ENOVIA Training
Exercises

LCA Administration Advanced (3)

Development Environment

Version 5 Release 11
May 2003

EDU-ENOV-E-LAE-AX-V5R11

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Exercise

CAA V5 Environment Development : Presentation

60 min.

In this exercise, you will set up the CAA V5 Environment Development with MSDev, write and run a sample program "Hello Word"

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Design Intent : CAA V5 Environment Development

- **Create the Development Environment with MSDev**

- **A CAA V5 program sample**

- **Launch the « hello » program on UNIX**

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Exercise

CAA V5 Environment Development : Create the Development Environment with MSDev

20 min.

In this step you will :
◆ **Set Up the Environment for Build in MSDev**
◆ **Create the Workspace : WSHello**
◆ **Create the Framework : FWHello**
◆ **Define "Locate Prerequisite Workspaces"**
◆ **Create the module : Hello.m with "Executable" option**

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Do It Yourself : Build a New Workspace (1/2)

Use the File/New CAA V5 Workspace to create a new Workspace where you will create new objects or edit existing ones.

Fill in the workspace directory, the tool level for Make and the several parameters needed for the UNIX Server connection.

You are developing the code on NT, but the ENOVIA server is on UNIX. So the code is transferred on a UNIX machine.

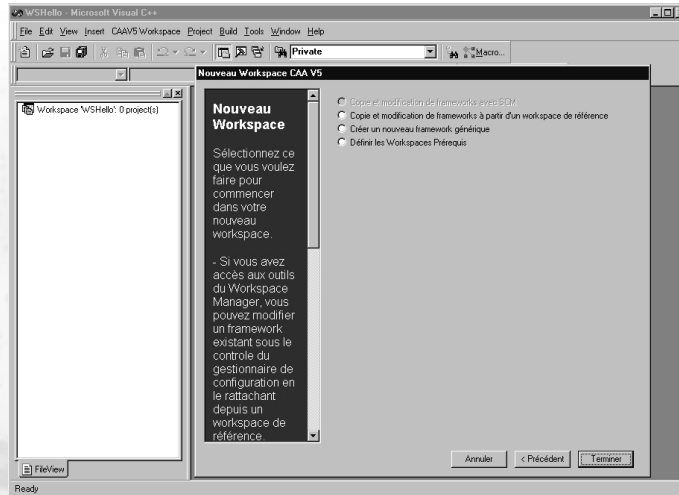**Then, the workspace is created and the compilers are initialized.**
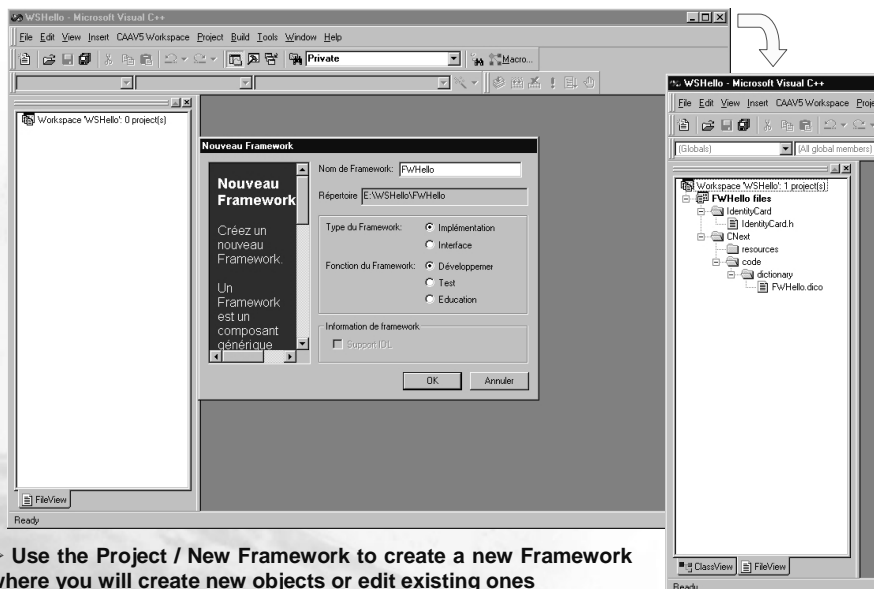
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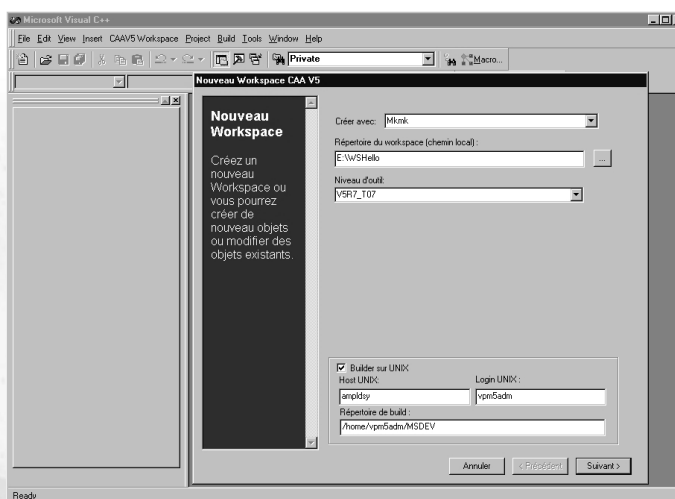
Do It Yourself : Build a New Workspace (2/2)

➢ **Just select Finish, the Framework will be created at the next step.**

Do It Yourself : Build a new Framework

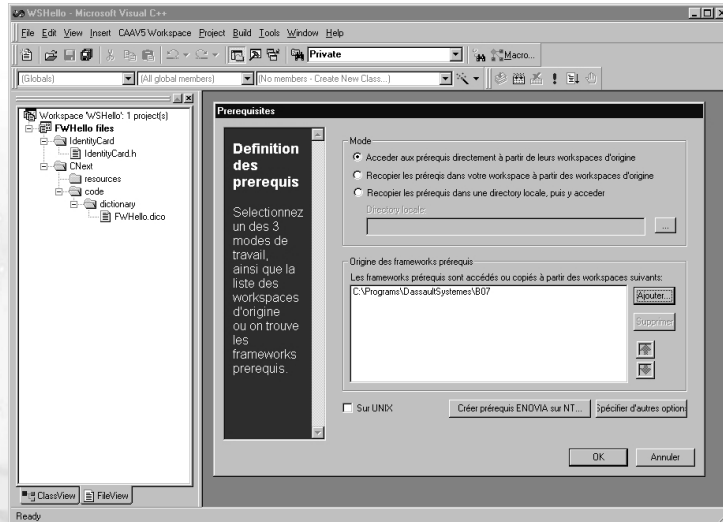➢ **Use the Project / New Framework to create a new Framework where you will create new objects or edit existing ones**
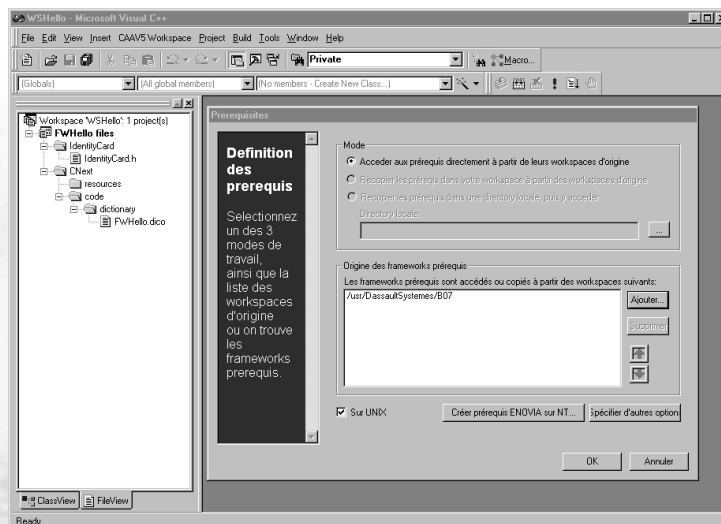
Do It Yourself : Locate Prerequisites on NT

↘ **The prerequisites are available through the CAA ENOVIA CD. They were installed on the NT machine. Select "Locate Prerequisite Workspaces" in "CAAV5 Workspace". Here the NT download on C:\Programs\DassaultSystemes\B07 is used.**

