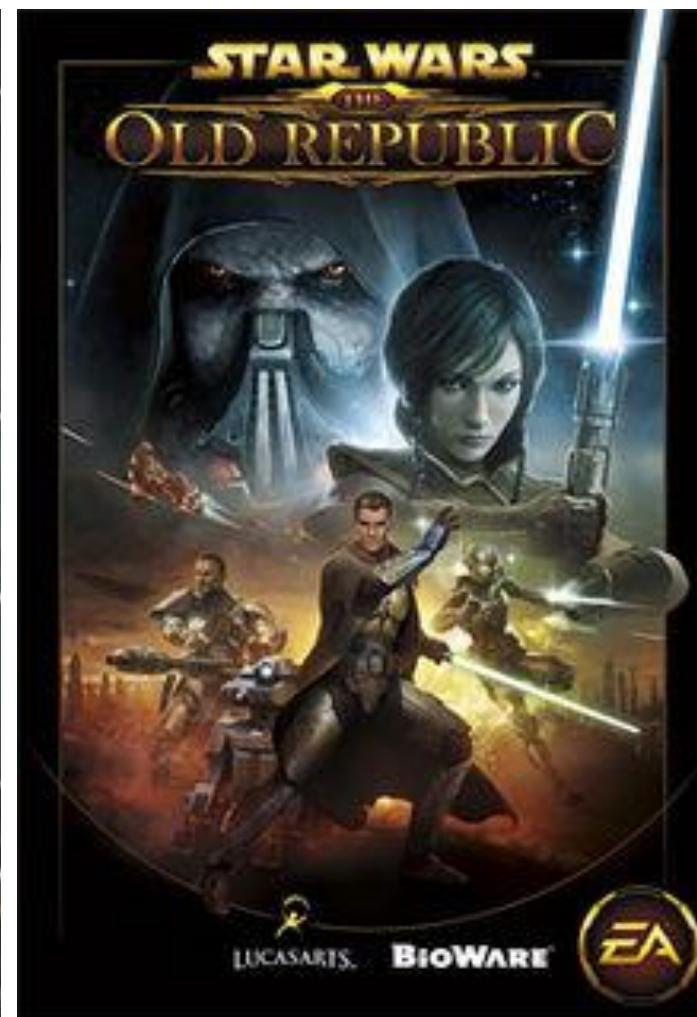
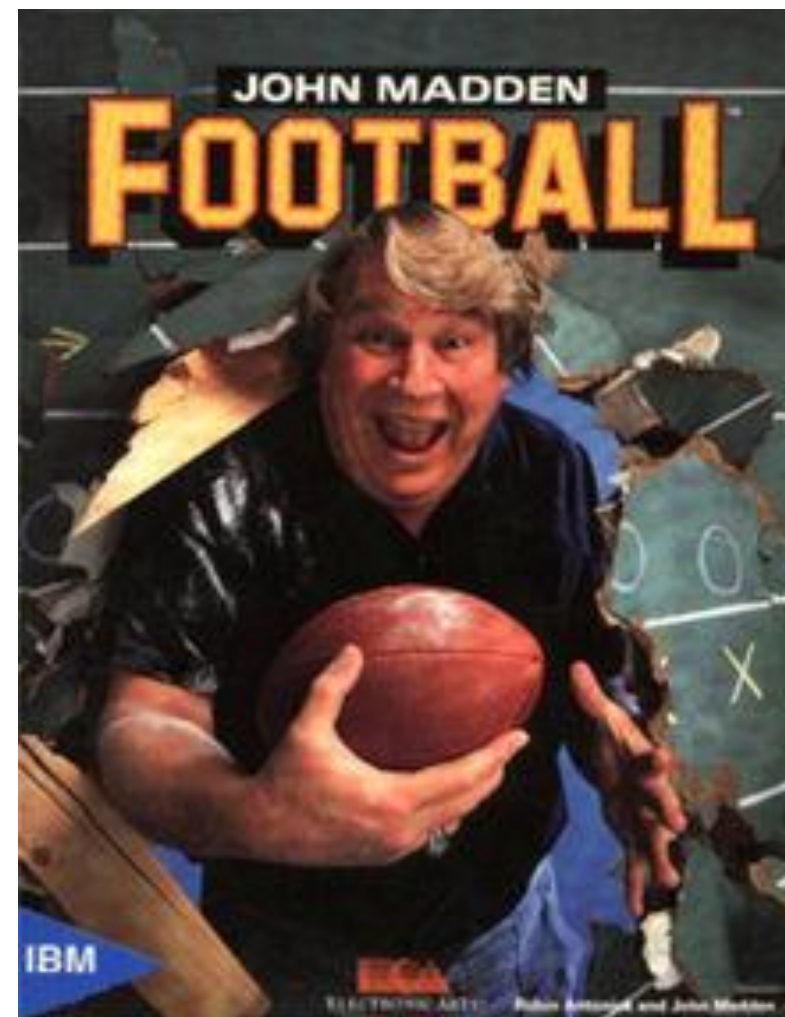
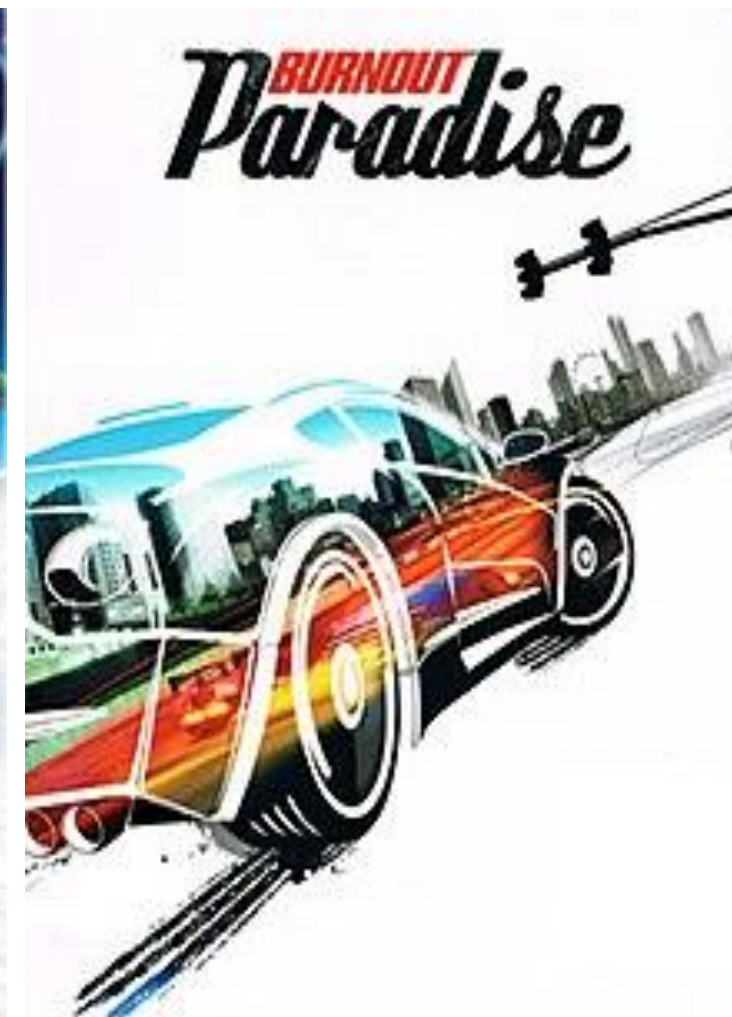
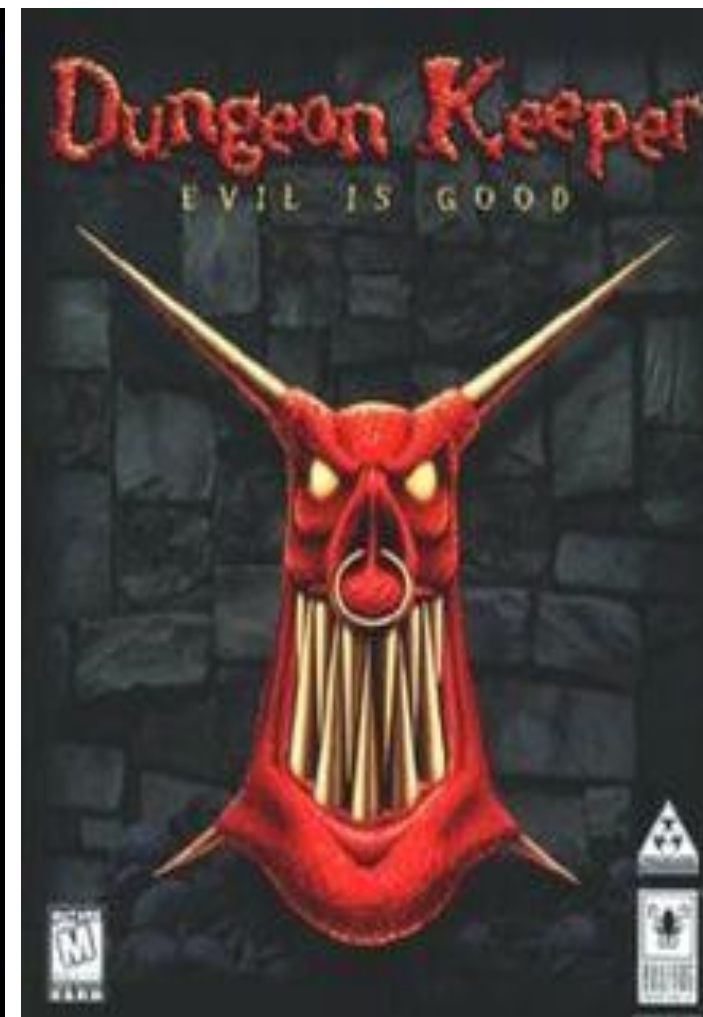
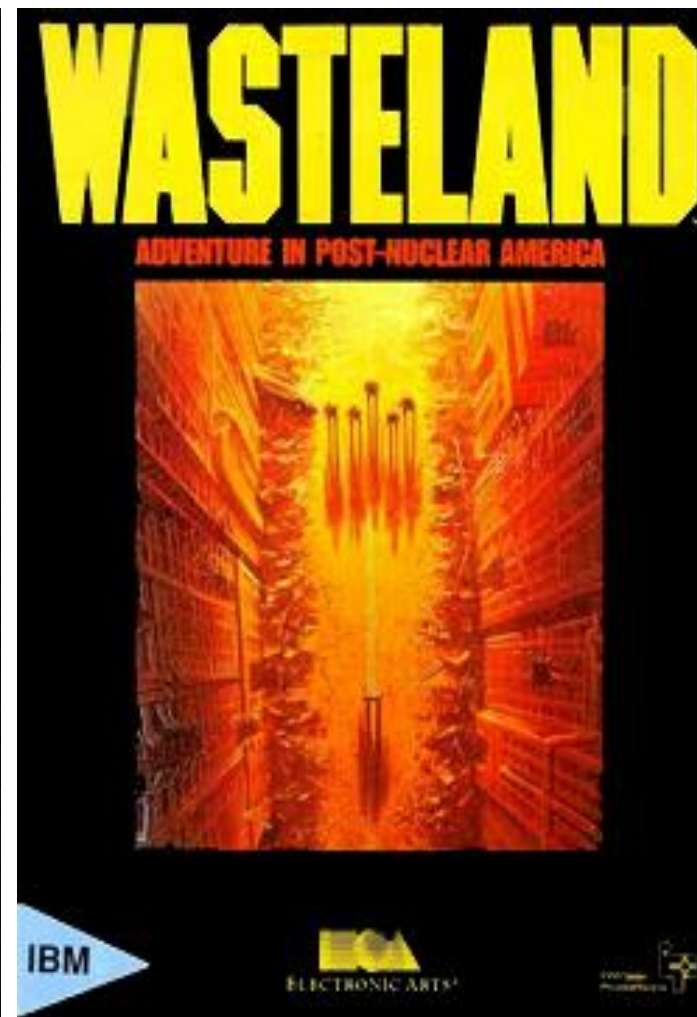
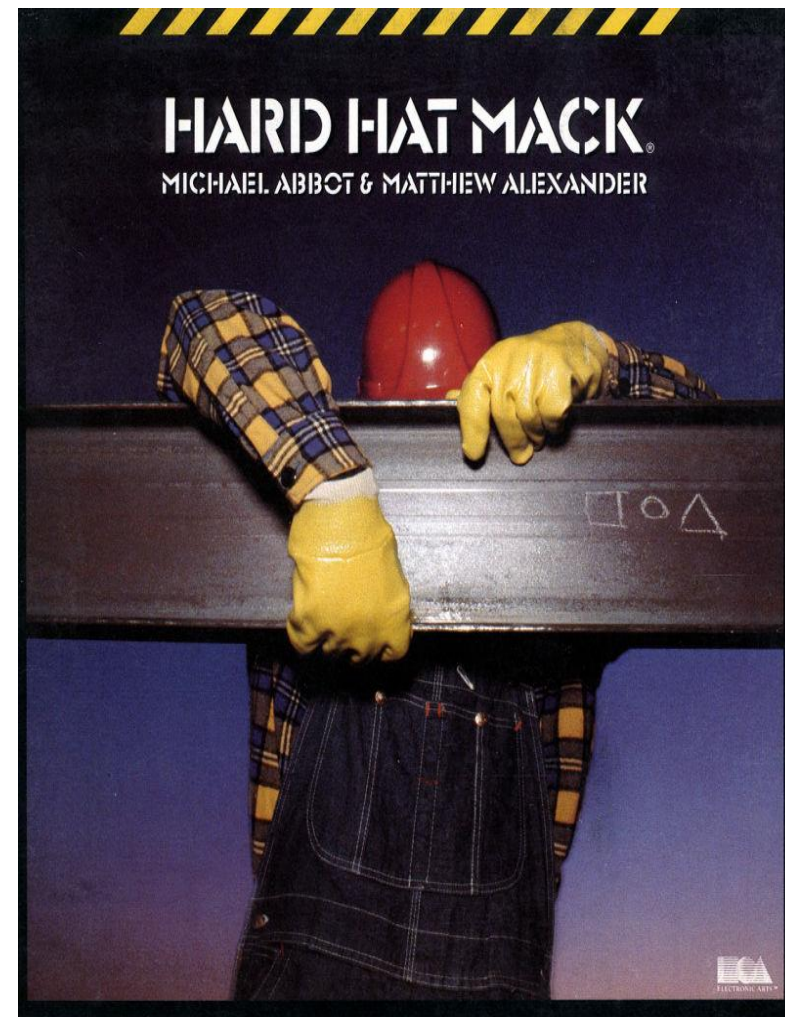
Distribution  
Services



