

## **Biography**

### **Tom Wilson, CISA, PMP**

Tom Wilson, CISA, PMP, is an Information Technology Auditor with the City of Fort Worth, Texas, and has served in that role since June 2015. His primary responsibilities include conducting a variety of IT-related audits in accordance with the City of Fort Worth Internal Audit Department's annual audit plan, as well as providing IT-related support to other Internal Audit staff for their respective audits.

Prior to his work with the City of Fort Worth, Tom was employed by the City of Arlington, Texas Information Technology Department for twenty-two years, working on various assignments related to mainframe COBOL software system design and programming, packaged software implementations, ERP implementation and management, and multi-platform project management.

Tom was graduated from Southwestern Oklahoma State University in May 1986 with a Bachelor's Degree in Computer Science. Tom earned his Project Management Professional (PMP) certification in June 2009, and, most recently, was designated as a Certified Information Systems Auditor (CISA) in October 2017.

An underwater scene with the word "JAWS" in large, white, 3D block letters. The background is a deep blue-green water with some green seaweed or coral visible. The letters have a slight shadow, giving them a three-dimensional appearance.

# JAWS

A Mechanical Shark's "Guide" to  
Project and Audit Management  
Tom Wilson, CISA, PMP

# "JAWS" - SOURCE MATERIAL





Peter Benchley May 8, 1940 – February 12, 2006

"JAWS" is the fictional story of a great white shark that terrorizes a small coastal New England town. Written by author Peter Benchley in 1973, "JAWS" was published in 1974 and became an immediate bestseller.

Prior to "JAWS", Benchley previously worked for the Washington Post and Newsweek, and served as a speechwriter for President Lyndon Johnson.

Benchley's other fictional novels include "The Deep", "The Island", "The Girl of the Sea of Cortez", "Beast", and "Creature".



## PROJECT PHASES

- Initiation
- Planning
- Execution
- Monitoring & Controlling
- Closing

## AUDIT PHASES

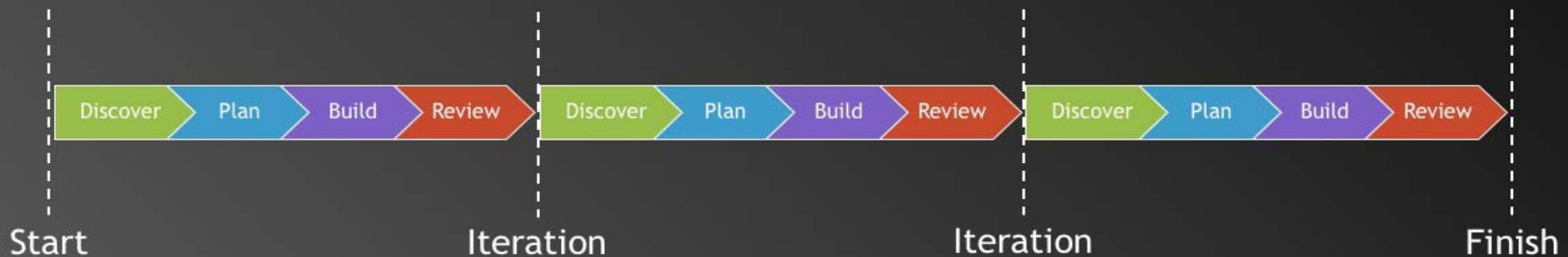
- Administration
- Planning
- Preliminary Fieldwork
- Detailed Fieldwork
- Audit Closing

# PROJECT MANAGEMENT – WATERFALL vs AGILE

## WATERFALL



## AGILE



# PROJECT INITIATION / AUDIT ADMINISTRATION

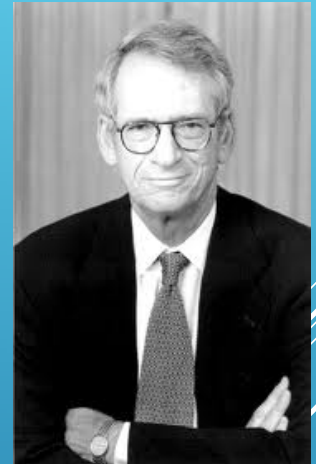


Richard Zanuck and David Brown



Universal Studios

Sid Sheinberg




- PROJECT CHARTER
- AUDIT PLAN

## PROJECT CHARTER


- Project Requirements
- Business Needs
- Summary Schedule
- Project Scope
- Stakeholders

## AUDIT PLAN

- Audit Subject
  - Audit Objective
  - Audit Type
  - Number of Hours
- 
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# PROJECT PLANNING

