

## **Digital Submission Presentation**

Let me introduce myself. My name is Alan Newbert, I am an area Engineer at Western's North Island Timberlands Unit. Previously Cascadia Forest Products, Weyerhaeuser, and MacMillan Bloedel. I have a lovely business card collection and I am hoping that Western will give me one as well. I was trained in Alberta at the Northern Alberta Institute of Technology in the late seventies, came to the BC Coast for a holiday and have been here ever since. My background has been all Coastal Engineering, and for the last 10 years or so a strong interest in digital systems and the use of technology in the forestry workplace. I supervise our GIS department, and my primary function is Coastal Appraisals and Cutting Permits.

My topic today is the cost of digital submissions. If you came to hear a firm \$/m<sup>3</sup> you will be disappointed. I believe cost is a factor but the goal of digital submissions is to rapidly and efficiently move large blocks of data. A key factor is the utility and practicality of these systems. I will present my experience on the time and effort involved in digital submissions as well as some of the pitfalls and suggestions for system improvements. I should also qualify these opinions, I have always worked for major Licensees, we have a Forest Management System that incorporates digital submissions to the Government. This brings up an interesting thing about digital submissions, the workload is not distributed evenly throughout the Industry. As a major licensee we can bring significant resources and expertise to working through the process. How is this accomplished for a small licensee, contractor, or woodlot owner? I believe the needs of these groups represent a fertile market for Forest Management software that can be used to track and run the business, plus handle the data for digital submissions to the government as well.

Let me state right off the bat that I am a supporter of the theory of digital submission of data to the government. Not that it makes much difference, that is the direction that we have been taken. It reduces errors and definitely assisted the government reduce their workforce. The devil as they say is in the details. As long as we are being asked to submit information that was required previously, and our business process generates the information, we are in a sort of equilibrium. With As built roads we are providing information that was never required previously and I feel has limited value on the Coast. I have extensive personal experience with Electronic Commerce Appraisals System(ECAS), Forest Tenure Administration(FTA), & As Built Roads(ABR). Anything I present on results is sourced from those folks that work with it. I will break my presentation into the different modules that we have gotten from the government.

### **Results**

Most of the information required was previously submitted on forms and is now digital. One source of difficulty is the requirement for disturbance by Mark and Standards Unit. This information was never required previously, and the only information that the Ministry doesn't already have is the spatial. In our case, we are using the same tenure line work as the Ministry and it would seem, if they required splits by tenure they could

generate it with a database query, cutting the data on the tenure lines. This is the process that we use and it should be available to the Ministry as well. By resubmitting data already in the system, the probability of some errors entering the system are greatly increased. The safest way to manage the data is provide overall information and then enable the system to extract the queries that it needs.

## **ECAS**

This is included in my presentation even though it is somewhat separate from the rest of the Electronic Submission Framework(ESF) system. We submit only the core Appraisal data via the electronic submission in ECAS. This is a very small part of what makes up a Cutting Permit submission. The real volume is all the backup data that the Districts require to do the thorough review they are presently tasked with. This leaves people with the impression that all Appraisal Data is digitally submitted, I disagree. We have found that the scanning of documents adds a lot of complexity to our submission process. We are generating huge file sets, many in excess of 30 Megabytes for a single submission. This volume of data is more than the typical hard drive capacity in PC's only 20 years ago. Larger capacities for storage does not mean we need to fill it all up. These files must be managed, organized, and multiple versions are maintained. This provides some convenience to the Ministry, but at a significant cost to the Licensee. The potential for error when producing a map, scanning it, printing it to confirm quality and scale, and then storing it greatly increases the risk of getting scans and paper maps out of sequence. These errors can cause further delays with the back and forth movement of submissions, some based on errors generated by the complexity added at our end. If we wish to digitally submit Cutting Permits we need to eliminate scans and rely on a more formal process. The players need to agree on standard requirements and provide the data in an XML and GML format. Or we could eliminate much of this backup data and use professional reliance.