02

# Preservation at Electronic Arts

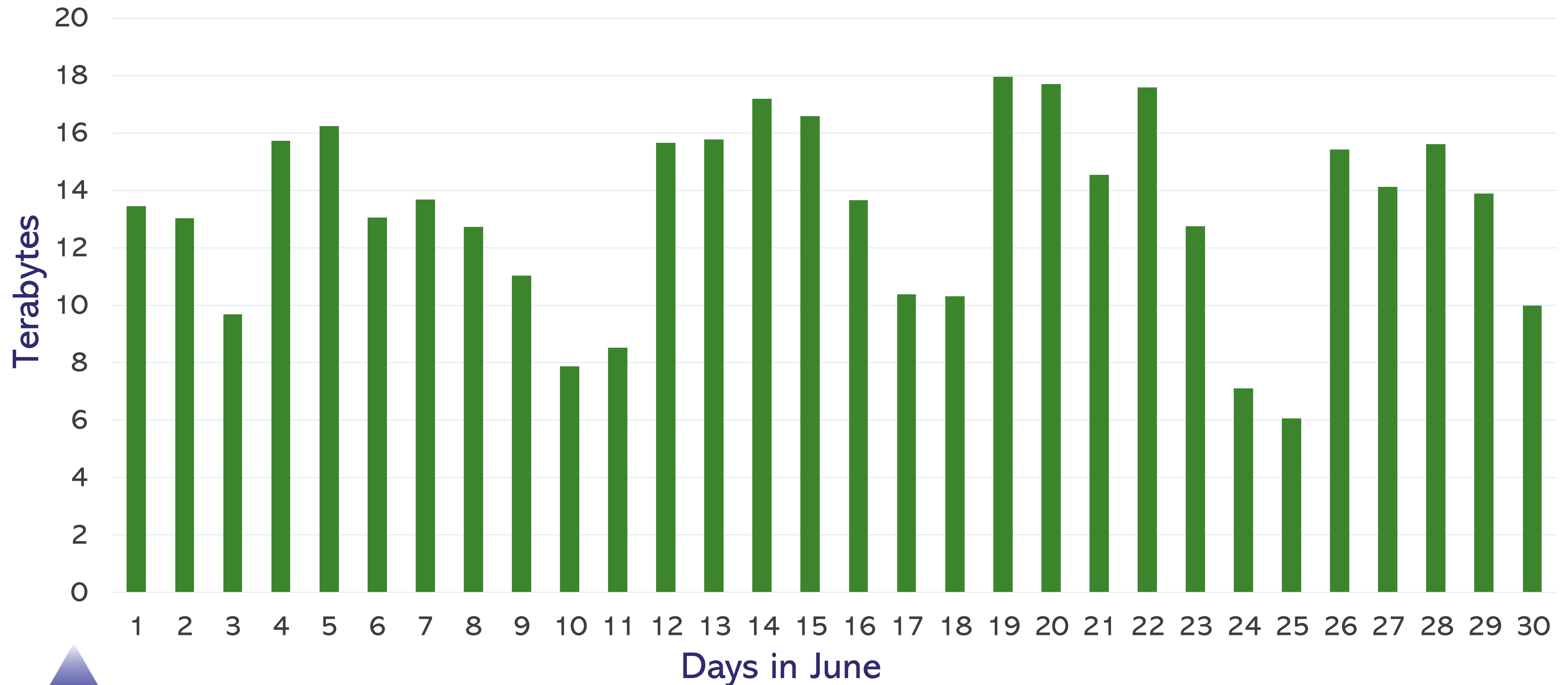






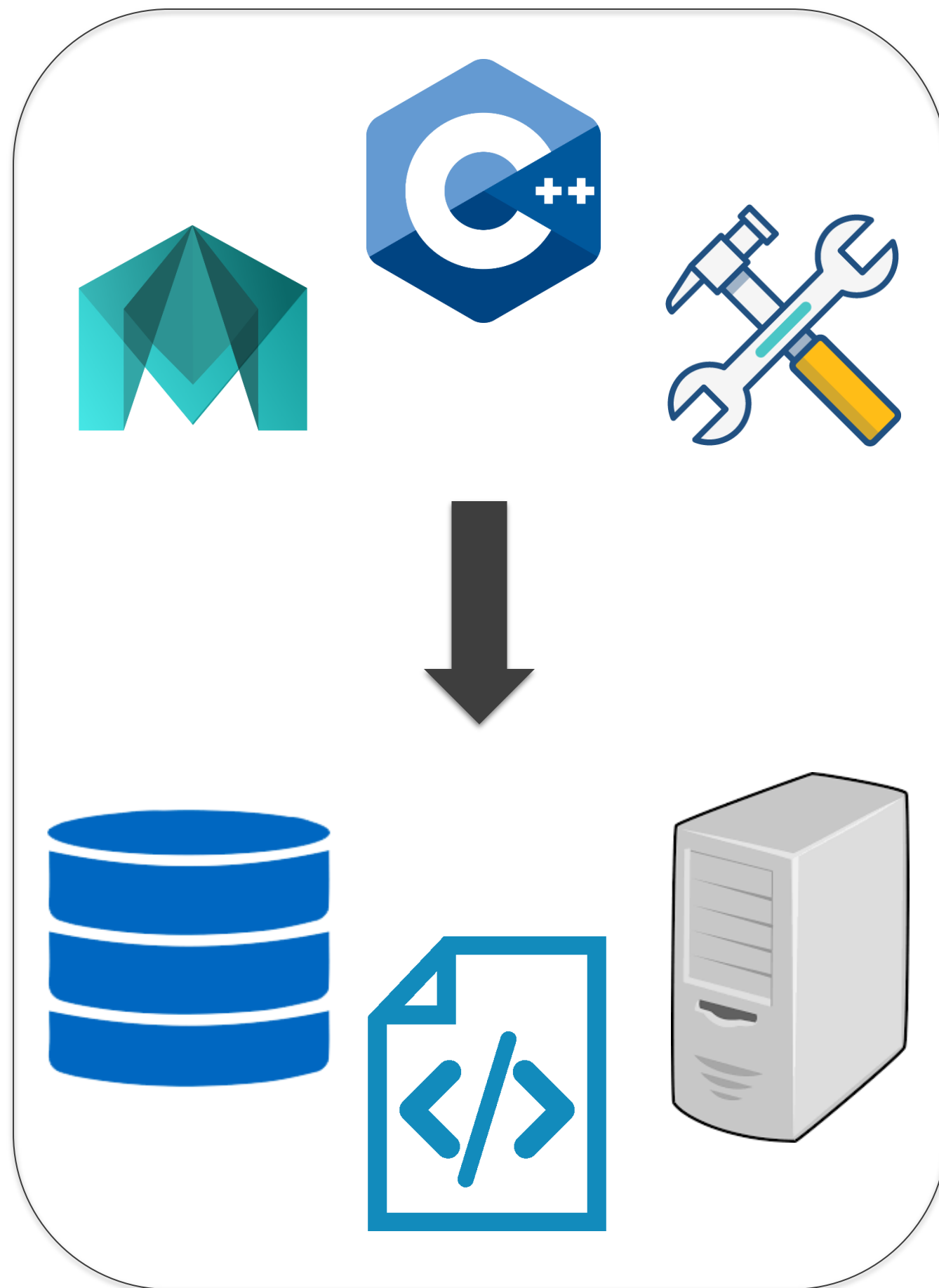
# Monthly Build Production

*(Game Builds Worldwide)*

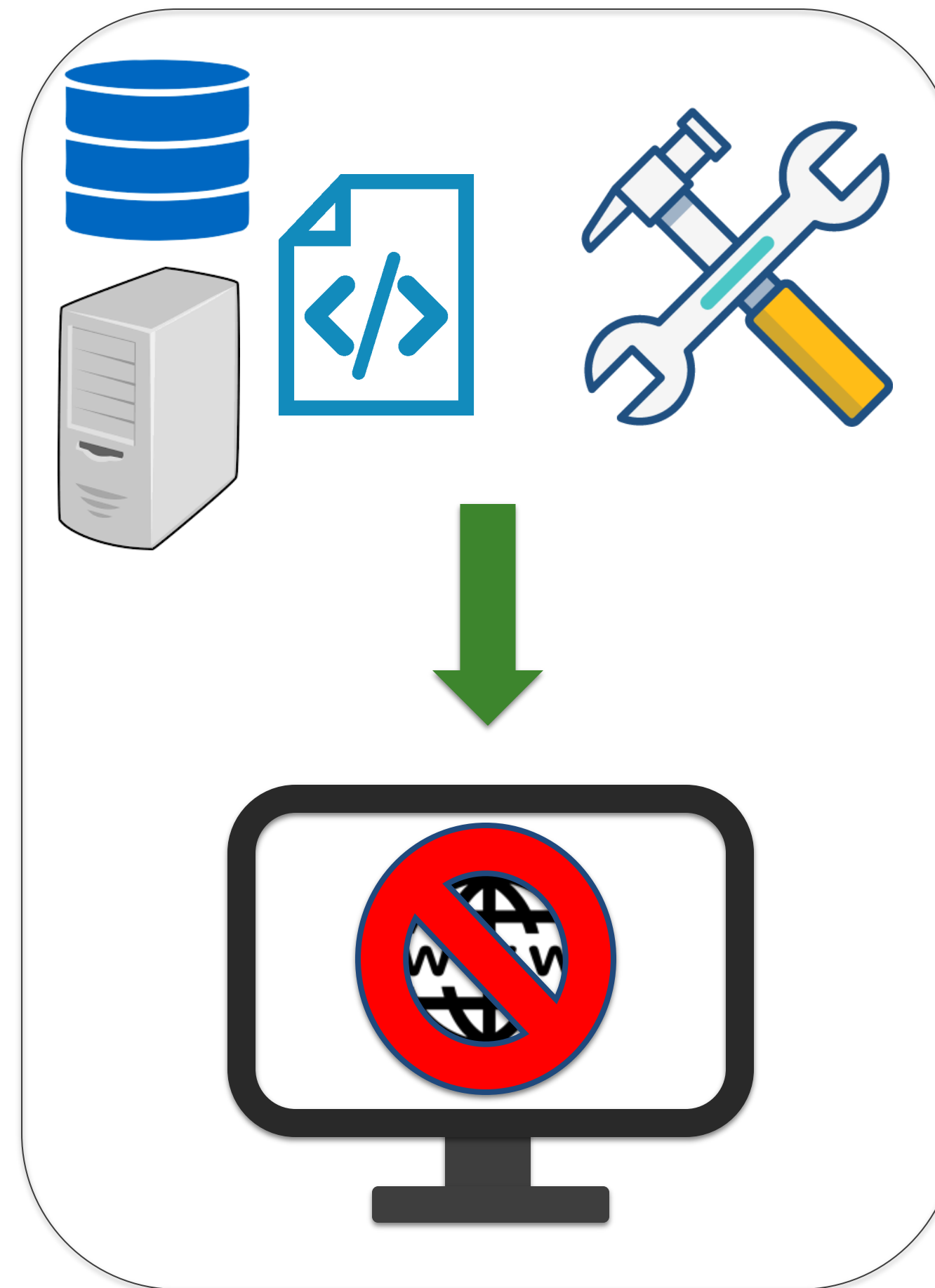




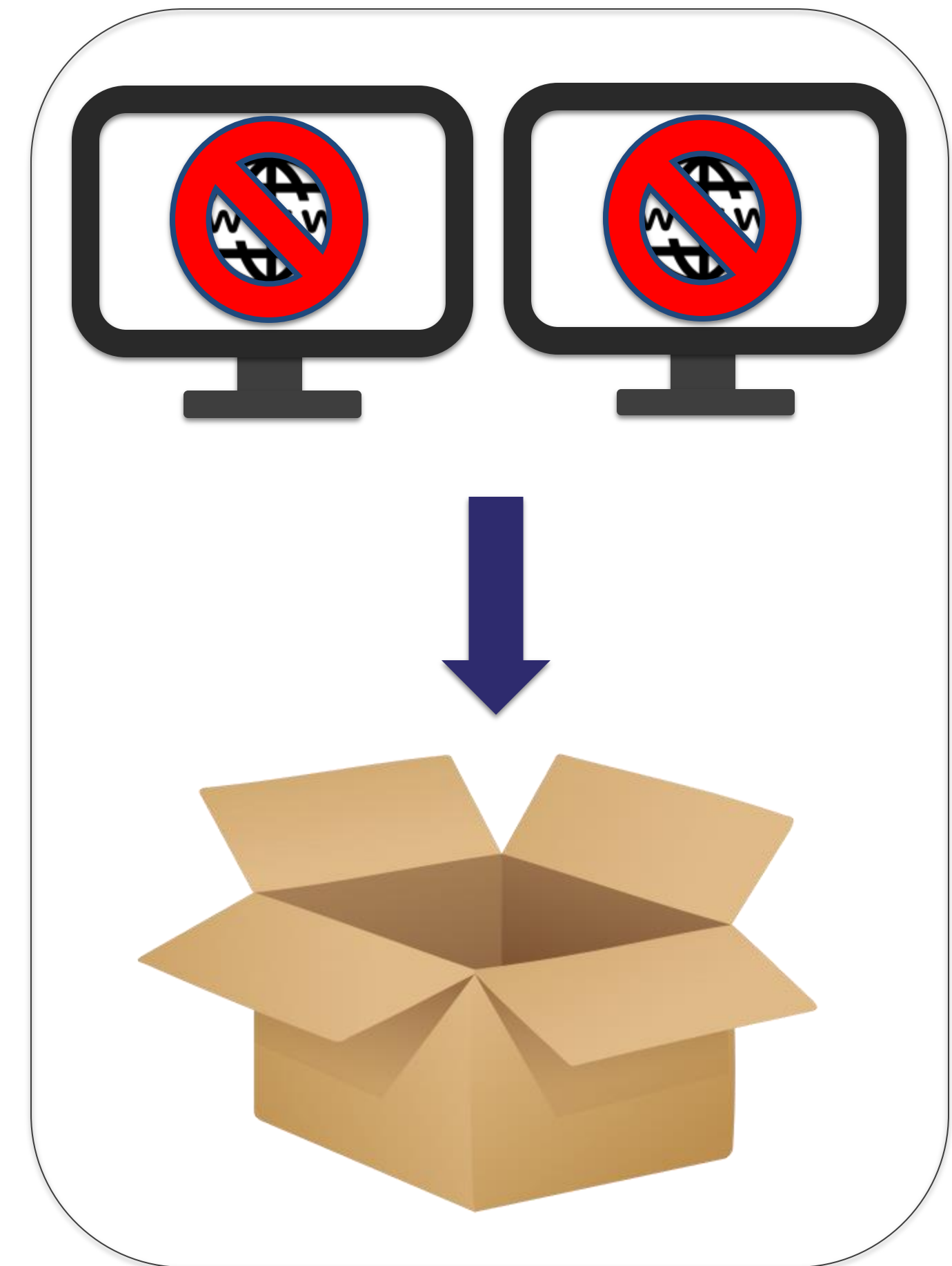
## Content Creators



## Archivists / Preservationists



## Preservation Management



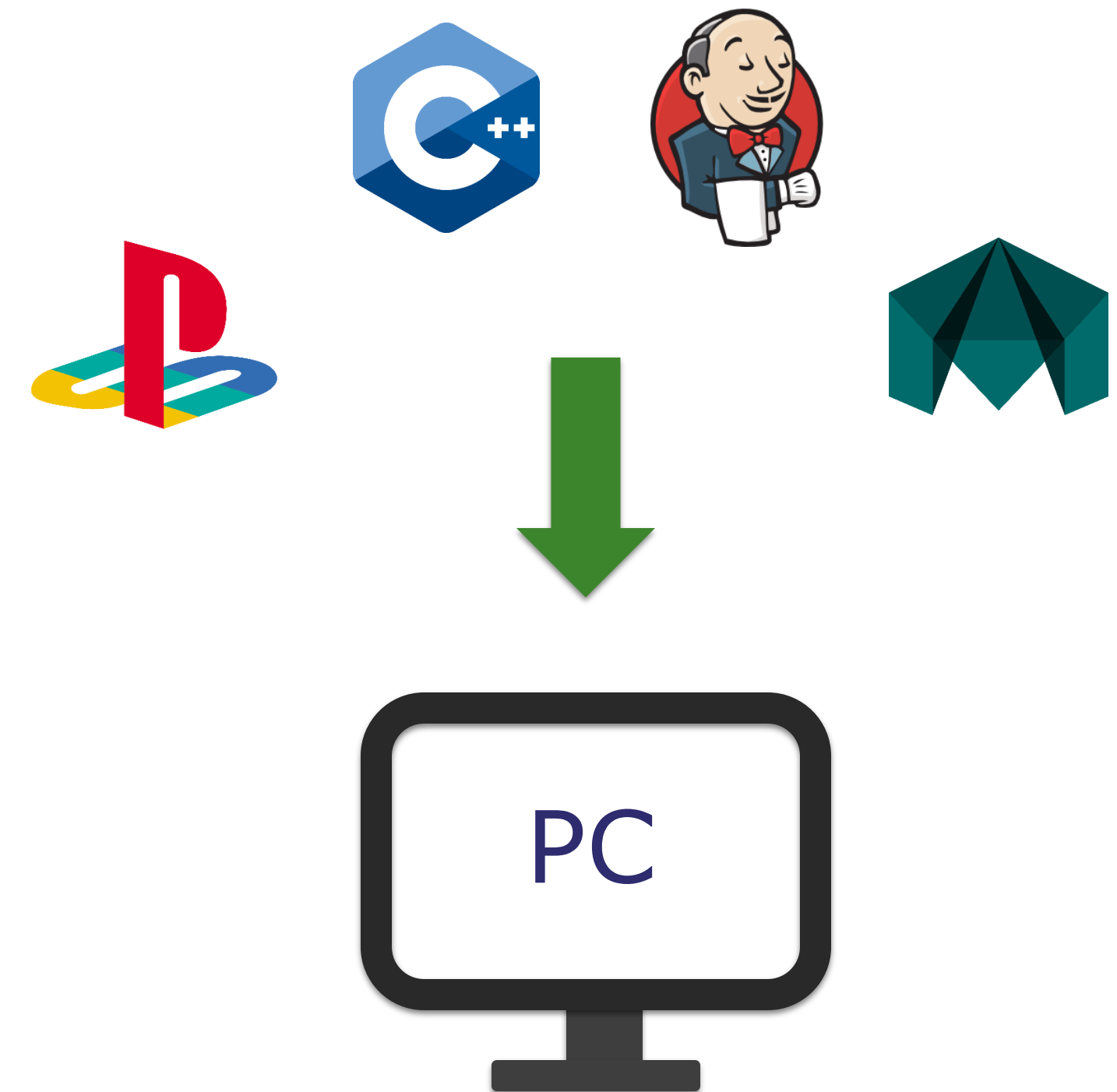
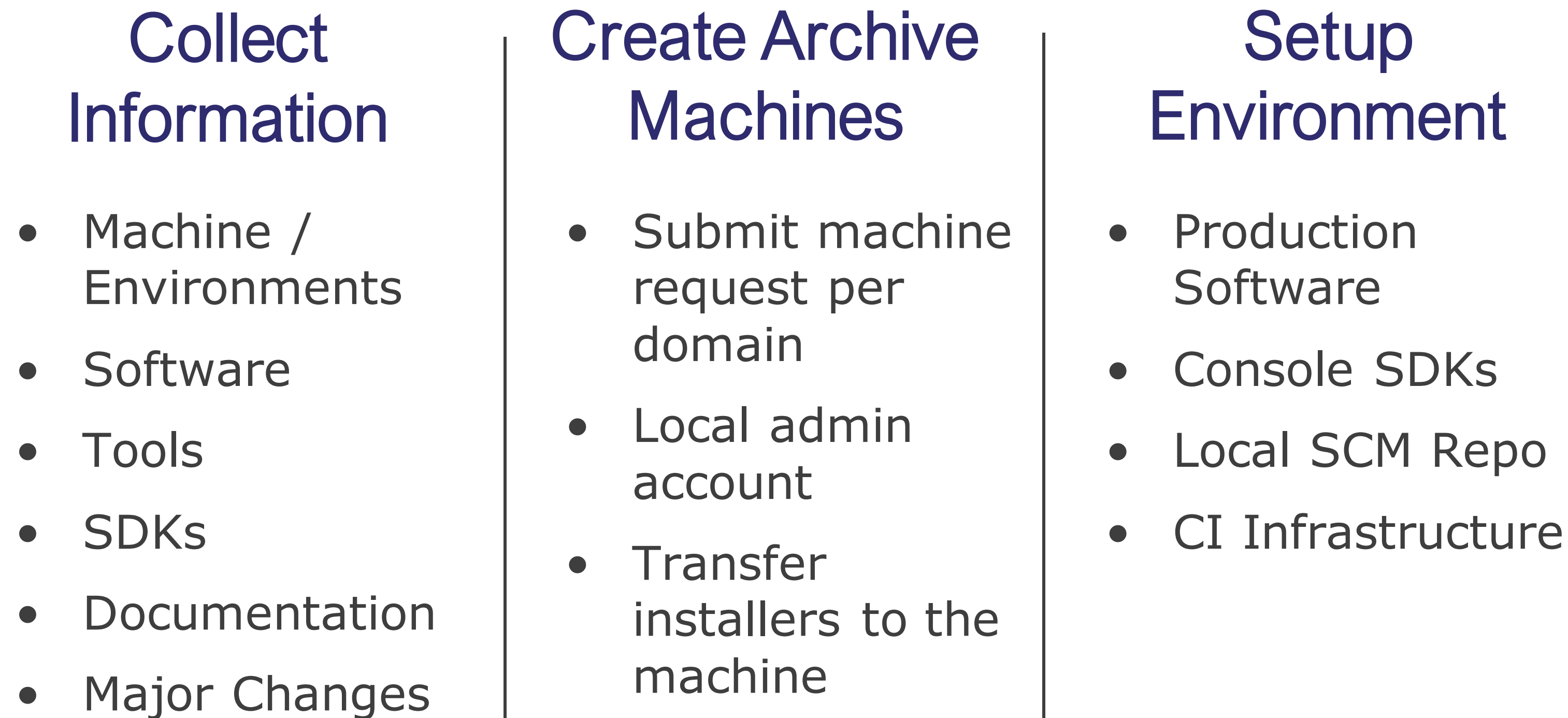