Do It Yourself : Locate Prerequisites on Unix

↘ **Like for the NT, the Prerequisites have to be installed on the UNIX machine. Here we used the unload directory /usr/DassaultSystemes/B07.**

Do It Yourself: Build a new Module in MSDev

You have to define a new Module with Executable option to create a executable code. Select the Item "New Module" of the menu "Project" and complete the field.
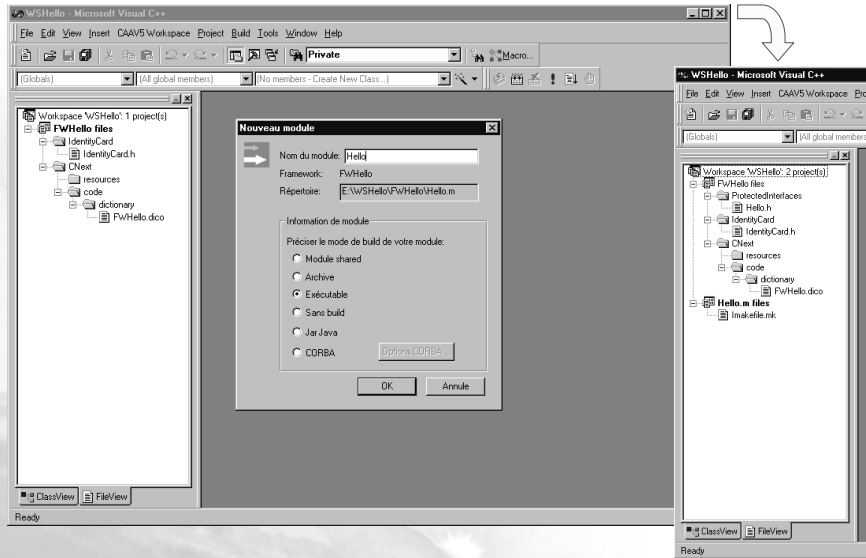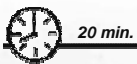
Exercise

CAA V5 Environment Development : A CAA V5 Program Sample

 20 min.

In this exercise you will compile a program sample tracing "Hello Word" using a CAA V5 component CATVpmTrace

Do It Yourself

To compile a program sample tracing "Hello Word" using a CAA V5 component CATVpmTrace
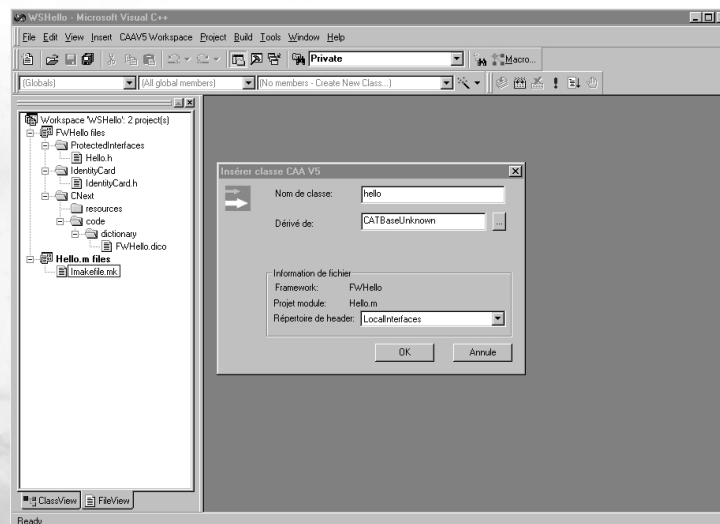
- ✦ **insert :**
  - ◆ **A CAA V5 Class naming "hello"**
- ✦ **update :**
  - ◆ **The file hello.cpp to add a main() and traces**
    - ▪ Declare a « TraceHello » label for the trace in the macro VPM_TRACE. Write "Hello Word" with the method VPM_TRACE_IN and the TRACE output operator
  - ◆ **The header IdentityCard.h**
    - ▪ To use the CATVpmTrace class, declare the VPMServices framework containing the library libVX0TOOLS.a. CATBaseUnknown class is defined in the System framework
  - ◆ **The file Imakefile.mk**
    - ▪ Use the library libVX0TOOLS.a implementing the class CATVpmTrace and the library libJS0GROUP.a implementing the class CATBaseUnknown
  - ◆ **A file .optionfile1**
    - ▪ Declare the « TraceHello » label