## **FTA**

This is the Tenure portion of a Cutting Permit submission. For our part, other than the tabular data, we use GIS coverages already existing in our system, and simply package them up for submission using our Forest Management System. I would suggest that attaching most of the required tabular data to a specific Licensee and operation in a separate file, we could eliminate 80% of the data entry on the Licensees part. This would also eliminate the possibility of operator error when repeatedly making the same selections for every submission. Almost all of the required data never changes, at least in my experience. In discussions with District personnel, FTA was a redo of a previous Ministry tool called FTAS. Instead of reviewing the utility of this program with Ministry users prior to converting it to FTA the developers took all the existing flaws and replicated them. Can anyone here explain what a Provincial Forest Conflict entails. No one has been able to explain it to me, intuitively it seems I should stay away from partial. A good example popped just last week. I was reviewing the latest version of the MapView Program, a Ministry mapping service that the District has me checking for possible Tenure conflicts prior to Permit submission. We looked at 17 different layers

that I could refer to, looking for conflicts. I already run my FTA submissions through a Government site called Tenure Mapping Services(TMS). It has reporting functionality on conflicts but the printout reports on every layer on their entire data set, most of which has nothing to do with what I am looking for. Instead of separately opening 17 layers in a mapping program, why not design a report for tenure conflict checks, put it on the web, and I will use my time in a more productive manner.

## **Waste**

This is presently under development and the implementation date has been or will be pushed back. Until we see what comes out it is difficult to comment.

## **ABR**

This is where I start having more difficulty with the systems as it stands today. Again this is relevant to the way we operate at Western, North Island Timberlands. All of our roads are built under road permit. All road locations are surveyed and Geo referenced with GPS. All of our roads are designed to specific standards by the layout engineers. Road are constructed according to the design, any departures are dealt with by Road Permit amendments. I fail to see the requirement for reporting these roads again, other than tabular completion information. The Ministry has the road locations already in their system from the road permit application. I believe that the driver for ABR was from the Interior and should be rethought for the Coast. The rest of the information required: bridges, large culverts, and engineered structures appear to be logical. Deactivation should be a station range and completion date, the spatial data is already in the system. The requirement for organic material in fills is overkill, only the requirement for reporting organics in large or steep slope fills appears to have any value. The meta data requirement would be an excellent candidate for operation specific data sets, as most of the information will never change. If it does change it will be a change that applies to all subsequent applications. We are not in the habit of changing map projections or datums on a regular basis.

## **Summary**

Lets look at some of the goals of digital submissions

- Accelerate permitting process
- Reduce government manning resources
- Provide more accurate data
- Standardize data requirements between Districts and Ministry departments
- Provide auditability for processes and procedures

Lets look at some general observations about digital submissions as they stand today.

I believe they have and will continue to speed transactions between industry and government

These systems have helped government reduce staffing  
These systems have significantly errors and omissions in applications and approvals  
These systems have allowed the government to offload costs onto industry

We have achieved many of the objectives that were expected when the systems started rolling out. We must point out however that the timing for these systems coincides with very challenging and difficult times for the Forest Industry in BC. The industry cannot continue to absorb the escalating workload mandated by the government. We must question every request, every bit of data, and weigh the value of all information requests deemed essential by the government. We have some basic systems that are now up and running. A constant theme throughout this process has been a lack of grassroots consultation with industry and end users, including those of the government. We are being given products by design teams that do not have a grasp of what data is essential, as opposed to nice to have. I believe we can provide the information needed to run the business with less effort, no repetition, and improved efficiency.

Some closing points to ponder for moving forward.

- Provide information once
- Provide large data sets and using existing information to query into specific information
- Locate key personnel, government and industry to analyse and review program structure and development
- Coordinate data provision to reduce similar or overlapping requests for data.
- Store static information once and refer to it when required
- Establish links between developers and users around upgrades and improvements
- Useable documentation and formal training on systems
- Provide complete mapping products for all modules in GML format using requirements generated by Ministry and Industry personnel.