03

# Tasks of Preservation



# Stage 1 – Setup





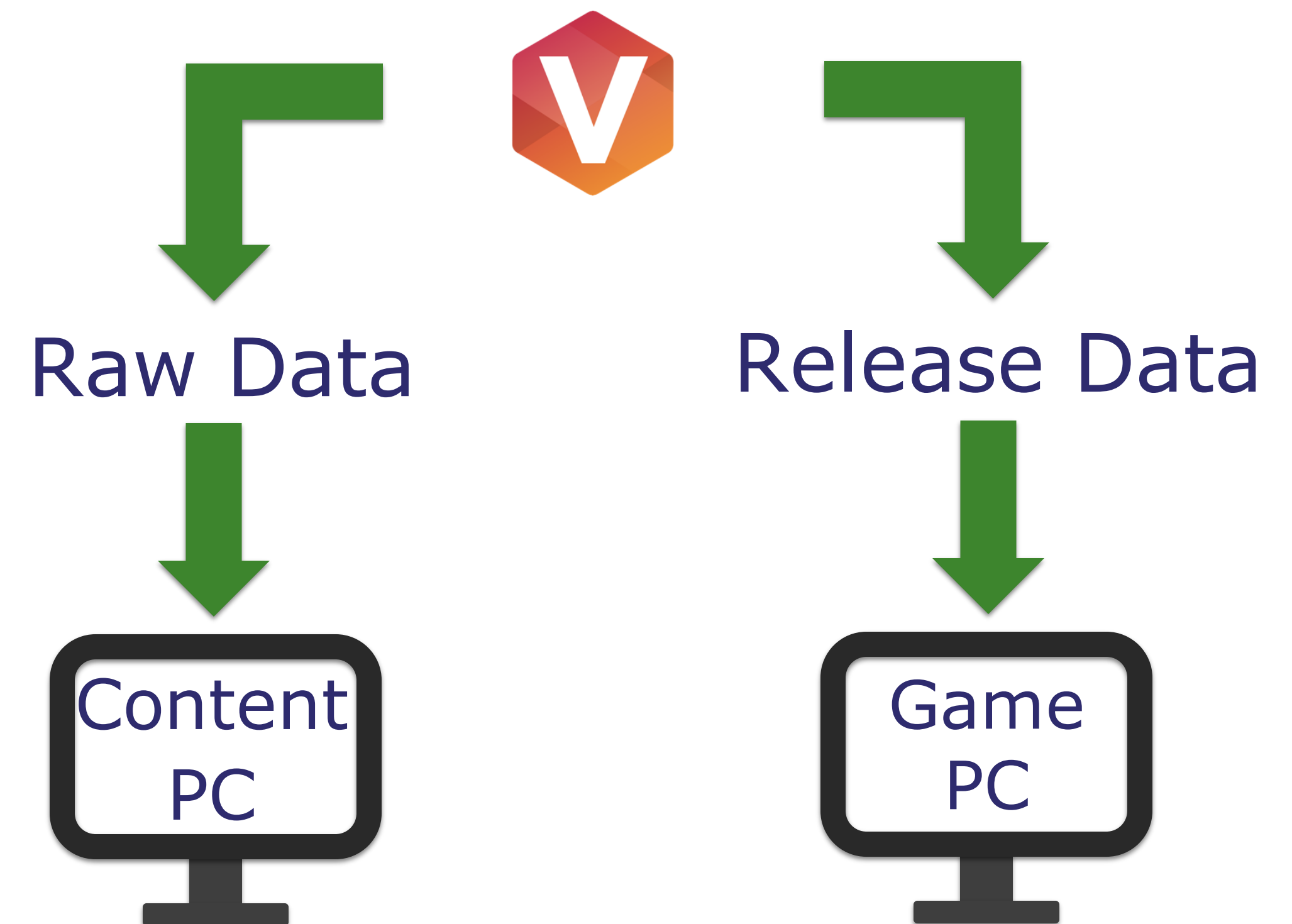
# Stage 2 – Requisition

## Sync Production Data

- Art Assets
- Audio Assets
- RTM & Patch Data
- DLC Data
- Variant Data
- Client & Server Data

## Submit Data to Local SCM Server

- Changelist for each release
- Single changelist for content





# Stage 3 – Reproduction

## Reproduce Key Releases

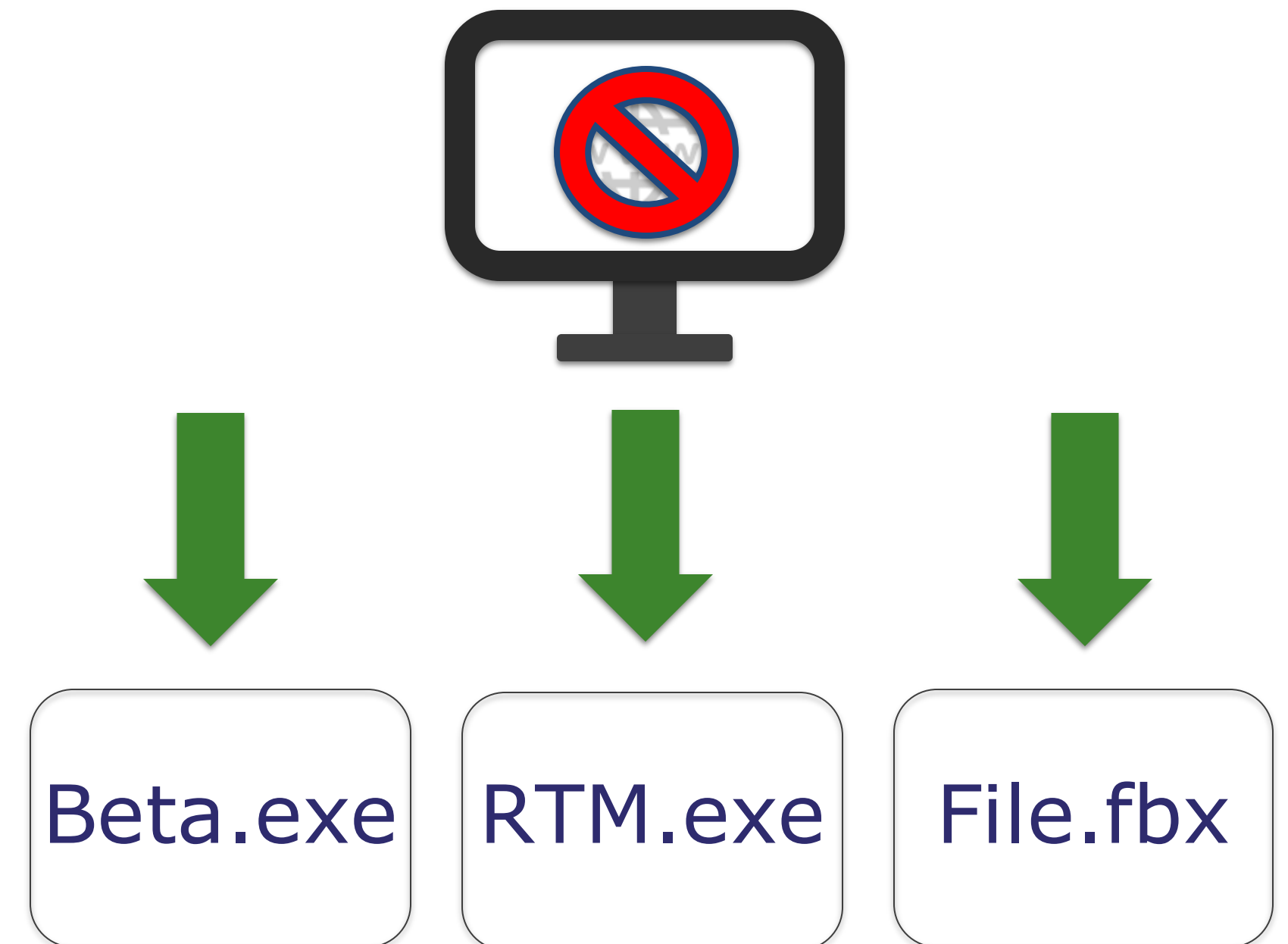
- Demo
- Beta
- RTM / region / variant
- Patch / region / variant
- DLC / region / variant

