



Summary

Customer: Columbia River Inter-Tribal Fish Commission (CRITFC), formed in 1977, coordinating agency for fishery management policies of the Columbia River Basin's vast water resource.

Challenge: Paper-based harvest management prone to bottlenecks and delays. CRITFC needed to speed up the cumbersome process of capturing, collating, and analyzing harvest data for more timely data delivery and decision making.

Solution: Capturx for SharePoint Server and Digital Pens, enabling field teams to instantly digitize handwritten harvest data and integrate it into Microsoft SharePoint using digital pens as they write on paper forms.

Results: Faster access to the harvest data supports better harvest regulation decisions. CRITFC benefits from the simplicity and robustness of pen and paper data collection, and the cost-effectiveness of automated data entry.

Digital Pens Capture Data to Protect Fish Runs & Regulate Harvest

The Columbia River Inter-Tribal Fish Commission (CRITFC), formed in 1977, is a coordinating agency for fishery management policies of the Columbia River Basin's vast water resource. CRITFC employs fisheries scientists, computer scientists, public information specialists, policy analysts, lawyers, and administrators to co-manage the habitat protection and restoration of fish runs while also co-managing harvests for both treaty Indian and non-Indian fisheries. If the season goes too long it can threaten sensitive fish runs, and if it closes too soon it is bad for funds and those who rely on the salmon.

To regulate in the Snake River basin, Nez Perce tribal 'fish samplers' collect survey data which they use to estimate the weekly harvest and then along with co-managers decide whether to close the season or keep it open. To speed up the cumbersome process of capturing and analyzing harvest data, CRITFC developed a pilot project in conjunction with the Nez Perce Tribe to deploy Capturx Software and digital pens.

Challenges: Inefficient Data Processing and Reporting

Field survey data has traditionally been captured on paper, which is easy to use in the field, but requires time-consuming data entry and reporting back in the office. It is very difficult to produce a fully-burdened harvest estimate in one week, summarizing paper field data can take much longer, and compiling an estimate for the entire Snake River Basin requires considerable data management. After the paper surveys are completed, there are two steps of data entry and collation between the field, regional supervisors, Nez Perce Harvest Department, and decision making. The co-managers prioritize the protection of fish runs, so if the estimate is late or the data incomplete, the co-managers will conservatively close the season.

In order to speed up data entry and collation, CRITFC considered deploying handheld computers for digital data collection, but they weren't well suited due to fragility to exposure in wet environments, and potential loss of data. CRITFC continued using pen and paper while looking for a digital alternative to handheld computers which would accommodate rugged environments, improve the timeliness and accuracy of harvest reporting, and most importantly deliver harvest estimates on time.

Solution: Capturx for SharePoint Server

CRITFC and the Nez Perce Tribe found a solution in Capturx software for digital pens which enabled them to continue easy field data collection with pen and paper, while also instantly creating digital data. Now with Capturx, as fish samplers complete their paper survey forms with digital pens, both normal ink-on-paper records and digital copies are stored on the pen's memory. Once back at the field office, the digital pen is connected to a PC



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HENRY FRANZONI
Tribal Data Steward,
Columbia River Inter-Tribal
Fish Commission

by USB, and the data is sent and integrated into Microsoft SharePoint Server without the duplicative work of data entry and collation. As the data is integrated into SharePoint, the handwriting is converted, automatically formatted, and made accessible for QA/QC, and then for export into a back-end database for report summarization and analysis. Specific data summaries are then posted to an internal CRITFC/Nez Perce Tribe website accessible by the extended set of stakeholders.

"Thanks to the Adapx team, we benefit from a site designed for our unique requirements and processes – without giving up the cost-effectiveness of using a hosted service," said Henry Franzoni, Tribal Data Steward, Columbia River Inter-Tribal Fish Commission.

Benefits

Faster Access to More Accurate Data Supports Better Decisions

Now fisheries managers are able to get immediate access to regional data and efficiently summarize and provide Harvest Estimate data to the Nez Perce Harvest Department each week, on time. What used to take two weeks, now takes one, with no change in staff. Near real-time visibility into the region's harvest means CRITFC and the Nez Perce Tribe can more easily protect the health of the salmon runs and their income.

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Less Work = Less Costs

With Capturx, the Nez Perce Tribe no longer has to take the time to process paper-based data, as it's not necessary to manually enter data from paper forms into their PCs. Key stakeholders get quick access to data that has been converted from handwriting to digital text, in addition to the original handwriting, signatures, converted data tables, and validation of the date and time that data was actually written on paper. By eliminating transcription, they reduce the risk of new errors or omissions, dramatically improving QA/QC, while also getting faster and more reliable access to data.

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Easy to Deploy and Support

Capturx automates the data management process without changing the Nez Perce Tribe's simple and reliable paper-based data collection. 'Fish Samplers' time is freed up as they can stay in the field longer, increasing productivity by completing more sample surveys. Where handhelds can be fragile or limited by battery life, the pen is durable and as simple as pen and paper. Since the digital pen includes a regular ball point pen, a paper copy is created while a digital record is captured. Should the paper get lost or destroyed, all information is recorded by the pen. If the pen is lost or damaged before data is downloaded, the sampler still has the original paper forms.