

# **Air Resources Board Electronic Certification Workshop**

February 1, 2006  
El Monte, CA

California Environmental Protection Agency



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# 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

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## ARB IT Certification Initiative Goals

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

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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

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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

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# 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.

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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 IT Certification Initiative Status

- E-Cert is a new Oracle database for storing CSI information and generating Executive Orders
- DMS is a new Document Management System for storing the supporting certification documentation

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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

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## 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

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## 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

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## DMS Overview

- Customized off-the-shelf product for document management called OpenEDMS made by Altimate Systems Inc
- Access via the internet
- Documents organized into folders
- A manufacturer can only see its own folders

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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

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## DMS Implementation Schedule

- Phase-in by vehicle/engine category
- All manufacturers will be required to submit supporting certification documentation electronically

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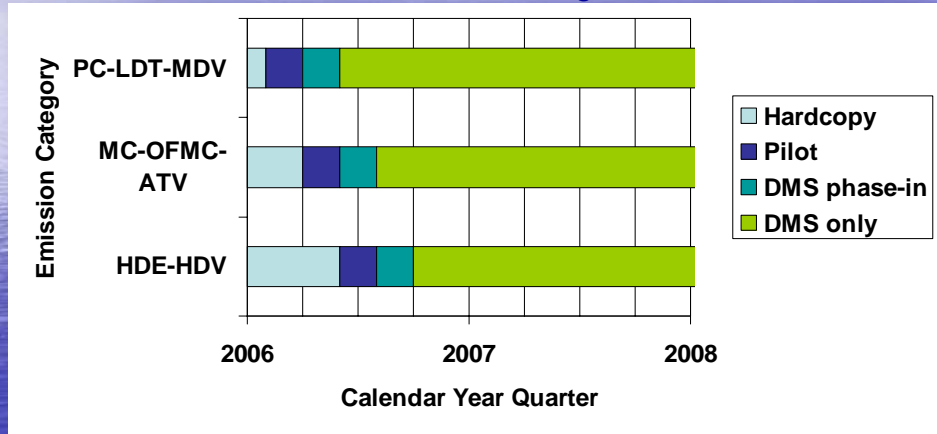
14

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



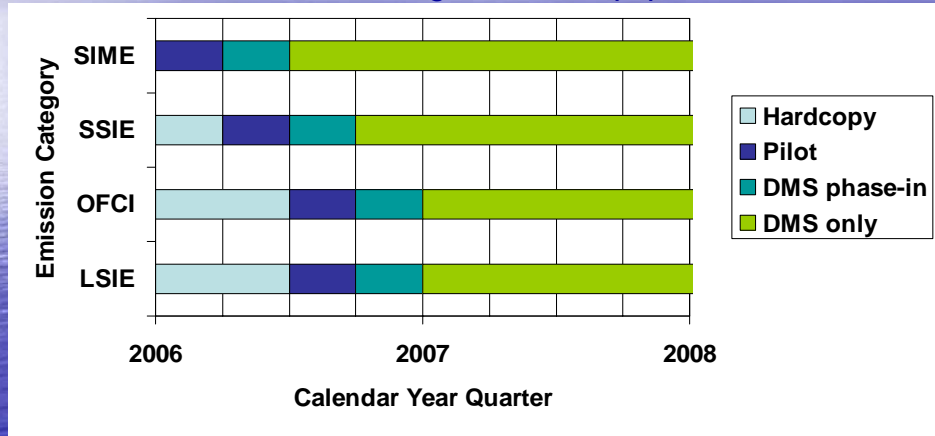
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# DMS Off-Road Phase-In Schedule

2007 MY engines and equipment

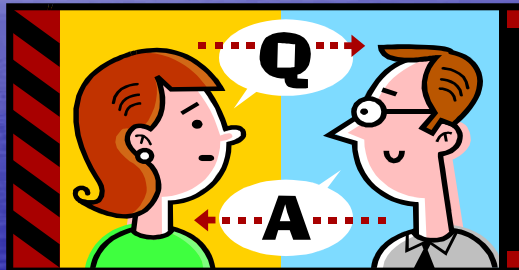


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# Question and Answer



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# 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

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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

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# 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.

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# 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

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# DMS

## Document Preparation

- **Provide Metadata**
  - Metadata is an essential component of DMS
  - Metadata must be completed based on the document type chosen

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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

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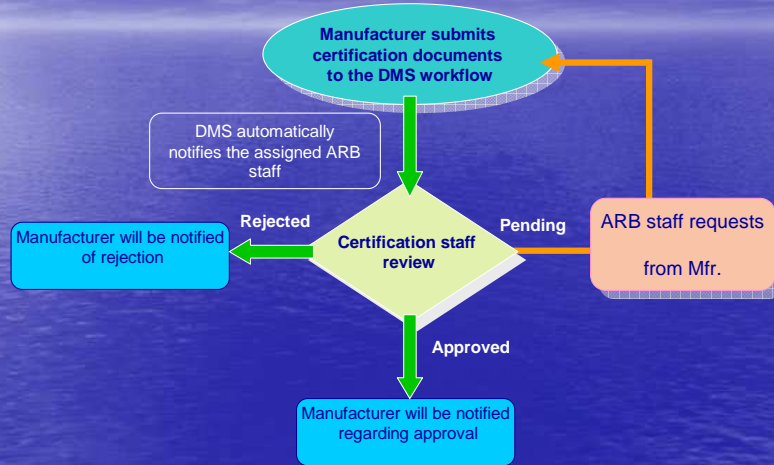
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The hand-out identifies the appropriate workflow name for each document type.



# DMS

## Example of a Workflow Process



# DMS Demo



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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.

# DMS

- 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+

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# 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

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# DMS

## Manufacturers Cannot:

- Delete folders or documents
- Delete an existing workflow process
- View other manufacturers' documents

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# DMS File Management Screen

The screenshot shows the OpenEDMS File Management interface in a Microsoft Internet Explorer browser window. The browser title is "OpenEDMS - File Browser - Microsoft Internet Explorer". The address bar shows the URL: `http://server/edms.do?action=FILE_MANAGE_REQUEST&subaction=TREE_BROWSER&treeId=99&domainId=E711A41-59C5-4B04-997C-4693`. The page title is "File Management > File Browser".

On the left side, there is a "Show/Hide Navigation Menu" button and a sidebar with the following items: "OpenEDMS", "File Management", "File Watch List", "Favourites", "Workflow Manager", "Administrative Tools", and "News Board". A calendar for January 2006 is also visible.

The main content area features a "Directory Tree" showing a hierarchy of folders: "SIME - Spark Ignition Main...", "2007", "Exhaust", "Common", "CBI", "FBI", "Engine Family", and "Miscellaneous". A file "CBI\_7XXXXX\_Common\_RFA\_AB\_T...pdf" is selected.

Below the directory tree is a table with the following columns: Name, Type, User, Date, Version, and Status. The table contains one entry:

Name	Type	User	Date	Version	Status
CBI_7XXXXX_Common_RFA_AB_T...pdf	ABT Report	mfrxxx	Jan 26, 2006	1.0	Pending

At the bottom of the page, the "User ID & Current Domain Name" is displayed as "mfr xxx @ ARB\_OFF\_ROAD".

Annotations in the image include:

- A red box around the "OpenEDMS" logo.
- A red box around the "Navigation Menu" items.
- An orange box around the "Directory Tree" with the label "Directory Tree Structure".
- An orange box around the "Navigation Menu" with the text "Navigation Menu: quickly access various domain sectors and functions".
- An orange box around the "User ID & Current Domain Name" with the text "User ID & Current Domain Name".
- A pink oval around the user ID "mfr xxx @ ARB\_OFF\_ROAD".
- A yellow box around the "Embedded Toolbar" with the text "Embedded Toolbar: perform basic file and folder operations".

# DMS Workflow Manager Screen

The screenshot shows the OpenEDMS Workflow Manager interface in a Microsoft Internet Explorer browser window. The address bar shows a URL from the California Air Resources Board's EDMS system. The page title is "OpenEDMS" and the main heading is "Workflow Manager".

On the left sidebar, there are sections for "File Management", "File Watch List", "Favourites", "Workflow Manager", "Administrative Tools", and "News Board". A calendar for January 2006 is visible, showing the current date as January 30, 2006.

The main content area is titled "Process Manager" and includes a search filter section with "Start Date" and "End Date" fields, each with "From" and "To" sub-fields and "Reset" buttons. Below this are three tabs: "Pending Processes", "Finished Processes", and "All Processes".

The "All Processes" tab is active, displaying a table with the following data:

Process	Workflow	Created By	Start Date	
Request for Approval Mfr XXX's Final ABT Report	Approval of Mfr ABT or PLT Report (ver 14.0)	Mfr XXX	Jan 26, 2006	<a href="#">Add Doc.</a>
Change ABT Report	Approval of Mfr ABT or PLT Report (ver 14.0)	Mfr XXX	Jan 17, 2006	<a href="#">Add Doc.</a>

Below the table is a "Submit New Document(s)" section with a sub-heading "Active Workflow Templates" and a table with columns "Created by" and "Date Created". A message states: "There is no template available for this Resource."

Callouts on the screen provide the following information:

- Date filter**: search for the workflow process based on the date criteria.
- Submit additional documents for processing**: points to the "Add Doc." links in the table.
- Click to review only "pending" process**: points to the "Request for Approval Mfr XXX's Final ABT Report" row.
- Click to review only "finished" process**: points to the "Change ABT Report" row.
- The date on which each process was initiated**: points to the "Start Date" column.

At the bottom of the browser window, the status bar shows "Clipboard: Total 0 item(s)", "Mfr XXX @ ARB\_OFF\_ROAD", and "Internet".

# DMS Live Demo

- Off-road Example
- On-road Example
- Additional Features

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# 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

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# 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

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## 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

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**SWITCH TO DMS**

# 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

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# 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

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# 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

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## 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

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## E-Cert Contact Information

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

Robin Lang, (626) 575-6827, [rlang@arb.ca.gov](mailto:rlang@arb.ca.gov)

or

Robert Gammariello, (626) 450-6138,

[rgammari@arb.ca.gov](mailto:rgammari@arb.ca.gov)

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# DMS Contact Information

- Regarding the Document Management System please contact:

Ivonne Guzman-Cicero, (626) 575-6718,  
[iguzmanc@arb.ca.gov](mailto:iguzmanc@arb.ca.gov)

Or

Kim Pryor (On Road), (626) 575-6640,  
[kpryor@arb.ca.gov](mailto:kpryor@arb.ca.gov)

Or

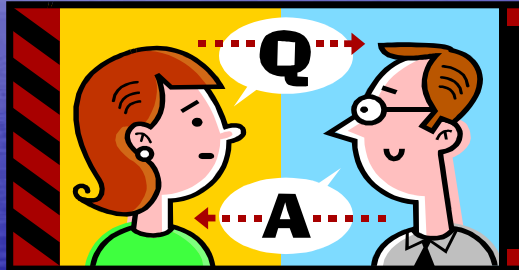
Jeff Doll (Off Road), (626) 575-6661, [jdoll@arb.ca.gov](mailto:jdoll@arb.ca.gov)

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# Question and Answer



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