## Reproduce Content

- Export Raw
- Import into game engine
- Convert for platforms

## Verify Product

- Deploy Builds
- Patch existing game
- View content in engine
- View content in game





# Stage 4 – Submission

## Detail Archive in Catalogue

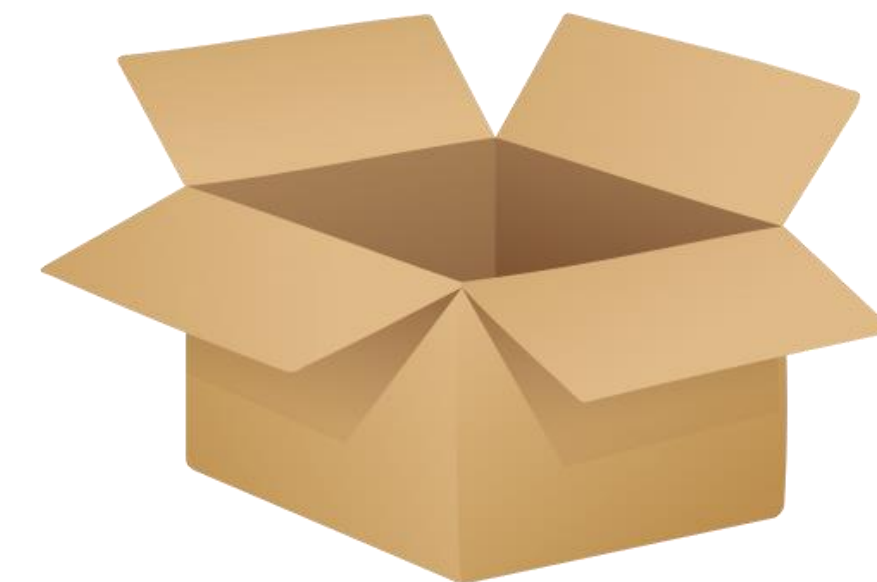
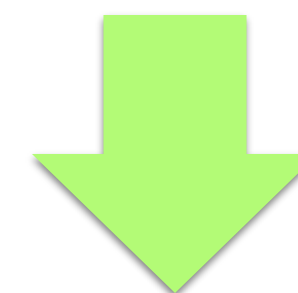
- VMs & Credentials
- Tools and Services Installed
- Missing / Unavailable Data

## Submit Archive

- Additional verification performed
- Images transferred to the vault

## Clean Up

- Destroy archiving machines
- Close tickets
- Update progress reports



04

# Creating a Cultural Change



## Competitive Analysis



## Historical Analysis



## Patching



## Legal



## Remastering



## Redistribution





We don't intend to remaster



It's too expensive to preserve work



**PSLS** - [Article Link](#)

## Resident Evil HD Breaks Sales Records

Latest remaster becomes fastest selling digital game in Capcom's history.

By Eddie Makuch on February 9, 2015 at 9:02AM

372

**Gamespot** - [Article Link](#)



# Create the Realization



*Blade Runner, 1997*  
**Westwood Studios**

**Kotaku** - [Article Link](#)



*Starcraft, 1998*  
**Blizzard**

**arstechnica** - [Article Link](#)

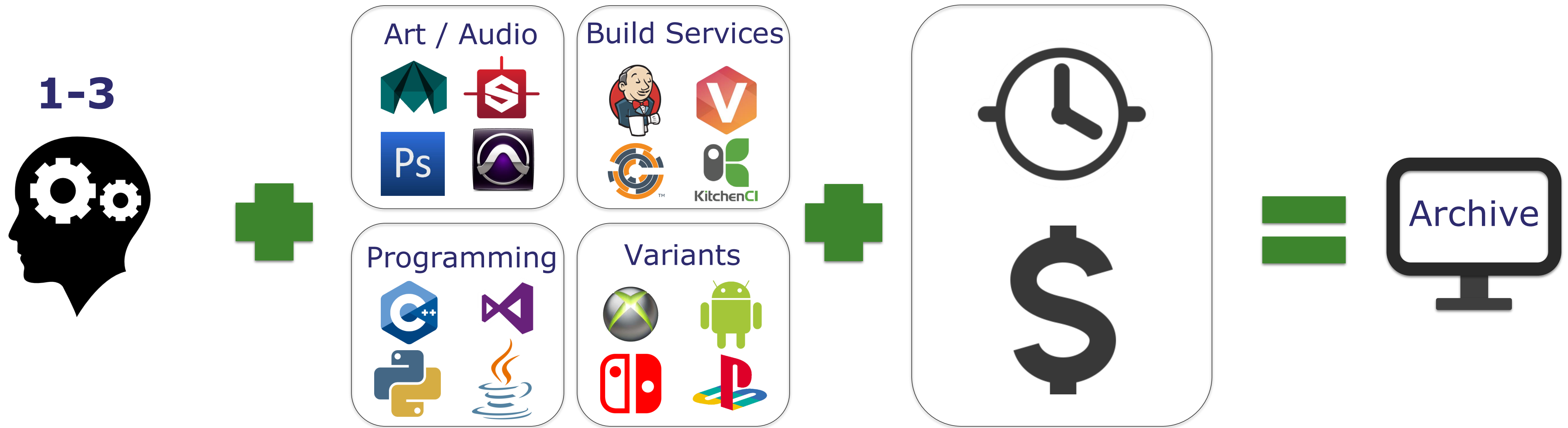


*Silent Hill 2 & 3, 2001 / 2003*  
**Konami**

**Eurogamer** - [Article Link](#)

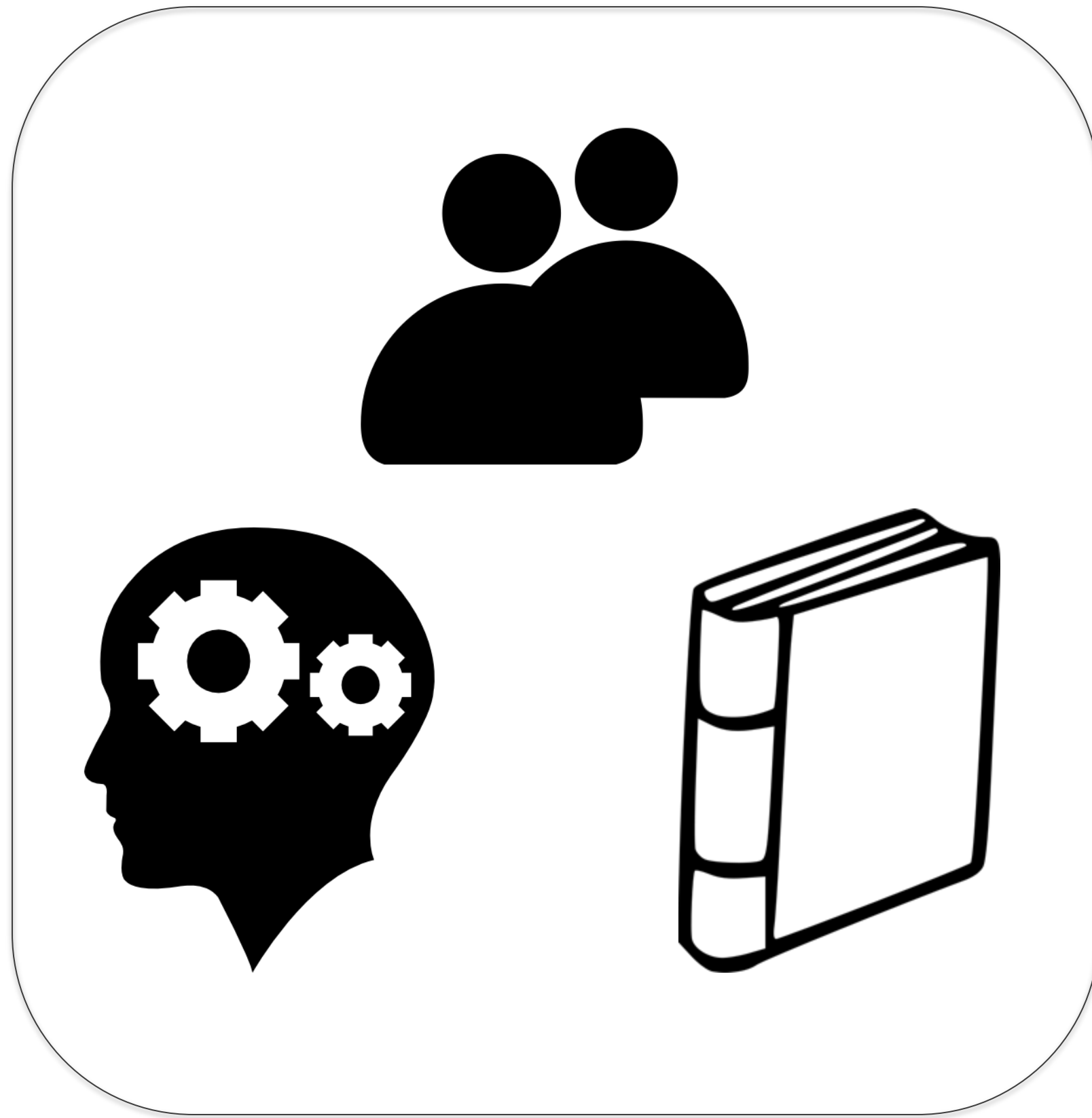


# Define the Capability





# Reduce Manual Labor

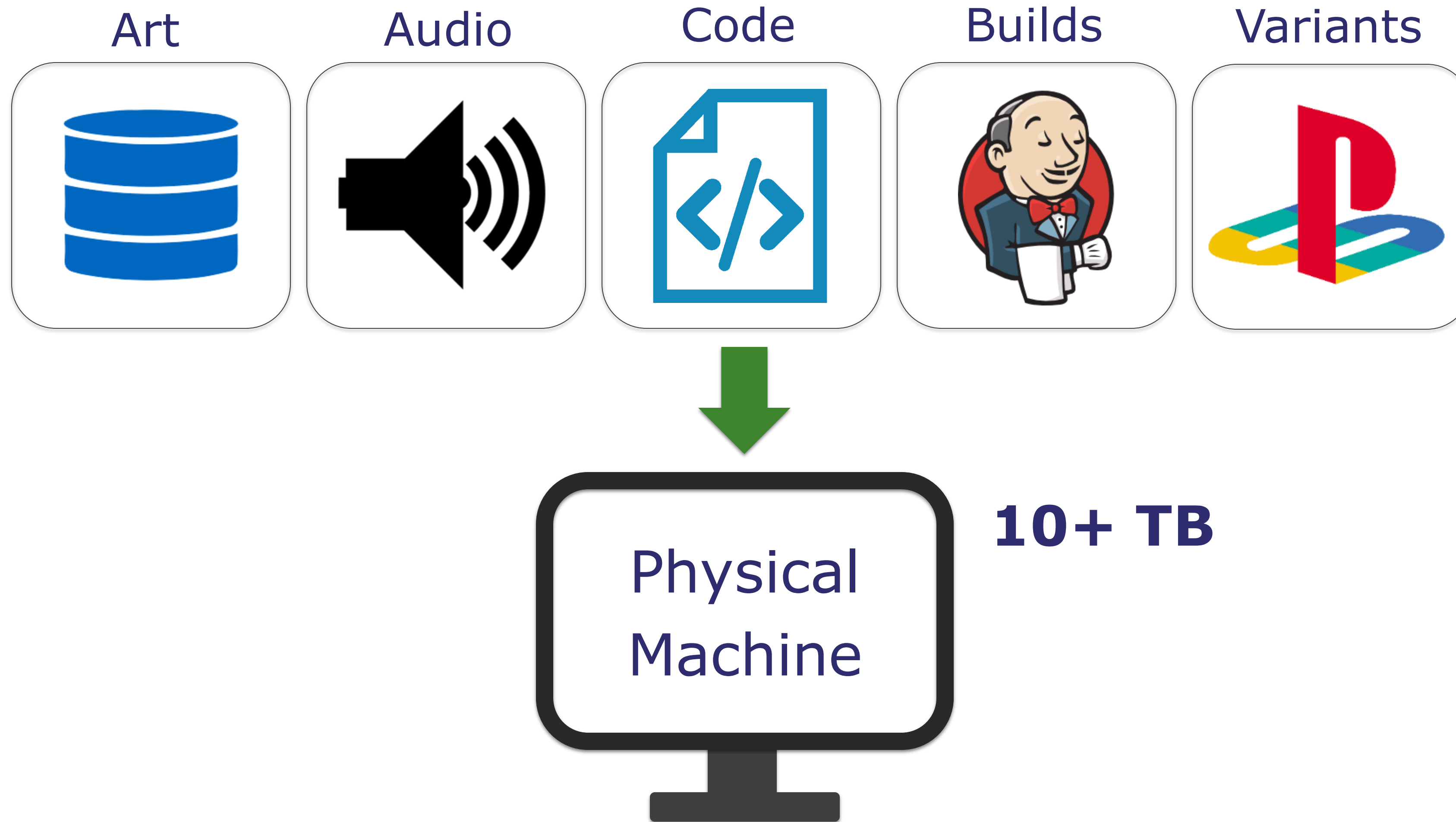


05

# Tools of the Trade



# Virtual Machines



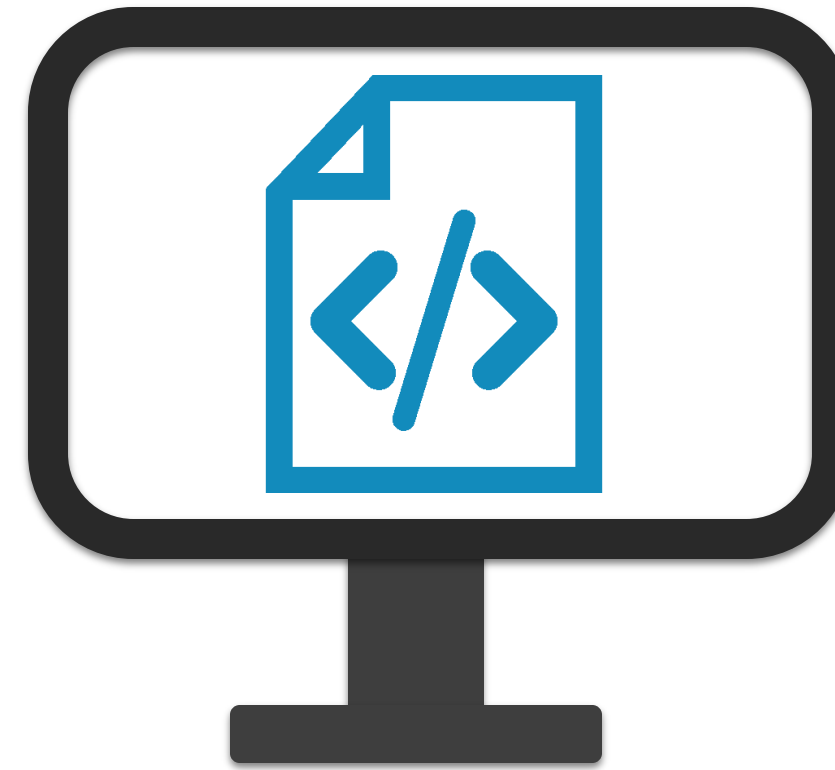
**Art**



**Audio**



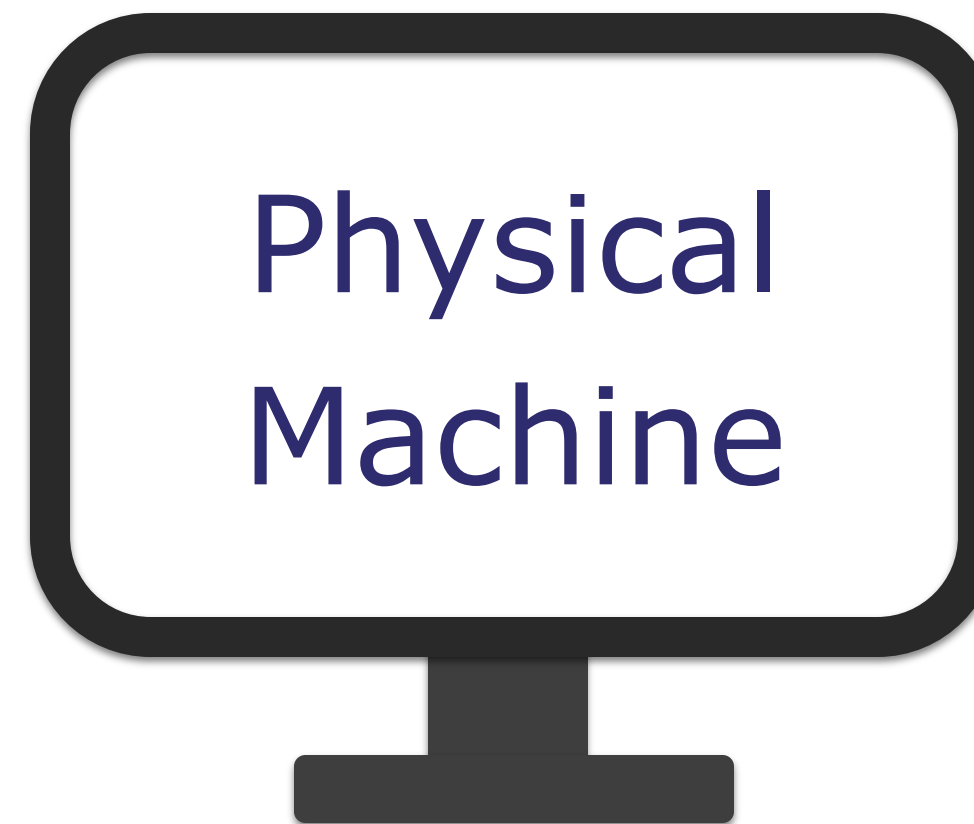
**Code**



**Builds**

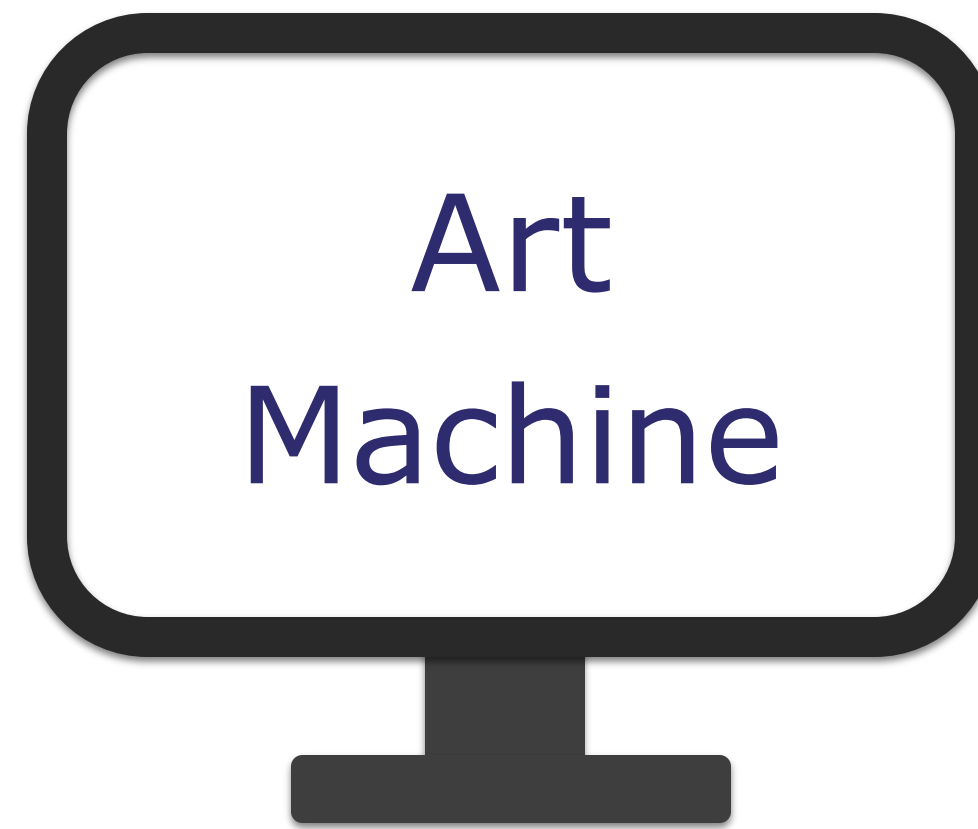


**Variants**





Chef 



## Game 1 Art



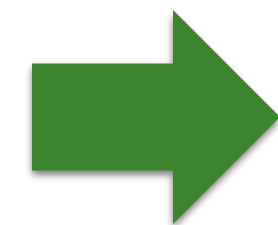
2018.3.2



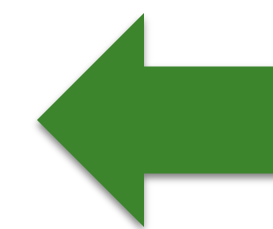
2018.2



2017



Art  
Machine



## Game 2 Art



17.0



3.1.2.1



2017



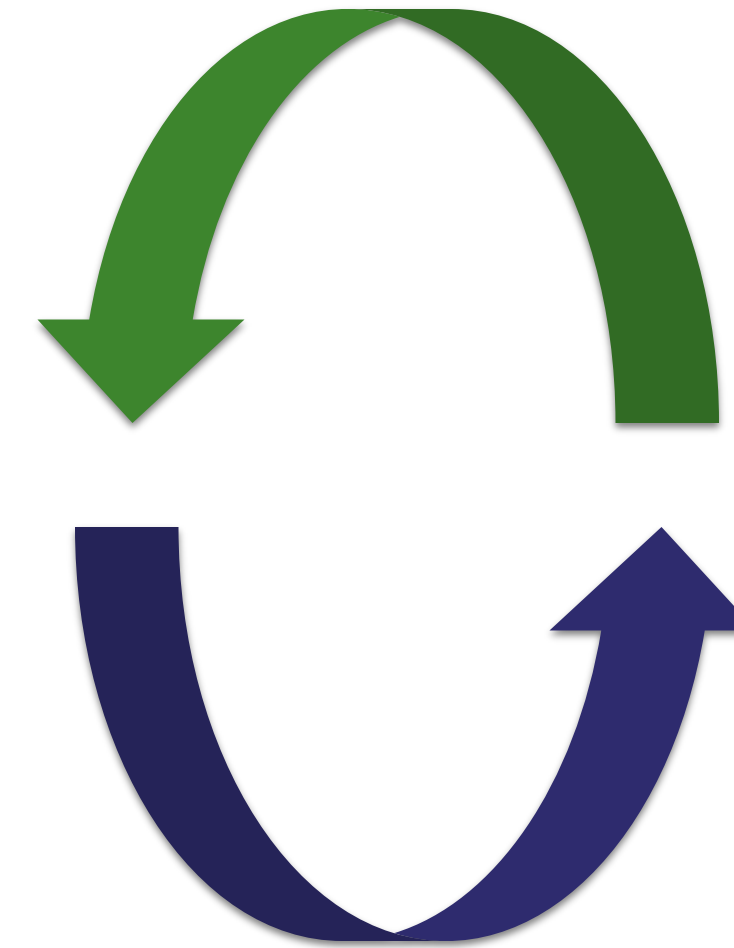
06

# Preparing for the Future



“You will be able to play games with your friends anytime, anywhere, and on any device”

