End User License Agreement
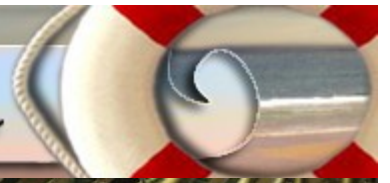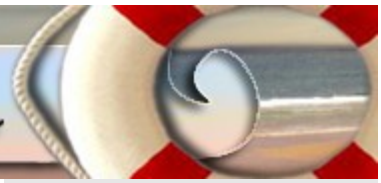
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Wörthstr. 20
49082 Osnabrück
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info@motion-gimmick.de
www.motion-gimmick.com
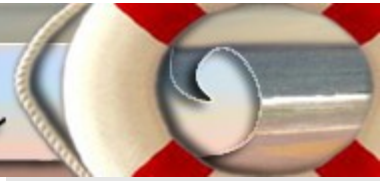
or the exclusion of implied warranties or limitations on how long an implied warranty may last, so the above limitations may not apply to you. In this case a special limited warranty is attached as exhibit to this agreement, which becomes part of this agreement. To the extent permissible, any implied warranties are limited to 6 months. This warranty gives you specific legal rights. You may have other rights which vary from state to state or jurisdiction to jurisdiction. In the case that no special warranty is attached to your contract please contact the Licensor for further warranty information.

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Credits:
Thanks to **Maxon Computer GmbH Friedrichsdorf – Germany** for their friendly support.

Thanks to those who participated in the development of Add the Sea:

Title image:
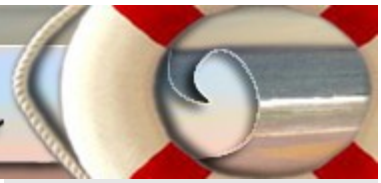Fredi Voss

Beta testers:
Michael Auerbach (aka Cinemike), Elian Koll (aka junkman), Tobias Löffler (aka KJ), Jürgen Suntinger-Schrampf, Fredi Voss (aka rollmops), Frank Willeke (aka Jack)

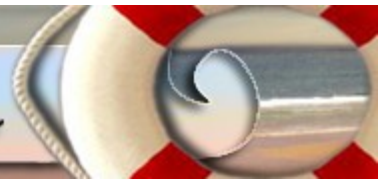**Xpresso and Thinking Particles:**
Sebastian Rath (www.xpresso24.com)

Manual:
motion gimmick – Team and Bernd Zweverink aka Telnoi (Translation)

Content

1. Installation

You will receive Add-the-Sea by email as a zip file attachment. Unpack the zip file, including all subdirectories, to the plugin directory of Cinema 4D. You will find Add-the-Sea and its deformers in the plugin menu.

Add-the-Sea 2006 requires Windows or MacOS X. Since cinema 4D 5.3, several versions of this plugin have been released. The classic scheme, which has been used since c4d 8.5-10.x, has been used for this document.

Plugin Basics

This version has been programmed for Cinema 4D 8.5 or higher.

Add-the-Sea parameter basics:

100% means that the maximum strength of a particular function is used. However, it does not mean that it will produce the best possible result.

For example, a wave height of 100% always produces a lip in the wave tip, even though it might not be visible to you (due to a lack of subdivision e.g.). A rolling wave can be a beautiful effect. However, it has fatal effects on floating. The floating object will follow the loop, whether this is visible to the user or not. The floating object will then make a short assessment, which is not necessarily beneficial for the simulation of the floating motion. The same applies to maximum values of the coast.

In some cases, values larger than 100% are allowed, which will give the user more room to play with.
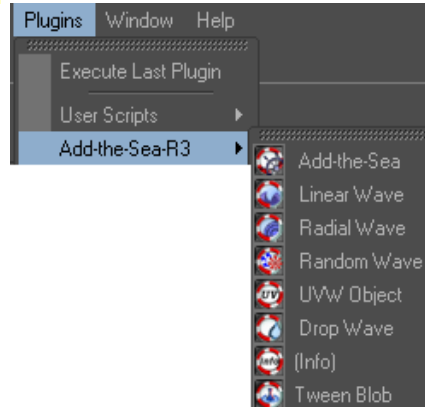
The following applies:

More is less!!!!! I would also like to point this out for the size and the subdivision of the water surface. You do not have to copy the original size of the sea to create one. For example, place a camera nearer to the water surface, instead of endlessly scaling the water surface. Add the Sea is a Deformer! The calculations of the deformations require time.

Tip:
When using a plane the size of 400 x 400, use a maximum amount of 50 x 50 subdivisions. The waves will become sharp edged when using more subdivisions. It would be better to use less subdivisions and use hypernurbs (smoothens the edges more) or C-Nurbs (for more pronounced structures).

Surely, Add-The-Sea cannot solve all aqueous problems. We hope to have produced a solid basis for additional features in future updates. We will continue working on it ;o)

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2. Overview

Add-the-Sea encompasses several plugins and tags, depending on their function. Here is an outline of the individual functions:

1. The deformers
Linear Wave
Radial Wave
Random Wave

Drop Wave:
Manual drop
Impulse wave
Rain drop
Impact drop 1
Secondary drop wave
Impact drop 2

Xpresso node for drop

UVW-Deformation

Coast detection

2. Swimming

Of objects.
Of particles.

Xpresso nodes for Swimming

3. Extra tools:
Tweenblob / additional spherical deformer and modifier for drop waves

3. Initial scene setup

Independent of what you are going to use this plugin for, the initial Add-the-Sea scene setup starts with:

Adding a plane to your scene.

Add the Add-The-Sea main plugin object from Cinema 4d's plugin menu to your scene.

Make the Add-The-Sea main plugin object a child of the plane.

Add a wave object from Add-The-Sea's plugin menu to your scene.

Make the wave object a child of the Add-The-Sea main object.

All waves have (!) to be arranged under an Add-The-Sea object in a similar manner. Please, always consider the arrangement, or hierarchy, of the objects in the object manager.

You may use more than one Add-the-Sea Objects to sort wavesettings.

Any additional wave, which is hierarchically placed under the Add-the-Sea object, will be mixed with that wave, while taking into consideration the coast and floating objects.

You may find the height of a wave to be insufficient, even though a height setting of 100% has been used.

Attention:
Height in wavesettings produces a different result to the scale-option in Cinema.

You can copy any wave object and place it as a child of the wave object:

4. The control object– „Add-the-Sea"

You can edit settings of this tool in the attribute manager of Cinema 4D. The control object is used to appoint coasts and swimming objects and governs the basic settings of the coast map. Therefore, please do not change the null object of the Add-the-Sea tools, so that the control object can take into account all functions of your map data in accordance with the rules. Otherwise, you will have to correct the settings afterwards in the respective attribute manager.

The Add-The-Sea main plugin object and the water surface should be located at the center of the Null Object as long as you are still working on the coast map. After that, you can shift the entire water hierarchy along the Y axis.

When scaling the entire hierarchy, or parts of it, with the cinema 4D scale tool, the accompanying maps will also be scaled.

The control object is the primary plugin of Add-the-Sea. It contains the following tabs:

Enhanced Settings Coast Settings

Strength: Influence on the wave's damping settings/ collision effect of the coast map in aspect to the waves
Land Offset: Elevation of the coastmap
Land Scale: Scaling of the coast along the Y-axis
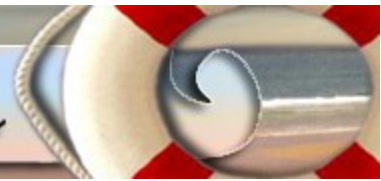
Create Coast Tag
Create the coastmap tag, which can be made visible (overlaying to the object texture) in the editor by ticking the box "Show Map".

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The control object– „Add-the-Sea"

Info Popup
This popup window contains
Info: your registration data (name, adress)
Contact: Link the to motion gimmick website
Manual: Link to the pdf-file you have copied in the manual directory of Add-the-Sea.
Palette: Creates a Add-the-Sea tool palette.
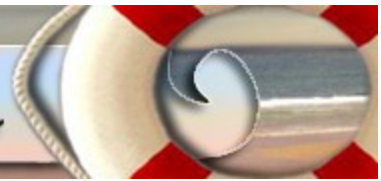
Swimming
Creates the swim tag, by drag and dropping any object (or Standard-Emitter) into the "Create Tag" field.
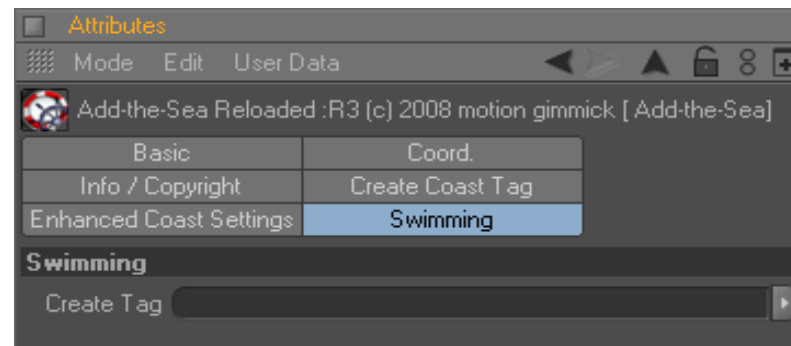
5. Linear Wave

Plugin foundation

The Linear Wave is an endless wave without inward/outward height differential (contrary to e.g. Drop Wave).
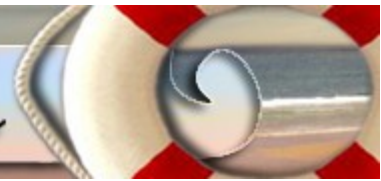
You can add this plugin to the objects manager by accessing it from the Plugin menu of Maxon Cinema 4D, under Add-The-Sea. You have to place it in a particular order in the Objects Manager, just like all wave deformers.
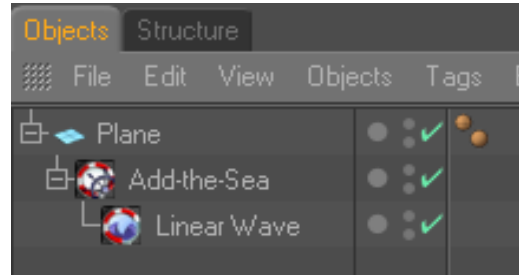
Geometry

Height: Height of the wave in percent.

Value:
0 The wave has no height.
Values of over 100% are possible.

Length:
The length of the waves in units.

Value:
0 The wave has a length of 0 – no visible wave.
Values of over 1000 units are possible.

Start Pos X / Start Pos Z:
The Z-axis or X-axis can be shifted with these parameters. If you animate these parameters, you will alter the speed of the wave – The wave will be shifted forwards and backwards.
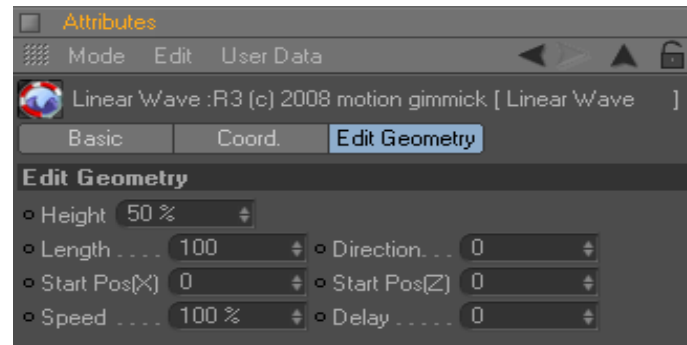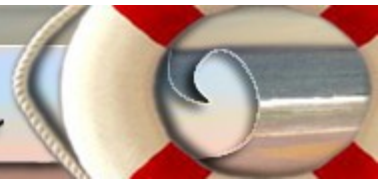
Linear Wave

Delay:
While StartPosZ and StartPosX shifts the wave independently of the wave direction into the direction of the designated axis, Phase only shifts the wave into the wave's direction. This enables you to place the wave in a certain position at a particular frame, which may be necessary for directorial purposes.

Direction:
You can rotate the wave around its center axis using these parameters.

Speed:
Determines the speed of the wave.

Values of over 100% are possible.
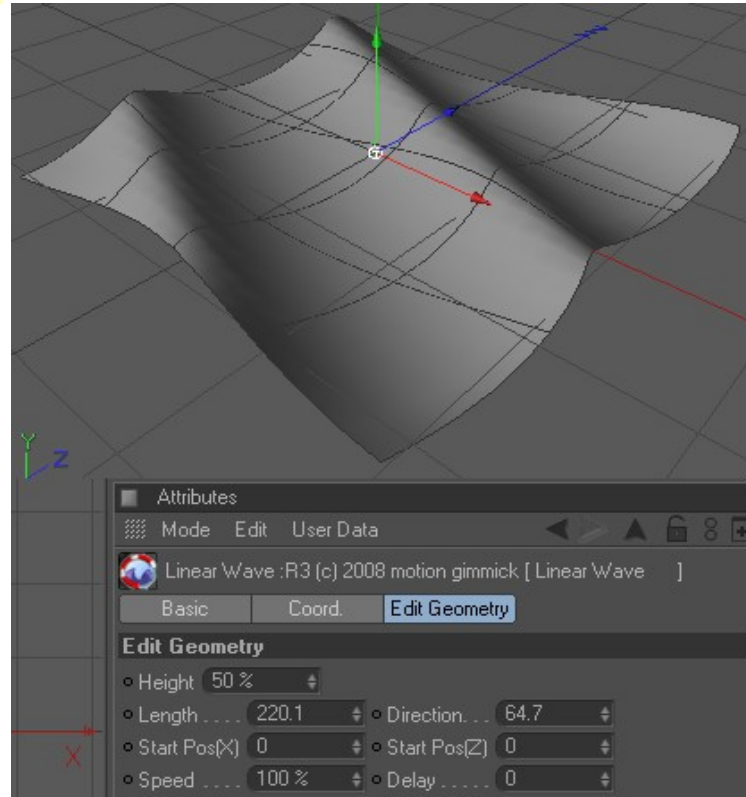
6. Radial Wave

Plugin foundation

The Radial Wave is an endless wave without an inward to outward height differential (contrary to e.g Drop Wave).

You can add this plugin to the objects manager by accessing it from the Plugin menu of Maxon Cinema 4D, under Add-The-Sea. You have to place it in a particular order in the Objects Manager, just like all wave deformers.
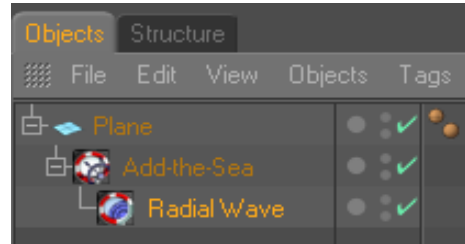
Geometry

Height: Height of the wave in percent.
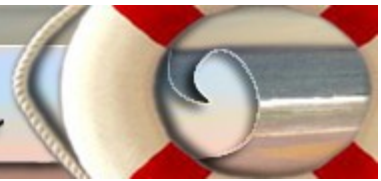
Length:
The length of the waves in units.

Delay:
While StartPosZ and StartPosX shifts the wave independently of the wave direction into the direction of the designated axis, Phase only shifts the wave into the wave's direction. This enables you to place the wave in a certain position at a particular frame, which may be necessary for directorial purposes.

Start Pos Z / Start Pos X:
The Z-axis or X-axis can be shifted with these parameters. If you animate these parameters, you will alter the speed of the wave – The wave will be shifted forwards and backwards.

Speed:
Determines the speed of the wave.
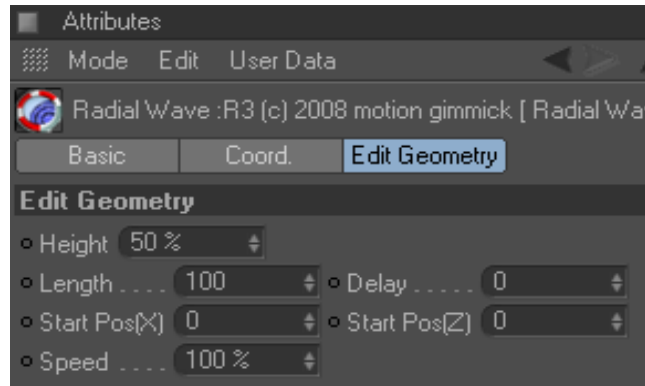
Plugin foundation

The Random wave is a wave generator for endless, mixed linear waves. This plugin is particularly helpful if you want to add some random movement to other wave deformers, but it can be used as the main and only deformer.

Just like drop waves, random waves supports the coast function without physically simulated flow constraints. If you still want to obtain a realistic directional flow, add a linear wave to the hierarchy as soon as you want to make use of the coast function.

Using the plugin

You can add this plugin to the objects manager by accessing it from the Plugin menu of Maxon Cinema 4D, under Add-The-Sea. As usual, you have to place this plugin hierarchically as a child of the Plane object (see example on the right).

This and other wave deformer will only function if you add an Add-The-Sea main plugin to your scene!

The Random wave will look like the example on the right if you use the default settings.

Random wave

Wave Settings
Wave Count
The amount of waves, with a maximum value of 1000 waves.

Z-Division
A higher value will produce shorter waves. The maximum value is 1000. A higher value will require a higher subdivision of the water surface, otherwise you may end up with angular artifacts.

14
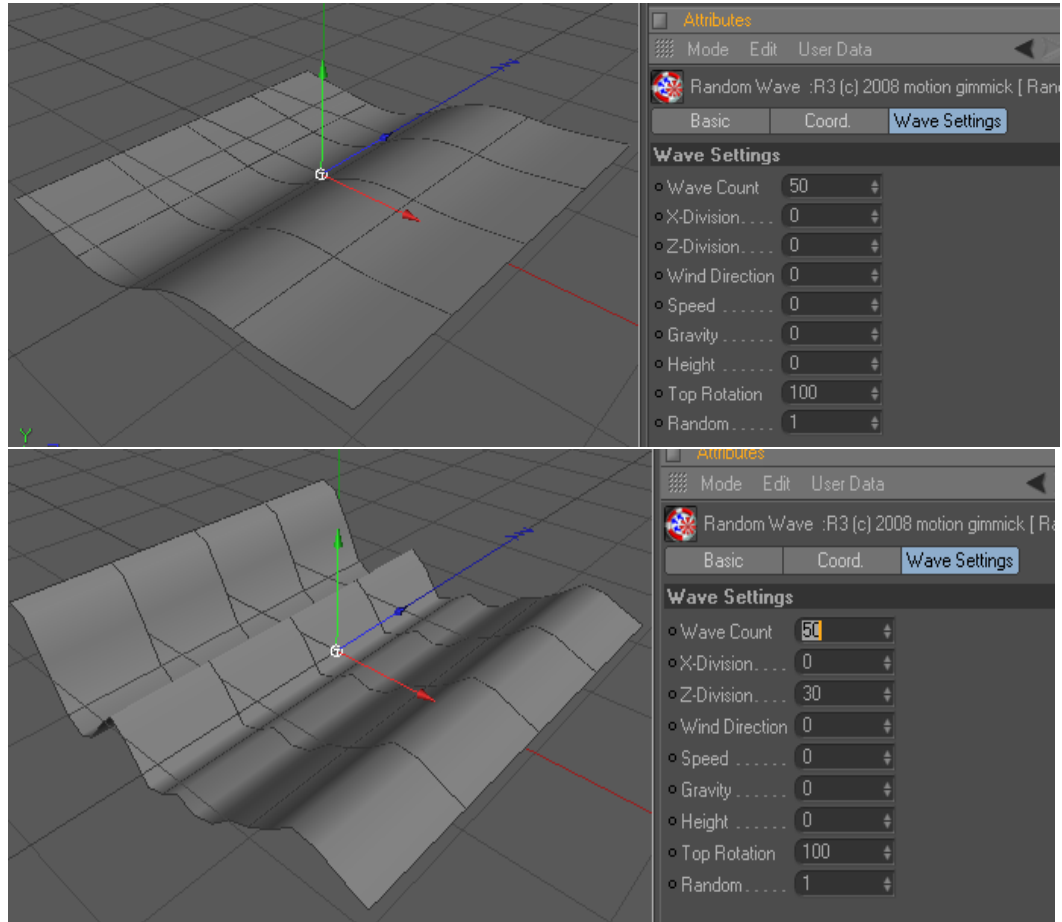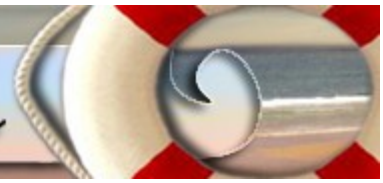
Random wave

X-Division
This value determines the bandwidth of the wave subdivisions or the interpolation of the waves. The higher the value, the higher the interpolation and interpretation.
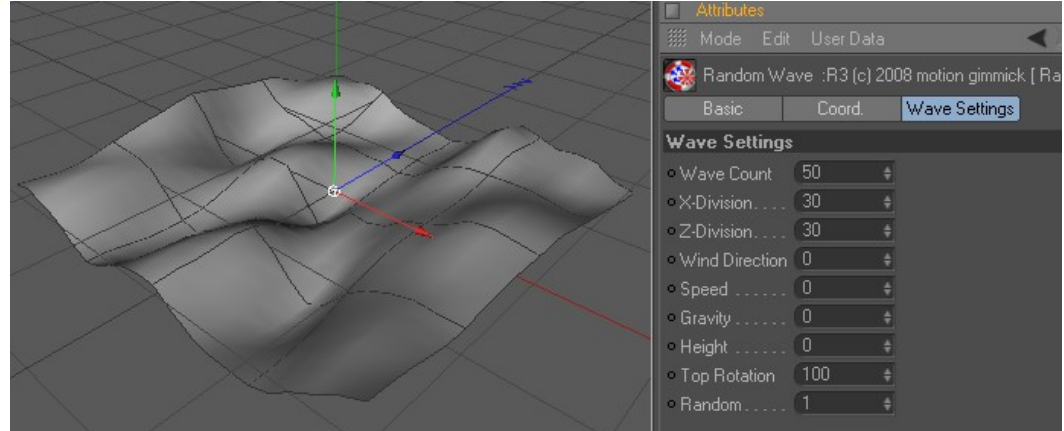
Wind direction
A percentual representation of the wind, which allows the wave system to rotate around its axis center, which may deviate from the center axis of the Add-The-Sea control plugin or of that of the water surface.

100% = 360°
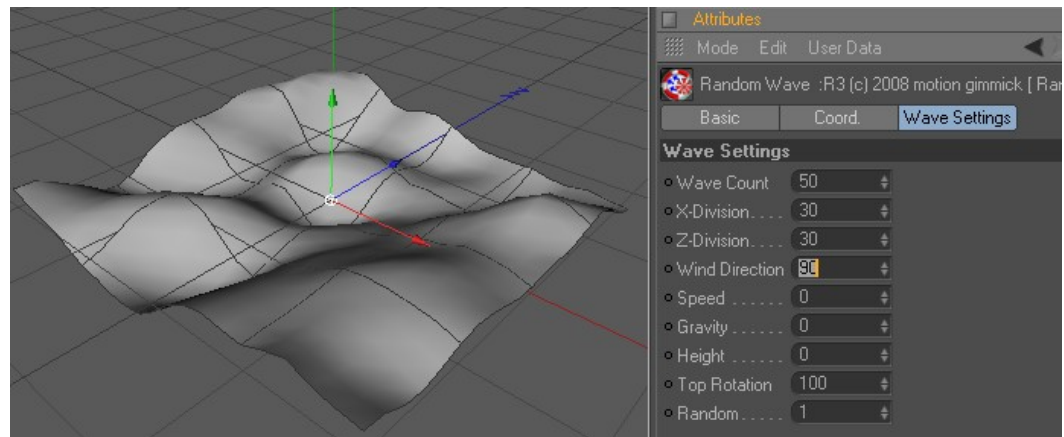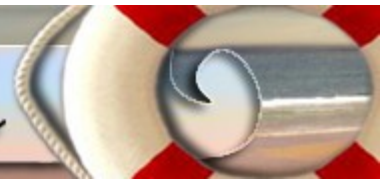
Random wave

Speed:
Determines the speed of the wave.
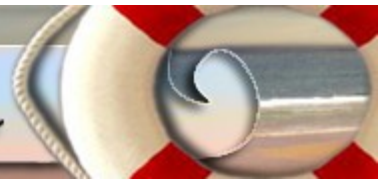
Gravity
This value will determine the force of the gravity on the waves, which pulls the waves into the direction of the Y-axis.

Note: This parameter will require a larger subdivision of the water surface.

Height
The maximum value is 100.
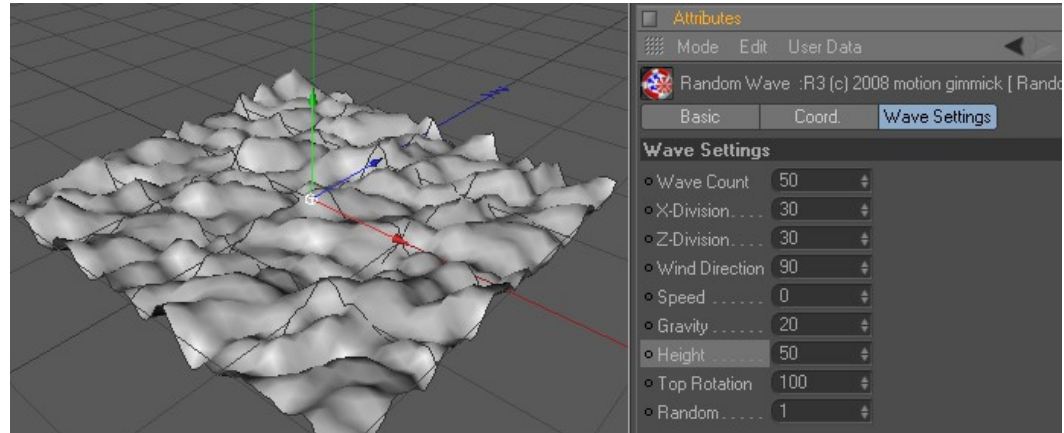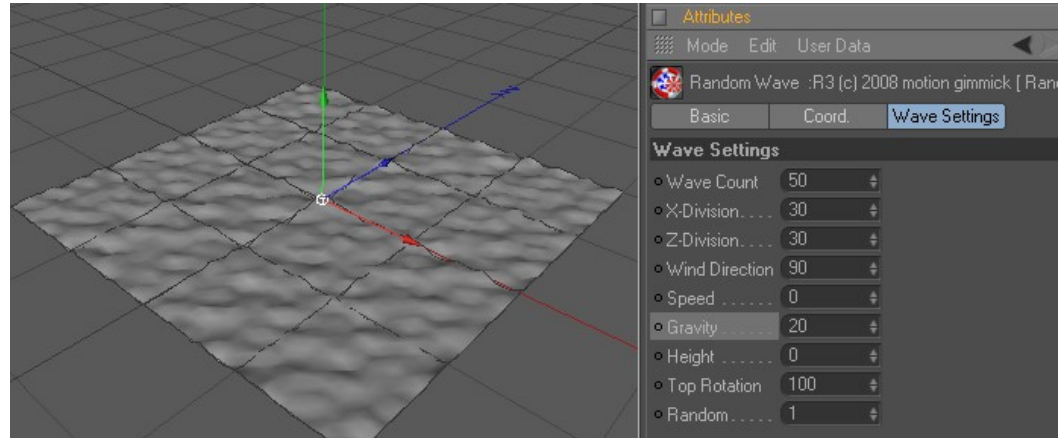
Random wave

Top Rotation

Default value is 100!
Values lower than the default value will twist the crest of the wave around the Z-axis of the wave.

Result: The wave tilts forwards or backwards and over.

Random
Fancy a gamble? This option will allow you to determine a coincidental value for all parameters of the Random wave. In case random is not random enough ;o)

All these values can be animated through the attributes manager of Cinema 4D. The random wave can be hierarchically added to all other wave deformers, except for itself
or
If the hierarchy contains several Random waves, while alternating with other wave deformers, only one random wave will work.

Scaling this wave in Y with Cinema scale tool is very different from using height in the wavesettings:
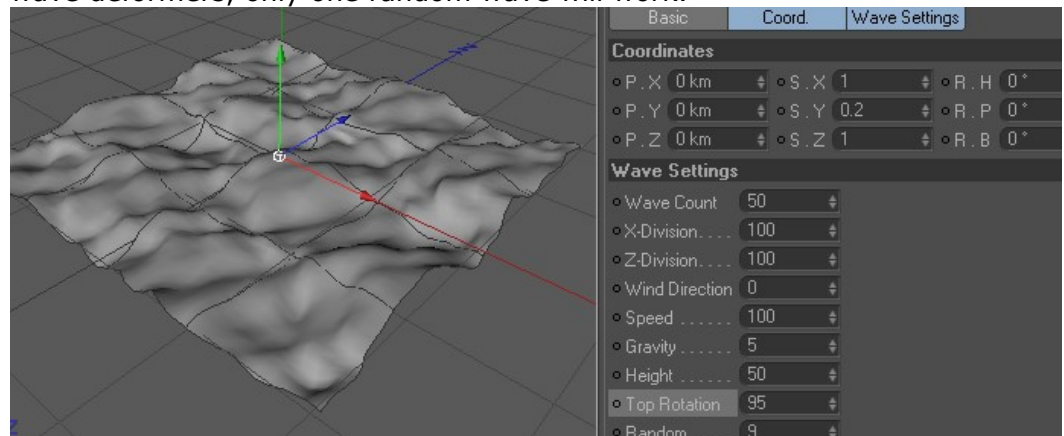
8. Drop Wave

Using the plugin

You can add this plugin to the objects manager by accessing it from the Plugin menu of

Maxon Cinema 4D, under Add-The-Sea.

Place it hierarchically in the correct order in the objects manager, just as the previous wave deformers.

You will be able to access the control panel of the available drop types by clicking on the Drop wave object with your mouse. When choosing one of drop types, a tag with the number of the chosen drop type will appear next to the Drop wave object.

The numbers will help you to avoid adding several drop of the same type, and allows you to easily recognize the type of each tag.

Manual drop

Rain drop

Impact drop I
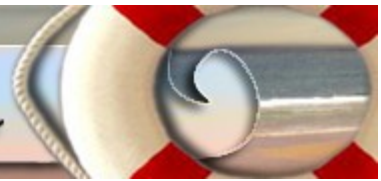
Secondary drop

Impact drop II

Manual Drop for single user defined drops.
Rain Drop for masses of random drop waves.
Impact I for object collisions to a waterplane.
Impact II for ship waves.
Secondary Wave for splash waves around the other drops.
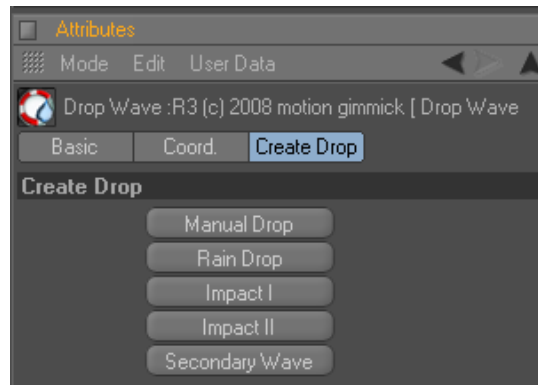
Manual drop: TAG1

This drop type with the identification number 1 in the drop Icon can be added from within the control panel of the drop Plugin. The settings of this type can be accessed by clicking on the appropriate drop tag.

You can either:

Add several drops of the same type by adding the drop plugin multiple times. This only makes sense if you would like to appoint the geometry of these drops individually.

Or:
You can add only one drop of this type and produce copies of it using the menu of the drop plugin (create drops), which are numbered consecutively in the menu. The lastly added copy always receives the lowest number. The geometry of the drops applies to all copies. However, position and time can be individually adjusted.

Geometry
This drop type has been created in such a way that the highest wave is created at the null object of the Drop plugin and it radially decreases in height when moving outward, while it increases in speed.

Radius
The wave's length from the center to the edge of the wave.

Drop: Height
Drop's height or Height of the drop wave.
Values:
0% till 99% for the maximum height of the wave

Life Span/sec:
Each drop has a natural lifetime according to Radius, Height and Speed. With **Life Span** the user can cut this lifetime after user defined seconds. Each drop now will stop deformation after 1,2,3 or more seconds.

Manual drop: TAG1

Decay:
When you have used Life Span to stop the drop deformation after x seconds (before the natural lifetime) you get a hard cutoff to the dropwave. To smooth this cutoff please use the Decay.

Speed:
Acceleration of the wave using the entered value.
Values:
0 no acceleration
1000 accelerating 1000 times

Copy From Drop Tag:
You can drag and drop any drop tag into this field. This allows you to copy the geometry settings of these drops (Radius, Life Span, etc.).

Use drop:
It is easy to loose overview of what settings have to be changed, or if these settings have already been changed, especially when several drop tags have been used. Therefore, it is possible to disable the drop type.

Ticking the checkbox activates the drop type.

Use CoastMap:
If you want to use drops in combination with a coast map you can enable a coast map/ or the drop separately if you deactivate the coast.

Ticking the checkbox activates the coast.

Note:
Do not be surprised if some values may seem to cancel each other out. This is the in the nature of the drop geometry. For example, the drop may take longer to dissipate if Drop height has a very high value. Subsequently, the drop will take less time to dissipate if I change Drop length to a lower value.
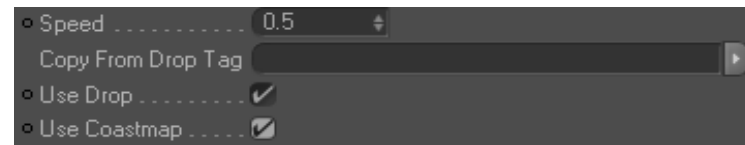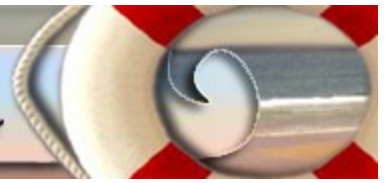
Manual drop: TAG1

Area distribution:

The parameters Min X/ Max X/ Min Z/ Max Z describe a square, or the range of action, using X and Z values. The drop field can be shifted by animating this parameter. This has an obvious advantage in comparison to Cinema 4D's move tool, because it will not alter the position of the drop system's center axis, which enables it to smoothly interact with a coast map.

You have to click the Edit Single Drop tab if you want to position individual drops. Take a look to the next page.
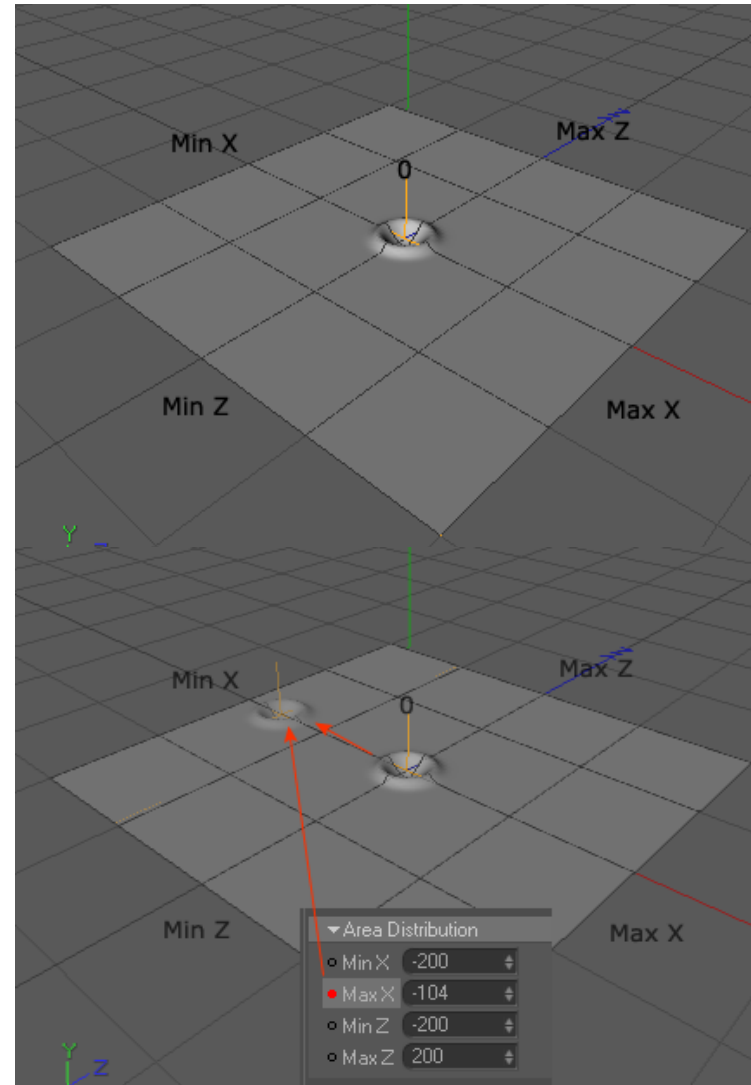
Manual drop: TAG1
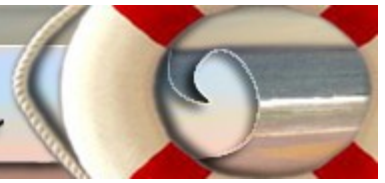
Edit single drop:

You can position each individual drop of the drop plugin in relation to the selected effective range here. All values of 50% will place the drops at the null object of the drop plugin. 100% shift the drop to the edge. If you would like to shift only one drop or shift several drops into different directions, you have to create a manual drop tag for each drop (so, start the plugin as often as the amount of planned drops) and hierarchically stack them among themselves. Therefore, the values of the effective range cannot be animated.

Contrary to the other drop types, manual drop will create the first drop automatically after the creation of the tag. You will have to press the New Drop button to create additional drops. This will create a new Manual drop within the existing drop type. The drop will be created at the time of the active frame. For example, if you go to frame 20 and press the New Drop button, the drop will start at frame 20. Consequently, frame 20 will also be displayed in Drop Start. Therefore, you can also edit the time of creation by altering the Drop Start value. If you enter a value of 50, the drop will start at frame 50. Each new drop will receive an incremental number according to the frame number, not its creation! In other words, it doesn't matter in which order you have created the drops, they will all be sorted according to their frame number.

Position X and Position Z will determine the starting position of the drops. I have used three different x positions and start values in the example on the right.

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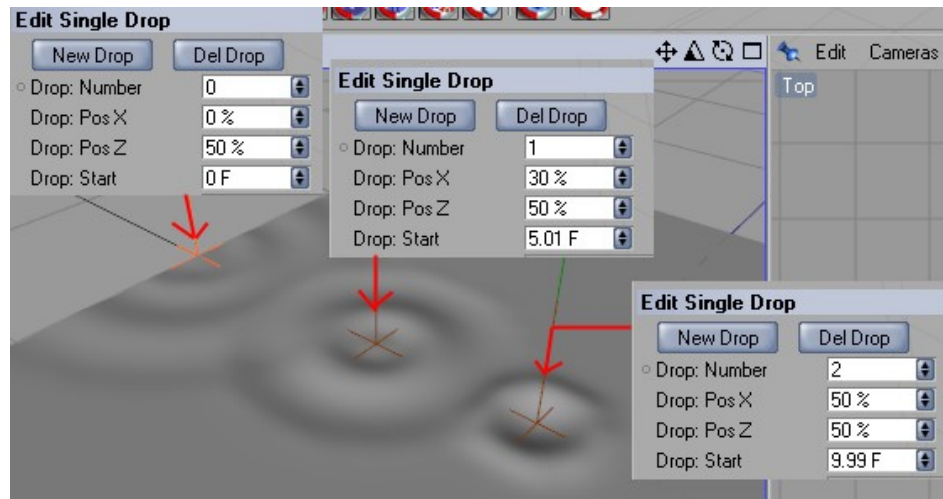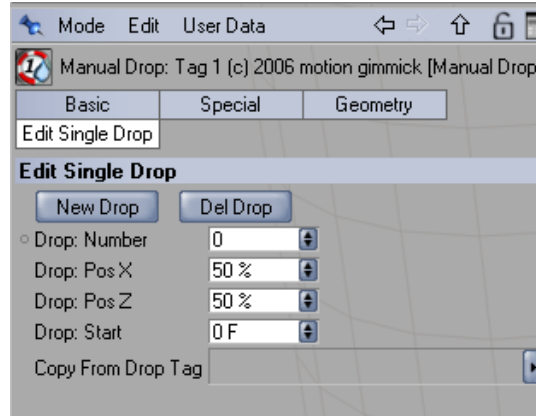
Manual drop: TAG1

Drop and Swimming
The plugin Swimming will be taken into account by this plugin.

Drop and Coast
The drops are taken into regard by the Coast from the start, but it is restrained. Drops are not produced on land and they do not form waves ashore.
However, the coast has no effects on the current.

Copy from drop tag
You can drag and drop any other drop tag into this field and, for example, change the impact- or random- drops into the identical amount of editable manual drops.

In the example on the right, rain drops were turned into manual drops. In this case, the tag with number 2 (Rain drop) was dragged into the Create From Drop Tag field of drop tag 1. You will now receive the same amount of manual drops as rain drops, which are all sorted according to frame numbers. You will now be able to edit each single manual drop with the available parameters of the Edit Single Drop menu, or you can turn them into impulse waves. You can disable these drops by ticking or unticking the Use Drop box (ticking = enabling)

Tip: mix the drop-waves with linear or radial waves.

23
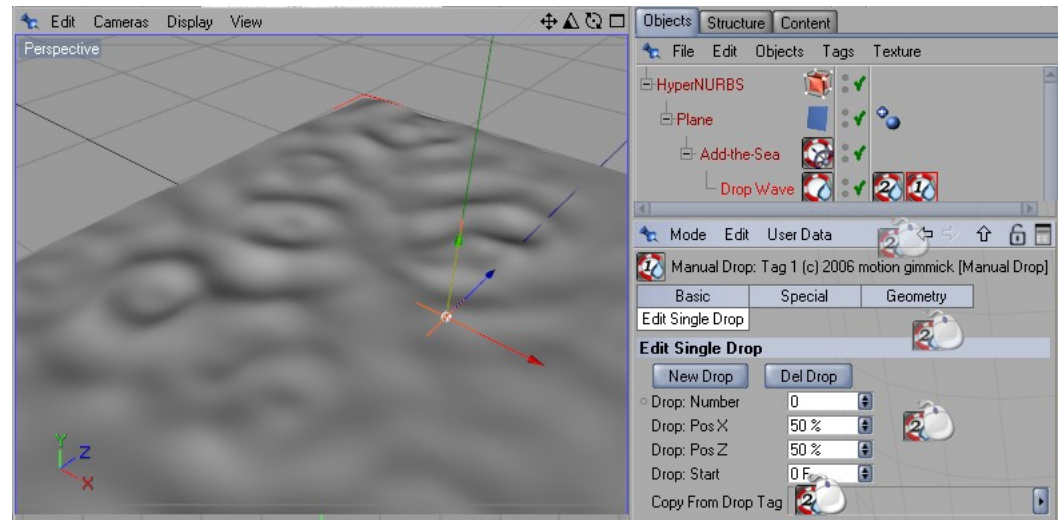
Impulse wave: TAG1

Using the plugin

This wave type is virtually identical to Manual drop, with the exception that it uses a linear approach. You will therefore find this function in the menu of Single-Drops.

The wave starts at the location of a null object and spreads into two directions.

Geometry

The Single-Drops can be instantly turned into a linear wave through the Impulse wave tab of the Manual drop-menu (AM). The geometry settings will remain unchanged.

An additional button can be found under the conversion button Impulse wave, namely direction, which is only useful in combination with linear waves.

This allows you to change and animate the degree\direction of the wave. All other parameters can be found under the geometry and Edit Single Drop AM-menu of the drop type.

24
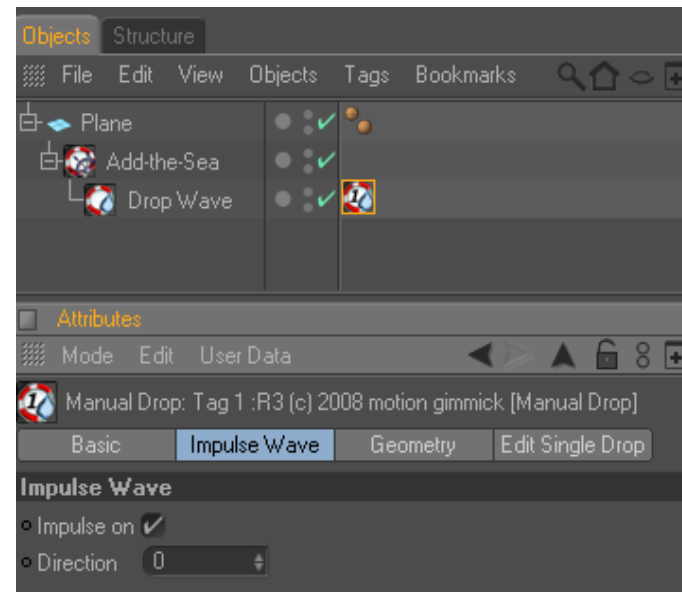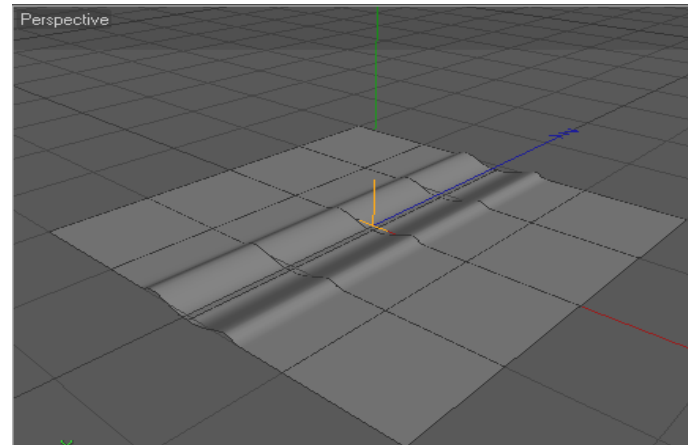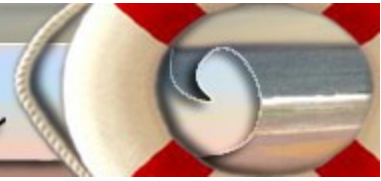
Impulse Wave: TAG1
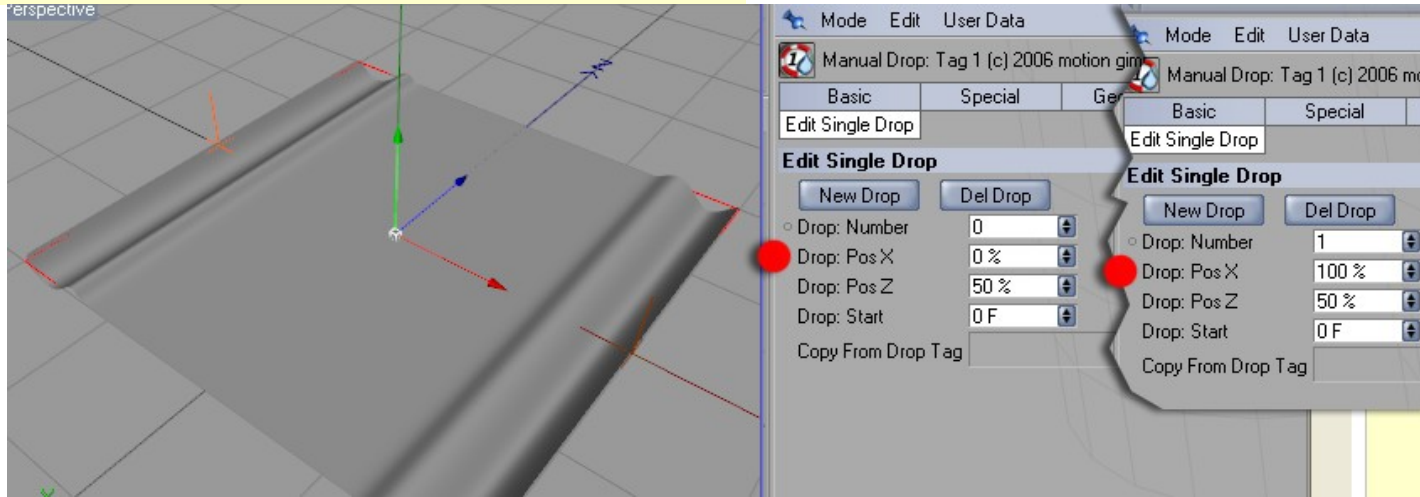
Example image (above):
Manual drop 0 and Manual drop 1 both start at frame 0, with opposite positions. The direction of the wave should not be changed. Only position X will be changed. After a few frames, the waves will cross each other.

If you change the start time of Single-Drop 1 to frame 0 and the Single-Drop 2 to frame 90 in Edit Single Drop, you will create the impression that the Impulse-Wave moves from the left to the right and retracts again.

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Rain drop: TAG2

Using the Plugin

Perform the following steps if you have to start from scratch.

Add the Drop plugin to your OM through the add-the-sea main plugin menu and order it as shown on the right:

The control panel of the drop plugin can be accessed after clicking on the Drop plugin in the Objects Manager, where you will be able to create Rain Drops. After clicking on Rain drop, a new tag with the number 2 will appear next to the drop object. The geometry settings for the Rain-Drops will become available when clicking on the tag. The menu fields in the attributes manager are explained below.

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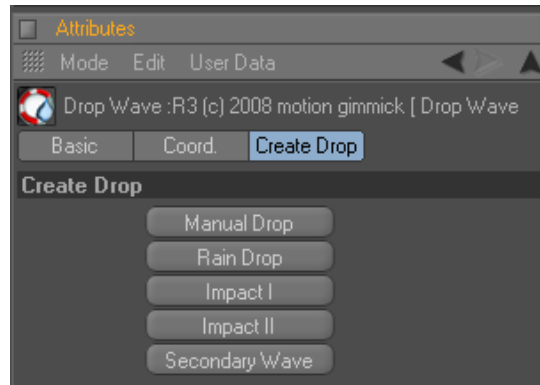
Rain drop: TAG2

Density

We should first change the number of drops In order to edit the geometry in a useful manner.

Count:

The amount of drop impacts in relation to the animation length can be altered by editing the drop count. An amount of 100 and 100 frames creates 100 drop impacts per individual frame.

Values:

Count: 0 = No drop impacts.

The Maximal value is infinite, but beware – The pc or mac might not be able to cope with a large amount of drops (10.000 +)!

Use material

Create a new material in the material editor, for example a noise shader, a bitmap, a mov or avi file, which can be dragged into the Material field.

The spatial dispersion of the Rain Drops will now be determined by the material.

The distribution of the drops can be particularly good using a plane of 400 x 400 with 60 subdivisions and small drop waves. The map size, which will be defined later on, plays an important role in the distribution of the drop impacts in the X/Z axis.

The material can be enabled or disabled by ticking or unticking the Use Material box.
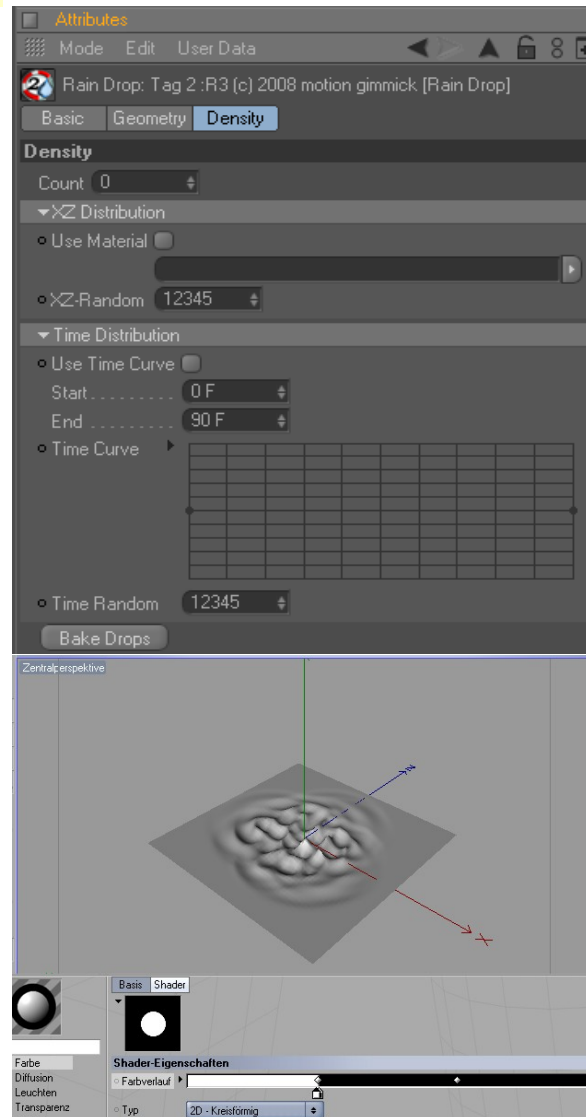
The bright area of the material distributes the drops.

Rain drop: TAG2

X/Z Random
Random value for the dispersion of the drop impacts.

Use Time Curve
Here you can adjust the time in which the impact drops should be distributed (not to be confused with the duration). Therefore, you can use a spline to determine the distribution.

Time Random
Here a value for the coincidental distribution of the drops can be entered within the selected time.

The amount of rain drops in each frame will remain constant over time:
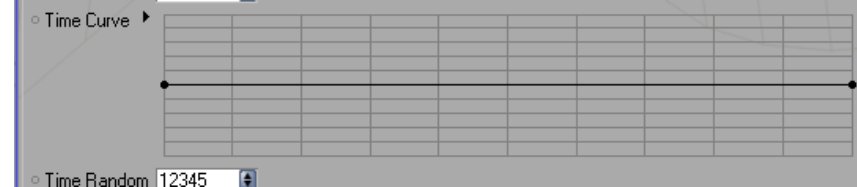
The amount of rain drops increases over time:
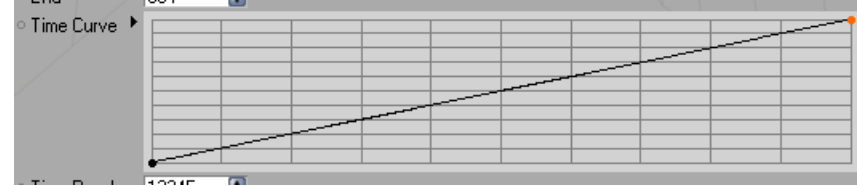
Bake : Changes of the values in the density tab should be baked.
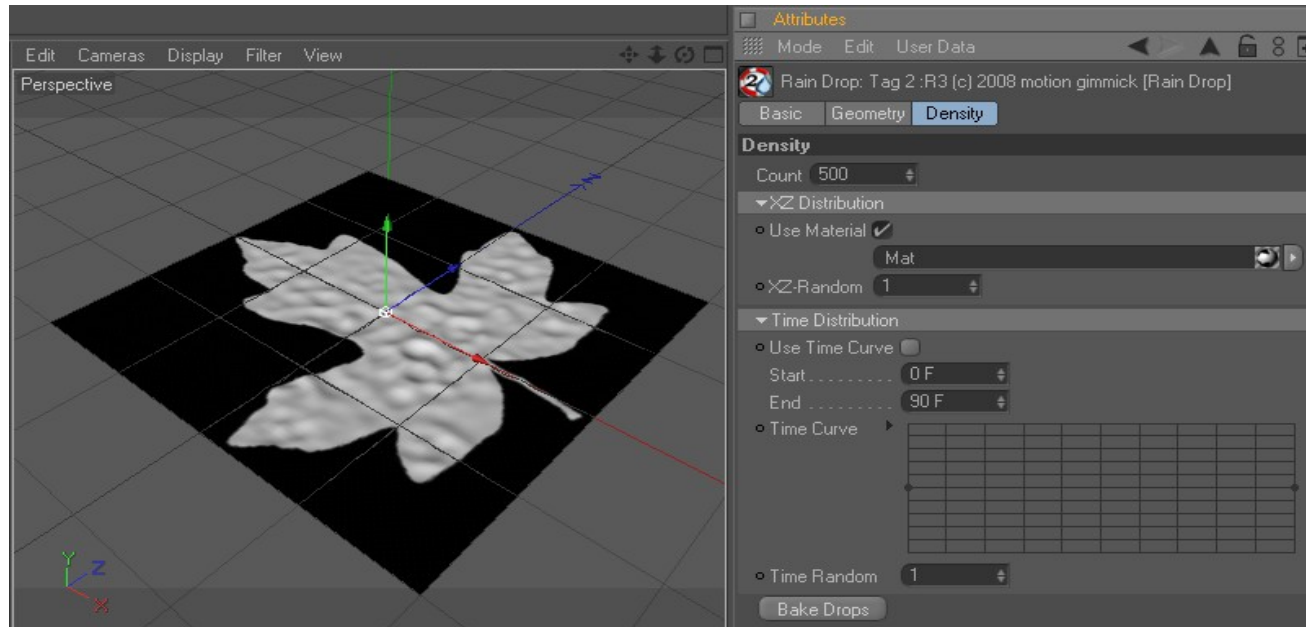
Rain drop: TAG2

Geometry

This drop type has been created in such a way that the highest wave is created at the null object of the Drop plugin and it radially decreases in height when moving outward, while it increases in speed.

Radius
The wave's length from the center to the edge of the wave.

Drop: Height
Drop's height or Height of the drop wave.
Values:
0% till 99% for the maximum height of the wave

Life Span/sec:
Each drop has a natural lifetime according to Radius, Height and Speed. With **Life Span** the user can cut this lifetime after user defined seconds. Each drop now will stop deformation after 1,2,3 or more seconds.

Decay:
When you have used Life Span to stop the drop deformation after x seconds (before the natural lifetime) you get a hard cutoff to the dropwave. To smooth this cutoff please use the Decay.

Speed:
Acceleration of the wave using the entered value.
Values:
0 no acceleration
1000 accelerating 1000 times

Attributes

Mode   Edit   User Data

Rain Drop: Tag 2 :R3 (c) 2008 motion gimmick [Rain Drop]

Basic   Geometry   Density

Geometry
- Radius   30
- Height . . . .   25 %
- Decay . . . .   50 %
- Life Span/sec   10
- Speed 0.5
  Copy From Drop Tag:
- Use Drop . . . .   ✔
- Use Coastmap . . . . .   ▢
▼ Area Distribution
- Min X   -200
- Max X   200
- Min Z   -200
- Max Z   200

Use drop:

It is easy to loose overview of what settings have to be changed, or if these settings have already been changed, especially when several drop tags have been used. Therefore, it is possible to disable the drop type.

Ticking the checkbox activates the drop type.

Use CoastMap:

If you want to use drops in combination with a coast map you can enable a coast map/ or the drop separately if you deactivate the coast.

Ticking the checkbox activates the coast.

Area distribution:

The parameters Min X/ Max X/ Min Z/ Max Z describe a square, or the range of action, using X and Z values. The drop field can be shifted by animating this parameter. This has an obvious advantage in comparison to Cinema 4D's move tool, because it will not alter the position of the drop system's center axis, which enables it to smoothly interact with a coast map.

Tip:

Lastly, these rain drops can also be turned into manual drops.
- Create a Manual Drop
- Drag and drop tag 2 into the Edit Single Drop menu.
- Deactivate Drop active in drop tag 2.

Now drop tag 1 creates the same number of manual drops as Rain drops.

Obviously, the drops can be turned into Impulse-Waves as well through the menu of drops 1.

Important:

Normally, the influence of the coast map only starts with the first key frame of your drop sequence. In case of a manipulated coast level by the usage of the land-offset parameter (similar to a displacement map), it is recommended to add a continuous wave to the hierarchy (linear/turbulence or radial wave). In order to get the coast effect itself without a visible wave, you just have to set the waves height to 0.
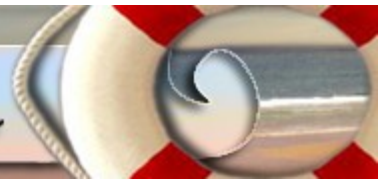
As a consequence the displacement of the coast will now start from frame 0, while the drop wave might start at a different frame

Impact drop 1: TAG3

Using the Plugin

Perform the following steps if you have to start from scratch.

Add the Drop plugin to your OM through the add-the-sea main plugin menu and order it as shown on the right:

Tag 3 is created by clicking on the **Impact I** button.

For this drop you need an animated object crossing the waterplane from Y+ to Y- or Y- to Y+.
For example a stone is falling into the water (once or more times).
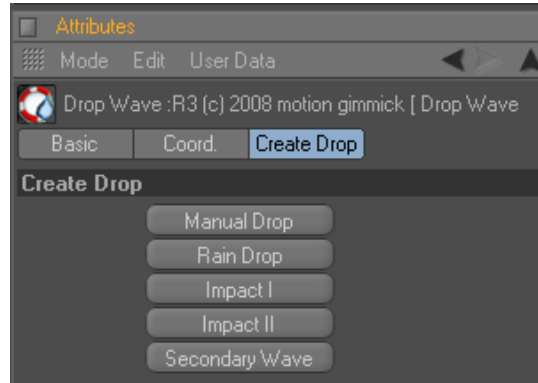
Impact drop 1: TAG3

Geometry
This drop type has been created in such a way that the highest wave is created at the null object of the Drop plugin and it radially decreases in height when moving outward, while it increases in speed.

Radius
The wave's length from the center to the edge of the wave.

Drop: Height
Drop's height or Height of the drop wave.
Values:
0% till 99% for the maximum height of the wave

Life Span/sec:
Each drop has a natural lifetime according to Radius, Height and Speed. With **Life Span** the user can cut this lifetime after user defined seconds. Each drop now will stop deformation after 1,2,3 or more seconds.

Decay:
When you have used Life Span to stop the drop deformation after x seconds (before the natural lifetime) you get a hard cutoff to the dropwave. To smooth this cutoff please use the Decay.

Speed:
Acceleration of the wave using the entered value.
Values:
0 no acceleration
1000 accelerating 1000 times

Attributes		
Mode Edit User Data		
Impact Drop (falling): Tag 3 :R3 (c) 2008 motio		
Basic	Geometry	Create Impact

Geometry

Geometry		
○ Radius	100	↕
○ Height	25 %	↕
○ Decay	50 %	↕
○ Life Span/sec	10	↕
○ Speed	0.5	↕
Copy From Drop Tag:		
○ Use Drop	✔	
○ Use Coastmap	▢	

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Impact drop 1: TAG3

Copy From Drop Tag:

You can drag and drop any drop tag into this field. This allows you to copy the geometry settings of this tag (height, length, etc.). This option is available for all drop types.

Use drop:

It is easy to loose overview of what settings have to be changed, or if these settings have already been changed, especially when several drop tags have been used. Therefore, it is possible to disable the drop type.

Ticking the checkbox activates the drop type.

Use CoastMap:

If you want to use drops in combination with a coast map you can enable a coast map/ or the drop separately if you deactivate the coast.

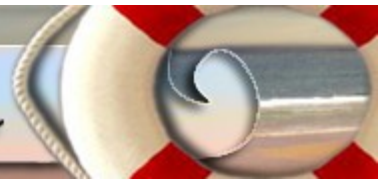Ticking the checkbox activates the coast. The effective range of the drops is also defined by parameters in order to be able to position drops on large surfaces. The parameters describe a square using the X and Z values.

The larger the square (Maximum=1000), the larger is the clearance to position the drop. The entire drop, including all manual-drops, can be moved by animating these parameters.

Important:

Normally the influence of the coast map only starts with the first key frame of your drop sequence. In case of a manipulated coast level by the usage of the land-offset parameter (similar to a displacement map), it is recommended to add a continuous wave to the hierarchy (linear/turbulence or radial wave).

In order to get the coast effect itself without a visible wave, you just have to set the waves height to 0.

As a consequence the displacement of the coast will now start from frame 0, while the drop wave might start at a different frame.

Tip:

Use a helix spline to create a whirl. Animate the rotation of the Y-axis and let it move through the water surface. Lastly, change a few settings until you obtain the desired result.
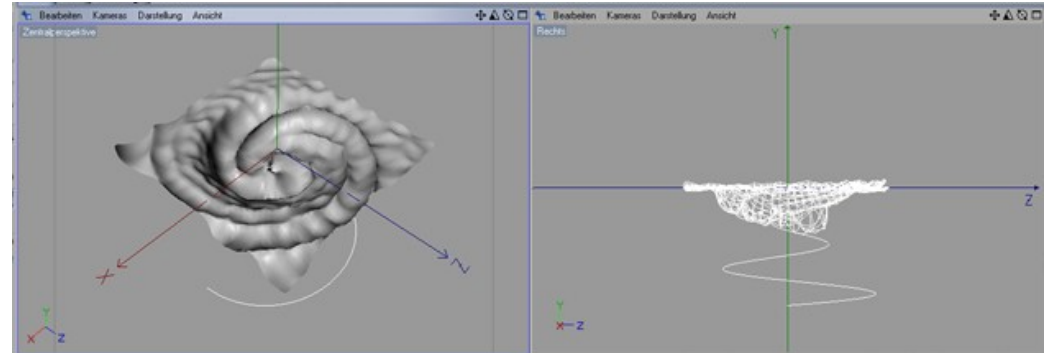
Helix spline as an impact object, and „pressed" with Tweenblob.

Impact drop 1: TAG3

Create Impact

The menu enables certain options if the chosen object from the objects manager supports these features (Use children/Point selection/All points). If none of the options are active, the object will be used for impact drops the way it has been supplied.

Please make sure that you have created a point selection tag (selection -> set selection) prior to using the Point selection option. The children option allows you to use all subobjects of a selected object, except for the selected object itself.

Create Drop:

Here you can select which impacts should be taken into regard.
Impacts are created using the following interactions with the water surface:

Down

The impact object moves from
Y+ to Y-

Up

The impact object moves from
Y- to Y+

Up and Down:

The impact is now created by objects moving into both directions.

Start: Start time of the drops created by impacts.

End: End time of the drops created by impacts.

Note:

Changes of values will have to be baked before they will be taken into account.
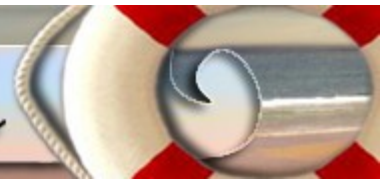
Lastly, these impact drops can also be turned into manual drops.
- Create a Manual Drop
- Drag and drop tag 3 into the Edit Single Drop menu.
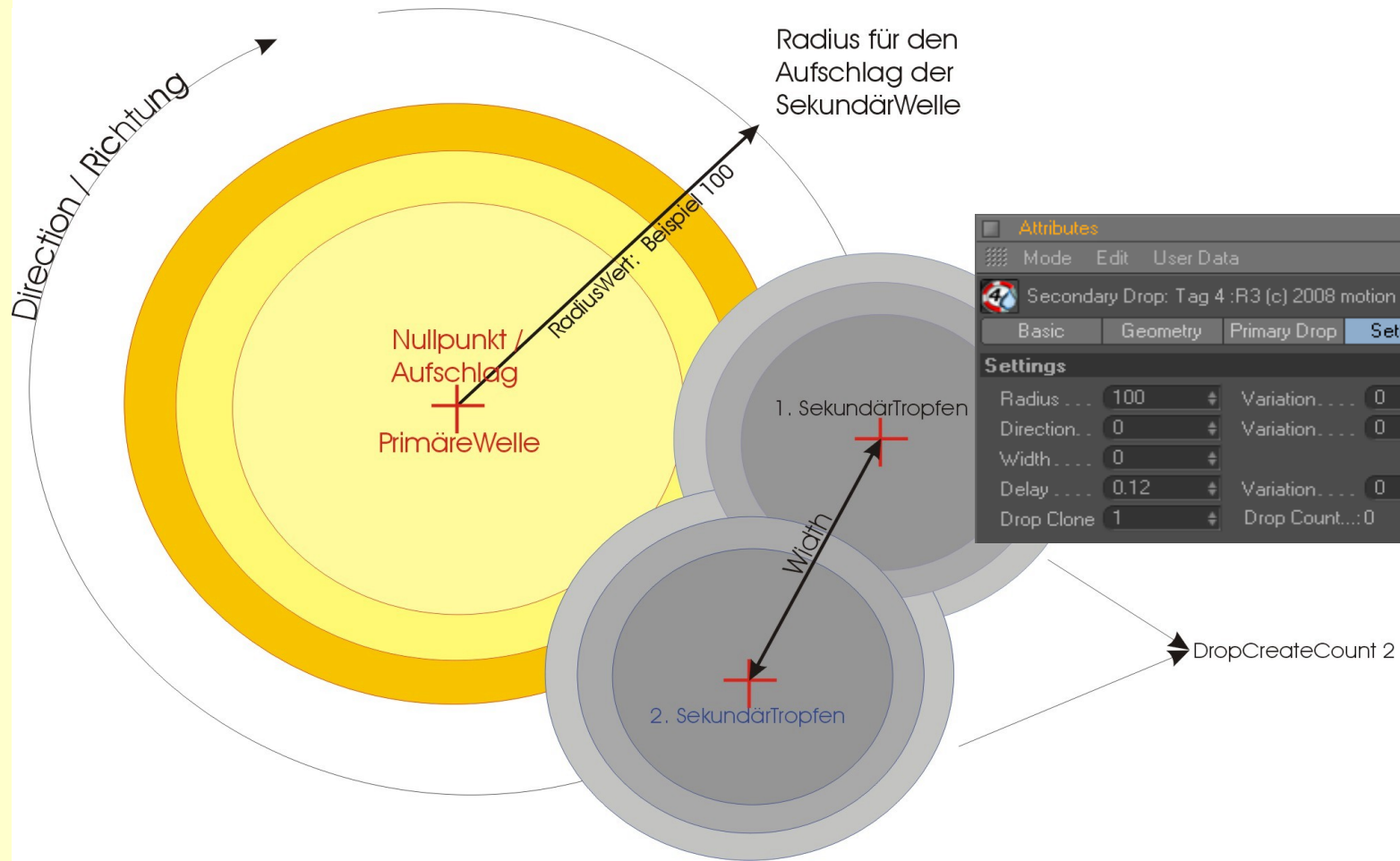- Deactivate Drop active in drop tag 3.

...and

Obviously, you can change these drops into impulse waves. This option can be found in the manual drop menu.

Secondary drop wave: TAG4

Using the plugin

The Secondary drop wave is a successive wave, which finds its origin around the border or at the center of a primary drop (depending on a radius).

An object reacts with the water surface and creates an impact wave – Secondary drop wave reacts to the wave created by the impact (splashes, echo waves).

Hierarchy:

The tag for the secondary drop can be created through the Manual drop of the attributes manager. It can be added to a
Manual Drop
Impact I
Impact II
Impulse Wave
Rain Drop

It can be recognized by tag number 4.
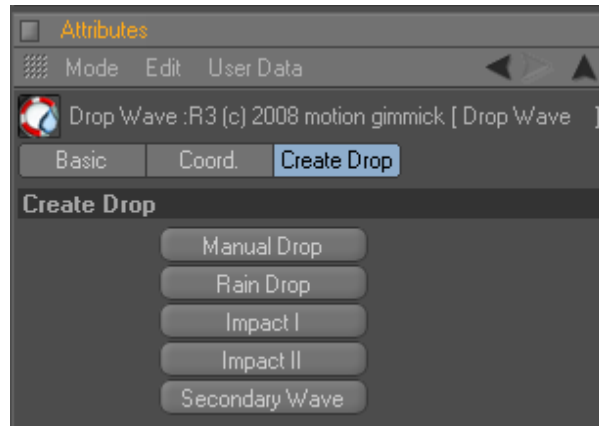
Clicking the button called Secondary Wave will create Tag Nr. 4

Secondary drop wave: TAG4

Geometry

This drop type has been created in such a way that the highest wave is created at the null object of the Drop plugin and it radially decreases in height when moving outward, while it increases in speed.
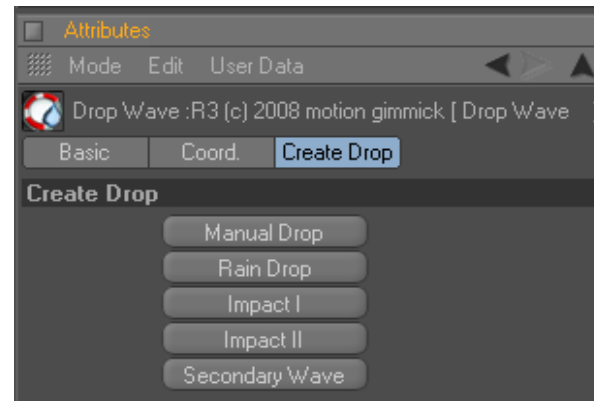
Radius

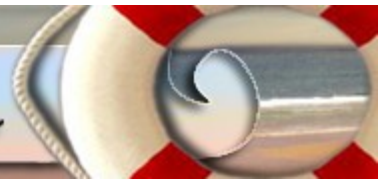The wave's length from the center to the edge of the wave.

Drop: Height

Drop's height or Height of the drop wave.

Life Span/sec:

Each drop has a natural lifetime according to Radius, Height and Speed. With **Life Span** the user can cut this lifetime after user defined seconds. Each drop now will stop deformation after 1,2,3 or more seconds.

Decay:

When you have used Life Span to stop the drop deformation after x seconds (before the natural lifetime) you get a hard cutoff to the dropwave. To smooth this cutoff please use the Decay.

Speed:

Acceleration of the wave using the entered value.
Values:
0 no acceleration
1000 accelerating 1000 times

Attributes	
Mode Edit User Data	

Secondary Drop: Tag 4 :R3 (c) 2008 motion gimmick [Secondary Drop

| Basic | Geometry | Primary Drop | Settings |

Geometry

○ Radius	100	↕
○ Height	25 %	↕
○ Decay	50 %	↕
○ Life Span/sec	10	↕
○ Speed	0.5	↕
Copy From Drop Tag:		▶
○ Use Drop	✔	
○ Use Coastmap	▢	

▼ Area Distribution

○ Min X	-200	↕
○ Max X	200	↕
○ Min Z	-200	↕
○ Max Z	200	↕
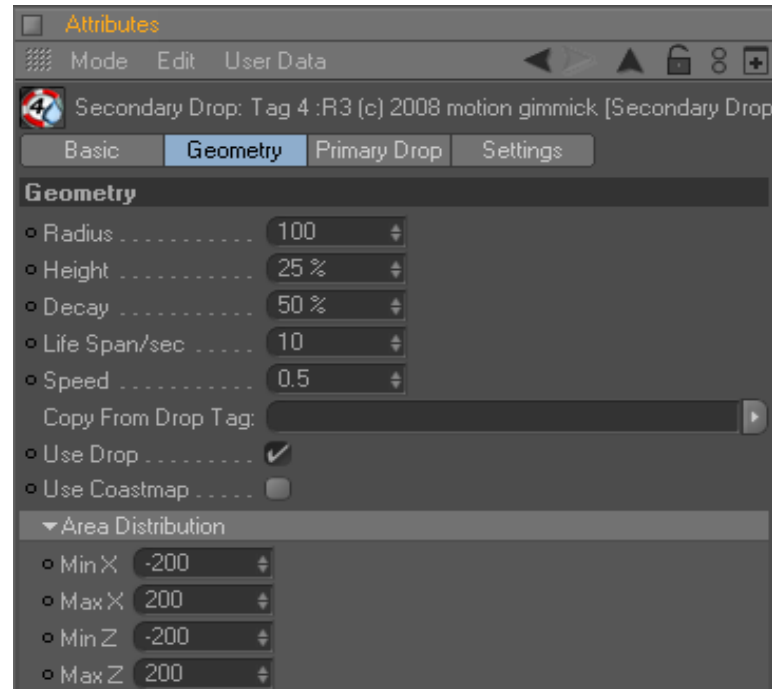
Secondary drop wave: TAG4

Copy From Drop Tag:
You can drag and drop any drop tag into this field. This allows you to copy the geometry settings of this tag (height, length, etc.). This option is available for all drop types.
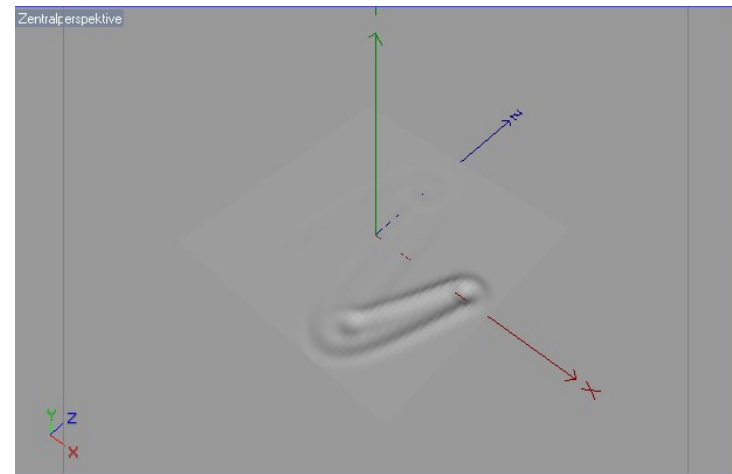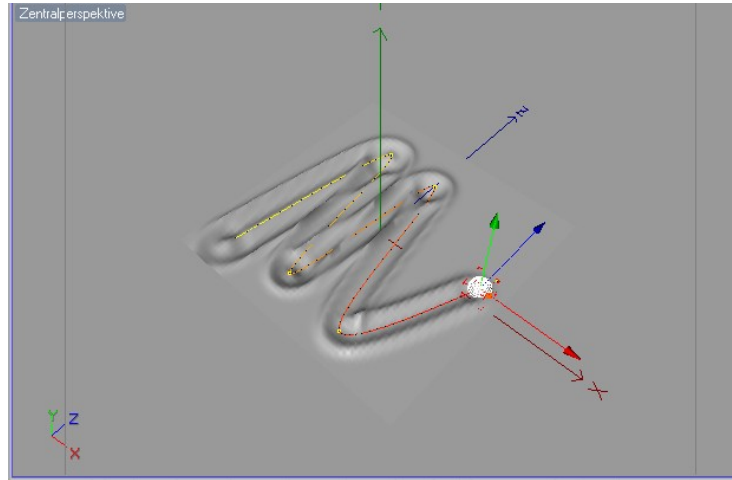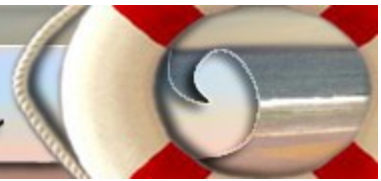
Use drop:
It is easy to loose overview of what settings have to be changed, or if these settings have already been changed, especially when several drop tags have been used. Therefore, it is possible to disable the drop type.
Ticking the checkbox activates the drop type.

Use CoastMap:
If you want to use drops in combination with a coast map you can enable a coast map/ or the drop separately if you deactivate the coast.
Ticking the checkbox activates the coast. The effective range of the drops is also defined by parameters in order to be able to position drops on large surfaces. The parameters describe a square using the X and Z values.

The larger the square (Maximum=1000), the larger is the clearance to position the drop. The entire drop, including all manual-drops, can be moved by animating these parameters.

Secondary drop wave: TAG4
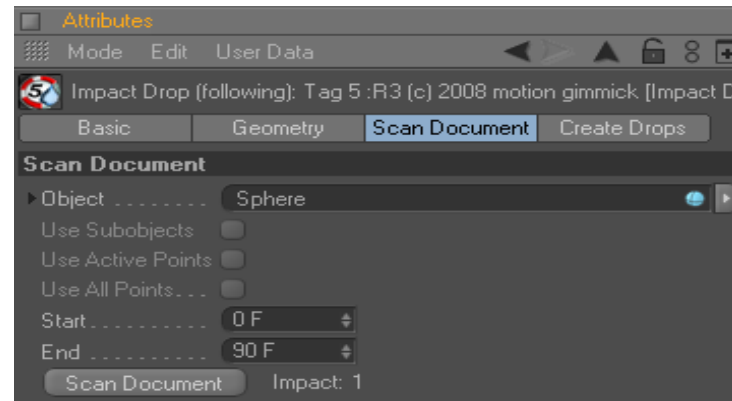
Primary Drop:

Input Drop Tag
This field allows you to drag and drop the drop type for which you want to create Secondary drop waves. The chosen drop tag, with its characteristic tag number, will appear next to the Input Drop Tag field as soon as the drop type has been accepted.

Update drop
This option allows you to Here update the geometry of the Secondary-Wave automatically without using cache.

Recommendation: Always bake your drops if possible, as it decreases the workload of your PC/Mac.
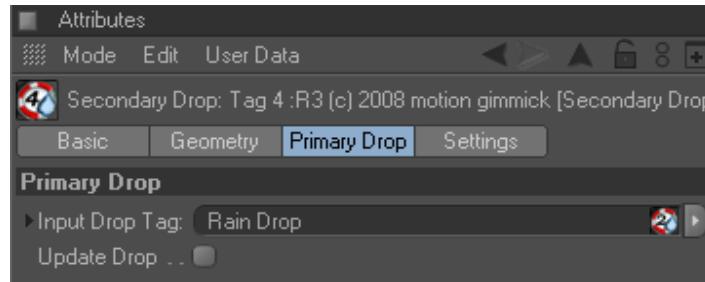
Lastly, these impact drops can also be turned into manual drops.
- Create a Manual Drop
- Drag and drop tag 4 into the Edit Single Drop menu.
- Deactivate Drop active in drop tag 4.

...and

Obviously, you can change these drops into impulse waves. This option can be found in the manual drop menu.

Secondary drop wave: TAG4

Distribution of Secondary drop waves and its settings

Direction / Richtung

Radius für den
Aufschlag der
SekundärWelle

RadiusWert: Beispiel 100

Nullpunkt /
Aufschlag

PrimäreWelle

1. SekundärTropfen

Width

2. SekundärTropfen

DropCreateCount 2

Attributes

Mode   Edit   User Data

Secondary Drop: Tag 4 :R3 (c) 2008 motion gimmick [Secondary Drop

Basic   Geometry   Primary Drop   Settings

Settings

Radius . . .	100		Variation. . . .	0	
Direction. .	0		Variation. . . .	0	
Width	0				
Delay	0.12		Variation. . . .	0	
Drop Clone	1		Drop Count...: 0	

Secondary drop wave: TAG4

Settings

Radius
Describes the distance between the point of impact of the primary wave (any drop tag) and the point of impact of the Secondary-Wave.

Values: 0 – 2000 units

Direction
Secondary drop waves can be positioned from 0 to 359.99 degrees around an imaginary circle placed at the center of a primary wave.

Values: 0 – 359,99 degrees

Width
Distance of the Secondary-Waves in relation to each other from impact point to impact point.

Values: 0 – 280 Units

Delay
Time period/delay between the primary drop and the creation of all Secondary drop waves.

Values: 0 – 100 units

Drop clone
The amount of Secondary-Waves

The following example displays a primary wave, or impact drop, as the center of the Secondary drop waves. The Secondary drop waves were made more visible by increasing the height. They will be created with a slight delay compared to the primary wave (time 0.12). The drop count value displays the exact amount of Secondary drop waves.

Variation: determines the coincidental deviation compared to the chosen values.
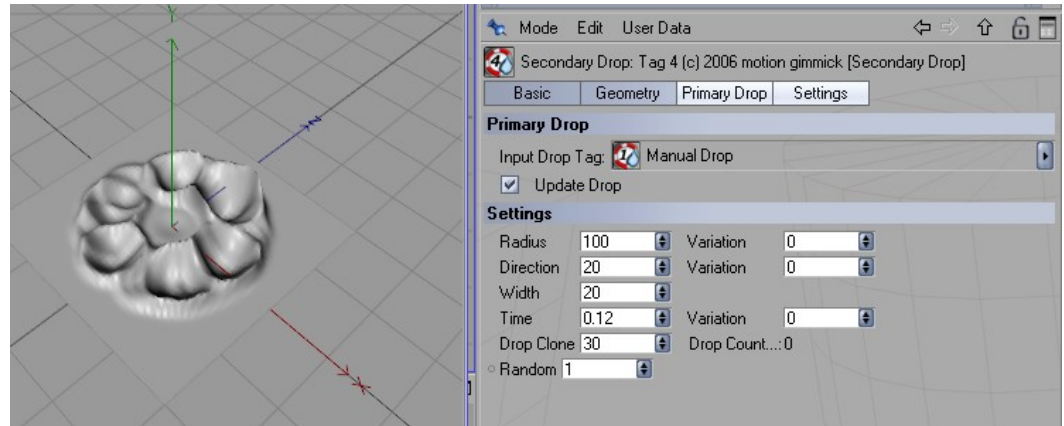
Impact drop 2: TAG5

Using the plugin

Perform the following steps if you have to start from scratch.

Add the Drop plugin to your OM through the add-the-sea main plugin menu and order it as shown below:

Geometry
This drop type has been created in such a way that the highest wave is created at the null object of the Drop plugin and it radially decreases in height when moving outward, while it increases in speed.

Radius
The wave's length from the center to the edge of the wave.

Drop: Height
Drop's height or Height of the drop wave.

This drop type is suitable for water tracks. It can be used in combination with impact drops I, but it may not produce the desired results.

Clicking the button called Impact drop II will create Tag Nr. 5
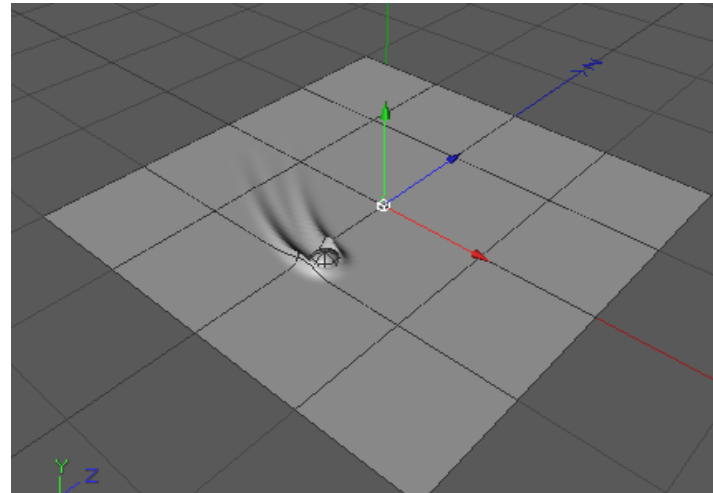
Impact drop 2: TAG5

Life Span/sec:
Each drop has a natural lifetime according to Radius, Height and Speed. With **Life Span** the user can cut this lifetime after user defined seconds. Each drop now will stop deformation after 1,2,3 or more seconds.

Decay:
When you have used Life Span to stop the drop deformation after x seconds (before the natural lifetime) you get a hard cutoff to the dropwave. To smooth this cutoff please use the Decay.

Speed:
Acceleration of the wave using the entered value.
Values:
0 no acceleration
1000 accelerating 1000 times

Area distribution:
The parameters Min X/ Max X/ Min Z/ Max Z describe a square, or the range of action, using X and Z values. The drop field can be shifted by animating this parameter. This has an obvious advantage in comparison to Cinema 4D's move tool, because it will not alter the position of the drop system's center axis, which enables it to smoothly interact with a coast map.
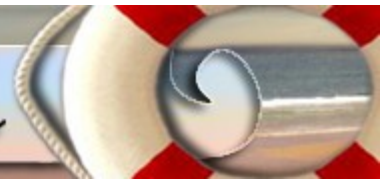
Impact drop 2: TAG5

Use drop:

It is easy to loose overview of what settings have to be changed, or if these settings have already been changed, especially when several drop tags have been used.

Therefore, it is possible to disable the drop type. Ticking the checkbox activates the drop type.

The trace-wave below has an extremely long life span and was created using a sphere.

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Impact drop 2: TAG5

Use CoastMap:
If you want to use drops in combination with a coast map you can enable a coast map/ or the drop separately if you deactivate the coast.

Ticking the checkbox activates the coast. The effective range of the drops is also defined by parameters in order to be able to position drops on large surfaces. The parameters describe a square using the X and Z values.

The larger the square (Maximum=1000), the larger is the clearance to position the drop. The entire drop, including all manual-drops, can be moved by animating these parameters.

Scan Document
Object:
Drag and drop the animated object that should create the impact 2 drops into this field. This will create a track, along which the impact 2 drops will be formed. There are several options available which will allow you to create a track:

Use Children
Only the children of the selected object will be used to create the track, not the selected object itself.

Point Selection
First, create a selection tag of the selected points. Subsequently, drag the selection tag into the point selection field. As a result, these points will create drop tracks.

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Impact drop 2: TAG5

Use all points
All points of a particular object will create drop tracks.

You have to create a point selection tag if you want to use a point selection. The function "children" will use all subobjects of an object, but not the main object itself.

Start
Determines when the creation of impact 2 drops should start.

End
Determines when the creation of impact 2 drops should end.

Scan document
The amount of impact 2 drops between the start and end time will be calculated as soon as you press this button.

Create Drops
Impact count:
Checks the amount of impacts, which were previously calculated by Scan Document.

Always:
The object will always create a track, no matter if the object is above, under or on the water surface.

The other buttons are self explanatory:

Object above water:
Creates drops as long as the object is located above the water (Y+).

Object under water:
Creates drops as long as the object is located under water (Y-).

Impact drop 2: TAG5

Drop distribution
This determines the placement of the drops (X/Z) on the water surface. The drops are either created at even or coincidental distances from each other along the track.

Use Spline allows you to determine the distribution of the drops over time.

Density Time*:*
Increase the amount of hits in relation to the entered value.

Density Height:
Distribution of the drops while taking in regard Y-movement of the object creating the drops. Is the colliding object nearer to the waterplane more drops will be taken. Is it far below the waterplane the dropcounts will be reduced.

Create manual drops.
Lastly, these impact drops can also be turned into manual drops.
- Create a Manual Drop
- Drag and drop tag 5 into the Edit Single Drop menu.
- Deactivate Drop active in drop tag 5.

Even Distance. All dropclones will have the same distance

Random Distance. Random parameter will rule the distance of the dropclones.

You have to **bake** each parameter changing in this menu.

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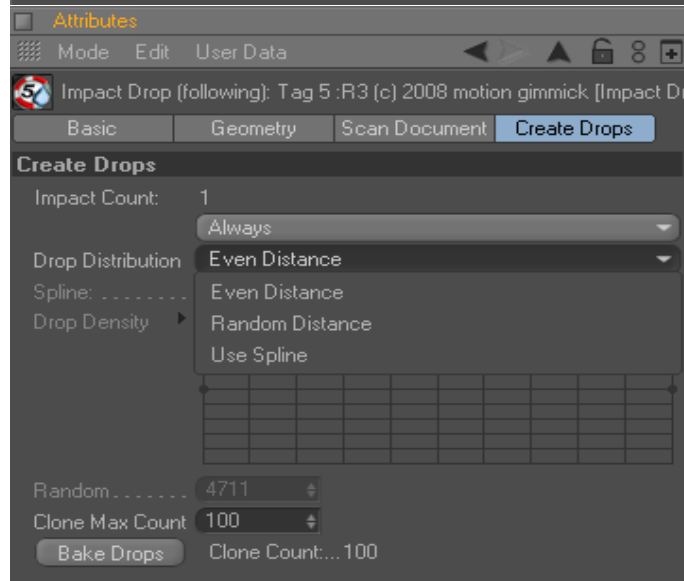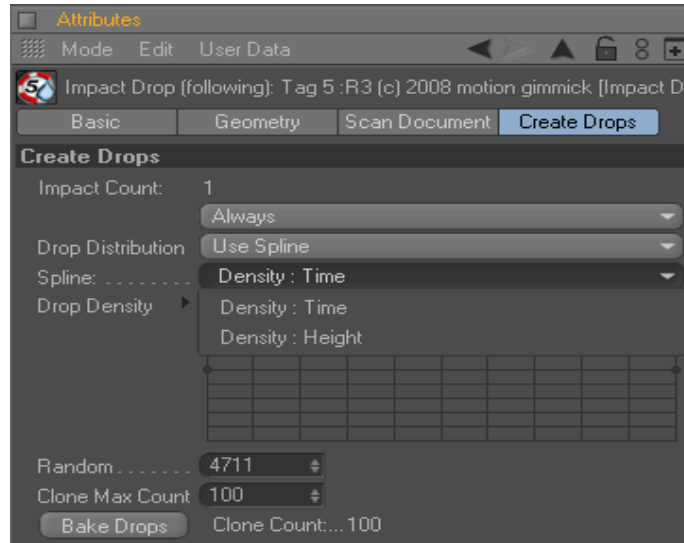
9. UVW Deformation

The UVW plugin strictly deforms primitive and polygonal objects with usable UVW maps.

Using the plugin.

First start the UVW plugin through C4D's plugin menu.

Secondly, start the Add-The-Sea main plugin object and place it hierarchically under the UVW Plugin. Thirdly, place a wave object as a child of the UVW Plugin. The created hierarchy can now be placed under a polygonal object. If the plugin fails to perform correctly, it is most certainly due to a faulty UVW map!!

What steps have to be performed when the UVW map is faulty?

Delete the UVW TAG.

Add a material to your object and change the mapping method to an appropriate type (sphere, cubic, flat mapping etc.). Subsequently, create a new tag using the Cinema function „Generate UVW coordinates ".

(For more information, check the Cinema Reference manual)

Plugin foundations

The UVW plugin projects planar waves onto the UVW coordinates of an object. You can alter the size of the projection under UVW_Projection in the attribute manager of the UVW plugin. If you activate show grid, you will see the actual surface onto which the waves are being projected. Thus, we have a surface onto which the waves are created and whose X/Y/Z coordinates are being transferred to the UVW map.

C4D-
Function

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UVW deformation

UVW Projection

U-Factor / V-Factor / W-Factor

These three parameters govern how strongly the planar waves of the surface should be transferred to the UVW map: I have e.g. enormous waves, but only a small ball. It is possible to manipulate the wave in such a way that it fits the small ball, by scaling it appropriately using the UVW factor. The smaller the value, the more the wave will be absorbed along the respective axis.

The user can now distort polygonal objects by actively altering the wave height and the UVW projection (caution, obviously also beyond the point of recognition). The UVW deformation in Add-The-Sea 2006 is fore mostly used to animate particles. Experience has shown that the **U-Factor** produces the best results with values of 1 and lower, while values higher than 100 can be useful for particle animations.
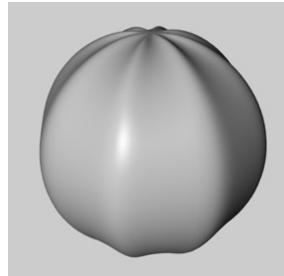
UVW Deformation: no wave, relatively low wave height.
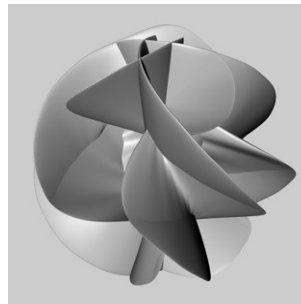
UVW Deformation large waves, relatively high waves + altered wave direction.

UVW Deformation

Virtual Wave Object

The indicated surface is defined through the parameters onto which the waves are projected. The area can be made smaller or larger and it can be subdivided, in order to make the waves more visible.
0= Nullobject
The wave size remains the same. However, the projection changes during the transmission of the applied settings onto the UVW map.

The most important parameters can be found in the AM menu of the plugin:
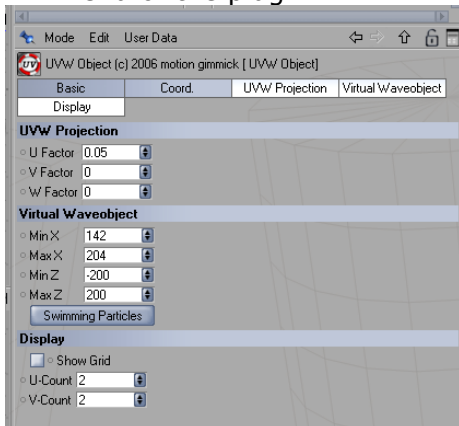
Change the U-Factor value to 0.05

This setting (U-Factor) will produce the following results: Values of and above 1 will further enlarge the polygonal object and the parts will become thicker. When experimenting with the length and the height of the waves while leaving the U-Factor unchanged, you will notice that it has a strong influence on the deformation of the object. The smaller the value, the less thickly the deformation will become and visa versa.

Example:
Add a sphere to your scene. Do not change the standard settings :
Radius: 100
Segments: 24

Create the hierarchy shown below:
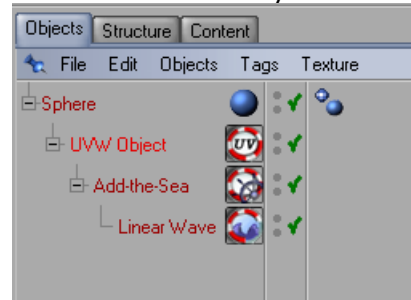
For now, the sphere will remain unchanged.
You can now change the sequential parameters which affect the UV deformation.

The wave is now so large that it encompasses the entire object:

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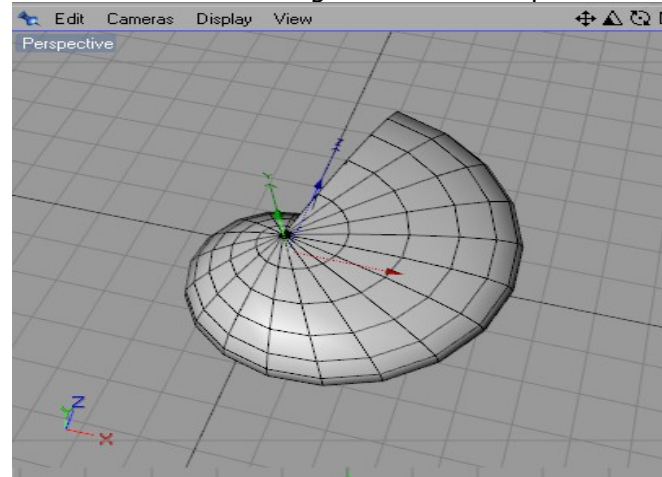
UVW Deformation

The UV-plugin will deform the sphere with one giant wave in relation to the null object if you use a wavelength of 1000. This can be easily reconstructed in the display of the UVW Plugin.

The W Factor

Changing the W Factor of these small waves to a higher value will affect the subdivision of the waves. The sphere will look like the one in screenUV02 when using a wavelength of 100:
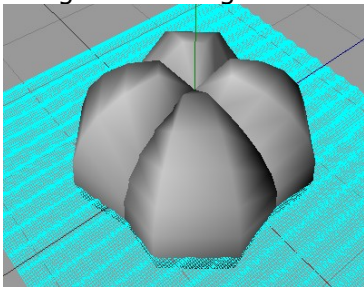
The irregularities disappear by increasing the W-Factor. This example uses the maximum W-Factor 100.

Now turn the wave 10 degrees in the AM and you will obtain the following result:
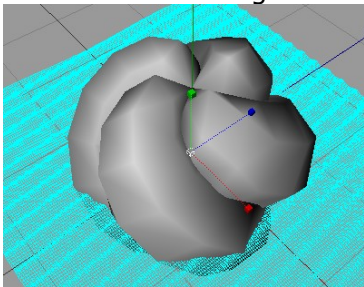
The sphere will hardly be deformed If you use a wavelength of 10:
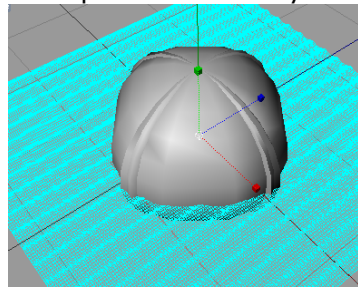
Subsequently, change the mode of the sphere to hexagonal, which will produce a completely different result. We hope that this example will bring out the explorer in you ;o)
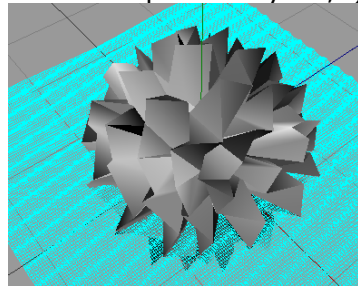
10. Swimming

Plugin foundations

The Swim tag governs two different types of swimming. On the one hand, the swimming function of individual objects with their own, individual movements. On the other, the swimming system for particles, which uses different rules, since the particles are created from within c4d using one object (particle emitter). In addition, it is possible to control the swimming motion using control objects.

Screen01:

Using the plugin

Using the TAG

Simply drag and drop the appropriate object into the „Create tag" field (Attributes manager of the Add-The-Sea main plugin => swimming tab). A new tag will appear next to the object, which allows you to change and keyframe values found in the attributes manager (screen 01).

Screen 02 shows the parameters which are available for single objects. The option Use emitter is bright and therefore inactive when using single objects.
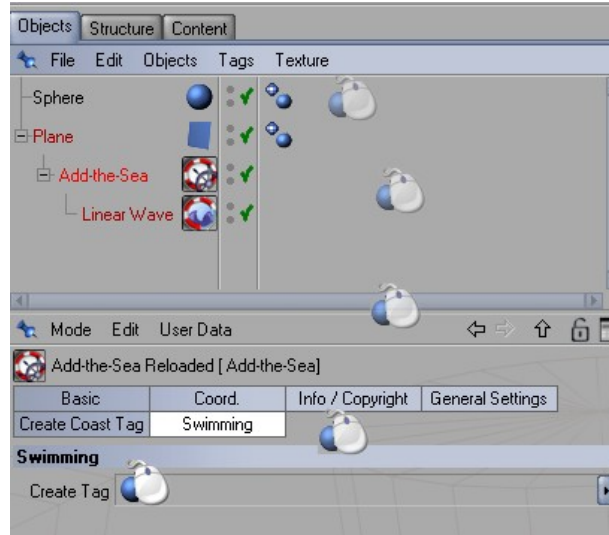
Screen 02:
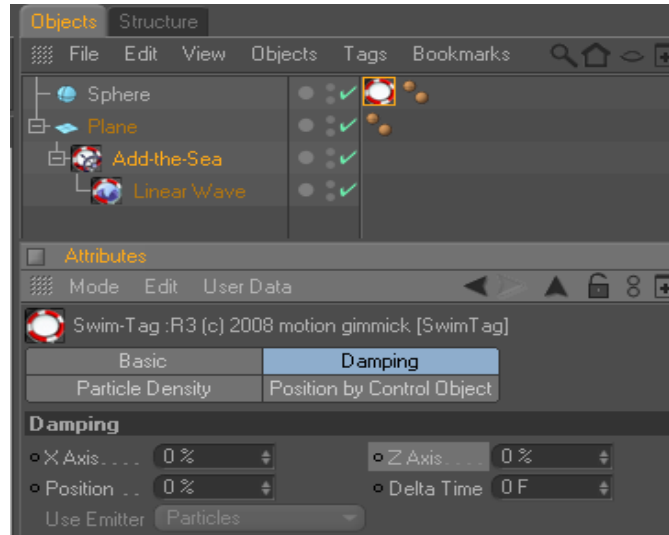
Swimming

Screen 03 shows a sphere with an added floating tag. Please only use the above mentioned method to create the floating tag (through the Add-The-Sea main plugin), because the floating data and several other functions of Add-The-Sea are prepared at this location.

Screen03:   03:

Note:
Floating requires at least one recorded position at frame 0. The track which appears in the timeline is required, but cannot and does not need to be altered by the user!

The position of Emitter particles are governed completely different. The position is calculated entirely using a virtual plane and X/Y/Z – parameters are fixed.

Objects without position and rotation keys

At the moment, the object with the floating tag will follow the wave at the time (frame) that the tag has been added to the object. It can be moved freely over the water surface and can be keyframed at any time. You do not have to pay attention to the Y position, as swimming will move the object along the y axis of the wave.

Therefore, it is possible for an object without recorded positions and rotations to float out of view.

Objects with position and rotation keys

If you have recorded the position and rotation of an object, you will fix the object along the X and Z axis, which prevents it from disappearing from the viewport and provides it with sufficient stability for banking. Otherwise, it could capsize easily.

You can actively move the object along the water surface, by recording the x-z position of the object.

Swimming

Y will be constantly governed by the floating tag. You can change the position in the attributes manager if you still want to alter the Y position, despite the fact that the track will not be displayed in the timeline.

Swimming and „Align to Spline " - Tag

The swimming function will be disabled as soon as the floating object has been provided with a "Align to Spline" tag, because it will govern the position instead. Basically, it causes a conflict between two tools.

Swimming and Position by Control Object

In addition to the previously mentioned options, you can control the position of the swimming object with a null object (or any other object):

Position allows you to alter the influence of the position keys on floating. For example, the smaller the value of Position (marked with a red square), the smaller the influence of the object's keys of the y position.

A value of 0% ensures that the floating tag will govern the Y axis, while 100% ensures that it will be governed by the object's own position keys.

This way, the floating effect on the water surface can be exactly determined by the user.

Tip: Hierarchically place your floating object under a null object. As a result, the floating object will receive a position and rotation key at frame 0. Subsequently, the null object can indirectly use the track of the floating object when an Align to Spline tag has been added.

The menu below will be automatically shown upon the creation of the swim tag. You can drag and drop any desired object into the Position by Control Object field. After that, tick the Use Control Object box, which enables the function. Consequently, the position of the swimming object will be determined by the control object. The Mix Position option allows you to determine the percentual force of the control object on the position of the swimming object compared to the position of the swimming object itself. A value of 100% will cause the control object to completely control the position of the swimming object, while a percentage of 0 will leave the object at its own position.

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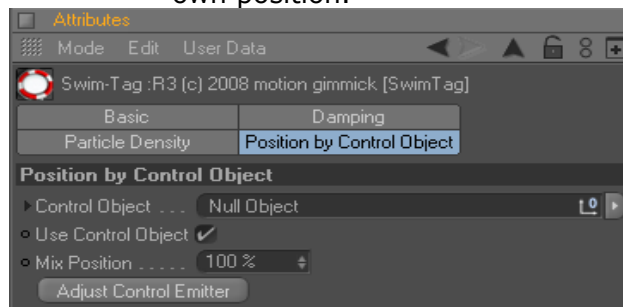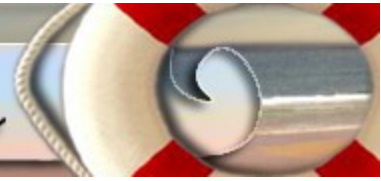
Swimming

For example, this allows you to drop an object from the control object's position into the water, where it will float along the water surface.

To do this, place the control object at y=50 (above the water surface). Record the mix position strength with a value of 100% at frame zero (as shown in the example). Record a strength of 0% at frame 30.

Controlling the Y-Position using the control object is an alternative to controlling it using the damping option.
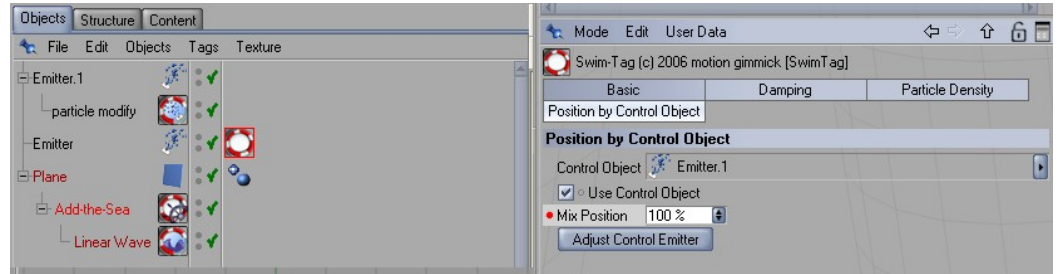
Important:

The control object for Objects is always an **Object**.

The control object for Particles is always a **Particle**.

11. Swimming and Particle emitters

Useful applications:
Actively place a particle emitter on a plane along the X / Y and Z axis and let the particles float along the waves.
Swimming governs the position of the particles in relation to the plane.

Using the function
Create an emitter object, place a particle object as a child of the emitter hierarchy. Select the emitter object and enable tangential if you want to disable rotation/banking, or keep it disabled if you want to enable rotation and banking. Drop the emitter into the Create Swimming Tag field, which can be found in the AM of the Add-The-Sea main plugin. The tag can only be created correctly using the above described method.

An extra tool will be added to the hierarchy as soon as the above steps have been performed (particle modify). This has to be present in the hierarchy, but cannot be edited by the user. This object may not be deleted! Otherwise, the floating tag has to be recreated.

Note:

Do not delete particle modify!!!! This is used by the main plugin object, so it has to be present in the Objects Manager.

Auto

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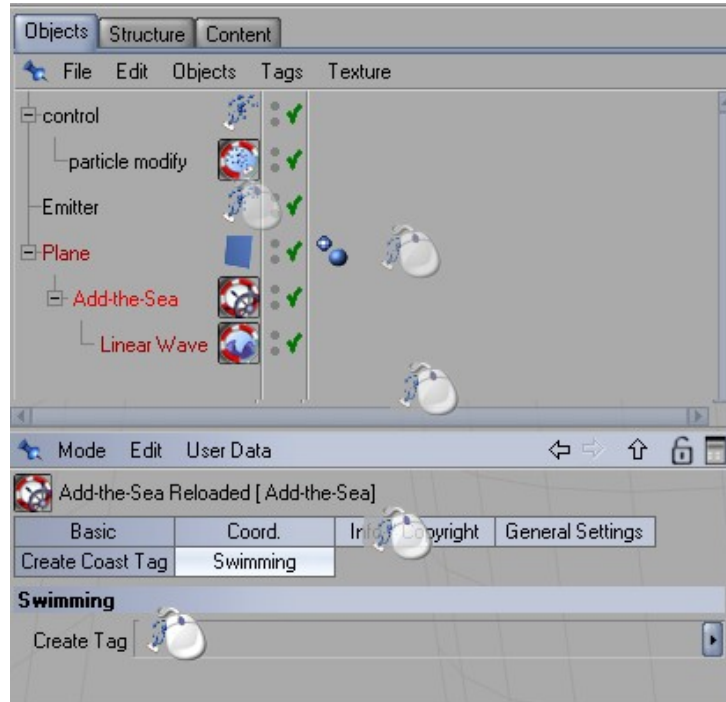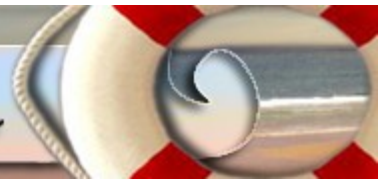
Swimming Particles

Damping

Use emitter: Particles (Default)
Only the particles swim.

Use emitter: Emitters
Only the emitter swims, and produces particles while doing so.

Use emitter: Emitters and Particles
The emitter floats and emits particles which immediately function as floating objects.

Particle modifiers, such as attractors, deflectors, rotation etc. function as one would expect, but standard values will have less effect than normal. You can partly compensate by using increased values.

Deforming particles with waves
Place the emitter or single object hierarchically under the corresponding wave plugin. As a result, all particles or the object will be deformed by the movement of the wave.

Deforming and Swimming
Appoint the emitter or the object as swimming object and place it under the wave plugin as an addition. The particle objects will now follow the movements of the waves in a more concentrated form along the water surface.
The object will swim and adapt to the deformation of the waves.
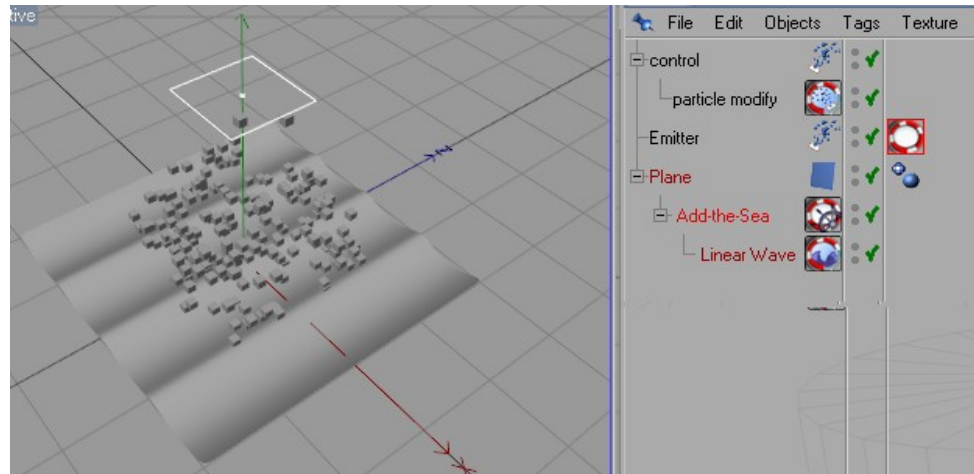
Swimming and Particle Emitters
Create an emitter object, place a particle object as a child of the emitter hierarchy. Any object can be used (check the Cinema manual when in doubt). For example, use a cube with a size of 10X10X10. The effects of tangential will be visible more clearly later on with such an object.

The emitter attributes are visible in the attributes manager when clicking on the emitter object.
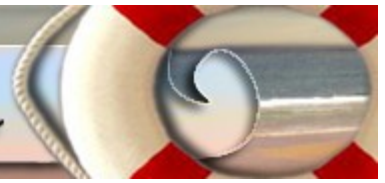
Swimming Particles

Disable tangential for now.

Control the particles with a material
Add a plane to your scene. This will be turned into our water surface. Hierarchically place the Add-The-Sea main object as a child of the plane (Add-The-Sea main object can be accessed from the Add-the-Sea plugin menu).

Hierarchically place a wave plugin as a child of the Add-The-Sea main object (you will find these under the Add-the-Sea plugin menu as well). Select the Add-The-Sea main object.

the Attribute Manager will display the following attributes/settings:

Basic / Coord. / Info / Copyright / Swimming etc.

Select Swimming.

Drag and drop your emitter into the Create swimming tag field. The following tag will appear next to the emitter as soon as the action has been performed.

Select the tag with a mouse click.
The following menu will appear under Particle Density:

Activate Use Material**.** The particles are now controlled by a material. Create a new material in the material editor and add a noise shader to the color channel. Drag and drop the material into the material field, which can be found in the particle density menu.
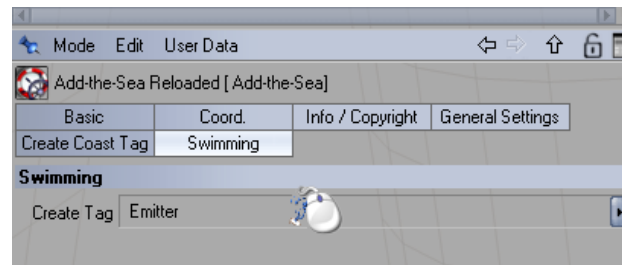
Swimming Particles

Consequently, the particle placement will be controlled by the noise shader and placed on the water surface.
However, we have not determined yet how large the field should be in which the particles will be dropped:

Material Angle: Rotate the material (and therefore the particle field).

XZ-Randomseed: Random value for the density\distribution of the particles over the X-/Z-axis.

XZ-Accuracy: Accuracy of the particle placement using the material data. The higher the value, the more accurate the placement will be (note that it will require more calculations).

Min X: Determines the size of the particle field from the null object of Add-the-Sea to –X (minus X).
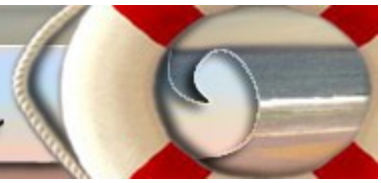
Max X: Determines the size of the particle field from the null object of Add-the-Sea to +X (plus X).

Min Z: Determines the size of the particle field from the null object of Add-the-Sea to –Z (minus Z).

Max-Z: Determines the size of the particle field from the null object of Add-the-Sea to +Z (plus Z).

These values allow you to determine coordinates which create a square shaped field with the null object of Add-The-Sea object as its center.
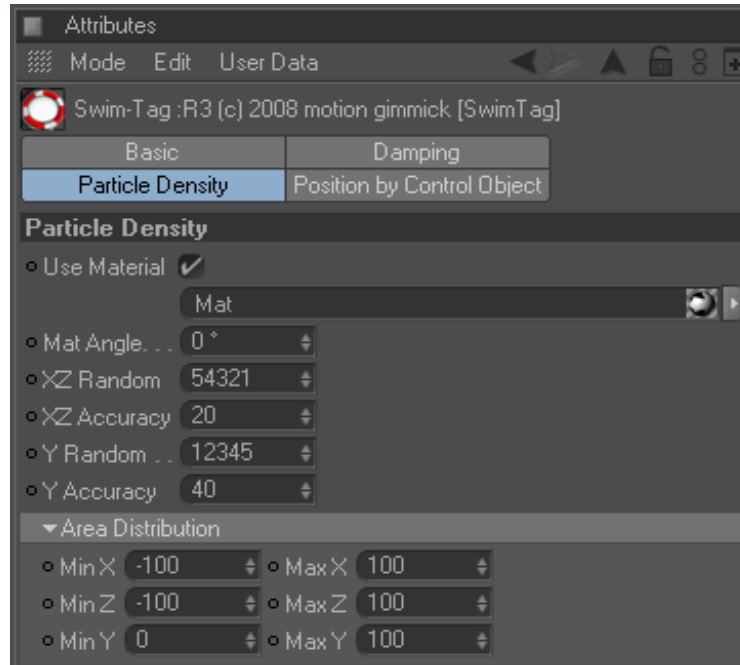
Swimming Particles

Screen01 - The standard values produce a result similar to the image on the right.

Screen01:

The size of our water surface is 400 x 400. We have to use the following settings if we want to cover the entire surface:

Min X: -200 / Max X: +200 /
Min Z: −200 / Max Z: +200

View Screen02.

Size changes can be keyframed, which allows us to place the particles where ever we want within a particular timeframe. The shader will place the particles along the water surface within the defined area.

Screen02:

Shaders, imager and movies can be used to place particles (avi, mov etc). It is possible to animate the shaders, either by keyframing them or by using the automated animation parameters (for example animated noise shaders). 3D shaders will not work!

Obviously, controlling just two axes is not sufficient. After all, we are working with a 3D tool ;o)
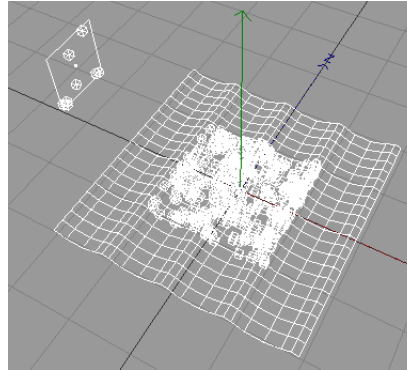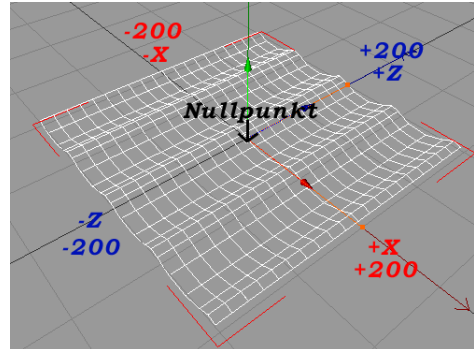
Screen03:
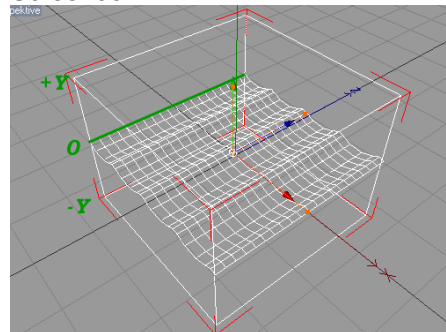
Swimming Particles

Controlling the particles along the Y- axis

The same menu (Particle Density) give you access to the Y settings, which is located below the above discussed values.

Screen04 displays identical values for Min Y and Max y, which means that the particles have no chance to move into the y direction.

Min Y determines the range into which the particles may move from the null object of Add-the-Sea to –Y.

Max Y determines the range into which the particles may move from the null object of Add-the-Sea to +Y.

This allows us to "extrude" the particles into y direction, while the x-/z- axis is still controlled by a material. Y-Random Seed and the Y-Density curve allow you to add a bit of chaos to the extrusion. The curve might look familiar to you, as it is also used by other tools. The curve can be keyframed, but you have to make sure that the Use Curve Box has been enabled/ticked in advance.

The accuracy of the Y values are determined by Y-Accuracy

Summary:

The X / Z values allow us to determine the square in which the particles may move along the water surface.

The Y-axis allows us to determine the expansion of the particle cloud. The form of the particle cloud is determined by the material. For example, use a gradient shader (type: 2d- Spherical) if you want a circular cloud. Shaders with plenty of contrast will be the most suitable.

How can you move particles along the Y-axis?

This can be easily done by keyframing the Y-min and Y-Max values.

Screen04:
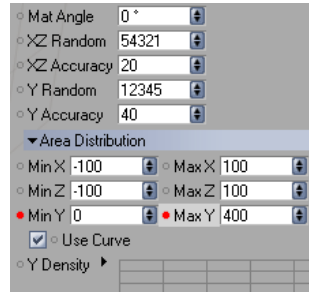
Screen05 :
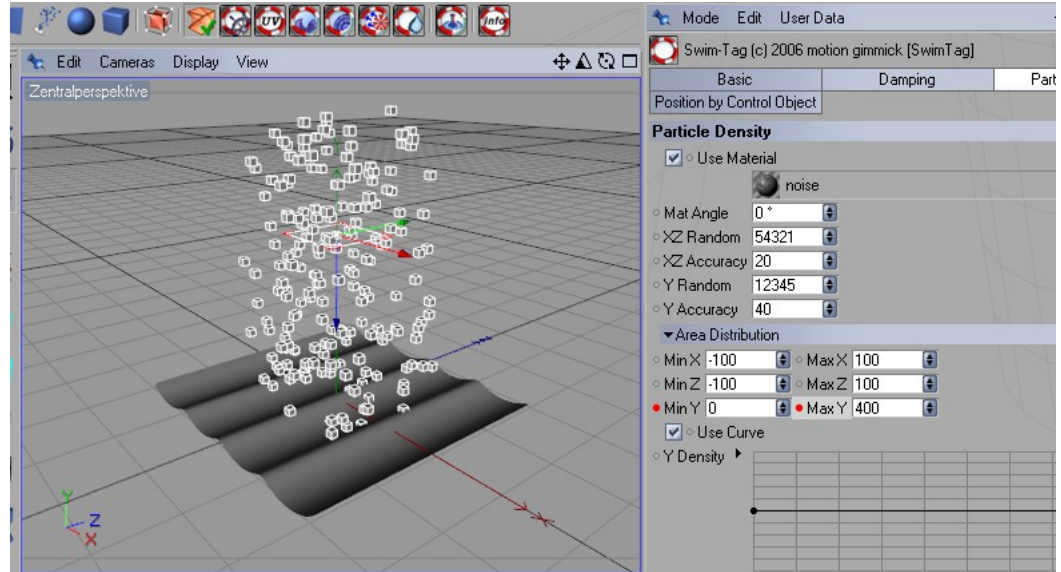
Min Y = 0   Max Y = 400

Note:

Only the color channel is used by the Swim Tag!!!
Using the alpha, bump or displacement channel will produce no results.

Shaders with plenty of contrast are the most useful.

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Swimming Particles

Particle: Swimming and Controll-Emitter

You can also control the position of the particles object with a control object. However, in this case it can only be controlled using a second controller.

The menu below will be automatically shown upon the creation of the swim tag. You can now drag and drop the control emitter into the Control Object field. A value of 100% will cause the control emitter to determine the directional flow of the particles, while a percentage of 0 will let the particles flow along the water surface. Always enable Use Control Object if you want to use this feature.

The **Damping** menu options are only applicable to single objects. The particle options can be accessed from the **Particle Density** menu.

When using a control object, the X/Z- management is controlled by the size of the controller emitter object. The Y- distribution can be altered in the Particle Density Menu.

Important:

The Control Object for Objects is always an Object.

The Control Object for Emitters is always an Emitter.
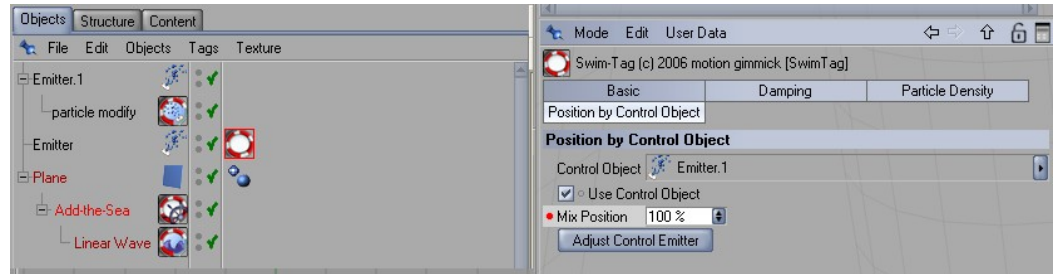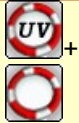
12. UVW Projection of particles

Using the function

First we need a polygon object (E.G. an editable sphere), Hierarchically place the UVW Plugin under the polygon object, and place the Add-The-Sea main plugin as a child of the UV-Plugin.

Plugin foundations

In this case, the deformation of the object is of secondary importance. It only functions as the surface onto which the particles will be projected. Therefore, you can make it invisible in both the editor and the render later on. For now, we will keep it enabled for testing.

Controlling the particles along the UVW-coordinates

Add a particle object to the emitter. Enable "Show Objects" in attributes manager of the emitter. 50 particles should do the trick.

For now, use the default settings of the UVW-Plugin and create a new material using the material editor. A material with plenty of black-white contrast in the color channel will suffice for the moment (note: only the color channel will be used by the plugin).

Enable „**Swimming**", which can be found in the attributes manager of the **Add-The-Sea** Object, by dragging and dropping the emitter into the "**Create Tag**" field. You can now drag and drop a material into the "Use material" field of the Swim-Tag.

Tip:

UVW Projection is similar to swimming on the UVW coordinates of an object.

A typical scene with UVW projection of particles:
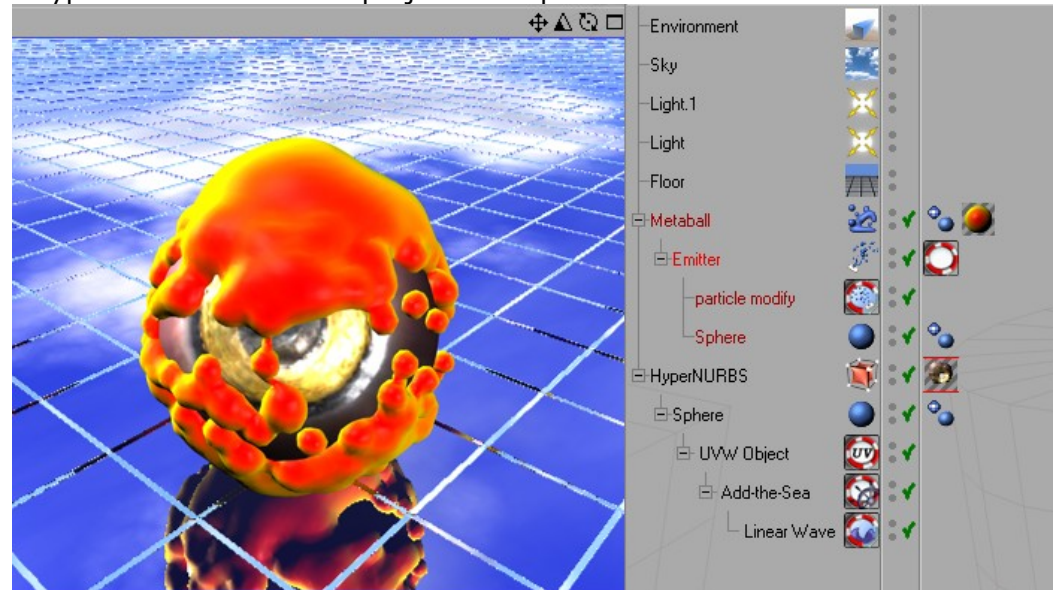
Tip:

You will notice that the particles will be shaped like the image when using a black and white image.

UVW Projection of particles

Min Y = 0
Max Y = 100

These default settings will cause the particles to distribute from Y 0 to Y 100 of the hull, which creates a particle core of 100 units.

Highest-Y
=100

Lowest-Y
=0

The particles will be distributed directly onto the hull if you change the Min-Y and Max-Y to 0.

As you can see from the example image above, the sphere will not be entirely covered with particles if you use the standard settings.

Highest-Y
=0

Lowest-Y
=0

Min-X : -100
Max-X : 100
Min-Z: -100
Max-Z: 100 are the default values and will produce a particle distribution similar to the example on the right.
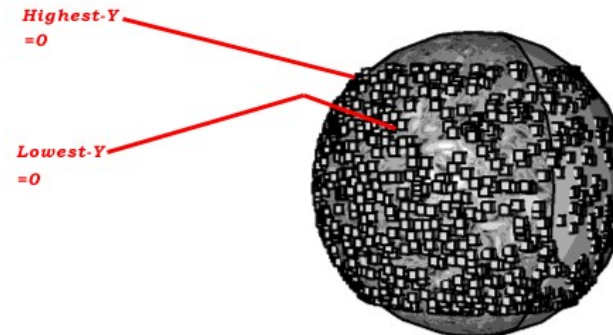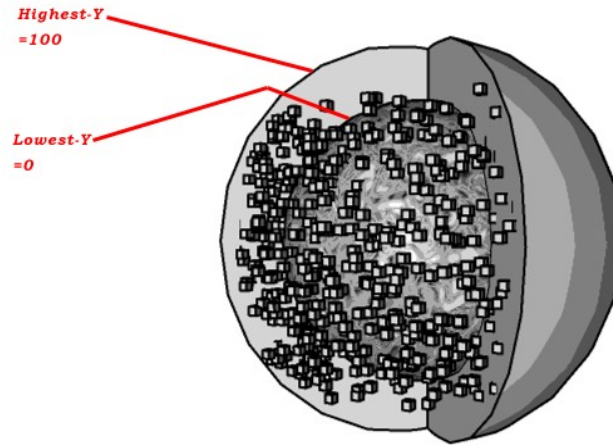
UVW Projection of particles

You can easily change that using the following values, which can be altered in the AM of the Swim-Tag menu:

Particle density:

The following example values will produce a distribution pattern similar to the example on the right:
Min-X: -199
Max-X: 199
Min-Z:-199
Max-Z:199

Some low values for comparison:
Min-X: -10
Max-X: 10
Min-Z:-10
Max-Z:10
This causes the particles to be distributed in a small area.

These examples were all produced using the noise shader.

The following example uses a bitmap image for the distribution of particles:

The following materials can be used to distribute the particles:
All shaders (except volumetric shaders)
Images (all formats, which are natively supported by c4d)
Movies (all formats, which are natively supported by c4d)
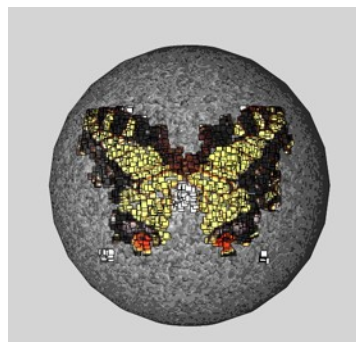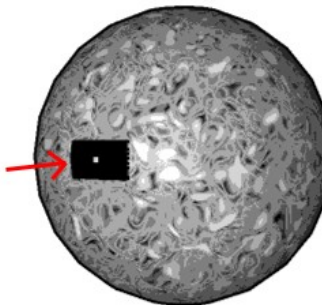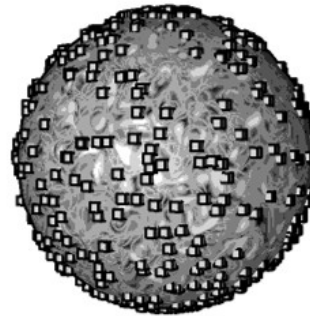
13. Coast

Coast and the Add-the-Sea Object

Create Coast Tag
This button will create a tag, which will be added next to the Add-The-Sea main object. Consequently, the Coastmap Tag can be used to appoint the coast.

Before counting a coast to the coastmap, decide if the coast map should be animated or not and which resolution for the coastmap will be used. For animated coastmaps please use the default resolution settings.

For stills you may use resolutions up to 1024x1024 Pixels.

The more resolution will slow down the scene, because Add-the-Sea is not only saving the pixels for displacement but the whole gravity-datas influencing the waves.
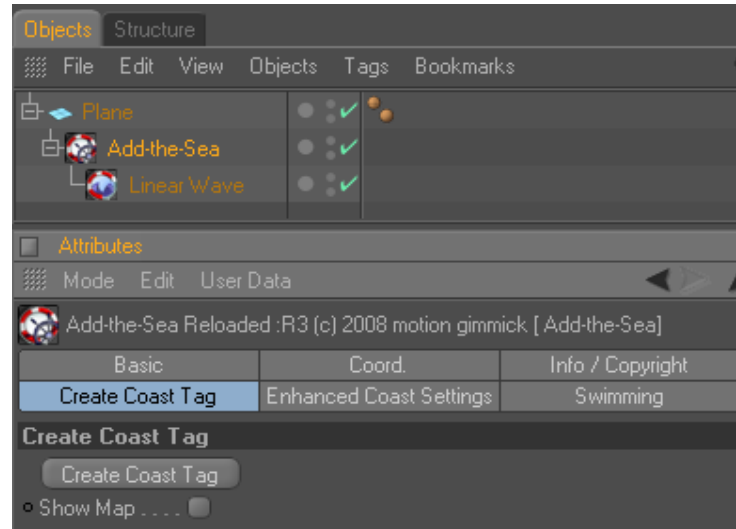
After using the Create Coast button there is a new Tag behind the Add-the-Sea Object:
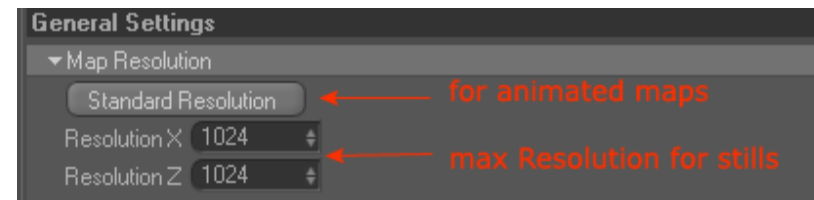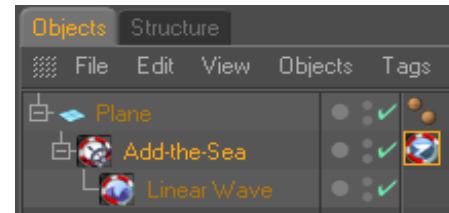
Coast

Using the function

Create the coast map by pressing the Create Coast Tag button, which can be found in the Attributes Manager of the Add-The-Sea Object. The Tag will be automatically created as soon as you have pressed the button and it will immediately show the attributes of the tag.

Coast Displacement needs a linear or radial wave to count gravity and/or displacement. If you not like to use a wave so change the height of the wave to 0.
(For example you will create a landscape without Seas or Oceans)

It is most useful to automate the simulation of the depth of water influence on the waves or to create entire landscapes using the coast map.

Plugin foundations

Input Object / Material

You can use any object or Texture Color Channel (animated or not) to calculate and store/bake the coastal data of individual coast objects.

Put the material or object with Drag and Drop into the **Object or Material (Color)** field and do not forget to use the **bake**-button. Now the color of the coastmap preview will turn from black to colored (orange, blue, black) preview and the coast creates a displacement.

Important: children, or subobjects will not be taken into account by the creation of coast maps!

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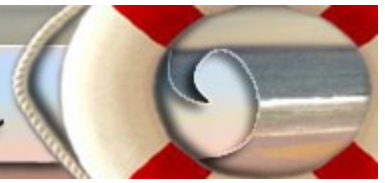
Coast

The colors of the coastmap preview

Black: no gravity – no displacement
created from Image or Texture Color black
or
created from object areas -Y

Blue: Gravity
created from Image or Texture Color grey
or
created from object areas -Y to +Y

Orange: Displacement
created from Image or Texture Color white
or
created from object areas +Y

Tip 1: Use a low polygon version of the object that should create your coast map, since more polygons will require more calculations. Once you are done, you can replace the low polygon version with a similarly shaped high polygon version and calculate the final coast map.

Tip 2: The coast map will be calculated faster when using bitmaps or textures (Input Object / Material menu or Input Bitmap menu). You can render a contrast rich image of your coast object and turn it into a greyscale image using an image editor. If needed, increase the contrast. This image can then be used to calculate the coast map. Bitmaps with a size of 512 X 512 are large enough.
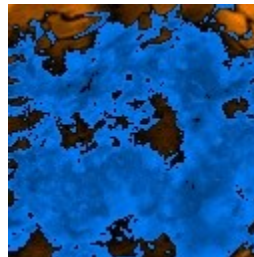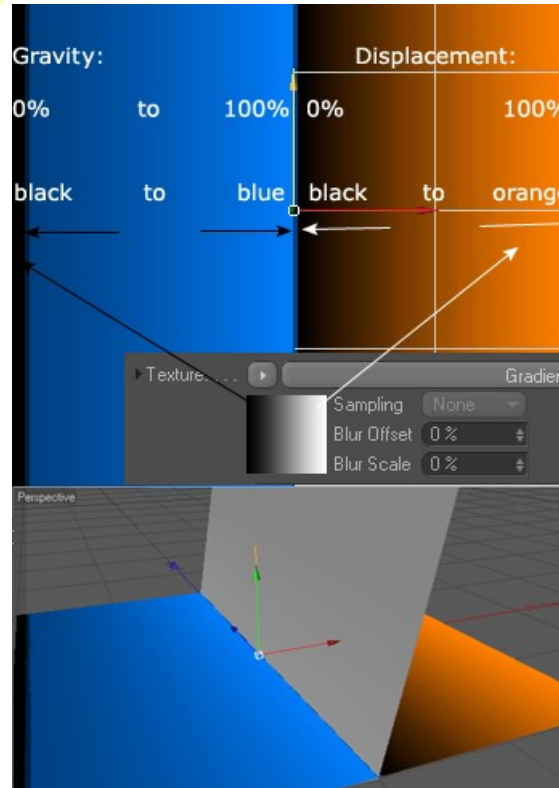
Different depths are represented by the several colors.

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Coast

General Settings

Mapsize/Position/Preview
Set Size From Parent Object
Use this button to adjust the size of your coastmap to your Add-the-Sea Waterplane / Plane Object.

X- Position / Z- Position

Allows you to animate the Coastmap along the X and Y axis without changing the axis of the Add-the-Sea Object and included waves.

Show Terrain
This button activates the Result preview after you have finished your Input with "**bake**".

Show Object / Materialmap
This button is only needed if you count more than one Images or Objects by and by into the same coastmap. It shows the last map that is counted to your coastmap.

First map created with
Cinema Gradient Shader

This is one option to add different coastmaps.

Second map created with
Sphere Object

+

=

▼Mapsize / Position / Preview
Set Size From Parent Object
○ Size X... [400] ○ Size Z... [400]
○ Position X [0] ○ Position Z [0]
Show Object / Materialmap ☑   Show Terrain ◻

▼Mapsize / Position / Preview
Set Size From Parent Object
○ Size X... [400] ○ Size Z... [400]
○ Position X [0] ○ Position Z [0]
Show Object / Materialmap ◻   Show Terrain ☑

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Coast

Input Object / Material
Y-Region of Object/Mat

High
All areas higher than y=0 are displaced for terrain.

Low
All areas lower than y=0 now have to be used as water / gravity

Attention:
Never change Resolution after the map is done!

Otherwise your Input is deleted or confused and you have to create your map new.

Disable Show map when the final coast has been calculated. This option will only use up resources.

In some cases, it is useful to deactivate the coast until you are ready to render the image.

You can do this by using the Cinema feature:

Turn on / off Deformers
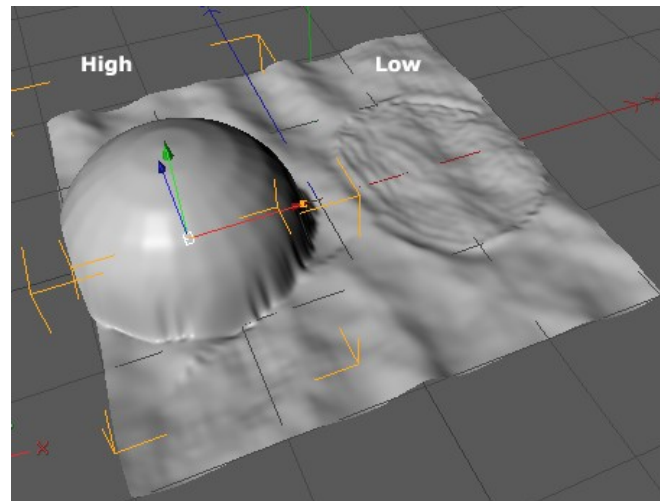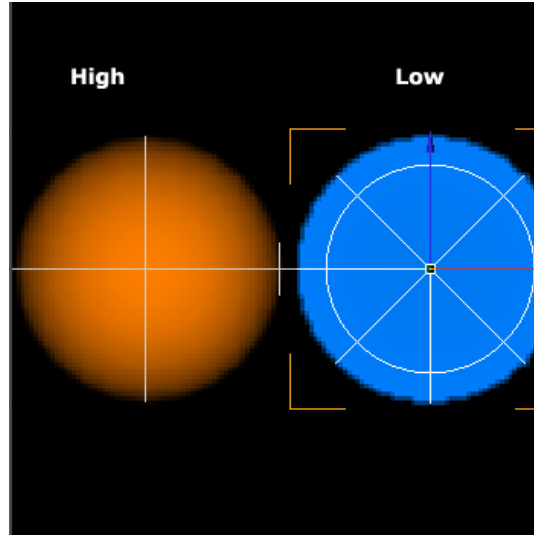
Coast

Trail Duration
This feature only works with animated objects.

- You need any animated object

- Activate the **Animated Map**

- How long a displaced trail works behind your animated Object is ruled by **Trail Duration** (for example 20 Frames).

- After you have done this settings first **Capture** and final **Bake** your Coastmap.
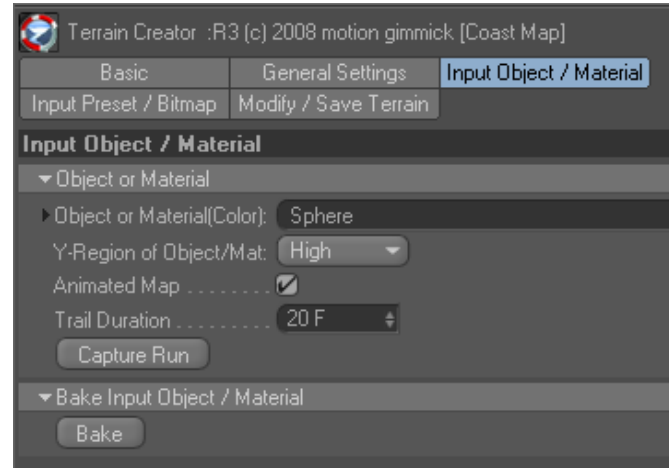
In the right example we moved a sphere over the waterplane, **Trail Duration** 20 F:
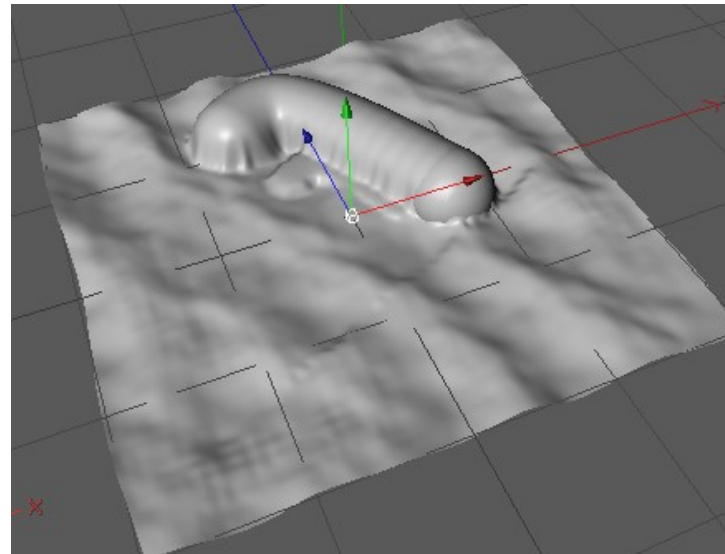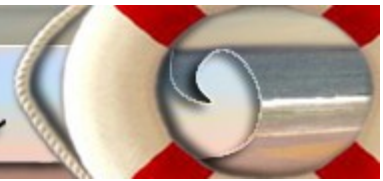
Coast

Input Preset / Bitmap

This option allows you to load images (all supported formats). Subsequently, these can be mixed with your existing coast map or they can be directly used as your **Coast / Terrainmap**. This may take a while if it concerns a mov or avi file, depending on the codec and degree of compression.

Any Coastmap you create in Add-the-Sea Terraincreator / Coastmap you can save as:

acm: animated coast map
scm: still coast map

It is a very fast file format written for Add-the-Sea.
You can share this files to other Add-the-Sea users and they can load it like a fast bitmap into the terraincreator of Add-the-Sea. For this option use

Load Preset
Load acm or scm file

It includes all Gravity and Displacement informations.
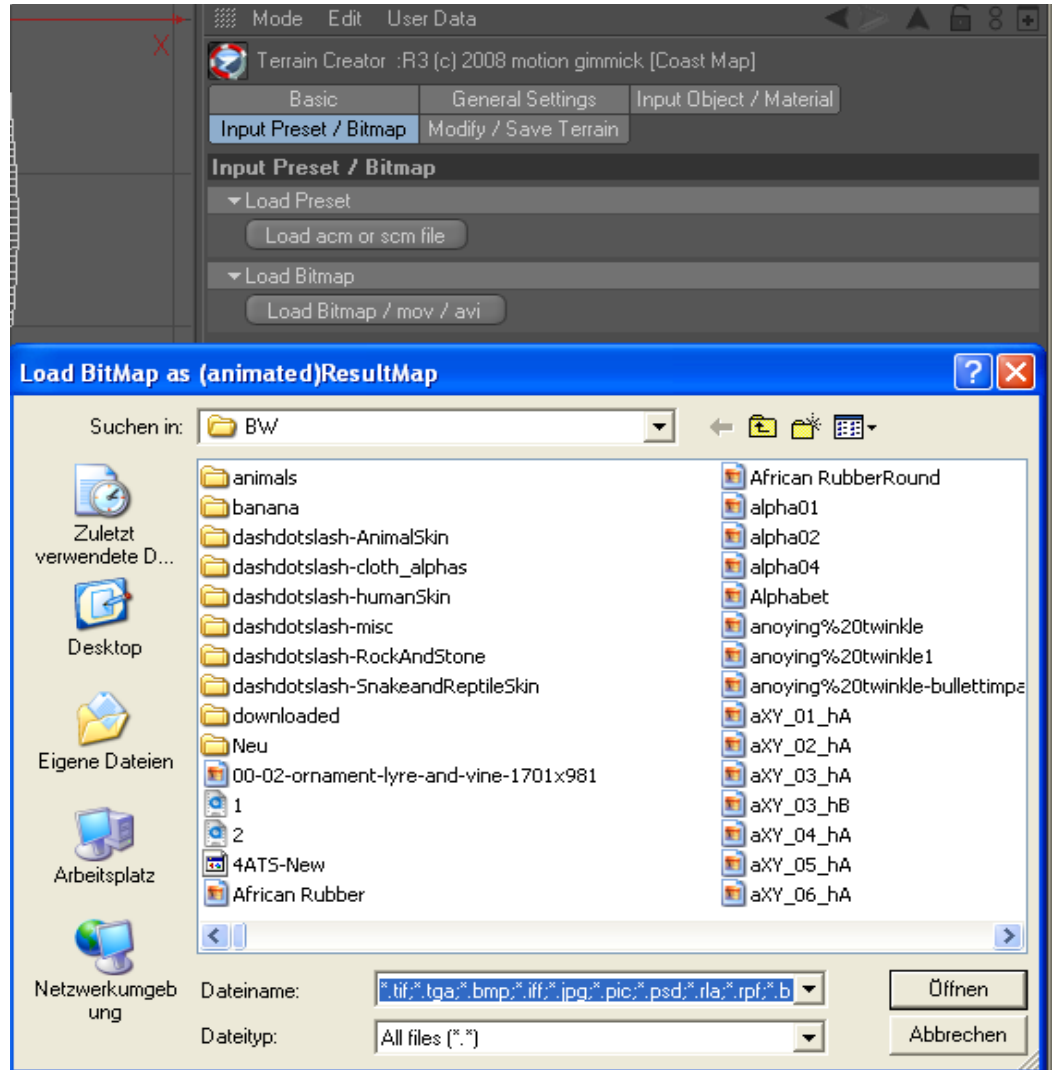
Coast

Modify / Save Terrain

Modify Terrain
This option allows you to edit the created Coastmap. It allows you to precisely change the effect of the coast on the waves. These changes can be viewed more easily if you enable the colored preview.

Sea level allows you to raise or lower the water surface. In other words, it increases or decreases the orange part of your coast map.

Scale Lowest Value/**Scale Highest Value** tones down the gravitational effect on the waves, or the effect of the Displacement for **S**till **C**oast **M**aps. You can not modify **A**nimated **C**oast **M**aps in this menu.

Save Terrain
You can save the coastmap as a file format, which has been specifically created for Add-The-Sea (*.scm or *.acm, depending on animation). However, you can also save the coast map as a bitmap image (in case of stills), or as a Mov / Avi in case of animated coast maps. Afterwards, these can simply be reloaded using the load bitmap button.

To clear the Map only delete the Tag behind the Add-the-Sea Object.
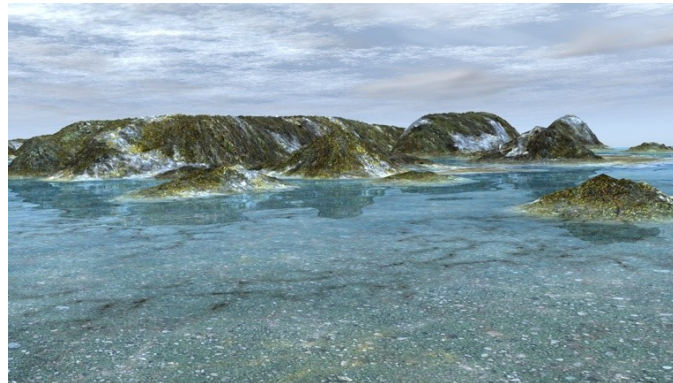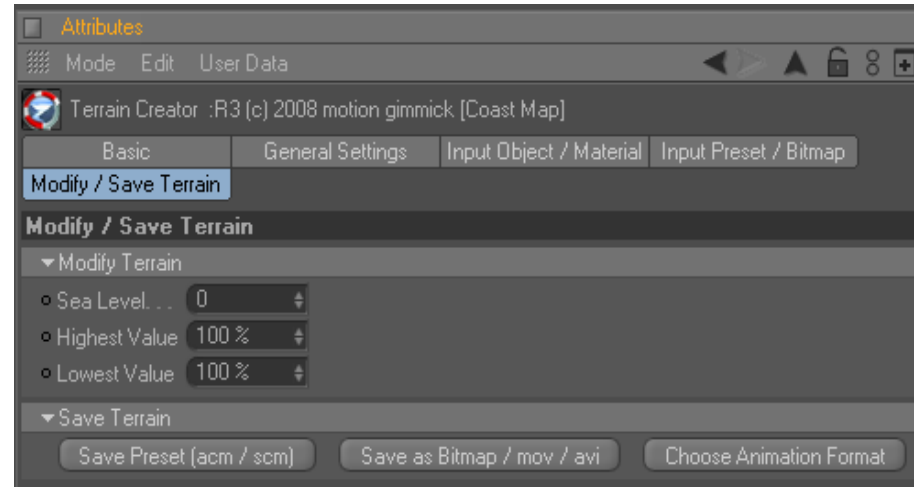
Coast

Enhanced Coast Settings

You will find this menu in the Add-the-Sea Object.

Strength:
0% = no gravity is dampening the waves
100% = maximum gravity

Using Land Offset for Displacement:

Land Offset:
Extrudes the maximum edge of the landarea to
y or -y.
The orange part of the Coast map is extruded to
one level height.
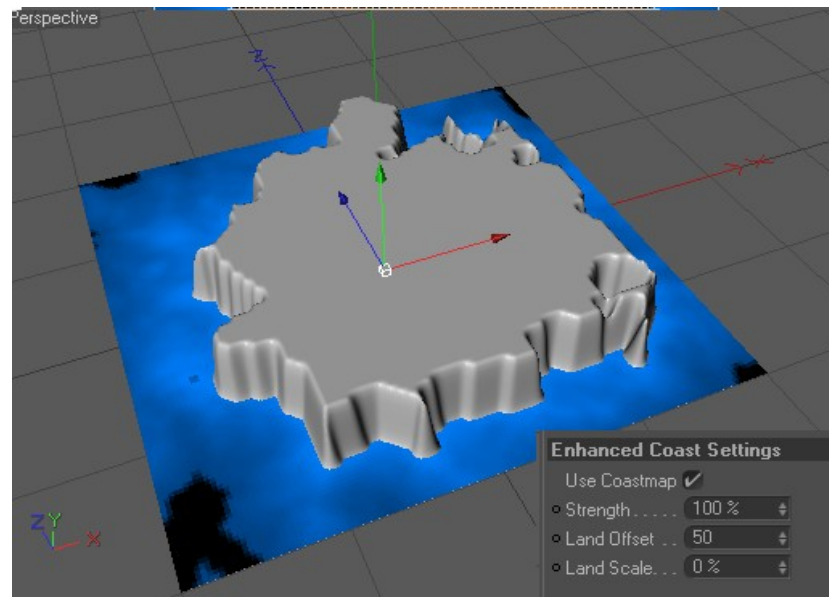
Coast

Land Scale:
Extrudes lighter and darker parts of the terrain individually.
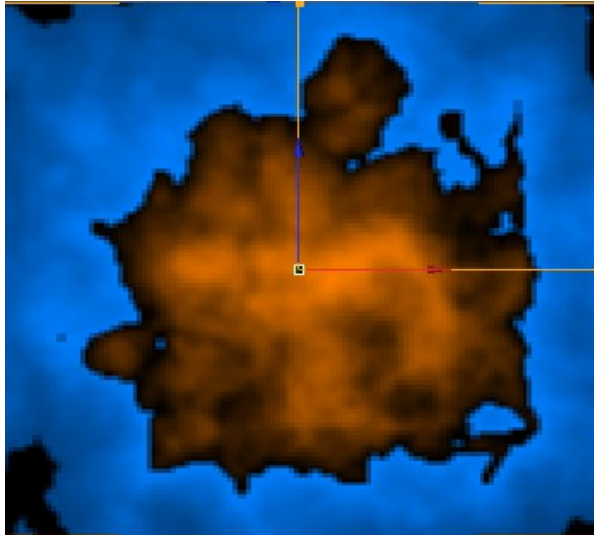
Mixing both parameters:
You get a higher and harder Coast and land displacement, too.

Enhanced Coast Settings
Use Coastmap ✔
○ Strength . . . . . 100 %
○ Land Offset . . 0
○ Land Scale. . . 20 %
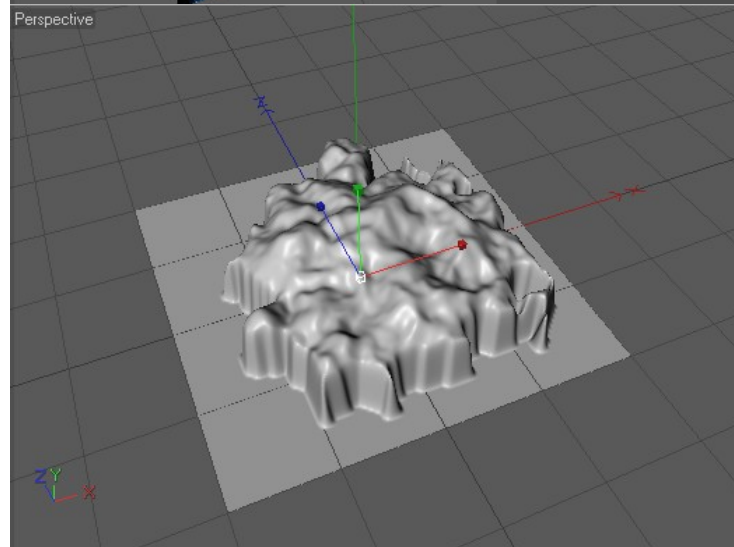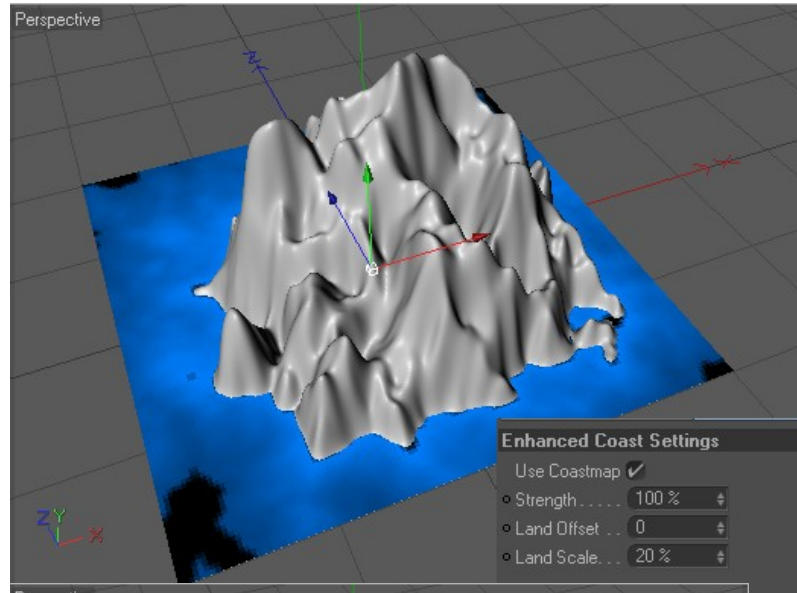
Coast

Using Coastmap like a stamp:
You can use more than one Add-the-Sea Object including different coastmaps to create very individual terrains or other displacements.

Move, scale and add Add-the-Sea Coastmaps on your plane.

Collect nice bw-Bitmaps for your stamps or paint stamps using Bodypaint....
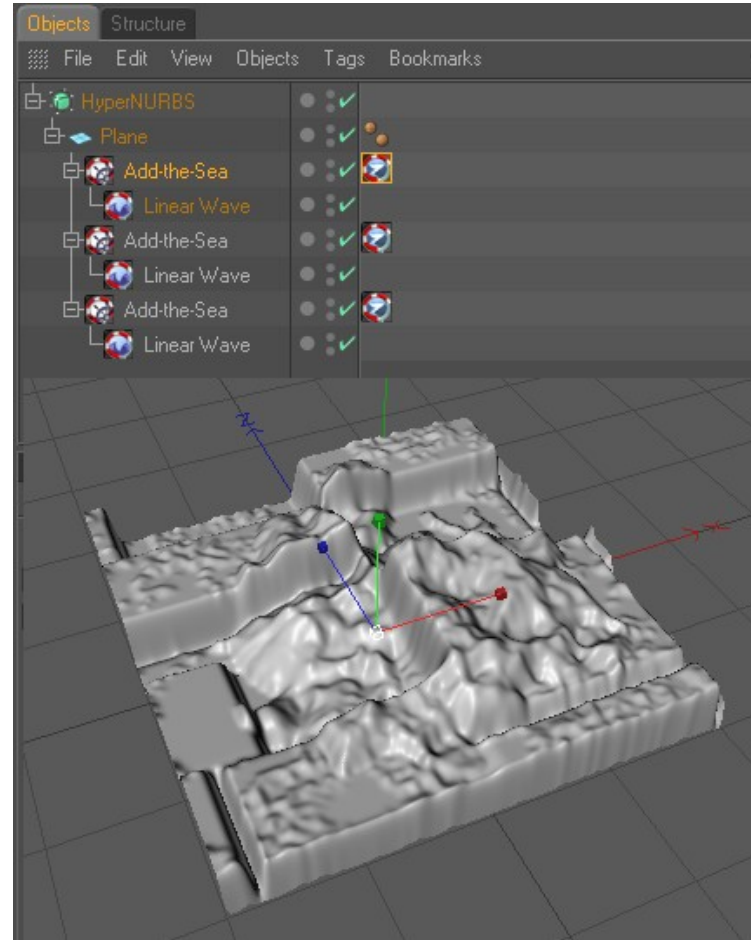
14. Tweenblob

Plugin foundation

The Tweenblob is an advanced spherical deformer, which can be used in combination with drop waves to reinforce areas, which behave more radically in nature compared to what the individual drop types could achieve - or incidental bubbles which are created during heavy rainfall, or backwash created by a water whirl, created with a helix spline.

Tweenblob is useful when creating boiling and bubbling water.

The spherical deformer will be enabled when tweenblob has been disabled, or if no tween settings have been created. The influenced area can be confined more precisely using several parameters, in contrast to the original spherical deformer.

To the left: spherical deformer SDK - to the right the Tweendeformer in spherical mode.
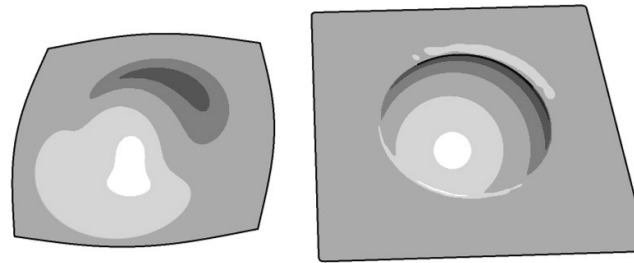
Spherify

When pressing this tab, you will be able to access the settings which will be used when the tween function has not been activated.

Tweenblob also functions independent of Add-The-Sea. It will use the data of the drop types to create and distribute the deformations when used in combination with Add-The-Sea.

Tweenblob can also be stacked if spherical mode has been enabled (disabled Tweenblob).
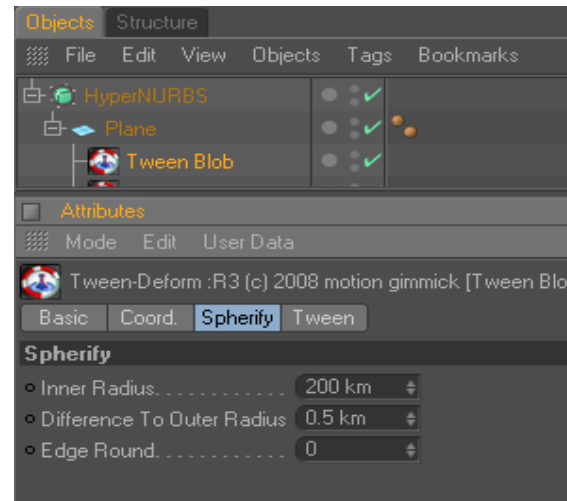
Tweenblob

Available parameters when disabling the Tweenfunktion:

Innen Radius
Determines the size of the spherical deformation.

Difference to outer radius:
The influenced area around the inner radius can be changed here (edge of the deformation).

Edge rounding:
Allows for a smooth transition between the inner radius and the edge of the deformation.

This deformation does not use drops to determine its distribution – Therefore, you will not be able to use the tween options.

In this example, several tween deformers have been stacked while using spherical mode. The center axis of each spherical tween deformer object has been placed above the water surface (+Y).
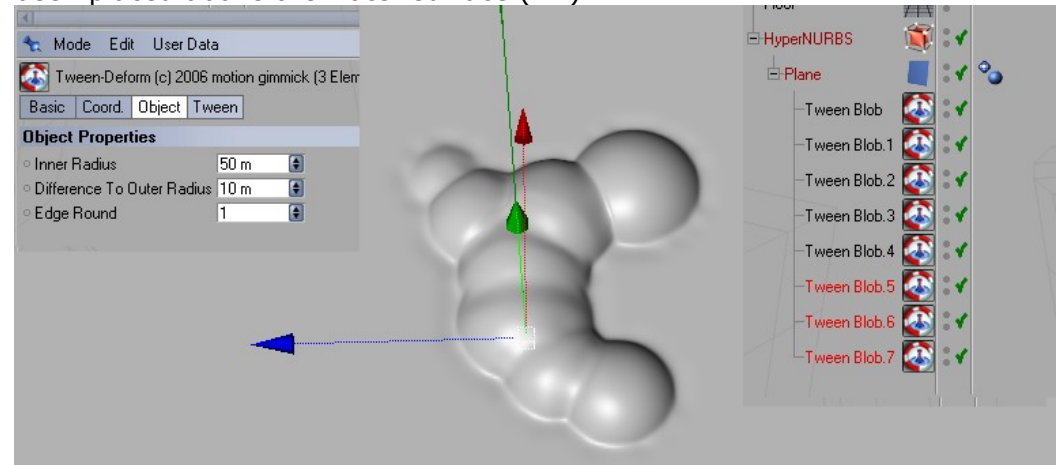
The following example is exactly the same, except for the fact that the center axis of the tween deformer has been placed below the water surface (-Y)
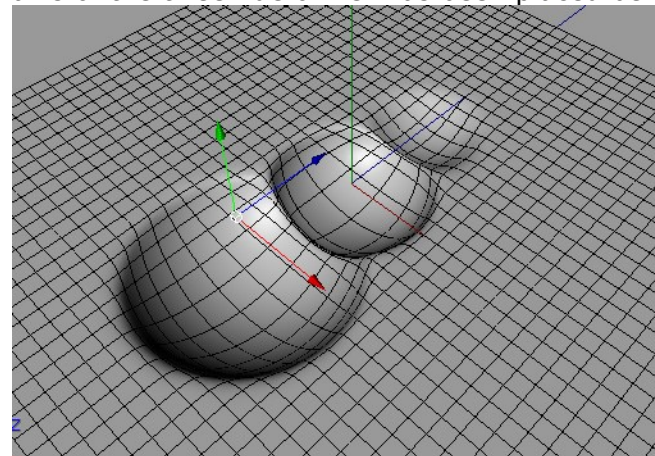
The Tweenfunction

The deformation will look like the image on the right if you use the default tween settings, when Use Tweenblob has been enabled.
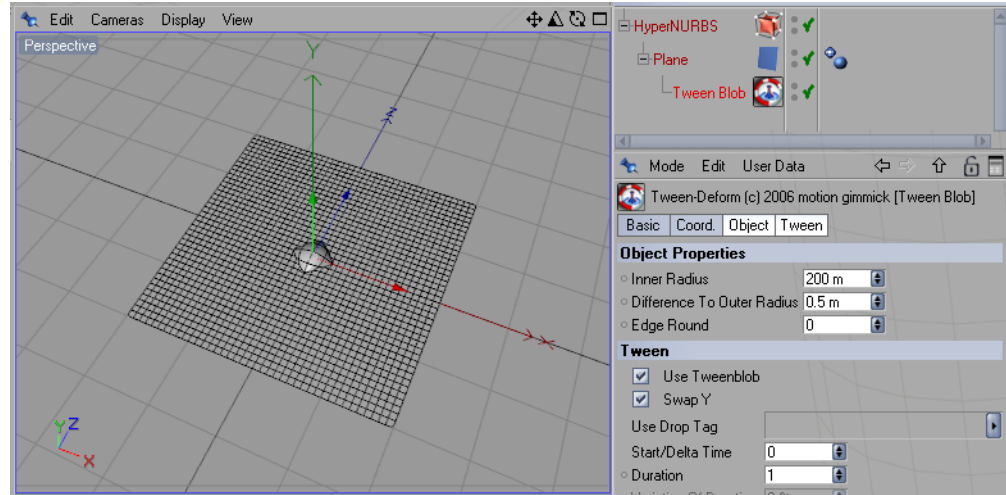
The deformation will look like the image on the right if you disable Swap Y:
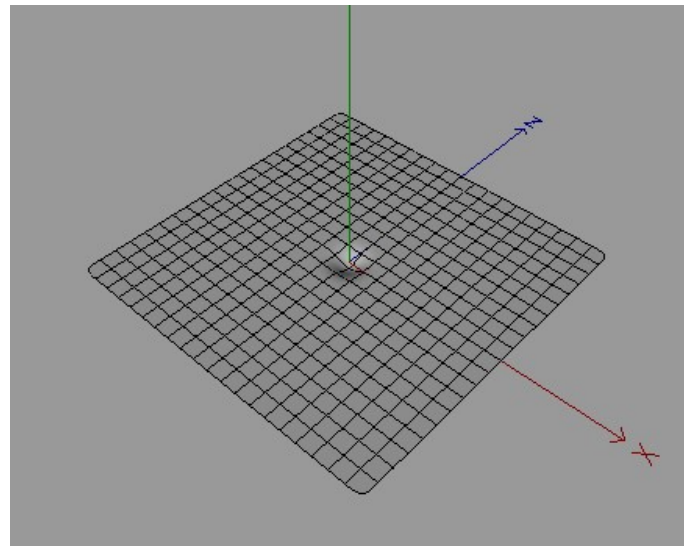
Tweenblob

Outline of the tween

The image on the right shows five editable spline curves, which all have a diagonal shape. These identical curves will cause the tween to remain unchanged during its lifetime (standard value 1), as shown above.

The tween will change during its lifetime if you change Size h (radius) and Size V (height). For example, if you change Size h of tween 50 to 100, the radius will grow from 20 to 100 and it will decrease again till tween 100 to 20. Afterwards, it will completely disappear. Tween 0 till 100 determines the outline, the radius and the height in a successive manner (comparable with a morph).

The original shape of the tween is a cone. Change all Y values to zero if you want to view the shape.

This will create a horizontal outline spline.

The shape of the cone is altered by editing the spline. The best way to understand this is to simply try it out. However, don't forget that the tween is just a temporal representation of the shape of the deformation. In other words, you will not see the result of the changed settings if you do not move to the correct frame.

The image on the right shows an additional point in the curve. Please create one in your own curve as well.
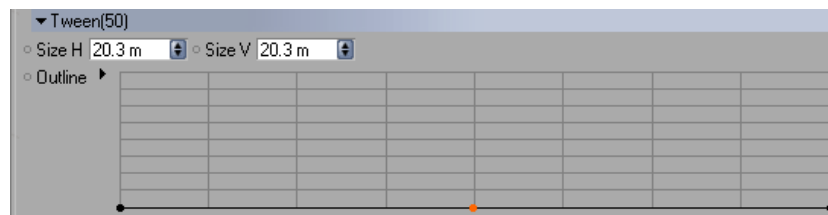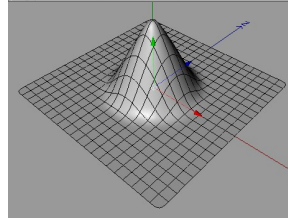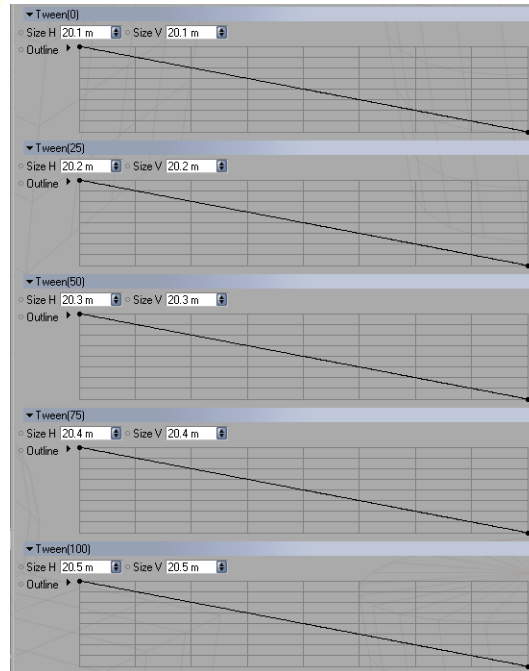
Tweenblob

Spline values

Move the newly created point towards Y (as far as you can go). This will produce a result similar to the image on the right:

Copy this shape among all tweens. Now use the highest value for both radius and height for tween 0 and the smallest value for both radius and height for tween 100. This will create a deformation that will initially look like the deformation on the right, while it slowly disappears over time.

Tweenblob can be stacked, moved around and scaled unless a drop tag has been used. From this moment on, the distribution of the Tweenblobs will be determined by the drop tag.

Use Tweenblob
Ticked = Tweenblob has been enabled
Unticked = Spherical deformer has been enabled

Use Drop Tag
Drag and drop a Drop tag into this field, whose drop impacts will determine the distribution of the tween blobs.

Start/ Delay
0 the deformation will start at the same time as the drop's impact.
Larger than 0 = The deformation will be delayed.

Duration
Determines the lifespan of the Tween deformation.
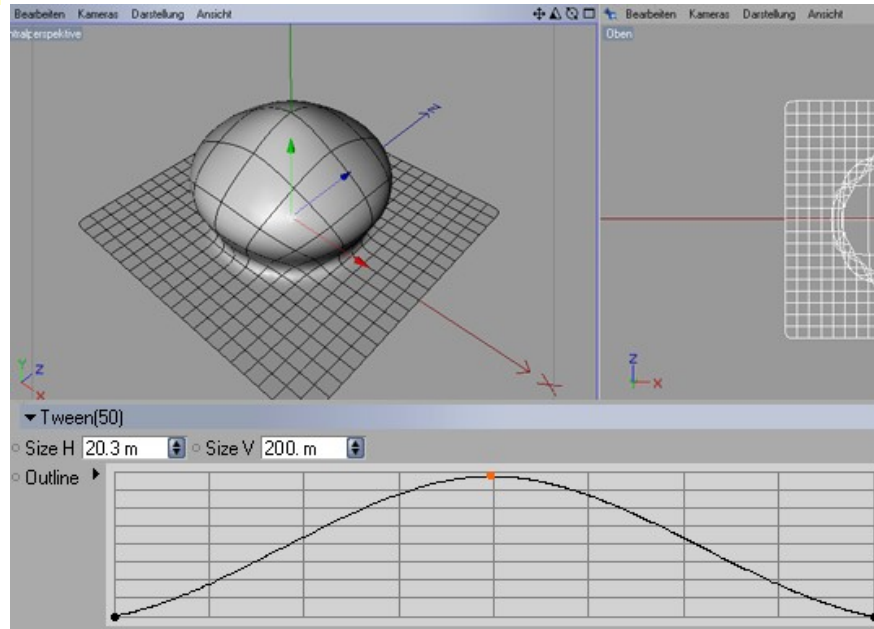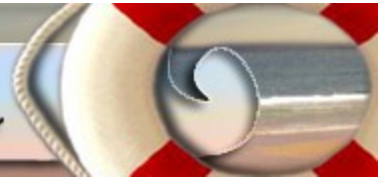
Tweenblob

Variation

Variation of Duration
Will make sure that there is variation in the duration of the deformation.

Tween Max
Determines the maximum value of Y (maximal height) of the deformation.

Tween Max Variation
Will make sure that not all Tween deformations have the same size.

Random
General random factor for all Tween values.

State vs. Time
Not all Tweens will be placed upon each drop, but it will be determined by the Time curve with a higher or lesser probability. This will vary the shape and height of the deformations according to time.

Swap y:
Inverts the original coned shape of the Tween.

Swap Y = Unticked:
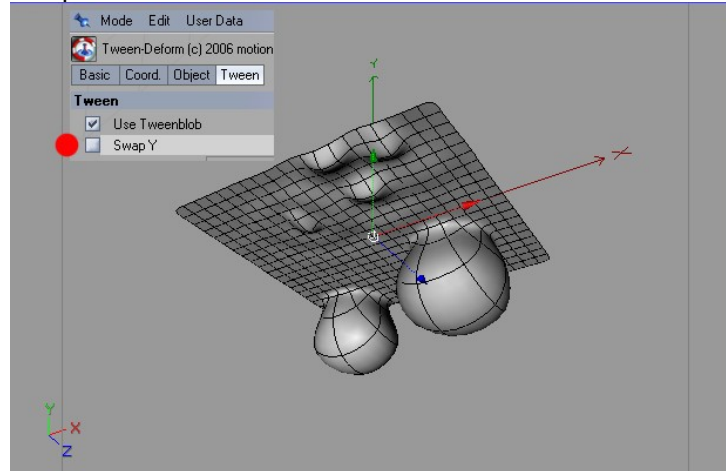
Manual Drop (Tag 1) + Tween:

15. Xpresso Node Swim

Wave/Swim Node receives coordinates as input, E.G. the position of an object.

The following things are calculated:

The **Position** is perpendicularly projected onto the x-z-level of the Add-the-Sea Object.

Subsequently, the shift of the waves will be calculated (in this case, it is exactly the same as swimming objects).
In addition, the surface normals of the imaginary x-z plane are returned (this corresponds to the Y-axis of swimming objects).

Velocitiy
Measures the velocity of a water particle on the Water surface.

CoastHit
Should always be enabled when the **input position** of the coast map comes into contact with land.

WaveNormal
Corresponds with the normals of polygonal objects.
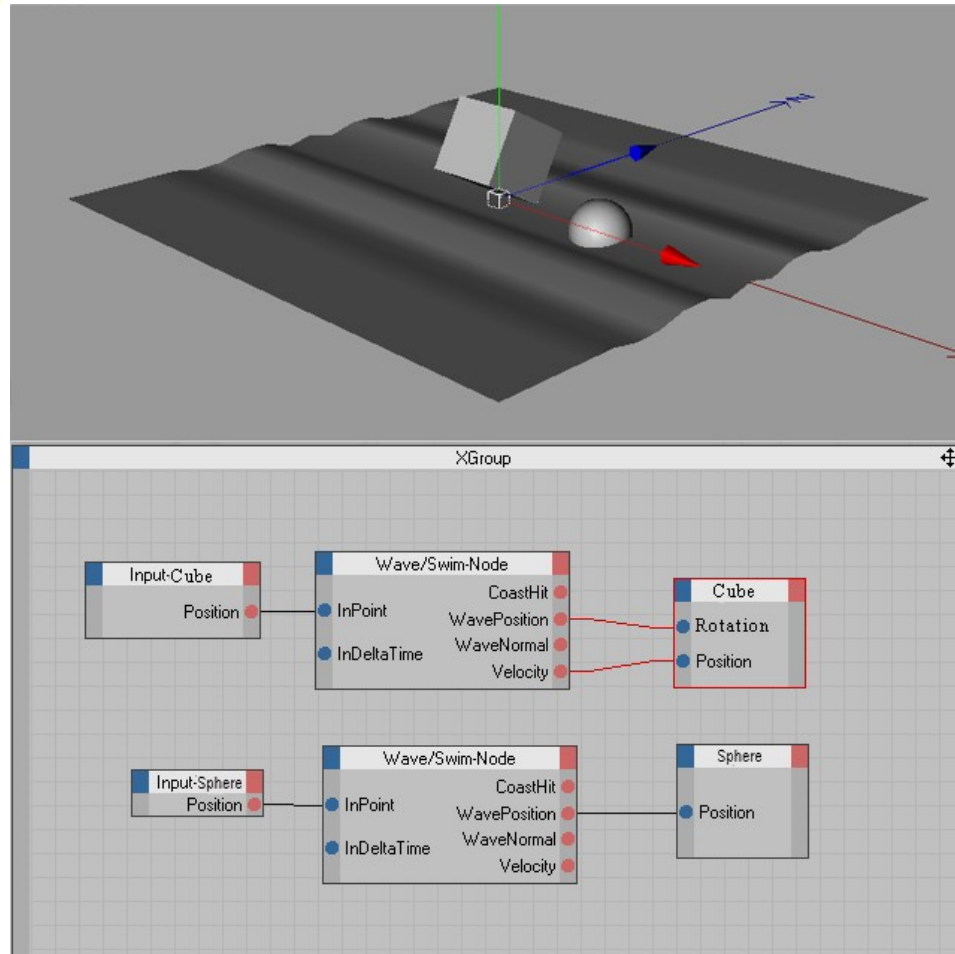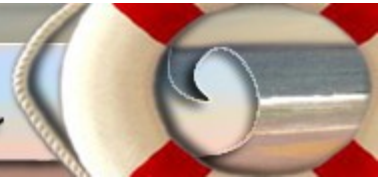
16. Xpresso Node Drop

DropNum:
Each individual drop will be sorted according to time, will receive an internal number and will be listed.

MaxEvalTime:
All drop tags line up in a list similar to the one below.

Drop type / Impact time for drop 1 of this drop tag.

Drop type /Impact time for drop 2 of this drop tag

Drop type /Impact time for drop 3 of this drop tag

       etc.

Example:
1. Coord.: 0,0,0   Time: 10 Seconds
2. Coord.: 100,0,0   Time: 20 Seconds
3. coord.: 200,0,0   Time: 30 Seconds
       etc.
MaxEvalTime make sure that the list will be filled with drops created within the entered maximum evaluation time.

Example:
MaxEvalTime = 10 Sec. Only drop 1 will be listed.

MaxEvalTime = 15 Sec. Only drop 1 will be listed
(while the next drop falls after 20 seconds.)

MaxEvalTime = 21 Sec. Only drop 1 + drop 2 will be listed.

When a drop is not available (for example because it will fall at a later time), the value of MaxEvaltime is too high for the drop number. Therefore, the exit DropExist will output „False".

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How to create a watersplash using TP and Add-the-Sea Drop-Node:

You will find all examples in our Forum: www.add-the-sea.de/forum please register

Foundations

4ATS-Shader is a shader which is dependant on deformations.

In other words, it integrates with the wave data of Add-The-Sea. The respective wave object or tag can be appointed and intertwined with the waveshader by using the drag and drop field called ATS-Object/Tag, which can be accessed through the attributes manager of the material after clicking on the waveshader. Each wave requires its own material in order to correctly use the shader. If you need the shader for a multitude of waves, you will have to successively stack several Waveshaders (the shader should be placed in the alpha channel). This can be used to create foam for the basic movement of the water and you could add corresponding foam to a rolling wave.

The shader can be used in all channels supporting bitmaps and shaders.

In the example on the right, we have selected the channels which we usually use for this shader.

Please note: The 4ATS-Shader does not create internal alpha values. Enabling Image Alpha will produce no useful results.
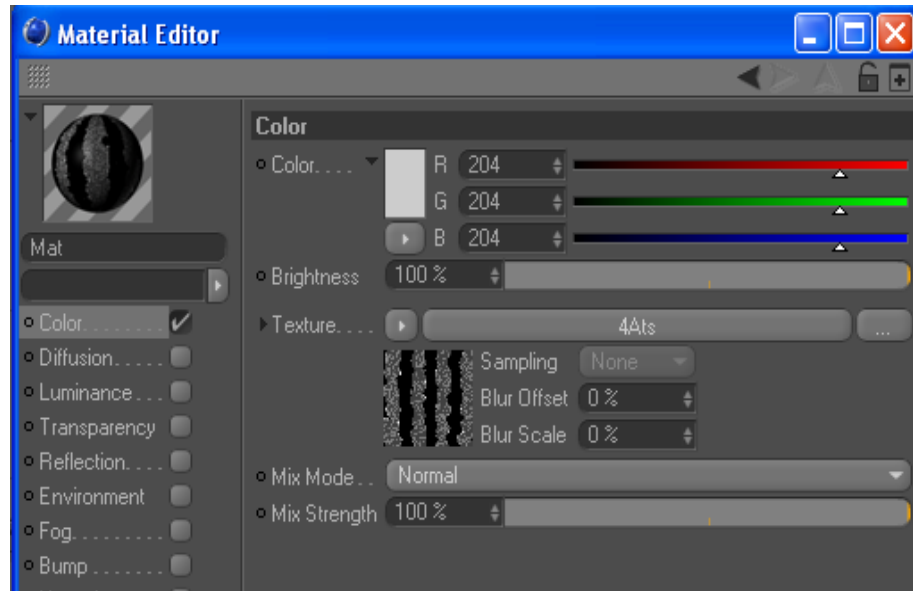
4ATS-Shader

Object/enabling

ATS-Object/Tag:
Drag and drop the wave object or tag, which has to be taken into account by the shader, into this field.

Force Object:
When this button has been enabled, the data will be passed on to the shader, even though the deformation of a wave has been disabled.

UV-corners:

The values of this menu enable you to move or scale the UV field, or the UV-corners of an object's UV-Map. In the example on the right the parameter UV X4 was changed from -200 to -400.

87
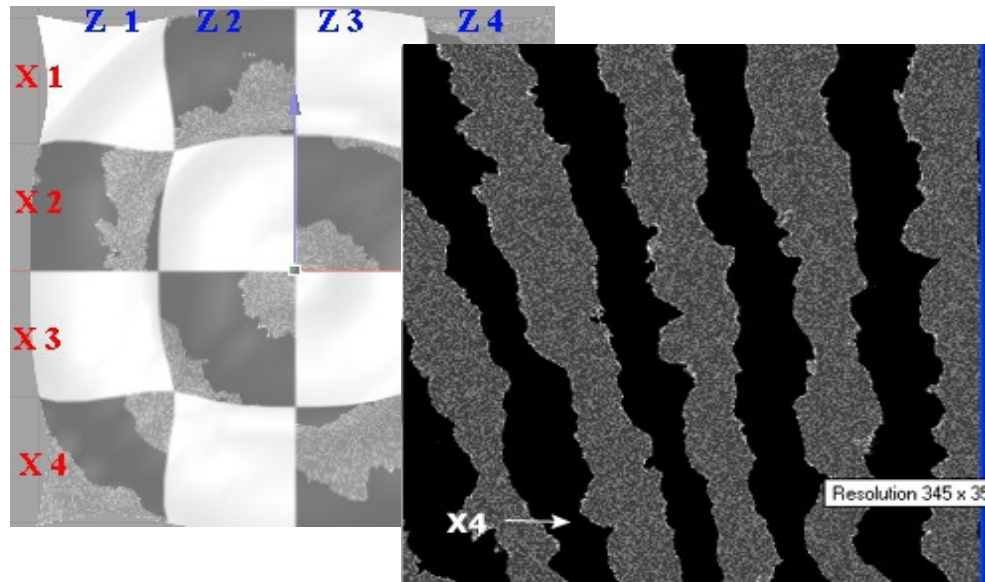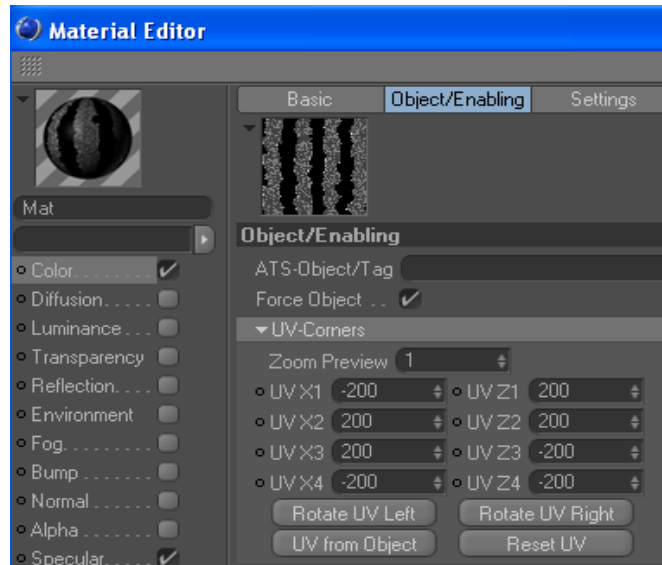
Rotate UV right°
Rotate the uv values into the direction of a clock

Rotate UV left°
Rotate the uv values in the opposite direction of a clock

UV from Object
Acquires the UV values of the object, which is given a higher priority than that of the control object – adjusts the size.

Reset UV
Resets the uv values to the default values

Settings

Presets:
This button will show a collapsible menu with presets, which can be selected by pressing the OK button.
Afterwards, the standard values will be changed and they can be altered to reflect your own desires.
The first half of the list deals with foam options, while the second half deals with caustic textures.

Have you figured out any beautiful and original settings?
You may send us the C4D file, and we will add it to the presets list (with credits upon requested).