- Project Manager Selection
  - Project Plan
    - Script
    - Principal Shooting Schedule: 55 days
      - Start Date - set for May 2, 1974
      - Possible strike on July 1 by Screen Actors Guild
    - Mechanical sharks – filming can't start until construction and testing of sharks is completed
  - Project Budget - \$3.5 to \$4.5 million
- 

# AUDIT PLANNING

- Audit Authorization
  - Governing Board of Directors
  - State or Local Governmental Authority
- Audit Type, Scope, and Budget
  - Full or Limited
  - Financial, Performance, Information Technology, etc.
  - Number of hours and resources
- Audit Steps
  - Areas to review, including:
    - Project budget and expenditures
    - Project Plan
  - Area(s) to test
  - Staff Interviews

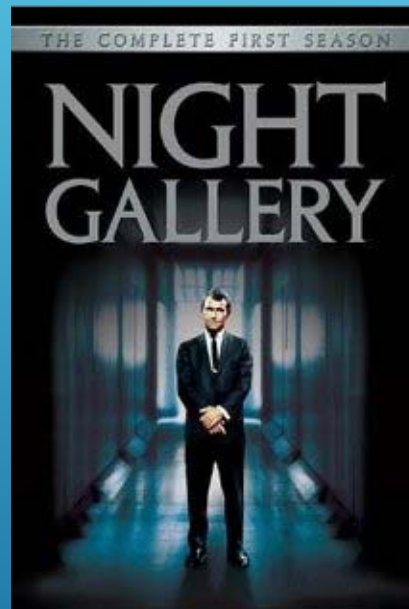
# PROJECT MANAGER



Steven Spielberg



"Duel", 1971



"Night Gallery", 1970



"The Sugarland Express", 1974

# RISK ASSESSMENT

Category	Risk	Probability	Impact	Mitigation	Product (1-9)	Risk Assessment
Financial	Project expenditures will exceed project budget	2	3	Daily expenditure monitoring; secure additional funding, as required	6	Medium
Logistical	Required sets won't be completed in time for filming	1	3	Secure appropriate permits and labor well in advance of date(s) needed	3	Low
Logistical	Aquatic transportation needs not fully secured	2	3	Secure required transportation for entire schedule in advance of the start of filming	6	Medium
Logistical	Local communities might say "No" to film production	1	3	Find alternative location(s) for film production	3	Low
Resource	Screen Actors Guild - possible strike on July 1	3	3	Film all actor-related scenes prior to end of June	9	High
Technical	Mechanical Sharks won't work	2	3	Detailed and extensive testing of sharks and supporting equipment; adjust filming schedule and/or script, as necessary	6	Medium
Technical	Script won't be completed before start of filming	3	3	Conduct daily work on script to keep up with production schedule	9	High
Technical	Film schedule is not long enough	2	3	Extend the film schedule, as required, with the appropriate approvals from the studio and local officials	6	Medium

## Probability

- 1 Unlikely
- 2 Somewhat Likely
- 3 Likely


## Impact

- 1 Low
- 2 Medium
- 3 High

## Risk Assessment

- 1 to 3 Low
- 4 to 6 Medium
- 7 to 9 High

# PROJECT EXECUTION

- Build the Project Team
    - Production Designer
    - Script Writer
    - Film Editor
    - Location Casting Director
    - Special Effects Manager
      - Building and testing of the mechanical sharks
    - Music Composition
  - Cast the primary character roles
  - Select the filming location(s)
    - Account for all related logistical needs
  - Write/Finish the script
  - Make the movie!
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# PROJECT TEAM



Steven Spielberg -  
Director



Joe Alves -  
Production  
Designer



Carl Gottlieb -  
Screen Writer



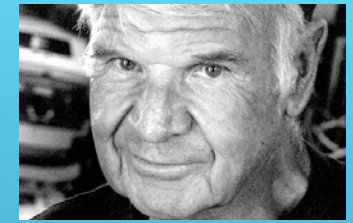
Verna Fields - Editor



Shari Rhodes  
- Location  
Casting



Robert Matthey -  
Special Effects



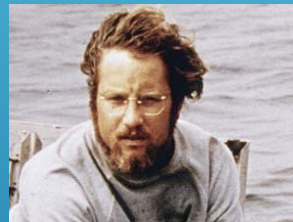
Lynn Murphy -  
Special Effects &  
Transportation



Roy Scheider  
"Chief Brody"



Robert Shaw  
"Quint"



