HCLTech | Supercharging Progress™

Global TV and media conglomerate streamlines **content verification** and **delivery**

HCLTech automated processes for the client's content delivery channels

A U.S.-based premium television network with a global presence needed to boost their asset accuracy and reduce time to market. The company also wanted to standardize their production and distribution platforms and processes. The client, known for ground-breaking series, documentaries and blockbuster movies, lacked real-time status updates and visibility into content assets. The client needed intelligent automation for its entire range of content delivery channels—web, mobile, desktop and OTT.

The organization was looking for a trusted ecosystem enabler with deep domain experience in automating content creation and distribution systems. Considering the global footprint and technological expertise, the media behemoth partnered with HCLTech to streamline its services.

Challenge:
Intensive effort to complete test life cycles with high accuracy

The client sought to augment their success in the U.S. by releasing content on web and OTT platforms in Europe. To do so, they needed to support European languages across popular European browsers. This presented multiple challenges, including:

- ~6,000 assets had to be verified across regions and four different platforms

- Despite employing more than 30 QA

professionals, each verification cycle required approximately one week

- Fixing defects and conducting QA retests required additional effort

- The company lacked a consolidated view of all functioning modalities

- Verifying the Cyrillic characters of some EU languages caused difficulties
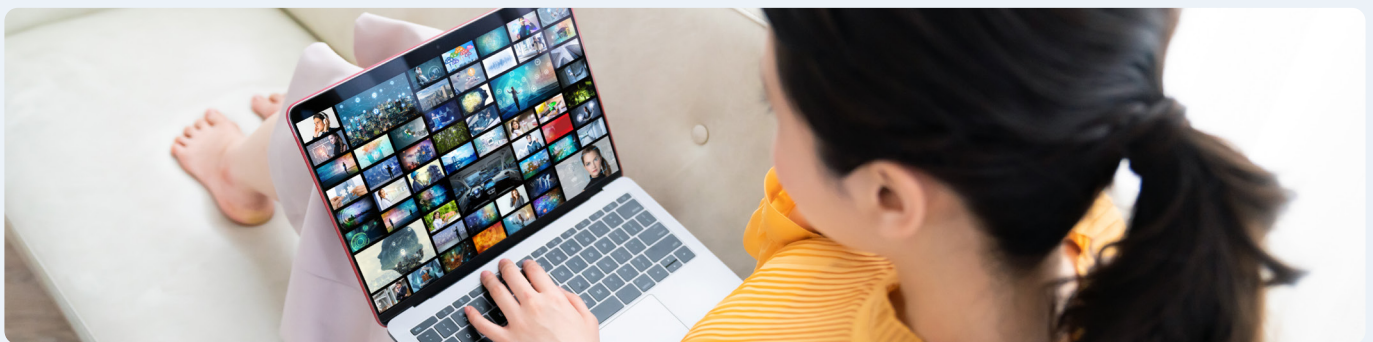
Objective:
Automate content to improve efficiency and the customer experience

The client was looking for an end-to-end solution that checks for missing episodes and subtitles as well as undelivered or duplicate features and shows, ideally with little or no manual intervention. In addition, the European languages on published editorial metadata needed validation and the audio and caption

languages had to match the tagging on playable assets. For those reasons, it was imperative to find a fully automated testing practice to pull content from content sheets. The client also expected consolidated execution reports that update automatically for every iteration. This required:

- A phase-wise deployment automation

- Moving content testing operations to an automated framework

- Standardizing and optimizing processes for defect prediction, test traceability, trend analysis and metrics visualization

Solution:

Moving content testing operations to an automated Spyglass model

The team at HCLTech used advanced analytics on data aggregated from production and distribution touchpoints. To streamline script creation and execution processes, HCLTech customized leveraged JAVA classes and open-source tools and plug-ins. Per the client's preference, The team analyzed AWS instance requirements and to ensure successful execution, integrated the entire CI/CD pipeline with a Jenkins server.

To address the client's problems, HCLTech took these significant steps:

- Created a new feature to pull content from CMS and share its inputs with automation scripts run in QA, pre-production and production sites

- Deployed AppScan on the cloud to certify security standards and eliminate all vulnerabilities

- Configured selenium grids with 2,000 assets per hour rate of verification

- Assisted in spinning up AWS instances in the EU to provide access to region-specific content

- Designed an effective strategy to load all actual content from DOMs in one instance

- Per the wrapper method, employed reusable components at the UI level to save time while writing scripts

- Used actions such as single/double clicks and hovering for image validation

- Merged the solution stack with Maven's integration best practices, automatically pushing code drops/changes to the development side for script execution

- Deployed the best code optimization solution to reduce execution time and load elements onto pages quickly

- Developed advanced language algorithms for all edge cases that verify Cyrillic characters in EU languages

- Implemented hash maps and third-party APIs to confirm the language and region of publication

- Implemented complex data-handling techniques
  Validated episode numbering for all appropriate assets along with thumbnails for all assets

- Expedited language detection

- Validated the season and episode numbering

Impact:
High productivity, accuracy and cost efficiency

Our solution optimized the client's content verification life cycle, resulting in far-reaching benefits. Content validation TAT was reduced from seven days to two or three hours and manual effort for audio and caption validation was reduced by 70 percent. At the same time, Metadata and purple image validation reached 100 percent accuracy and overall testing efforts were reduced by 60 percent, while the accuracy of test data and assets increased by 80 percent. Overall, with the help of Spyglass's centralized reports, failure incidents are resolved quickly.

Using our next-gen technologies, HCLTech supercharged this media giant's business by making their content verification and delivery more productive, accurate, efficient and cost-effective. The client can now use the solution to easily automate future script creation practices and enhancements.

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