Easy Treez V 2.0 For Autodesk Maya

Easy Treez for Maya

Creating Trees just got Easy & Fun with Eazy Trees :)

Easy Treez for Maya

Create Trees in 3 Easy Steps - Create Art directed Canopy/Truck inputs, Generate Natural looking Branches, Generate Leaves

'Eazy Treez' is a A Highly Art-directable Canopy-Volume based Tree-Designing-Tool for Autodesk Maya.

Easy Trees unique 'NATURAL PHYLLOTAXIS BRANCHING ALGORITHM' creates very Natural looking branches which seek out to Sun & do not intersect with each other.
With Eazy Treez - Artists can create 'Custom Shape/volume based' Trees & bushes, and also Add complex 'Procedural Dynamics'.. with just a few clicks..
Within a few minutes & seconds. Create COMPLEX, NATURAL & REALISTIC looking Trees with non-intersecting Branches & Leaves.

Key Features include:
> Custom Shape Canopy & Truck input shape based Tree Designing.

> Create realistic looking Trees with complex non-intersecting Branches. Which is based on Easy Trees unique 'NATURAL PHYLLOTAXIS BRANCHING ALGORITHM'.

> Non-destructive Branching Hierarchy allows artists to Sculpt/deform the Trees to any extreme free-form shapes while still retaining the Branching-structures,
* pivots & parameterization... So leaves can be re-grown, and Dynamics can be re-applied over and over again onto the custom free-form sculpted trees.*

> Create complex leaves distribution with Branch Level controls.

> Radial & Linear(pine) branching modes.. Radial-mode for general spherical/cloud shaped trees, and Linear-mode for cylindrical pine-like trees.

> Add Natural looking 'Procedural Hierarchical Dynamics' & motion over Branches & Leaves with just a click.

Easy Treez V 2.0 Documentation:
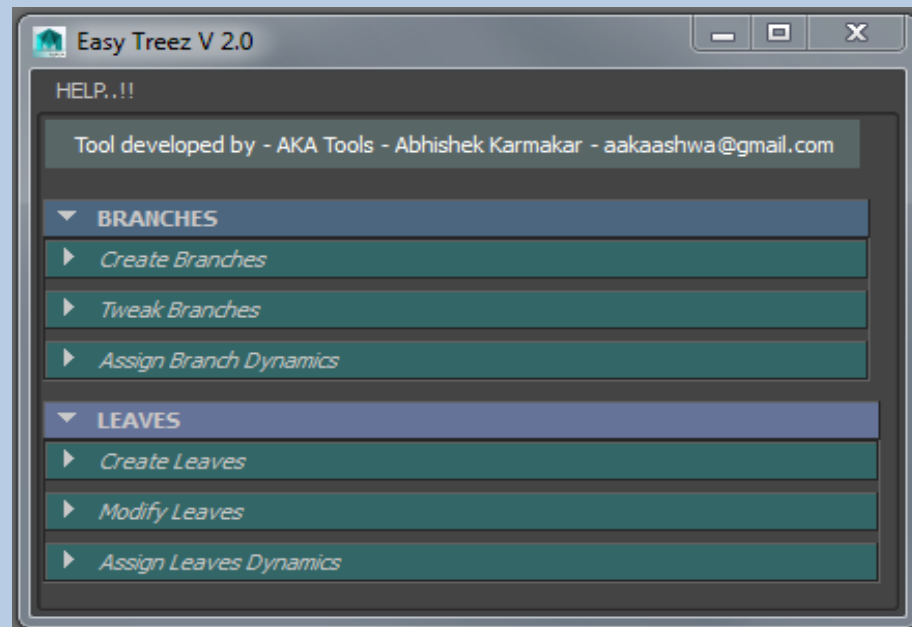
Easy Treez UI is designed to be simple, intuitive & user friendly. It has got one HELP Menu & three main Tabs:

| **HELP..!! Menu :**	**Under 'Help' menu it has got the following items :**
Get your Activation Key	> One time button, required for generating your Unique Product Activation Key.
Enter your License Key	> One time button, required for Registering Easy Treez based on your Unique License Key.
Tutorials	> This will lead you to the developer's YouTube page which has all up-to-date Video Tutorials etc.
About Us	> This will lead you to the developer's Facebook 'PRODUCT PAGE', which has all the latest product news & updates.
More Products	> This will lead you to the developer's Gumroad Page, which showcases all the other PRODUCTS from the developer.
My Blog	> This will lead you to the developer's personal CG/Art Blog, which has some more stuffs worth peeping into.