Richard Dreyfuss  
"Hooper"



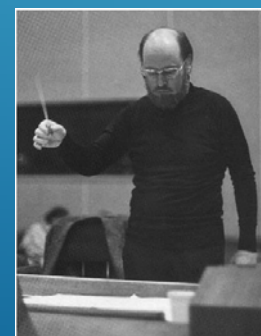
Lorraine Gary  
"Mrs. Brody"



Murray Hamilton  
"Mayor Vaughn"



The Shark



John Williams

# FILMING LOCATION SELECTION

- Coastal Location
  - Didn't want to film ocean scenes in a studio tank
  - Wanted to see an actual horizon
- Location must have a "small town" look & feel
  - Relatively flat ocean topography
  - Little variance in tidal activity
- Permits for set construction
- Support equipment & personnel for water transportation
- Weather

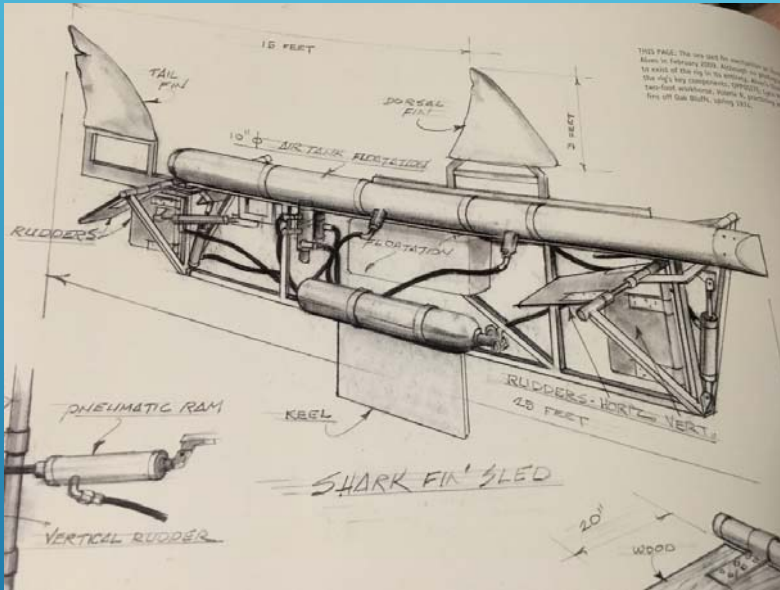




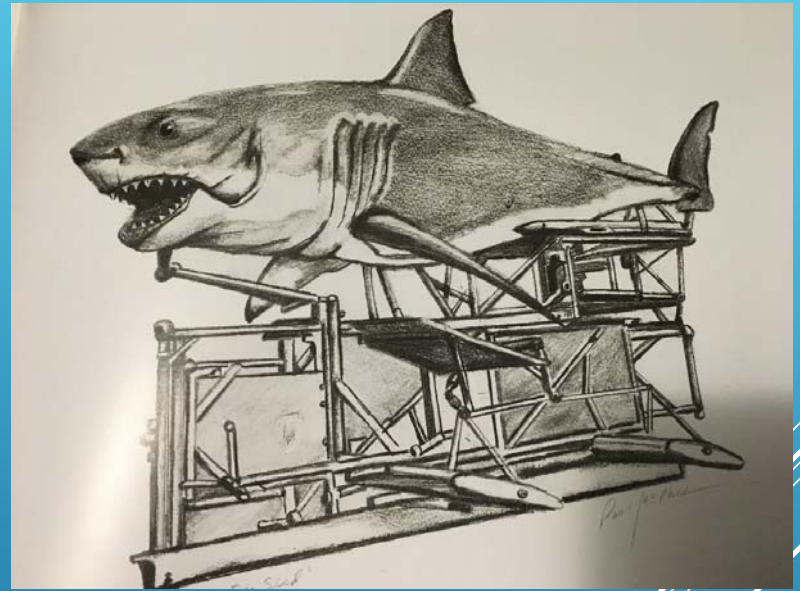
**MARTHA'S VINEYARD**



# THE SHARK

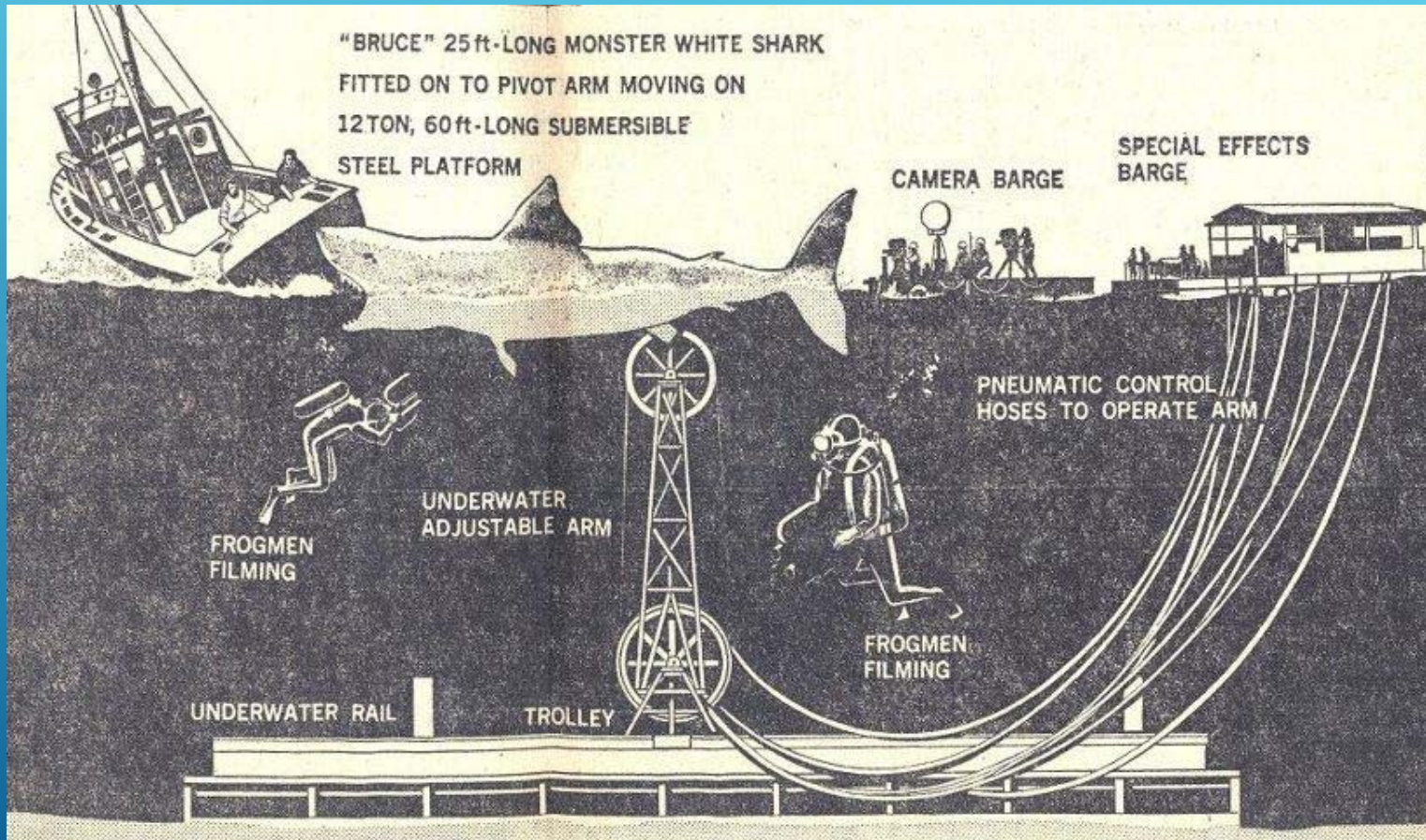


Shark Fin Sled



Shark Sled

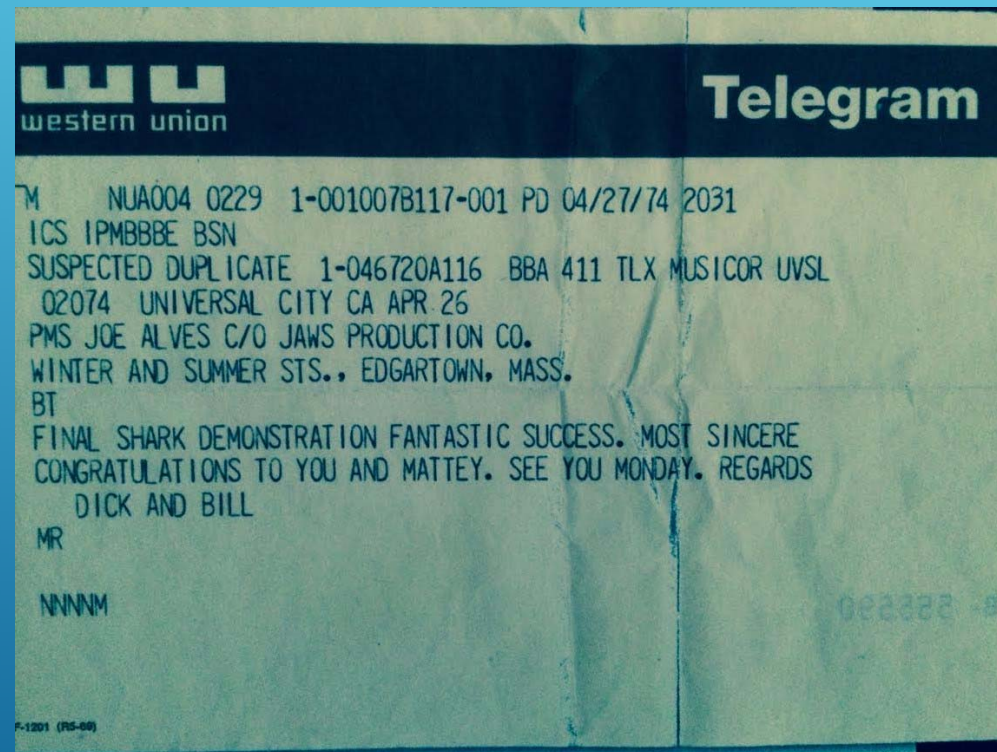
# THE SHARK




# THE SHARK



# THE SHARK – FINAL TEST RESULTS



# MONITORING & CONTROLLING

- ▶ Filming began on May 2, 1974, as scheduled
  - ▶ All beach-related scenes completed before July 4
  - ▶ Screen Actors Guild strike never transpired
  - ▶ Weather changes impacted the schedule
  - ▶ Mechanical sharks and supporting equipment experienced major malfunctions
    - ▶ Not designed for long-term exposure to salt water
