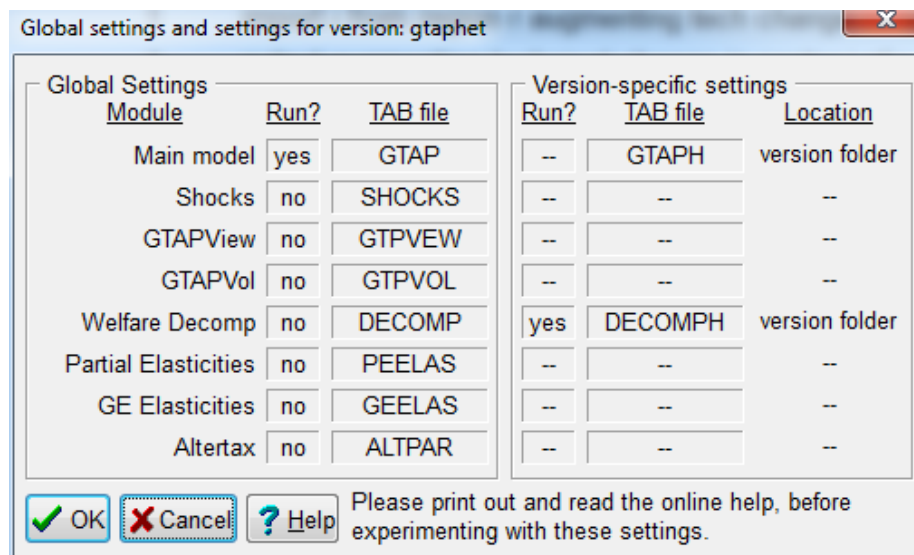


## Generate Paper Results in RunGTAP

This archive contains the RunGTAP zip archive for the simulations reported in Akgul, Z., Villoria, N., & Hertel, T. (2016). GTAP-HET: Introducing Firm Heterogeneity into the GTAP Model. *Journal of Global Economic Analysis*, 1(1), 111-180. doi:<http://dx.doi.org/10.21642/JGEA.010102AF>

Save the firm heterogeneity version archive gtaphet.zip in your hard drive. Then load this version in RunGTAP. Open RunGTAP, then go to File | Version Archive | Load ZIP and point to that file.

Once the new version is loaded, you will need to make modifications in the module settings. Go to Version | Modules and be sure to switch off all the TAB files except for the main model under the global settings. Select GTAPH.TAB that is stored in your version directory as the new model under version-specific settings. Then select the DECOMPH.TAB that is stored in your version directory as the new welfare decomposition file under the version-specific settings. The module settings window should look like as follows:



Once you select the correct module settings, go to the Solve tab and load experiment gtaphet (numéraire shock) in the GTAP firm-heterogeneity model. Do NOT run the test simulation by going to Tools | Run Test Simulation. The test simulation will override the shock files which you may need later to run simulations.

Version gtaphet comes with four experiment files including the numéraire simulation. The rest of the experiments correspond to the reduction of tariffs levied by Japan on US manufactures under different model structures, namely firm heterogeneity (Melitz module of GTAP), monopolistic competition (Krugman module of GTAP), and perfect competition (standard GTAP model with Armington assumption). The model switches are carried out by using closure swaps and imposing additional restrictions on model assumptions. You may find more information on the experiment files and closure rules in Table 1 and 2.

**Table 1. Experiment Files**

<b>Experiment File</b>	<b>Short Description</b>	<b>Explanation of model used</b>	<b>Closure</b>
Melitz.exp	Tariff cut	GTAP firm heterogeneity	endogenous productivity
Krugman.exp	Tariff cut	GTAP monopolistic competition	switches off productivity in Melitz.exp
Armington.exp	Tariff cut	Standard GTAP with perfect competition and Armington assumption	switches off variety and scale in Krugman.exp

**Table 2. Closure Swaps<sup>1</sup>**

<b>Experiment File</b>	<b>Closure Explanation</b>		
	<b>Productivity (aost)</b>	<b>Scale (qof)</b>	<b>Variety (vp,vg,vf)</b>
Melitz.exp	endogenous	endogenous	endogenous
Krugman.exp	exogenous	endogenous	endogenous
Armington.exp	exogenous	exogenous	exogenous

<sup>1</sup> Relevant variables in parenthesis.