Automating Stream Inventory Data Entry

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The Rapid Aquatic Habitat Assessment Protocol (RAHAP) was designed by Yakama Klickitat Fisheries Project (YKFP) Biologists to provide quantitative information on stream habitat. This protocol quantifies reaches, habitat units, spawning patches and bedrock features, while enumerating individual wood pieces and jams. These habitat surveys are followed by one or more electro-fishing surveys to address fish distribution in relation to the habitat features. A photographic record is taken of many features and GPS waypoints are recorded for all features quantified.

This ambitious effort requires the tracking of ten separate data sheets containing 268 columns with various numbers of rows, ranging from one into the thousands. Entity relationship diagramming, identified a physical data model of 35 tables to store this data.
To eliminate the time intensive, tedious, and error prone task of entering this data, Columbia River Inter-Tribal Fish Commission (CRITFC) and the YKFP developed a seamless alternative, electronically capturing written data to a SharePoint Server using Capturx Forms for SharePoint© by Adapx and inputting that data to the database using ASP.NET with C# and Microsoft SQL Server 2008 R2 stored procedures.
This method of capturing written data electronically provides the advantages of automated data entry while maintaining a paper data sheet for validation and archival purposes.