(a)   BRANCHES :   Under Branches Tab there are 3 Sub-tabs:
(i) Create Branches   (ii) Tweak Branches   (iii) Assign Branch Dynamics

(b)   LEAVES :   Under Leaves Tab there are 3 Sub-tabs:
**(i) Create Leaves   (ii) Modify Leaves   (iii) Assign Leaves Dynamics**
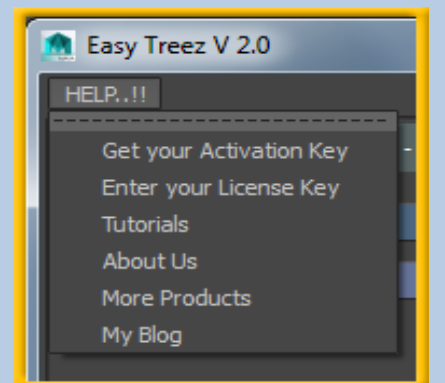
Easy Treez V 2.0 - Product License Activation

> Easy Treez 2.0 comes with an easy to setup ONE TIME... Licensing System.

> After Installing 'Easy Trees' Plugin, Close all Maya Sessions, then Open **ONLY ONE Maya Session**, and launch 'Easy Treez UI'.
  (For detailed Plugin Installation Guidelines.. Kindly refer to the Easy Treez Installation Documentation)

> After launching Easy Trees UI... At the Top Bar, you will find *'HELP..!!'* Menu, Under this Help menu you will find *'Get you Activation Key'* button.

> Click on this, It will Generate your 'Activation Key & **Maya will Close itself** - Now Re-open Maya & Click on it again.. It will Pop-up a 'small window' which will show your 'Unique Activation Key'.

> SELECT your *'Unique Activation Key'* using *Ctrl + A* and then COPY it using *Ctrl + C* . Then close Maya.

> Send this 'Activation Key' to the Vendor **'AKA Tools'** at the following email address - aakaashwa@gmail.com

> Once your 'Activation Key' is received by the Vendor, Within **24 Hrs**. You will receive your *'Unique Product License Key'*.

> Once you receive your *'Unique License Key'.* Launch Maya & Easy Treez, Go to the *'HELP..!!'* menu again, and click on *'Enter you License Key'* button.

