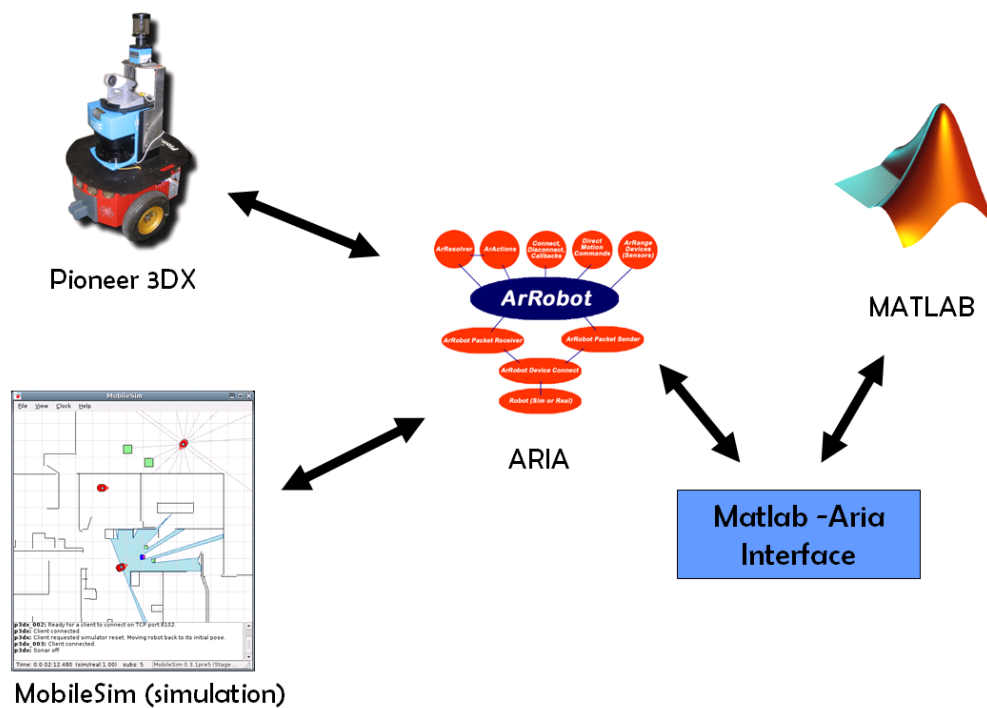


Matlab-Aria Interface

Compilation Guide

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Chapter 1

Compiling the MATLAB-ARIA Interface

1.1 Introduction

The purpose of this document is to guide future MATLAB-ARIA Interface developers on the compilation process of the Interface.

The MATLAB-ARIA Interface is implemented as a MATLAB C-MEX function which access ARIA functions, more exactly under object oriented programming, classes and methods via this MEX function.

For a deeper understanding on MEX functions and ARIA please read the MATLAB external interface documentation and the ARIA documentation.

Since the interfaces relies on ARIA, and ARIA pre-built libraries are compiled with Microsoft Visual C++ 7.1 (.NET 2003) we recommend to use this version for the build process. However, it is possible to use a newer or older version e.g Visual C++ 8, but you must re-build the ARIA libraries with the desired compiler.

About more information on how to compile ARIA, please refer to: **ARIA documentation README.txt**, section: **Compiling programs that use ARIA**.

About more information on how to compile MEX files with Microsoft Visual C++, please refer to: <http://www.mathworks.com/support/tech-notes/1600/1605.html> section: **Compiling MEX-files with the Microsoft Visual C++ IDE**

1.2 Compilation process with Visual C++.NET2003

The compilation process of the interface is an easy process, since the necessary project configuration explained on the references above: **ARIA README.txt** and the **Compiling MEX-files with the Microsoft Visual C++ IDE** is already done inside the Visual C++ Project file:

ariainterface.vcproj

Then, the steps required for the compilation are:

In order that Visual C++ finds the ARIA and MEX include files and libraries files while building, their path should be provided as follows:

Step 1: In the menu bar, select:

→ **Tools** → **Options** as shown in figure 1.1

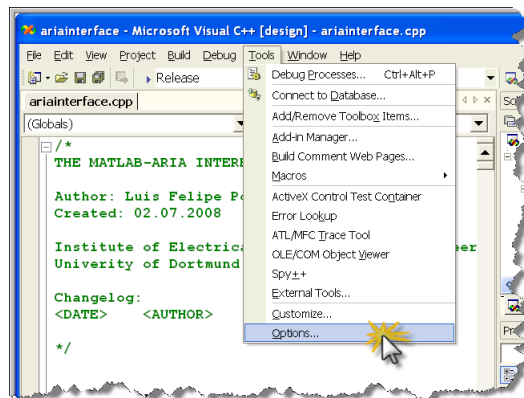


Figure 1.1:

Step 2: Next, in the listing, choose:

→ **Projects** → **VC++ Directories**

Step 3: First, select include files from the "**Show Directories for**" List Box (figure 1.2)

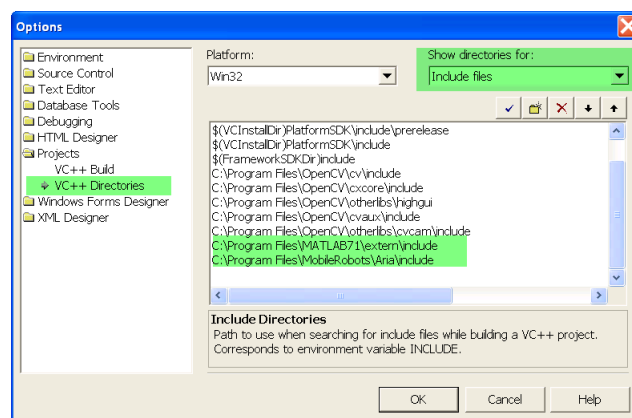


Figure 1.2: Procedure to change the path

Click the Insert New, and locate the MATLAB and ARIA **include files**, typically found at:

C:\Program Files\MATLAB71\extern\include
C:\Program Files\MobileRobots\Aria\include

NOTE: In this documents we are assuming default installation paths for ARIA and MATLAB,

however this paths may change with different MATLAB versions or other desired installation path.

Step 4: Now choose **Libraries files** in the list box, and locate: (figure1.3)

C:\Files713271 C:\Files

with newer versions of MATLAB, for instance Version 2007 the include files are located typically at:

C:\2007b32 or at: C:\Program Files\2007b32

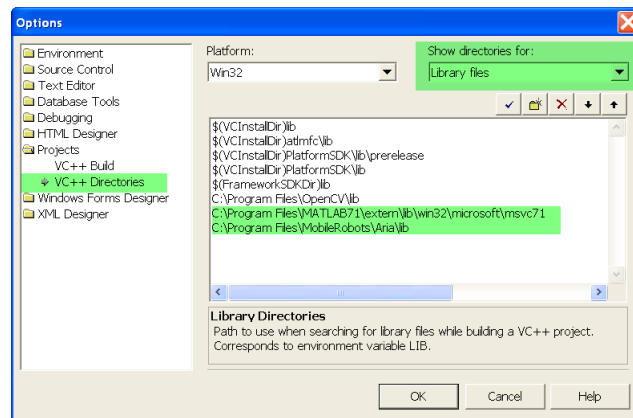


Figure 1.3: