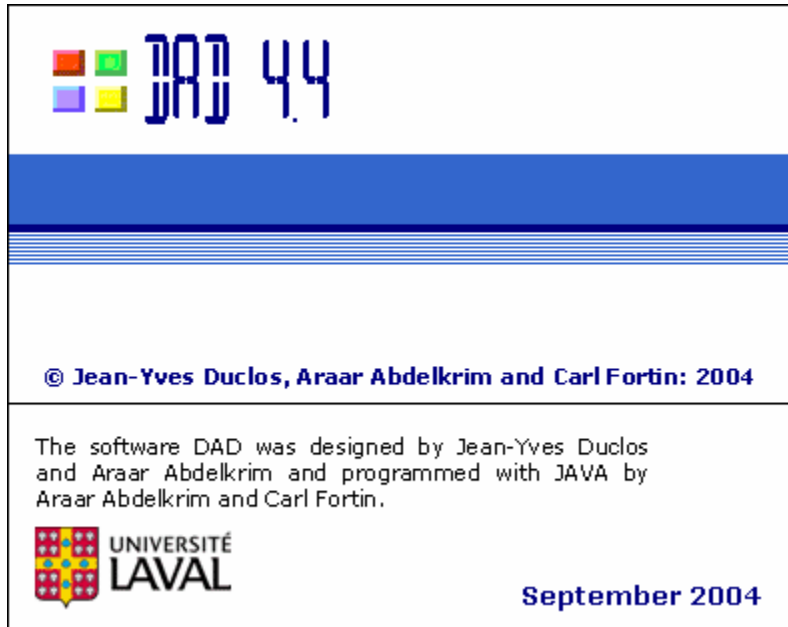**DAD: DISTRIBUTIVE ANALYSIS / ANALYSE DISTRIBUTIVE**

USER'S MANUAL

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INTRODUCTION

DAD was designed to facilitate the analysis and the comparisons of social welfare, inequality, poverty and equity across distributions of living standards. Its features include the estimation of a large number of indices and curves that are useful for distributive comparisons as well as the provision of asymptotic standard errors to enable statistical inference. The features also include basic descriptive statistics and provide simple non-parametric estimations of density functions and regressions.

The main facilities of DAD are the:

1- Estimation of indices of:
   - Poverty (Watts, CHU, FGT, S-Gini. Sen): normalised and un-normalised (or absolute and relative poverty indices), with absolute and relative poverty lines
   - Social Welfare (Atkinson, S-Gini, Atkinson-Gini)
   - Inequality (S-Gini, Atkison, Entropy, Atkinson-Gini and others)
   - Redistribution, progressivity, vertical equity, reranking and horizontal inequity.

2- Decomposition of:
   - Poverty across population subgroups
3- Inequality across population subgroups or by "factor components" (e.g., by type of consumption expenditures or source of income)
4- Progressivity and equity across different taxes and/or tranfers and subsidies
5- Poverty changes across growth and redistribution effects.

6- Checks for the robustness of distributive comparisons.
7- Estimation of stochastic dominance curves of the primal and dual types, for poverty, social welfare, inequality and equity dominance.
8- Robustness of decompositions into population subgroups and factor components.
9- Estimation of popular "dual" curves: ordinary and generalised Lorenz curves, Cumulative Poverty Gap curves, quantile curves, normalised quantile curves, poverty gap curves, ordinary and generalised concentration curves.
10- Estimation of popular "primal" curves: cumulative distribution functions, poverty deficit curves, poverty depth curves, etc…
11- Estimation of differences in curves and indices.
12- Estimation of "critical" poverty lines for absolute and relative poverty comparisons.
13- Estimation of crossing points for dual curves.
14- Provision of asymptotic standard deviations on all estimates of indices, points on curves, critical poverty lines, crossing points, etc…, allowing for dependence or independence in the samples being compared. These standard deviations are currently computed under the assumption of identically and independently distributed sample observations, but the computations take into account the randomness of the sampling weights when such weights are provided by the user.
15- Allowance for sampling errors in the poverty lines specified to compute absolute and relative poverty indices.

DAD's environment is user-friendly and uses menus to select the variables and options needed for all applications. The software can load simultaneously two data bases, can carry out applications with only one data base or two, and can allow for dependence or independence of

data bases and vectors of living standards in computing standard errors on differences in indices and curves.

The databases can be built with the software or can be loaded from a hard disk or a floppy or CD-ROM driver. The databases can be edited, new observations can be added, and new vectors of data can be generated using arithmetical or logical operators.

INSTALLATION AND REQUIRED EQUIPMENT

DAD is conceived to run on operating systems Windows 95-98 NT, Windows2000 and Windows XP. A PC of 300MHz or more is also required. The steps for installation of this software are as follows:

1- Insert the CD-ROM that contains the DAD installation file and click on the icon "**jinstall**". The following window appears:
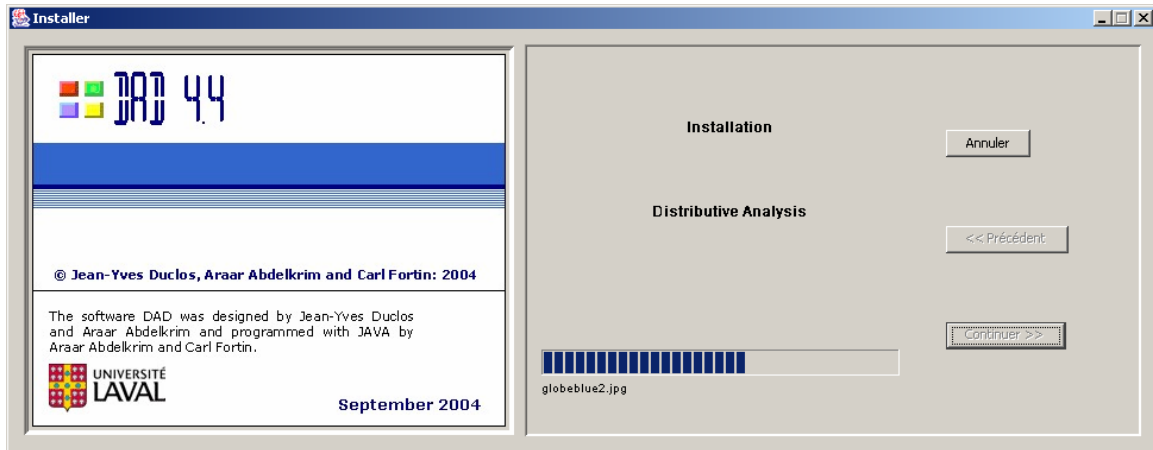
 Click on the button "**continue"** and specify the installation directory.

At the end of the procedure of installation, you can run this software like any other program by clicking on the button "**Start"** and selecting the item "Program $\Rightarrow$ Distributive Analysis $\Rightarrow$ DAD4.4"