    - ▶ More time spent on additional modifications and testing
- 

# MONITORING & CONTROLLING

- ▶ Original project budget was expended by mid-June
  - ▶ Additional funding had to be obtained
- ▶ Script was written/changed daily as previously written scenes were filmed
  - ▶ Problems with the mechanical sharks forced the creation of new scenes and modifications to existing ones
  - ▶ Nightly “scrums” were conducted to review footage shot during the day
- ▶ Project Team morale problems developed
  - ▶ Between the actors
  - ▶ Between the crew and the director
    - ▶ Some of the crew referred to the project as “FLAWS”
- ▶ Daily problems with aquatic transportation supporting the water-related scenes

# MONITORING & CONTROLLING


- ▶ Mechanical shark problems continued for 15 weeks
  - ▶ Shark-related scenes were changed, accordingly
  - ▶ The project was almost cancelled on at least two occasions
- ▶ First successful mechanical shark film test – August 18
- ▶ Last on-location scenes completed on September 18
- ▶ Last scripted scenes completed on October 6
- ▶ Actual filming schedule: **159** days

# MONITORING & CONTROLLING


- ▶ Post-production activities – Oct 1974 to March 1975
- ▶ Test screenings
  - ▶ March 26 – Dallas, Texas
  - ▶ March 28 – Long Beach, California
  - ▶ April 24 – Hollywood, California
  - ▶ Two additional scenes were subsequently filmed
    - ▶ Considered to be an “out of scope” change



# PROJECT CLOSING

- ▶ Film release scheduled for June 20<sup>th</sup>
  - ▶ Advertisement budget: \$1.8 million
    - ▶ Included \$700,000 for television promotions
  - ▶ Final production cost: approx. \$10 million
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# PROJECT - LESSONS LEARNED

- ▶ Project budget was inadequate
    - ▶ Final project cost was more than double the original budgeted amount
  - ▶ More testing of mechanical sharks needed prior to start of filming
  - ▶ Project schedule was unrealistic
    - ▶ Actual filming schedule was almost three times longer than planned
  - ▶ On-location logistical requirements planning was inadequate
    - ▶ Not enough required support resources
    - ▶ Lack of understanding of the local building permit process
  - ▶ Weather / Climate not fully considered
    - ▶ Contributed to almost daily delays in the schedule
- 