> Click on this Button - it will Pop-up a 'small window' which prompt you to enter your *'Unique License Key'* .
> Paste your 'License Key' in the box & click OK.. **This will Register your Product License & Maya will close itself.**
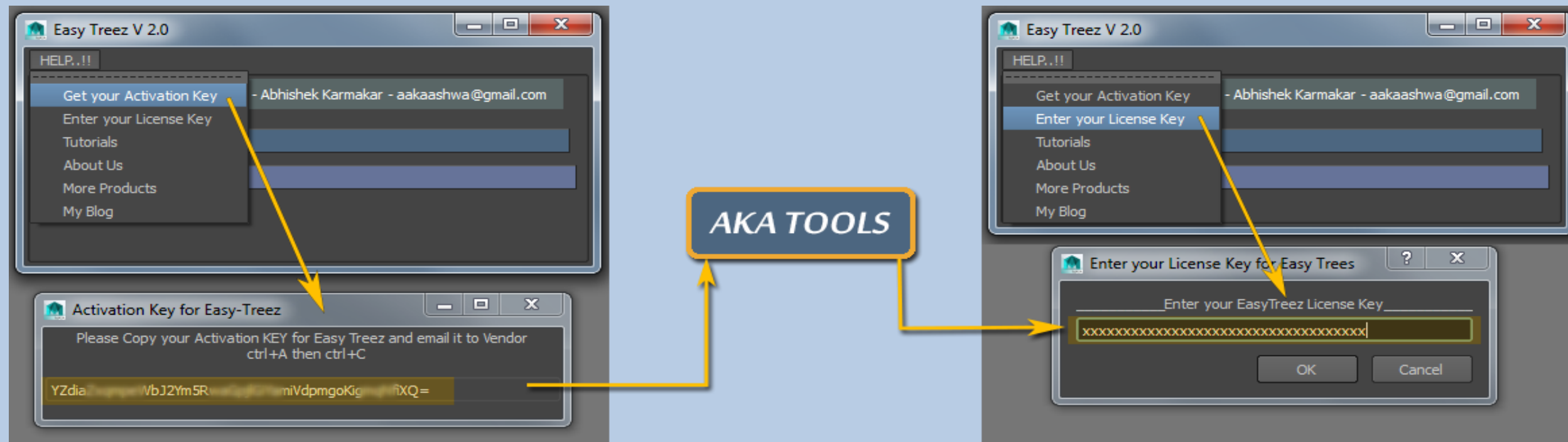
> Your Product License setup is now Complete. In Maya you will also get a message saying *'CONGRATS..!! Your License is activated. Now Enjoy creating nice Trees :)'*
> Now you can Re-Open Maya & start using EasyTreez.

Branches :
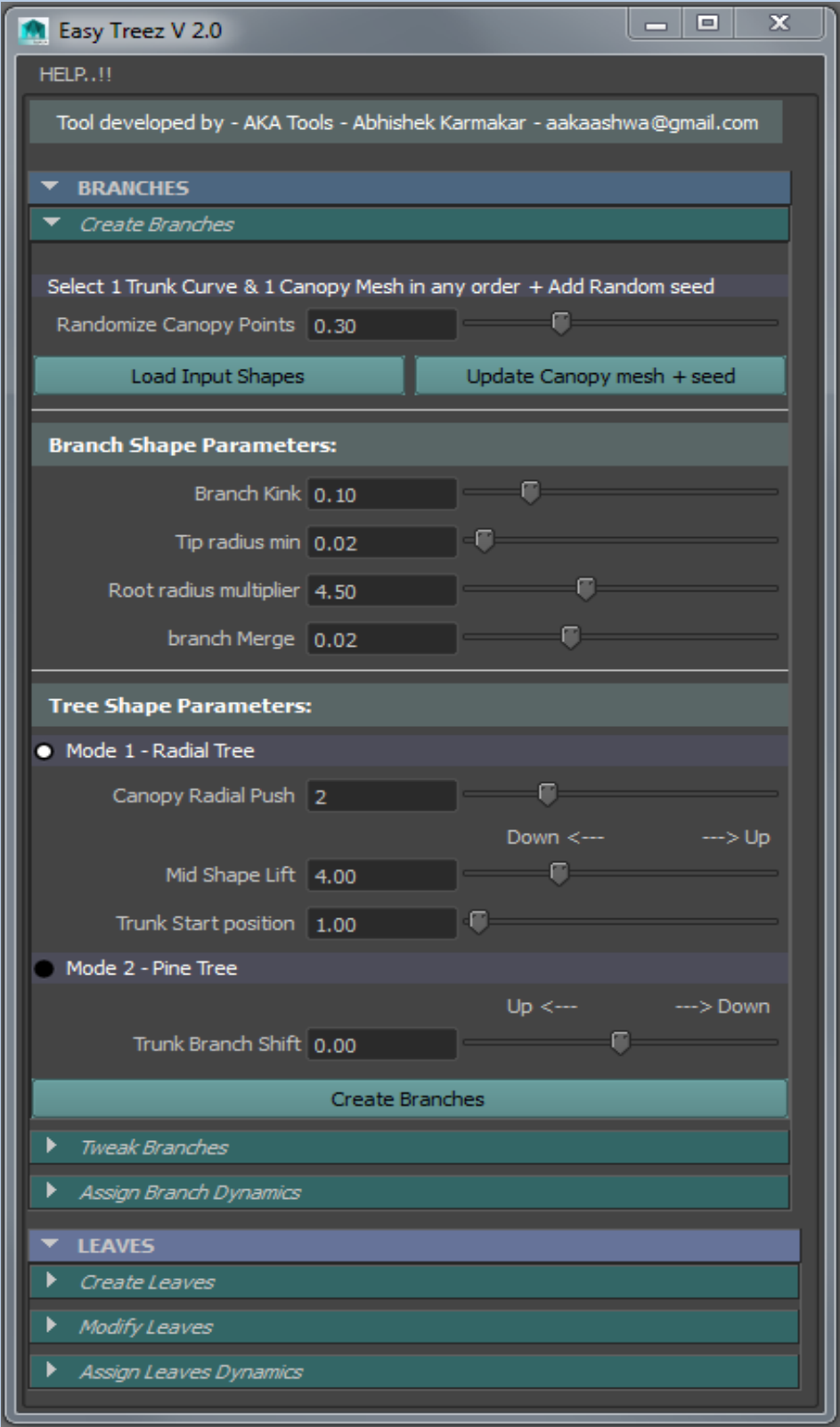
Create Branches :

Load Input Shapes (Button):   This button is used for Loading the Input shapes which are required to create 'Tree branches', for this the User needs to select one 'Canopy mesh'and one 'Trunk guide curve'.

Note: If there are multiple 'canopy geometries' to be used then please poly-combine them all into one polygon mesh.

Update Canopy Mesh (Button):   > Used for internally generating randomized 'point-cloud' which helps create very natural Branching distribution.

    Randomize Canopy points :   > Parameter for controlling the canopy point's randomization intensity/amount.
         This value should be moderate & should not be too high. Else it'll create weird looking branches.

Branch Shape Parameters:
    Branch Kink: > Parameter for adding some 'Kink noise' to the Branch shapes, making them appear irregular & kinky.

    Tip radius minimum: > Branch thickness 'minimum starting Radius' originating from the Tip most Branches.

    Root radius multiplier: > Branch thickness Radius increment multiplier - starts from Tip Branches and ends onto the Trunk mesh.
         The user needs to play with this value to get the desired Trunk Thickness, all in-between branches thickness
         will adapt in a linear fashion. This value shouldnt be too High.. anything + - around the default values should do fine.

    Branch merge: > Parameter for overlapping 2 adjacent branch geometries in hierarchy, which then gets blended internally.
         The User can leave it to default.

Tree Shape Parameters:
    Mode 1 – Radial Tree: > Radial Tree mode is for general cloud-shaped trees which has a radial style canopy.
    Canopy Radial Push: > Value of 1 would attract the branches more towards the central trunk. Higher values will tend to push out the
         branches radially, i.e. lesser attraction towards central trunk.

    Mid Shape Lift: > Parameter for controlling gravity/weight for the tree's Middle body. Higher value means more upward lift shape,
         more like attraction towards Canopy. Lesser Value means lean weight more towards ground.

    Trunk Start Position: > Parameter for shifting the Trunk-Tip starting position. Higher value means more upward shift for Trunk head/Tip.

    Mode 2 – Pine Tree: > As the name suggests 'Pine tree mode' is for more creating pine tree like branching
         wherein the Canopy is cylindrical type.
    Trunk Branch Shift: > This mode just has one parameter. Used for giving a shift along the trunk curve path(for branches at the trunk contact point).

Create Branches (Button):   > When clicked, it creates the 'Branching Tree Structure' based on all the above defined parameters.

