Air Resources Board
Electronic Certification Workshop

February 1, 2006
El Monte, CA
Agenda

1. ARB IT Certification Initiative

2. Electronic Data Submission (E-Cert)

3. Document Management System (DMS)
   a. Implementation Schedule
   b. Document Preparation Guidelines
   c. DMS Live Demo
ARB IT Certification Initiative

Goals

• Harmonize electronic certification system for all categories
• Reduce paperwork
• Improve certification process
• Faster certification processing

It is the ARB’s goal to migrate to a harmonized electronic certification system for all certification categories. This will take the place of the current paper-based system.

It is our hope that eliminating some of the paper will help us to better process certification applications and more quickly address certification issues.

It is our intention to harmonize data requirements with EPA so as to ease the burden on manufacturers of having to submit different formats to each agency.

We understand that this ambitious goal will take several years to accomplish but we have made great progress so far.
ARB IT Certification Initiative
Overview

• ARB is working with EPA to harmonize engine family specific data
• ARB is reviewing its needs for certification documents and data
• ARB sees benefit in paperless system

ARB is currently working with EPA to harmonize engine family specific data for all certification categories.

This harmonization effort has also sparked an evaluation and reinvention of how ARB handles certification documentation and engine family specific certification data.

It has been determined that it would benefit both the ARB and the manufacturers to move away from a paper-based system to an electronic system.
ARB IT Certification Initiative Overview

An electronic certification system would:

- Enable ARB staff to more easily access and review an application
- Enable a manufacturer to get a confirmation when a Certificate Summary Information (CSI) package has been submitted
- Assist in tracking application progress
ARB IT Certification Initiative

Overview

• For the new electronic systems to work properly it is necessary for all manufacturers to use the **standardized electronic submission process**.

These standardized processes include a:

• Standardized electronic submission process
• Standardized file naming
• Standardized Certificate summary information in XML

The necessary document preparation requirements will be address later in this presentation.
ARB IT Certification Initiative

Status

The electronic certification system consists of:

- Engine Family Specific Information (CSI)
- Supporting Certification Documentation

After much discussion internally and with EPA it was determined that the Certification application, for IT purposes, is best divided into two parts (It is necessary to submit both parts in order to receive an Executive Order):

- Engine Family Specific Information (otherwise known as CSI)
  - Repetitive
  - Easily stored in a database

- Supporting Application Documentation
  - Free-form format (enabling diversity from document to document, manufacturer to manufacturer, such as images)
  - Best stored in a directory structure
ARB has designed a new Oracle database for storing CSI information and generating Executive Orders. This system is called E-Cert.

ARB has installed a new Document Management System called DMS for storing the supporting certification documentation.
E-Cert

- E-Cert will take data forwarded from the manufacturer in the appropriate XML format and will automatically load the data into Oracle.

- A notification will be sent to the manufacturer upon a successful load or a failed load.

- A notification will be sent to the ARB staff to begin a review.
E-Cert Overview

- The system will facilitate review by ARB staff via web screens
- System will generate Executive Order for ARB staff
- All data are secure upon transfer using a Secure Socket Layer
E-Cert Status

• Motorcycle is the first module for E-Cert

• The E-Cert motorcycle module is scheduled to begin in February 2006

• Other categories will be phased in over the next two years

• ARB has signed an Interagency Security Agreement with EPA in order to accept its electronic Motorcycle data
ARB is using a customized off-the-shelf product for document management called OpenEDMS made by a company called Altimate Systems Inc. A manufacturer will be able to log directly into the DMS via the internet and deposit its documents into its individual DMS data folders. The folders will be organized by category, model year, FOIA and CBI. A manufacturer can only see its own folders.
DMS Overview

- Upon deposit of documents into a workflow queue
  - tracking mechanism triggered
  - certification engineer notified
- Different versions of documents may be compared to determine changes
- Additional features will be highlighted in the live demonstration
The DMS will be implemented by category, in phases.

It will be mandatory that all manufacturers, based on the following phase-in schedules, begin to submit supporting certification documentation electronically.
DMS
On-Road Phase-In Schedule

2007 MY vehicles and engines

- Calendar Year Quarter

- Emission Category

- PC-LDT-MDV
- MC-OFMC-ATV
- HDE-HDV

- Hardcopy
- Pilot
- DMS phase-in
- DMS only

2006 2007 2008

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DMS Off-Road Phase-In Schedule

2007 MY engines and equipment

<table>
<thead>
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<th>Emission Category</th>
<th>Calendar Year Quarter</th>
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<td>LSIE</td>
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- **Hardcopy**
- **Pilot**
- **DMS phase-in**
- **DMS only**

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Question and Answer
DMS
Summary of Document Preparation

NAME DOCUMENT
CHOOSE DOCUMENT TYPE
PLACE IN DIRECTORY TREE
PROVIDE METADATA
INITIATE WORKFLOW
DMS Document Preparation

• Name Document
  – The appropriate naming convention must be used. This naming is necessary for the version control to function properly
  Example:  
    CBI_6ABCX_COMMON_APP_INI
  – The naming convention is harmonized with EPA for motorcycle category, except NO version number in the name
  – Applicable to all categories for ARB

Please see handout for a detailed description of the file naming convention.
DMS Document Preparation

- Choose Document Type
  - A manufacturer must choose a document type when submitting a document
  - The document type reflects common business practice making it easy to identify
DMS Document Preparation

• **Examples**
  
  • **On Road**
    – Certification Application - Common Section FOIA
    – Reports, Publications, etc.
  