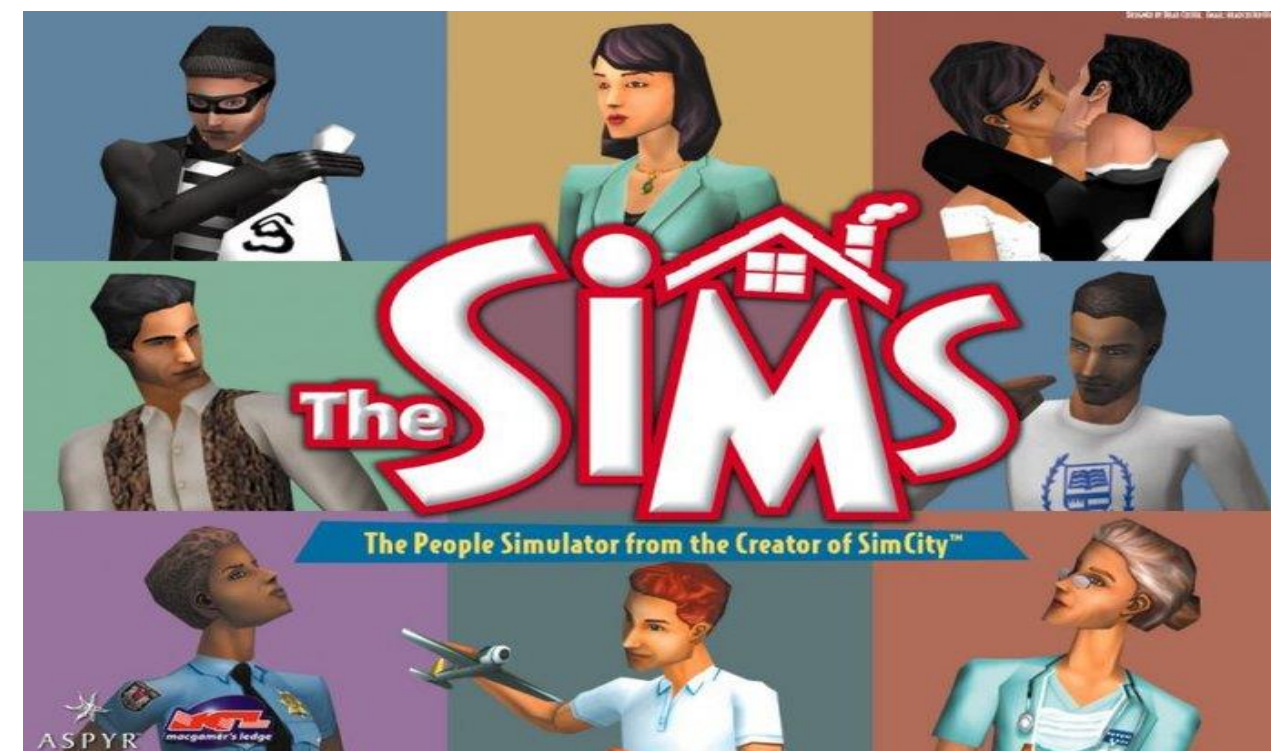
*Ken Moss, CTO @ EA, Project Atlas*



“There's a world where it gets easier and easier to move that code around -- where we may not have to do an annual release”

*Andrew Wilson, CEO @ EA, Bloomberg*







# Final Notes

Don't be known for an industry tragedy



Automate and build. Reduce that manual labor



Be prepared. The world is changing







# Thank you for Listening

## Questions & Answers

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