

Using .Net to build a Video Training Library

SphereGen Case Study

To offset the “brain drain” of an aging workforce, a Connecticut manufacturer tackles the challenge of building video libraries to document internal operations knowledge, for new hire training.

Microsoft Partner

OVERVIEW

A major issue facing the manufacturing industry right now is the loss of skilled frontline workers due to an aging/retiring workforce combined with difficulty in hiring replacements. The result is “brain Drain”, a scenario in which important company working knowledge held by older employees leaves the company as workers retire. A Connecticut manufacturer approached that problem by documenting working knowledge in videos and creating a searchable content library for ease of use in training assignment.

Challenges

As their frontline workforce retires, our customer was in danger of losing critical company operations knowledge. They needed a way to document the long-held knowledge and an easy way to access those document stores for future training.

Solution

Our customer decided to create a video library which contains recorded documentation of key skill and operational know how. SphereGen created a web application which provides the following functionality to manage and access the data:

- Ability to create, edit and store videos
- Secure file storage system on Azure
- Front end to manage and access the content library and assign videos to members for viewing

As a result, our customer has been able to easily document much needed operational knowledge specific to their company. The web application allows easy content management and access for new hires as they are trained.

RESULTS

Valuable Knowledge Share



Easy Access Cloud Filing System



Improved Training



THE DETAILS

To provide a way to document company specific operational knowledge and build an easily accessible content library, SphereGen built a web application and cloud filing system using .NET.

APPROACH

Azure File Management System

One of the primary goals of the project was to establish accessibility from multiple device platforms and locations. To accommodate this, a SQL database was built in Azure with Blob storage. A cloud infrastructure securely ensures access for all device types and operating systems.

Front End Web Application for Easy Content Management

To access the Azure filing management data, a frontend application with management and search functionality was implemented . An Admin role can create and define folders, into which videos are uploaded. At the time of upload, the Admin assigns a Video name, description and thumbnail image so that it is easily recognizable and searchable. Other upload data, such as video creator name, file size and status are also captured.

Once the training videos have been uploaded, our customer needed functionality to edit and manage video content. The application uses .NET to provide a full array of video editing features. The video can be trimmed, rotated, scaled and snapped. In addition, elements of text, audio, shapes, links and filters can be applied to the recording. Once the content is complete, the video can be published to the folder system.

Training Assignment

To track training assignments per employee, the Admin needs to establish a membership profile for each trainee. Videos can then be assigned to the member for viewing. The Admin can track which trainings have been completed, so the next group of trainings can be assigned.

CONCLUSION

By implementing an application which encompasses content upload, storage, editing and tracking – our customer is able to successfully tackle issues involving knowledge “brain drain” as their older workforce retires.

Critical company operations knowledge is documented and stored for use in training new and unexperienced frontline workers. Video content is easily filed and managed for training assignments and is accessible from any location or device with internet access. Now the company has a secure and dependable solution for documenting and sharing important operational knowledge.

SphereGen is a unique solutions provider that specializes in cloud-based applications, custom web/mobile apps, RPA (Robotic Process Automation), and Extended Reality (AR/VR/MR). We offer full-stack custom application development to help customers employ innovative technology to solve business problems.