# AUDIT FINDINGS

- ▶ Project was underfunded
  - ▶ Differing project sponsorship expectations
    - ▶ Producers envisioned “JAWS” as a potential big hit
    - ▶ Universal Studios viewed “JAWS” as a low-budget effort
  - ▶ Production issues caused the final costs to be more than double the original budget
- ▶ Testing of the mechanical sharks was inadequate
  - ▶ No formal test plan
  - ▶ Platform shark tests were not performed in water prior to the May 2 start date of filming
  - ▶ Support equipment was not constructed to withstand long-term exposure to salt water
  - ▶ Alternate scenes had to be added, and existing scenes had to be modified to accommodate shark issues


# AUDIT FINDINGS

- ▶ Filming began without a finished script
    - ▶ Three script drafts were written by the book's author, but were not in a ready state for filming
    - ▶ Director's vision for the story was not fully determined prior to the start of filming
    - ▶ Script was written/rewritten during the film's shooting schedule
  - ▶ Original film shooting schedule was exceeded
    - ▶ More time needed for testing and modification of mechanical sharks before filming
    - ▶ Historical weather conditions were discounted
    - ▶ Actual filming schedule was almost three times longer than planned
- 


# AUDIT FINDINGS

- ▶ Additional expenditures were incurred without the approval of the Project Sponsor
  - ▶ Director wanted to film additional scenes subsequent to initial test screenings
  - ▶ Project Sponsor did not approve funding for additional filming and related equipment usage; Director used his own money for the new scenes
  - ▶ Project Sponsor had no record of the additional expenditures
- ▶ On-location logistical requirements planning was inadequate
  - ▶ Required support resources were not fully identified and secured
  - ▶ Historical weather conditions were discounted
  - ▶ Permitting process was not fully understood by the production team
  - ▶ Contributed to delays in the filming schedule

# SOME QUESTIONS TO CONSIDER

- ▶ How much time should be spent in the Planning phase?
  - ▶ Is one phase more important than another?
  - ▶ How much time should be given to Communications planning?
    - ▶ Project / Audit sponsors
    - ▶ Stakeholders / Auditees
  - ▶ How detailed should Risk Assessments be?
  - ▶ Are your Project/Audit Plans in a constant state of flux?
  - ▶ Do your Project/Audit Plans suffer from “scope creep”?
  - ▶ Is a poorly managed project that still achieves the stated outcome really a success?
  - ▶ Under what circumstances should an in-progress project or audit be halted?
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# FINAL RESULTS

- ▶ Number of Theaters on Opening Day: 464
    - ▶ USA – 409
    - ▶ Canada – 55
  - ▶ Opening weekend gross: \$7,061,513
    - ▶ Project budget was recovered within the first two weeks of film's release
  - ▶ July 25 – expanded release to a total of 700 theaters
  - ▶ End of August – 950+ theaters
  - ▶ Domestic box office gross in 1975: \$260,000,000
    - ▶ Adjusted for inflation: \$1,175,763,500
    - ▶ #7 on all-time list
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# FINAL RESULTS





# STEVEN SPIELBERG FILMOGRAPHY

- ▶ 1968 – Amblin' – short film
- ▶ 1971 – Duel (TV Movie)
- ▶ 1974 – The Sugarland Express
- ▶ 1975 – Jaws
- ▶ 1977 – Close Encounters of the Third Kind
- ▶ 1979 – “1941”
- ▶ 1981 – Raiders of the Lost Ark
- ▶ 1982 – E.T the Extra-Terrestrial
- ▶ 1983 – Twilight Zone: The Movie (“Kick the Can”)
- ▶ 1984 – Indiana Jones and the Temple of Doom
- ▶ 1985 – The Color Purple
- ▶ 1987 – Empire of the Sun
- ▶ 1989 – Always
- ▶ 1989 – Indiana Jones and the Last Crusade
- ▶ 1991 – Hook
- ▶ 1993 – Jurassic Park
- ▶ 1993 – Schindler's List
- ▶ 1997 – Amistad
- ▶ 1997 – The Lost World: Jurassic Park
- ▶ 1998 – Saving Private Ryan
- ▶ 2001 – A.I. Artificial Intelligence
- ▶ 2002 – Catch Me If You Can
- ▶ 2002 – Minority Report
- ▶ 2004 – The Terminal
- ▶ 2005 – Munich
- ▶ 2005 – War of the Worlds
- ▶ 2008 – Indiana Jones & the Kingdom of the Crystal Skull
- ▶ 2011 – The Adventures of Tintin
- ▶ 2011 – War Horse
- ▶ 2012 – Lincoln
- ▶ 2015 – Bridge of Spies
- ▶ 2016 – The BFG
- ▶ 2017 – The Post
- ▶ 2018 – Ready Player One

# CLOSING THOUGHTS / COMMENTS

