An API For Microsimulation Models

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Abstract—This note describes a simple general Application Programming Interface (API) for controlling microsimulation models.

Index Terms-Microsimulation, APIs

I. Introduction

This note describes

II. Purpose

There have been online, publicly available versions of large Microsimulation models since the mid-1990s; the Institute for Fiscal Studies' <u>Be Your Own Chancellor</u> (1995) and <u>Virtual Economy</u> (1999) were early examples. Contemporary examples include the <u>ADRS suite of South African simulations</u>, <u>TriplePC</u> and the University of Essex's <u>UK Mod</u>.

All these models are implemented very differently. ...

Our experience of building such models suggests to us that there would be advantages in having a standardised method of interacting..

Based on our experience since then ...

III. CHARACTERISTICS OF MICROSIMULATION MODELS

Long running

Very different implementations Phases (queues, running) Different inputs and outputs

IV. FEATURES

Out of scope: security

Learn about exact formats of inputs/outputs

Hacky session management: CORS shit append session_id on each response

Low marginal cost of adding a model (view) to a server Typically front-ended by Apache/NGNX Formats: JSON - optionally Markdown/XML/CSV

V. The API

Α.

B. Problems

TABLE I: Others

Benefit	Code Module	Notes
Minimum	HouseholdAdjuster.jl	
Wages		

References