  • **Off Road**
    – Compliance Emission Durability Test Plan
    – Letter of Intent, Alternate Test Procedure, etc.
DMS
Document Preparation

• Place in Directory Tree
  – Documents must be placed in the applicable folder in the tree
  – Document types are assigned to particular folders to define and specify their intended content
  – Common documents and Engine Family specific documents have their own directories as will FOIA and CBI documents
Metadata is an essential component of document management, which not only provides the basis for a document index, but serves as useful search criteria to greatly reduce the margin of unrelated search results.

Metadata must be completed based on the document type chosen.
DMS
Document Preparation

• **Initiate Workflow**
  – A workflow is an automated process that helps to route and track documents and notify ARB
  – A workflow process will start as soon as a manufacturer submits the document to the appropriate workflow
  – The document will be sent to the corresponding ARB staff queue
  – Staff will automatically receive a notification of the new submission

The hand-out identifies the appropriate workflow name for each document type.
Example of a Workflow Process

- Manufacturer submits certification documents to the DMS workflow
- DMS automatically notifies the assigned ARB staff
- Certification staff review
  - Approved
    - Manufacturer will be notified regarding approval
  - Rejected
    - Manufacturer will be notified of rejection
    - ARB staff requests further information from Mfr.
    - Pending
      - Manufacturer will be notified of rejection
      - Certification staff review

Ivonne Guzman-Cicero is the project manager for the DMS project and will now be showing you a live demonstration of the DMS.

A user guide will be available to use as a future reference.
ARB DMS is located at:
https://secure.arb.ca.gov/certdms

Security:
- The system provides secure document transmission SSL support. Document access is controlled at the folder level using Access Control List (ACL). It also provides multiple-domain support, and monitoring.
- Registered users with valid login ID and secure password can access the DMS through the internet from the supported web browsers: Internet Explorer 6.0+, Netscape Navigator 7.0+.
DMS Manufacturers Can:

- Upload new documents
- Update existing documents
- Search for their own documents
- Check status of documents submitted to workflow
- Change their own password
DMS
Manufacturers Cannot:

• Delete folders or documents
• Delete an existing workflow process
• View other manufacturers’ documents
DMS Workflow Manager Screen

Submit additional documents for processing

Date filter: search for the workflow process based on the date criteria.

The date on which each process was initiated

Click to review only "pending" process

Click to review only "finished" process

The date on which each process was initiated
DMS Live Demo

- Off-road Example
- On-road Example
- Additional Features
DMS
Live Demo Off-Road Example

1. Manufacturer will upload a Warranty Statement for approval
2. Manufacturer will submit document to the workflow
3. ARB staff will approve without changes
4. Manufacturer will check the document status
5. Manufacturer will receive notification of approval

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SWITCH TO DMS
**DMS Off-Road Summary**

We learned how to:

1. Upload document for approval
2. Submit document to the workflow
3. Check document status
4. Check workflow status
5. Check for notification of approval
6. Change their password
DMS
Live Demo On-Road Example

1. Manufacturer will upload an Emissions Durability Plan for approval
2. Manufacturer will submit uploaded document to the workflow
3. ARB staff will review submission
4. Manufacturer will receive a notification requesting changes from the ARB staff
DMS
Live Demo On-Road Example

5. Manufacturer will revise the document retaining original name and resubmit to existing workflow process

6. ARB staff will review submission and approve Emissions Durability Plan

7. Manufacturer will receive notification of approval
DMS
ON-Road Summary

We learned how to:

1. Upload a document for approval
2. Submit uploaded document to the workflow
3. Identify and check a notification requesting changes from ARB staff
4. Submit additional documents or a new version to an existing workflow
DMS
ON-Road Summary

We learned how to:

5. Check document and workflow status
6. Check for notification of approval
7. Access different versions and add comments
8. Compare documents
DMS
Additional Features Summary

- **Automatic Version Control:** ensures document integrity
- **Check-in/Check-out Mechanism:** prevents simultaneous content changes and inadvertent overwrites
- **Version Comparison:** facilitates identification of differences
- **Powerful Search:** supports advanced search for file content and metadata/document index
DMS Problems/Troubleshooting

• Contact your ARB certification representative to help delete documents, when
  – a document is uploaded into the wrong folder
  – a document is submitted to the wrong workflow processes

• Contact Ivonne Guzman-Cicero, Kim Pryor (On Road), or Jeff Doll (Off Road), when
  – experiencing Technical problems
  – changing manufacturer representatives
E-Cert
Contact Information

• Regarding the project with EPA or E-Cert please contact:

  Robin Lang, (626) 575-6827, rlang@arb.ca.gov
  or
  Robert Gam mariello, (626) 450-6138, rgammari@arb.ca.gov
DMS
Contact Information

• Regarding the Document Management System please contact:

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  Or
  Jeff Doll (Off Road), (626) 575-6661, jdoll@arb.ca.gov
Question and Answer