Branches :
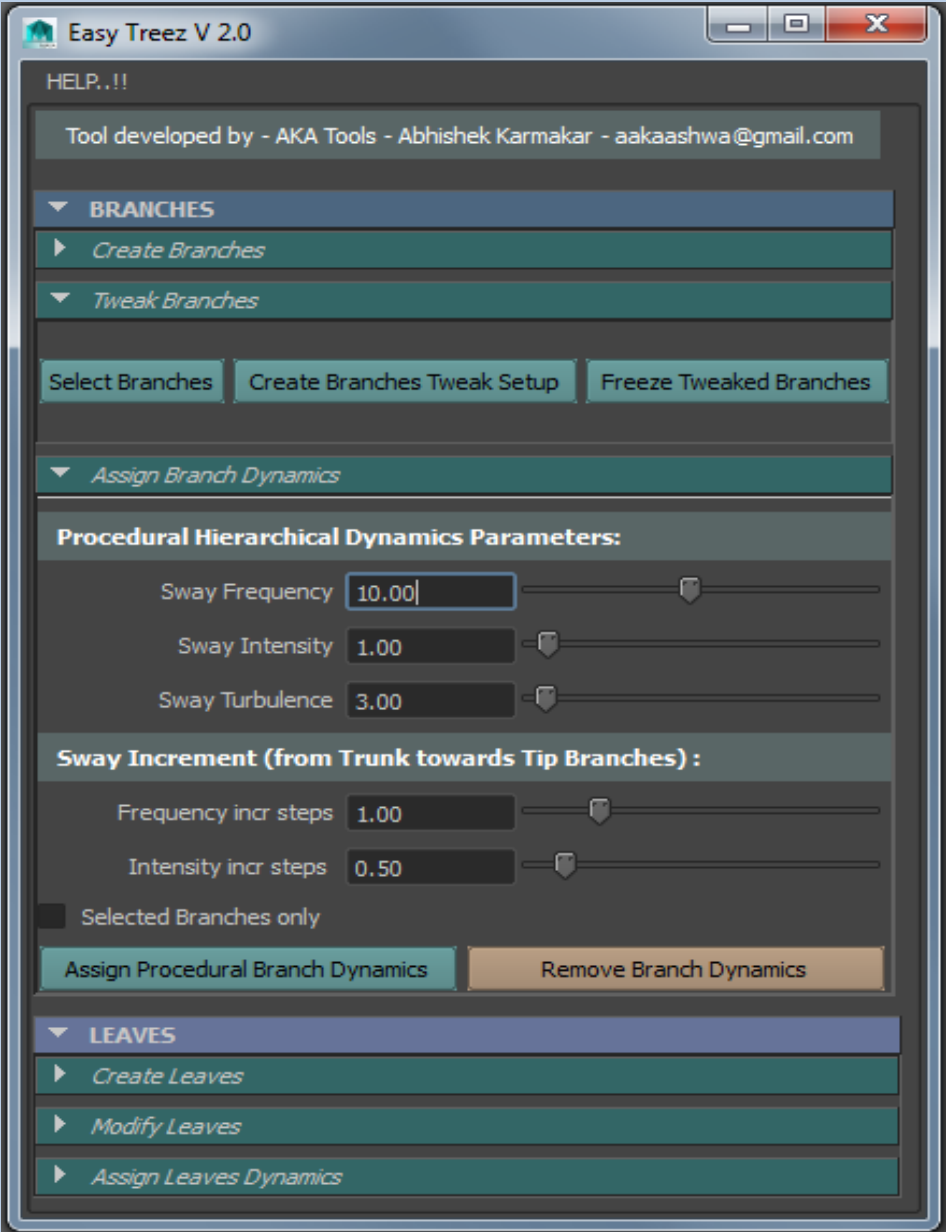
Tweak Branches :

Select Branches (Button) :   **> Used for selecting all the Branches of the Currently generated Tree, for assigning Materials etc..**

Create Branches Tweak Setup (Button) :   **> Used for creating setup for sculpt/tweaking selected Branches, Select multiple Branch-meshes & Click on this button, and it'll create a separate combined mesh of the branches which artists can be directly Tweak, Sculpt etc.**

Freeze Tweaked Branches (Button) :   **> After doing any custom sculpt, deformation etc.. over the branches. When clicked it will freeze all the sculpt tweaks and re-parameterize the branches, such that the dynamics & leaves re-generation would work seamlessly.**

Assign Branch Dynamics :

Procedural Hierarchical Dynamics Parameters:
Contains all the parameters required for controlling the dynamic parameters assigned over Leaves.

Sway Frequency: > Parameter for controlling the frequency of noise sway motion of the branches.

Sway Intensity: > Parameter for controlling the Intensity of noise sway motion of the branches.

Sway Turbulence: > Parameter for controlling the amount of noise Turbulence motion on the branches.

Frequency increment steps: > Parameter for controlling the increment multiplier factor of branch motion frequency starting from 'Base level branches' towards 'Tip level branches'

Intensity increment steps: > Parameter for controlling the increment multiplier factor of branch motion intensity starting from 'Base level branches' towards 'Tip level branches'

Selected Branches only: When this Checkbox is ON, dynamics will only be assigned on to (OR removed from) selected Branches.
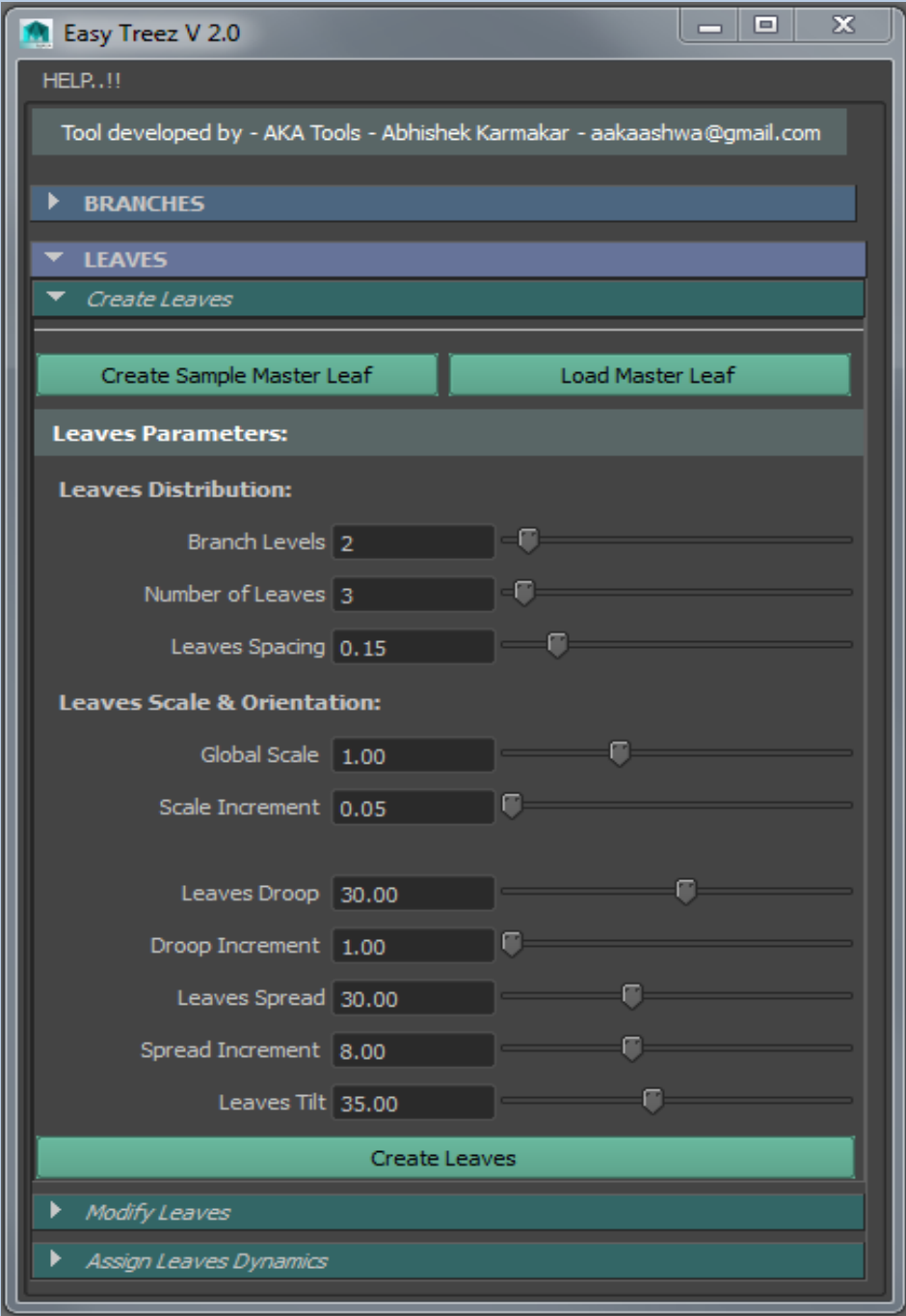
Assign Procedural Branch Dynamics (Button):   **> When clicked, it will assign procedural dynamics onto the currently Selected OR pre-loaded Tree/Branch structure.**

Remove Branch Dynamics (Button):   **> When clicked, it will remove procedural dynamics from the currently Selected OR pre-loaded Tree/Branch structure.**

Leaves :

Leaves:

Create Leaves: > **Create Leaves dynamically works on any one selected Branch-Hierarchy OR Main Trunk-Hierarchy.**

Create Sample Master Leaf (Button):   > **Used for creating 'Sample Lowres master leaf', required for distribution of leaves. This can be either directly used as input master Leaf mesh, or can be edited/tweaked as per creative requirements (like tweaking shape, adding more loops, multi-leaves etc) & then used as input master Leaf**

Load Master Leaf (Button):   > **Used for loading the 'Input master Leaf mesh'. Note: Any custom leave-mesh needs to be named with prefix 'masterLeaf' for them to work.**

Leaves Parameters: > **Contains all the parameters required for controlling Leaves - distribution, placement, spacing, orientation, spread, droop etc..**

Branch Levels: > Parameter for defining the Branch Levels upto which the Leaves should grow, starting from Tip-branches moving towards base Branch-hierarchies, i.e. a value of 1 means create leaves only over the 'Tip Branches', similarly value of 2 means create leaves over the 'Tip Branches' & the Branch level below it.

Number of Leaves: > Parameter for defining the number of leaves distributed per branch.

Leaves Spacing: > Parameter for defining spacing between the adjacent leaves over a branch.

Global Scale: > Parameter for defining the Global size/scale of the Leaves.
Scale Increment: > Parameter for defining scale increment factor of leaves cluster on a per branch basis, starting from tip leaf (placed over the tip of a branch)towards base of the branch.

Leaves Droop: > Parameter for defining the global Gravity Drooping effect on the leaves.
Droop Increment :   > Parameter for defining the Gravity Drooping increment factor of leaves on a per branch basis, starting from tip leaf (placed over the tip of a branch)towards base of each branch.

Leaves Spread: > Parameter for defining the Spread/Fanning (rotation) effect of leaves-cluster on a per branch basis.
Spread Increment: > Parameter for defining the Spread increment factor of leaves-cluster on a per branch basis, starting from tip leaf (placed over the tip of a branch) towards base of the branch.

Leaves Tilt: > Parameter for defining the Tilt (rotation) effect of leaves-cluster on a per branch basis.

Create Leaves(Button):   > **Used for Creating the leaves based on the above defined parameters.**
'Create Leaves' dynamically works on any one selected Branch-Hierarchy OR Main Trunk-Hierarchy.
Which means that a variety of Leaves, flowers etc.. Can be locally created over different areas onto one Single Tree.

Leaves :

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HELP..!!

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▶ BRANCHES

▼ LEAVES

▶ *Create Leaves*

▼ *Modify Leaves*

LOAD TREE

Hide/Unhide Leaves	Select Leaves	Remove Leaves

Randomization Parameters: Works with an Influence Mesh

Random Rotate X	20	
Random Rotate Y	20	
Random Rotate Z	20	
Random Scale	0.50	
Local Scale	1.00	
Falloff Distance multiplier	1.00	

☐ Apply Rand Rotation   ☐ Apply Rand Scale   ☐ Apply Local Scale

Randomize Leaves	Select Leaves within mesh

▼ *Assign Leaves Dynamics*

Procedural Leaves Dynamics Parameters:

Sway Frequency	1.00	
Sway Intensity	5.00	
Turbulence	3.00	
Turbulence Variation	0.50	

Assign Procedural Leaf Dynamics	Remove Leaves Dynamics

Modify Leaves:

LOAD TREE (Button):   > **When clicked it will load the Leaves-Datebase for any selected Branch OR Tree Trunk.**

Hide/Unhide Leaves(Button):   > **Used as a Toggle for Hiding / Unhiding Leaves   (of the currently selected OR Active Tree/Branch structure)**

Select Leaves(Button):   > **Used for Selecting Leaves   (of the currently selected OR Active Tree/Branch structure)**

Remove Leaves(Button):   > **Used for removing all the leaves   (of the currently selected OR Active Tree/Branch structure)**

Randomization Parameters: > **Contains all the parameters required for controlling Leaves - Rotation & Scale Randomizations**
   Note: All Randomizations functions requires an Influence (preferably a Closed Polygon mesh),
   which can work along with Falloff Distance Multiplier.

Random Rotate X: > Parameter for defining Leaves Rotation Randomization in world X-Axis.

Random Rotate Y: > Parameter for defining Leaves Rotation Randomization in world Y-Axis.

Random Rotate Z: > Parameter for defining Leaves Rotation Randomization in world Z-Axis.

Random Scale: > Parameter for defining Leaves Scale Randomization.

Local Scale: > Parameter for defining Leaves Local Scale (under the Influence of a Closed Polygon mesh).
   which can work along with Falloff Distance Multiplier, to give a scale falloff effect around the specified region.

Falloff Distance Multiplier: > Parameter for increasing OR decreasing the Influence Falloff distance.

Apply Rand Rotation: > Checkbox for Filtering ON/OFF - the assignment of Random Rotation.

Apply Rand Scale: > Checkbox for Filtering ON/OFF - the assignment of Random Scale.

Apply Local Scale: > Checkbox for Filtering ON/OFF - the assignment of Local Scale.

Randomize Leaves (Button):   > **When clicked, it will randomize the leaves Rotation and/or Scale based on the above defined parameters**
   (for the currently active/Loaded Branch/Tree set)

Select Leaves within mesh (Button):   > **When clicked, it will select the leaves within influence of the selected Polygon mesh**
   (for the currently active/Loaded Branch/Tree set)

Assign Leaves Dynamics:

Procedural Leaves Dynamics Parameters:

Contains all the parameters required for controlling the procedural dynamic parameters which gets assigned over the Leaves.

Sway Frequency: > Parameter for defining the frequency of noise sway motion onto the leaves.

Sway Intensity: > Parameter for defining the Intensity of noise sway motion onto the leaves.

Turbulence: > Parameter for defining the amount of noise Turbulence motion of the leaves.

Turbulence Variation: > Parameter for defining the amount of variation in 'noise Turbulence motion' of the leaves.

Assign Procedural Leaf Dynamics (Button):   > **When clicked, it will assign procedural dynamics for the currently Active Leaves.**
   (of the currently selected OR Active Tree/Branch structure)

Remove Leaf Dynamics (Button):   > **When clicked, it will remove procedural dynamics from the currently Active Leaves.**
   (of the currently selected OR Active Tree/Branch structure)

Basic Tree Creation Instructions:

BRANCHES:
- Create your canopy mesh... If there are 2 or more canopy meshes then combine them & delete history.

- Create the trunk curve... the root (1st cv) should be on top (close to the canopy)

- select both (in any order) and click on **'Load mesh'**.

- Then next click on **'update canopy mesh'**... This will internally generate randomized scatter points required for the generation of branches.

- Next click on **'Create branches'**. And it should create the branches geometries.

LEAVES:
- For creation on leaves... 1st click on **'Create Master sample Leaf'**... It'll create a sample leaf poly mesh for you at the Grid center... Which you may tweak as required.

- Next click on **'Load Master Leaf'** with the poly leaf mesh selected.

- Then click on **'Create Leaves'** and it shud create the leaves geometries.