

How to use macro : Extract from 3D curve ?

Last update 03/04/2013
Version soft Flux V11.1 SP1
Author PL
Reviewers

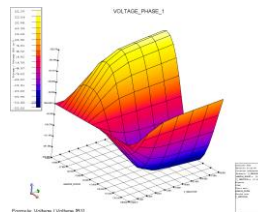
Introduction This document deals with how to install a macro, and how to use the ExtractFrom3DCurve macro. It will include the following topics:

- Macro definition: Extract from 3D curve
- Install a macro

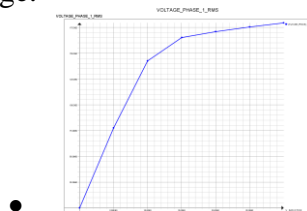
Macro definition : ExtractFrom3DCurve

Goal of the macro

This macro intends to extract some useful quantities from a 3D curve. Here is an example. Let us imagine an alternator rotating at a given speed. A parametric analysis is carried out versus different values of inductor voltage. We can then display a 3D curve with voltage on one phase versus inductor voltage and versus time (or here angular position).



From this curve we want to display the rms value of the voltage for each value of the inductor voltage.



The goal of the macro is to be able to extract from the 3D curve, specific quantities such as minimum, maximum, rms, mean, rectified mean and integral.

The macro is also working on a path vs parameter 3D curve.
 The macro is not working with 3D grid.

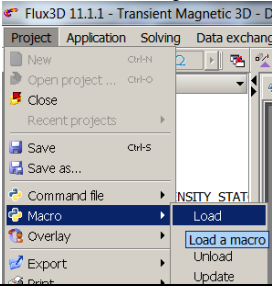
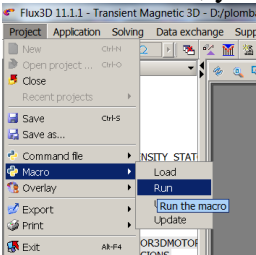
Install a macro

Path Installation

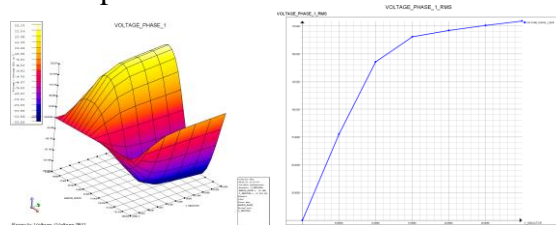
Macros delivered with Flux are directly installed in folder :
C:\Program Files\Altair\2020\flux\Extensions\Macros

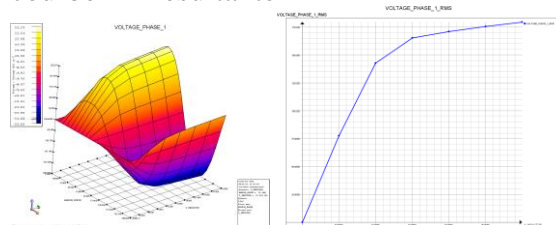
(If Flux is installed at the path proposed by default *C:\Program Files\Altair*)

Calling a macro In order to use a macro, you have to follow the next steps:

Step	Actions
1	Open Flux
2	Click on [Project] [Macro] [Load], and select the right macro 
3	To run a macro, you have to click on [Project] [Macro] [Run]  Then select the macro you want to run.

Macro description

Folder	Macros	Description
	ExtractFrom3DCurve.PFM	<p>Extract specific values from 3D curve and create a new 2D curve. For instance extract rms values versus parameter 1 of all curves versus parameter 2.</p>  <p>Input:</p> <ul style="list-style-type: none"> • Select 3D curve • Select axis of the new 2D curve • Select specific quantity (min, max, mean, recitifedmean, rms or integral) <p>Output:</p> <ul style="list-style-type: none"> • Display a new 2D curve which is the specified quantity versus the selected axis

Folder	Macros	Description
	ExtractFrom3DCurve.PFM	<p>Extraire des données (Vmax, Vmoy, Vmin, Vrms,...) d'une courbe 3D et afficher la courbe 2D résultante</p>  <p>Entrée:</p> <ul style="list-style-type: none"> • Selectionner une courbe 3D • Selectionner un axe pour la courbe 2D à afficher • Selectionner une grandeur (min, max, moyenne, vaeur efficace ou intégrale) <p>Sortie:</p> <ul style="list-style-type: none"> • Afficher la nouvelle courbe 2D en fonction de l'axe choisi