

# Another Neat Tool (Apcache ANT)

## Introduction

Its a build tool, and provide special support for java programing language. Its a platform independent and has the instruction in the form of xml. Its use to automate the repeatitive task. This can be compiling the source code, running software test and creating files and documentation for the software development.

-- similar tools

Maven, Gradle

## Java build process includes

Compilation of source code into java bytecode  
Creation of the .jar file for the distribution of the code  
Creation of the javadoc documentation

Ant uses build.xml as its default configuration file.

ANT build is based on three blocks

Tasks  
Targets  
Extension point

## Preparation of project

1. Need to seprate source file from the genreated file. So java file will be in src folder. All the generated file will be in the build directory.
2. Build dir is splitted into several subdirectories `classes` for compiled file `jar`<sup>1</sup> for the jar file
3. xml file contain the intial a project tag under that target tags are define.

Random points from bbb build.xml

1. HTML-wrapper= Created after the compilation of the flex application. The wrapper embeds the .swf file in the html page by using the `<object>` and `<embed>` tag.

- errors

# The markup in the document following the root element must be well-formed. It comes because project tag is closed in the begning.

# warning: 'includeantruntime' was not set, defaulting to build.sysclasspath=last; set to false for repeatable builds Solution to this problem including the tag `<javac includeantruntime="false" ....>`

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1

Java archive , is a file contain the class, image, and sound files for a java application into a single file.