- ✦ **Launch the "mkmk" command to Build the code**
- ✦ **Update the Runtime View**

Do It Yourself: Insert a Class in MSDev

To create the file : select the Item "Class CAA V5…" of the menu "Insert" and complete the field

Do It Yourself: The source code

Do It Yourself: Define the IdentityCard of the Framework

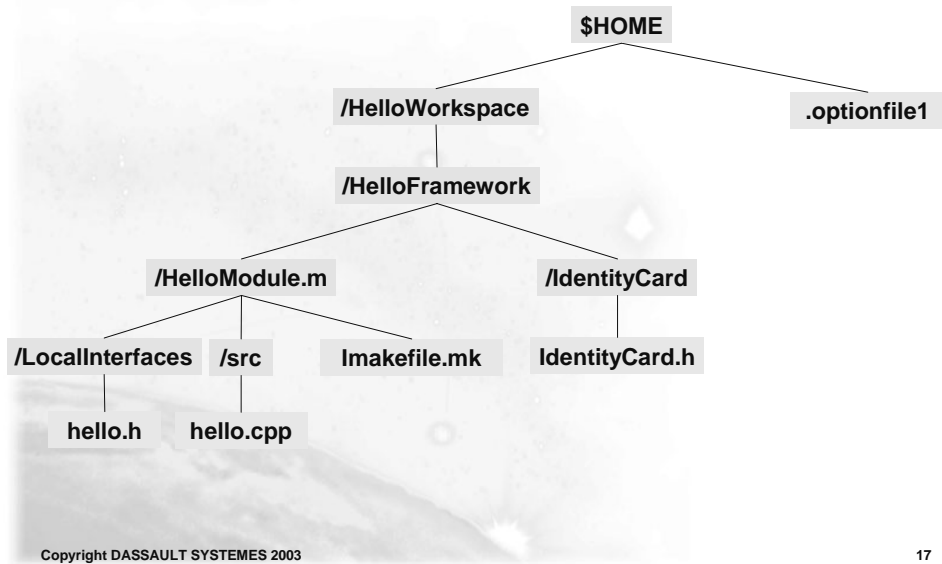➢ **You have to define the IdentityCard of the Framework : select the Item "Define Prerequisite Frameworks" of the menu "CAAV5 Workspace" and complete the field**

➢**The list of frameworks is filled in using the Locate prerequisite on NT**
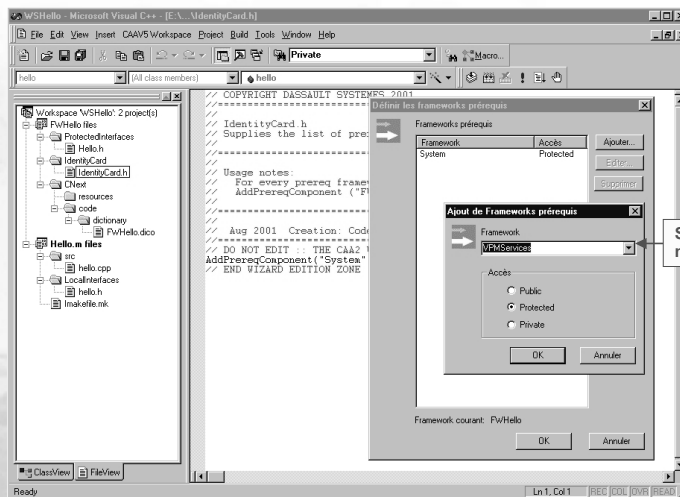
Do It Yourself: The file tree

```
                              $HOME
                             /      \
                  /HelloWorkspace    .optionfile1
                        |
                  /HelloFramework
                      /      \
            /HelloModule.m    /IdentityCard
             /    |    \            \
   /LocalInterfaces /src  Imakefile.mk  IdentityCard.h
        |           |
     hello.h     hello.cpp
```

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Do It Yourself: Compile the Component on UNIX

To compile the code : select the Item "mkmk" of the menu "Build" and complete the field

➢ launch the compilation
➢ the executable code hello is generated on UNIX side

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Do It Yourself: Create the Runtime View

To create the Runtime View : select the Item "Create/Update the Runtime View" of the menu "CAAV5 Workspace" and complete the field
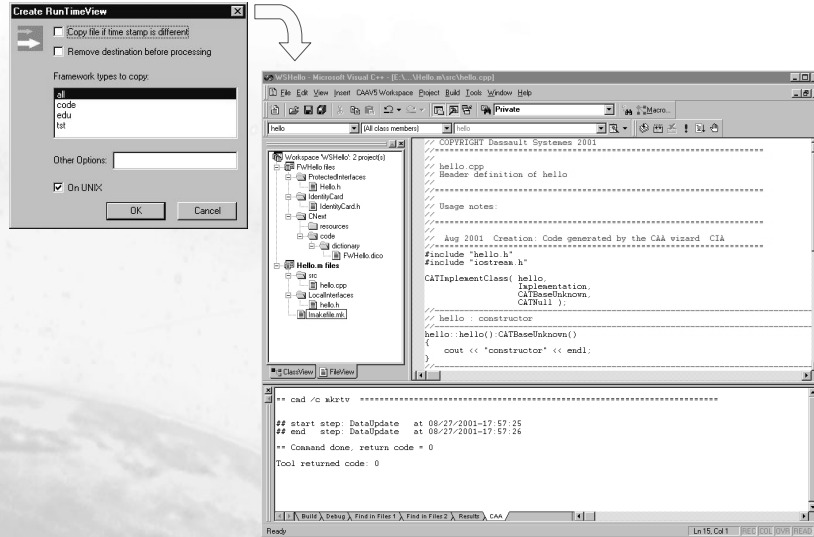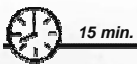
Exercise

CAA V5 Environment Development : Launch the "hello" Program on UNIX

 15 min.

In this exercise, you will set Up the RuntimeView and execute the "hello" program on UNIX

Do It Yourself

⬢ **Launch the scripts in the UNIX machine**

◆ **MY_ENV.export** **(export the path)**

◆ **RunEnv.sh** **(set up the environment)**

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Do It Yourself: Set up the RuntimeView on UNIX

⬢ **RunEnv.sh**
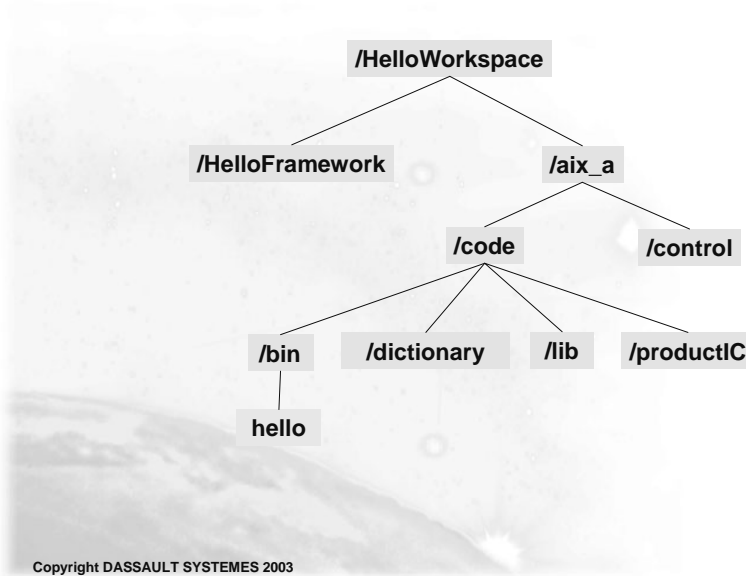**This script launchs the SetEnv shell which sets the development environment**

. $RUN_VIEW/aix_a/code/command/SetEnv

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Do It Yourself: Launch the « hello » Program on UNIX

```
                        /HelloWorkspace
                       /              \
        /HelloFramework                /aix_a
                                      /      \
                               /code          /control
                          /    |    \    \
                      /bin /dictionary /lib /productIC
                       |
                     hello
```

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