A preset also contains preset UV values found in the Object/Enabling menu.
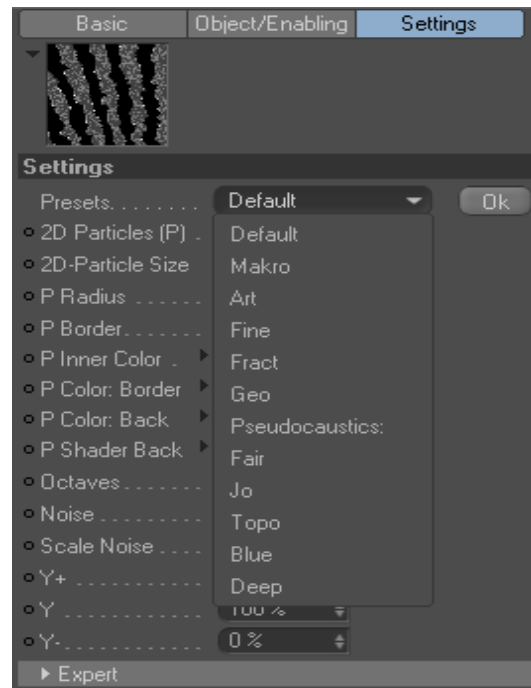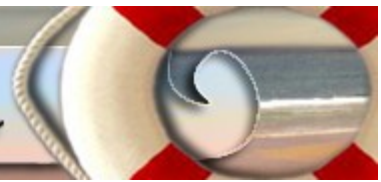
Presets
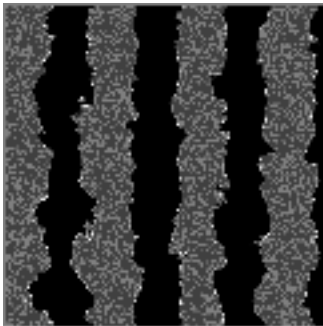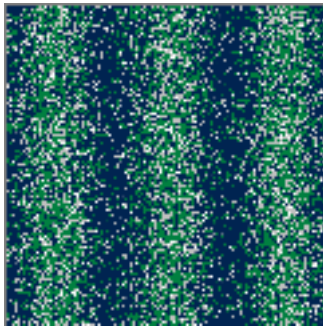
Foam:		Pseudocaustics:	
Default	Fine	Pseudocaustics	Blue
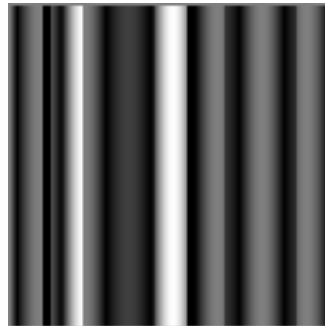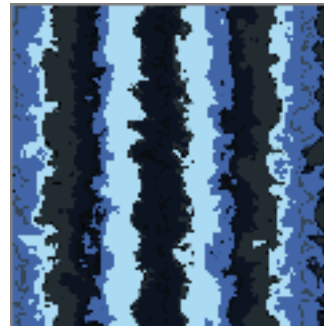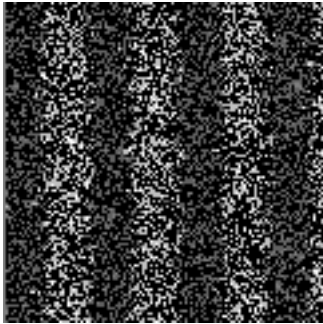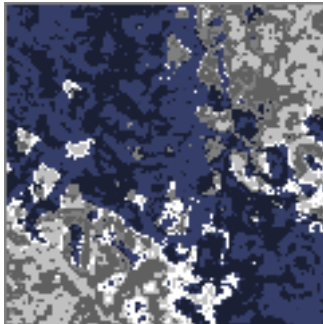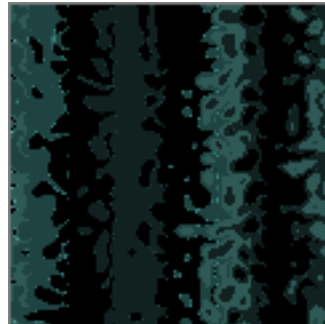
Makro	Fract	Fair	Deep
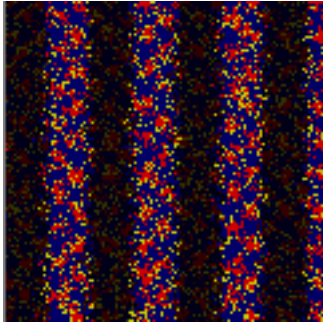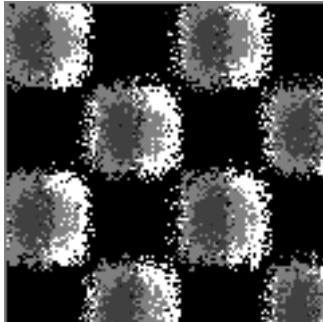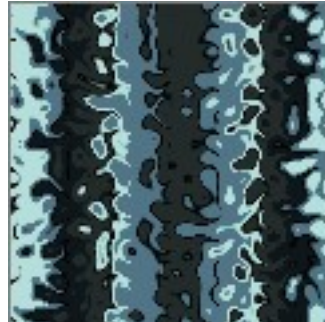
Art	Geo	Jo	Topo

4ATS-Shader

2D Particles (P)

We have used some funkalicious and non realistic foam colors in order to explain the following parameters.

2D Particles:
Particles allows us to define the basics of this 2D shader. The shader creates circular patterns (or squares if P-Radius=144%), which can be altered in size, color and form. It can be distributed along the height and path of the waves, which are created by deformers.

Particle activated:Basic shape - square/circle
Particle deactivated:Basic shape – stripes

2D-Particle Size:
This value determines the size of the circular shaped particle shader.

Min value: 0.01 (The value may be smaller, but you have to decide for yourself if that would be useful).

Max. valuet: 0.5 (Larger values are possible, but you have to decide for yourself if that would be useful).

The following three values are closely related:
Scaling of the particles-distortion / Noise and take into account the octaves. The shader will have 0 subdivisions available to distort (noise) the circular pattern if the octaves are set at . Subsequently, the shape will remain circular. Likewise, scaling will have no effect either.

Color distribution of an activated particle.

P Color
P Border
Shader Back
P Back

P= 2D-Particle
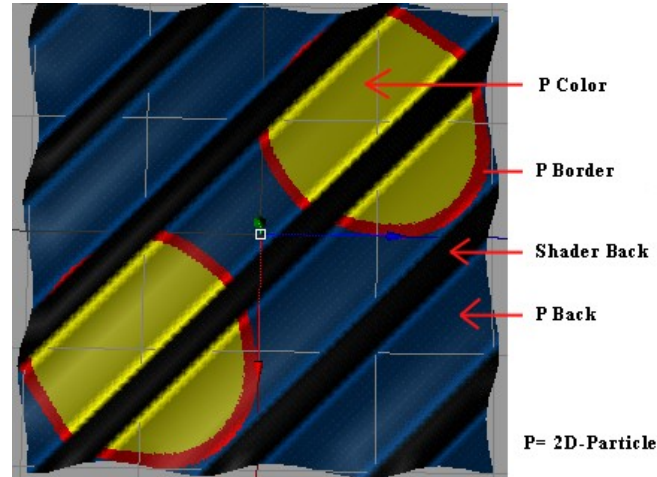
Increasing the octave value by just one will create a distorted circle: In the above example, we have used an octave value of 1 and a scale factor of 0.4 with a distortion of 0.1, which causes an overall distortion of the circle shape.

P Radius / P Border

Determines the radius of the 2d particle in comparison to the particle size and it is required to appoint the corresponding color values. In this example, the particle color is white. P radius of the yellow color will be subtracted from this radius, which creates a border for each particle.

P Back

Every 2d particle is surrounded by a color, in this case blue. This is the area in which the particle can be expanded by twisting and scaling it.

P Shader Back

In this example, the expansion of the black field is out of the question due to the distortion, or foam, it forms the shader background and is limited because of the values of:

Y+ (in front of the wave) / Y (upon the wave) / Y- (behind the wave). Simply said, all regions which are not deformed by waves are colored by the shader background.

The concepts of the parameters:
Y+
Y
Y-

Are just starting points used for the distribution of color values along the height of the wave.
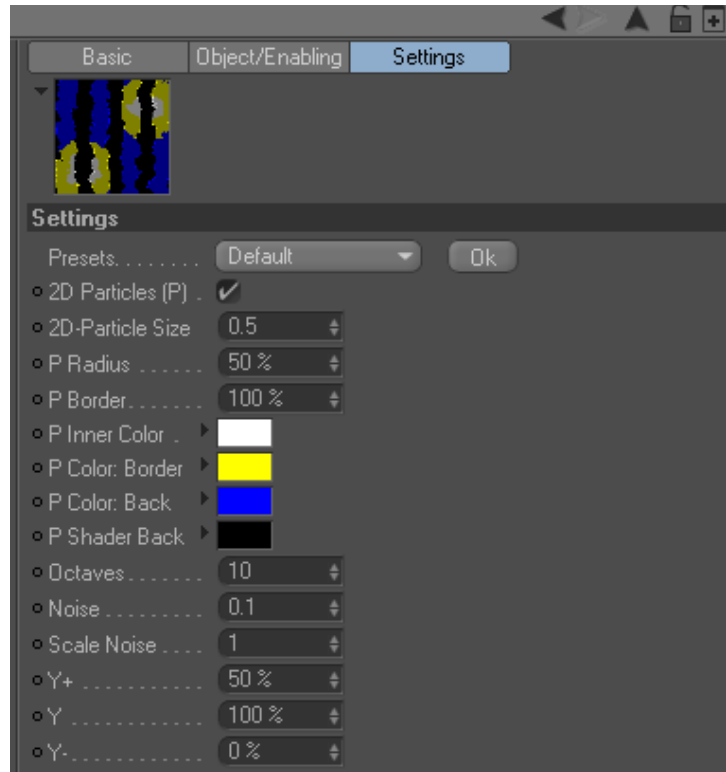
After editing several parameters, the options "in front of the wave", "upon the wave" and "behind the wave" may not be accurate anymore, because the color field may shift due to delta time, distortion, accuracy etc. This may case the foam to shift forwards or backwards.

Basically, the above mentioned parameters are averaged.

4ATS-Shader

Expert

Delay
Allows you to determine a delay for the activation of the shader.

The larger the **clipping** value, the larger the size of the shader background (the less the wave deformations will be taken into account).

Accuracy
This value is closely connected to the Clipping, and the Border of the wave's crest. It limits the margin or maximizes it for the other parameters, based on the chosen value

Speed U
Forwards movement of the painting particles

Speed V
Forwards movement of the painting particles

Swap
Inverts the shader from Y- to Y+

Blur Offset
We modified this parameter for the Add-the-Sea Shader 4ATS. This modification is limited to Add-the-Sea to smooth the 2D-Particles very soft.

Blur Scale is not needed for the Add-the-Sea Shader.

Blur Offset 0%   Blur Offset 10%
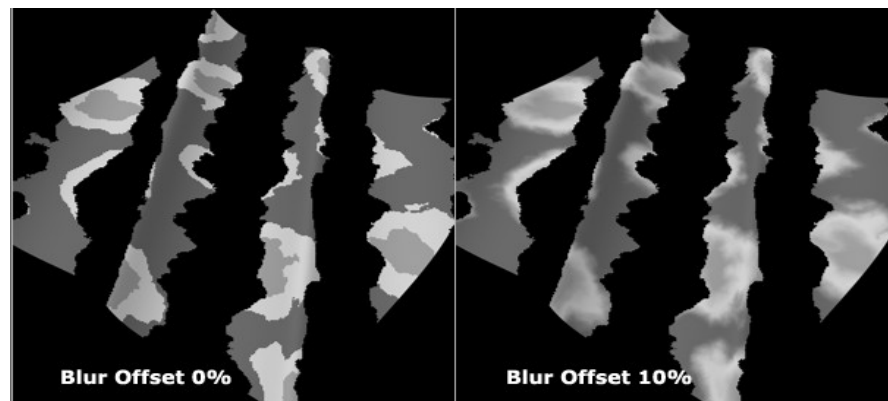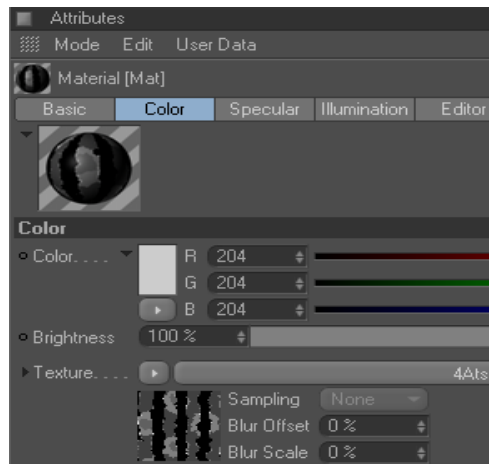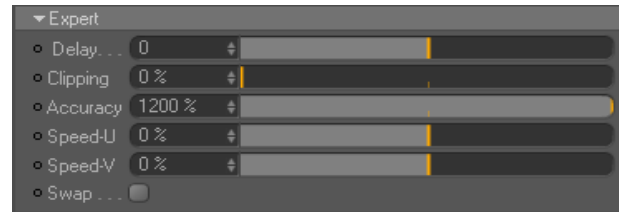
4ATS-Shader

The Shader and Hierarchies in the Objects manager

Image 1 shows an example where just one wave object has been dragged into the shader. Only plugin will be taken into account by the shader.

Image 2 shows an example where the entire Add-The-Sea main control object has been dragged into the shader. Therefore, all wave data will be taken into account.

This allows a user to choose individual wave plugins or an entire wave plugin hierarchy, independent of the amount of wave plugin children.

The following example uses a coastmap tag in the shader:

Image 1:
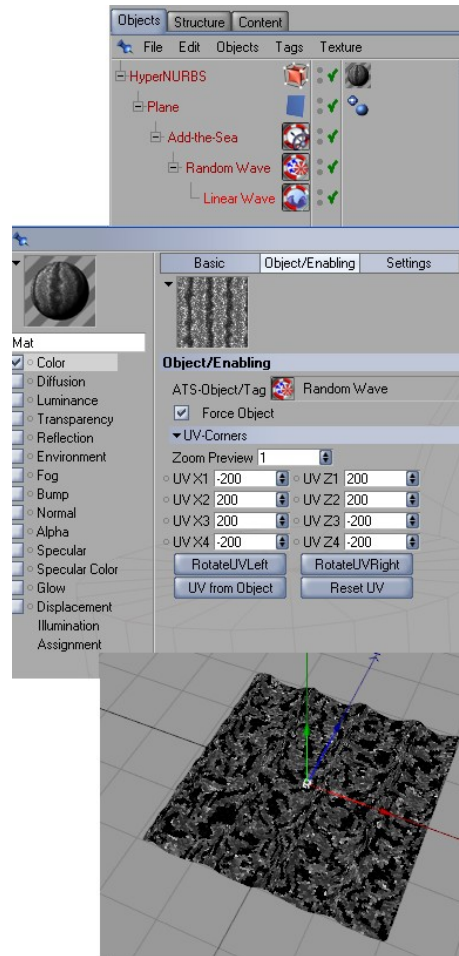
Image 2:
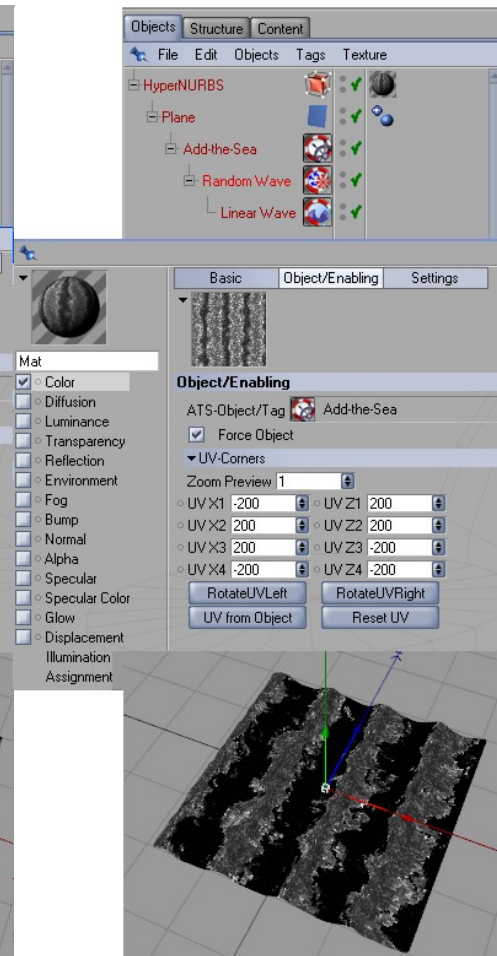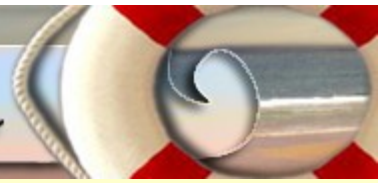
18. Gallery

Flower - Jürgen Suntinger-Schrampf

You can create more than just coast lines and water:
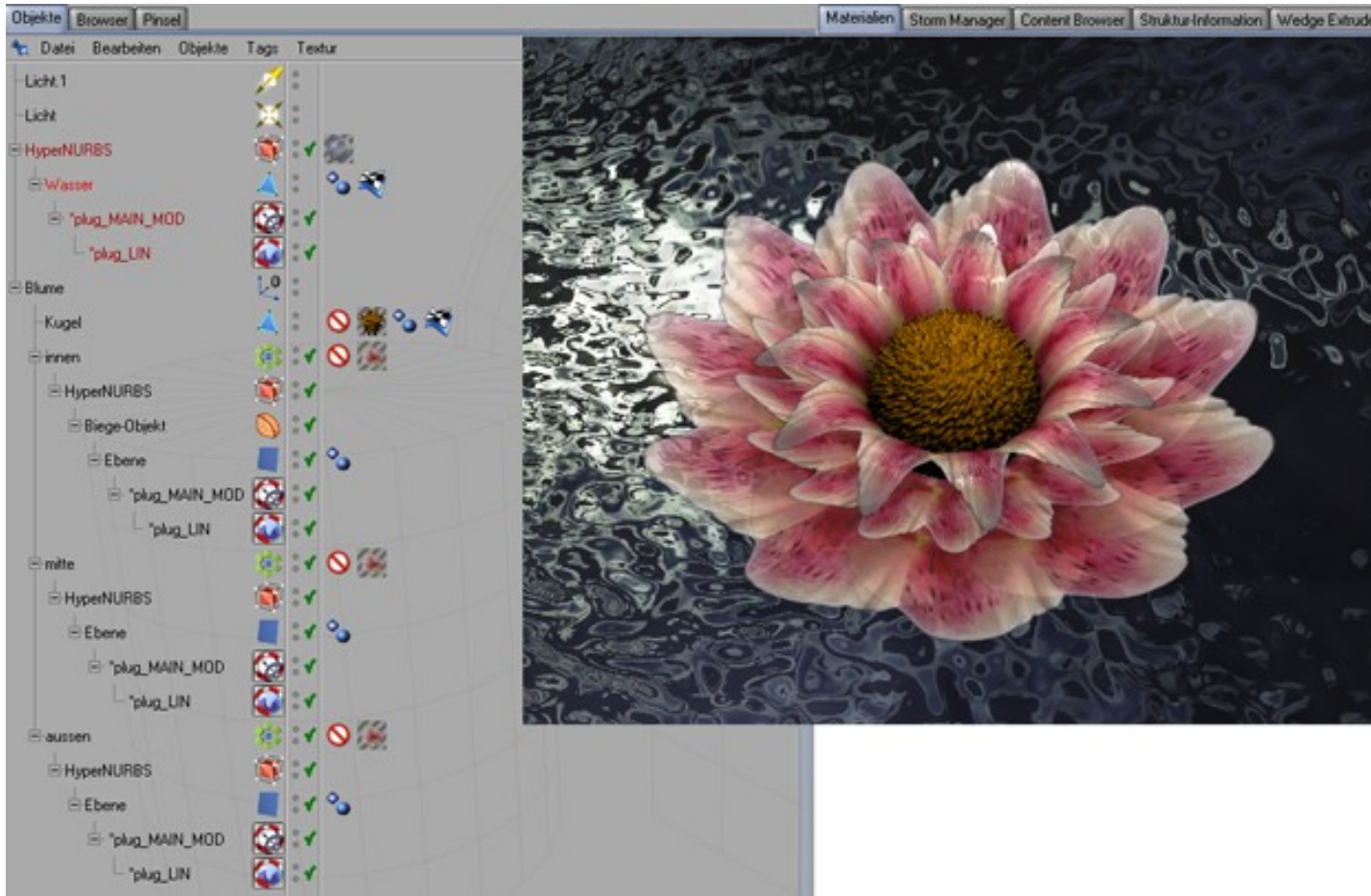
Add-the-Sea was not just used for the waves, but also for the flower.
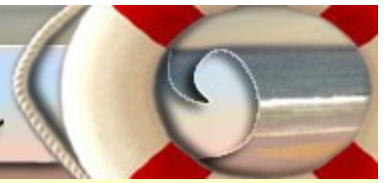
Gallery
vision of Atlantis - Tobias Löffler
Inventive way of using the coast function:

The entire city has been created using a greyscale bitmap, the coast function of Add-The-Sea and a plane. The water surfaces within the city are automatically taken into account by the waves.

Tip: Use several greyscale maps of cities, overlay them and save it as an avi file. Afterwards, load the avi file as a coast map, which results in an animated, changing city.....

19. Coast: step by step

Coast created by geometry
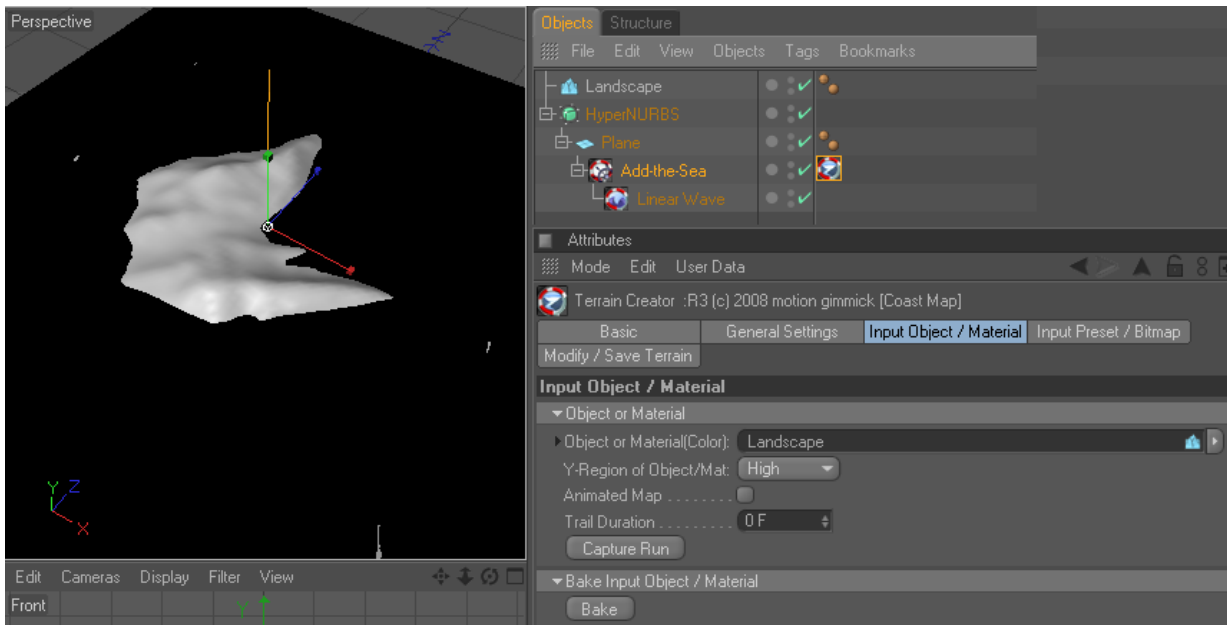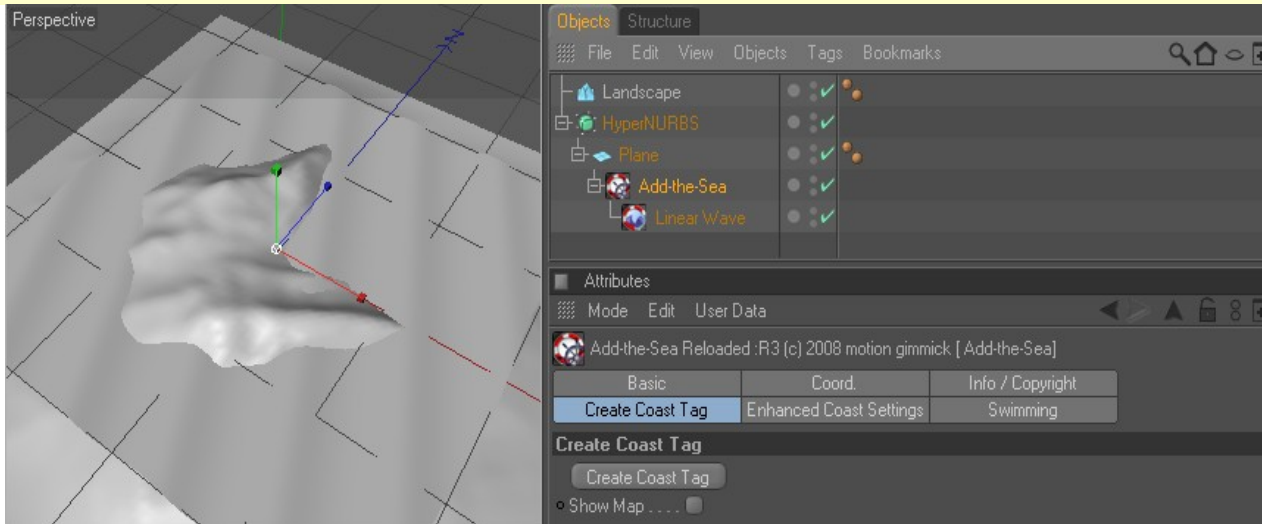
Create a Plane

1. Create any object (in this example it is a Landscape). You can use all objects in Cinema: parametric or polygonobjects, Loft, Sweep .....
2. Now start the Add-the-Sea Plugin and put it under your Plane
3. Select a linear wave and put in under the Add-the-Sea Object
4. Select the Add-the-Sea Object in Objectmanager to open the menu in Attributemanager.
5. Create Coast Tag
6. Now you will see a new Tag-Icon behind your Add-the-Sea Object.
7. Select this icon. Now you see a new menu in your Attribute Manager and your Plane now is colored black
8. Go to Input Object / Material and move your Landscape into the Drag and Drop Field of this menu.
9. Click to the Button **Capture Run**
10. At last use the button **Bake**

Your first Coast / Terrain is finished.

## Coast: step by step
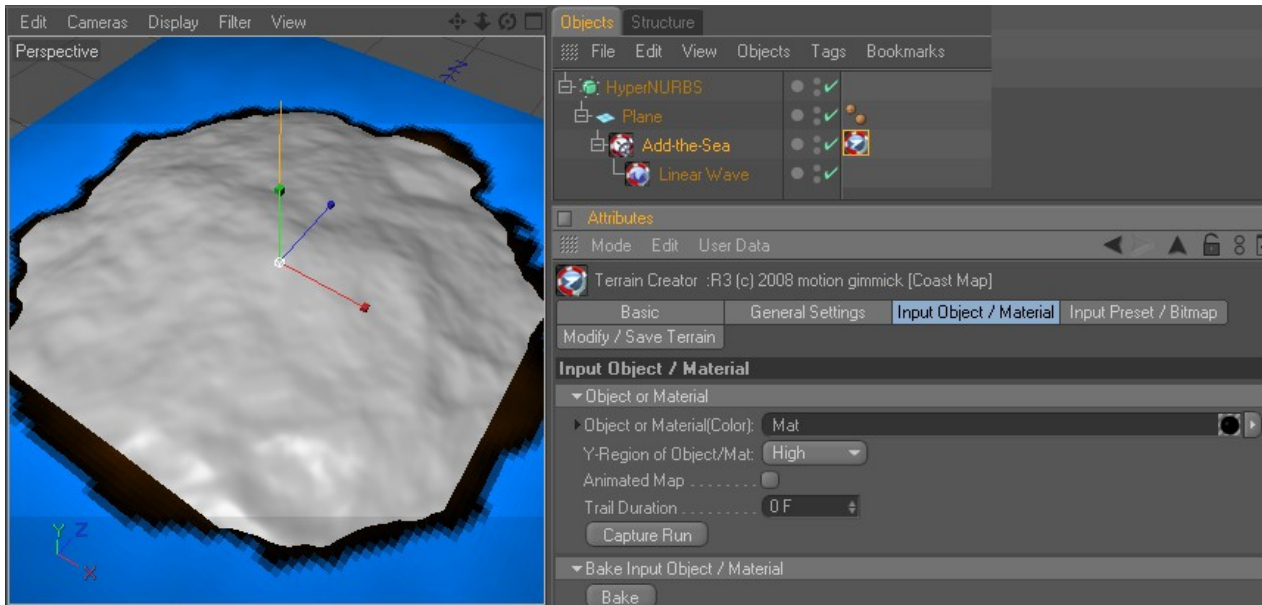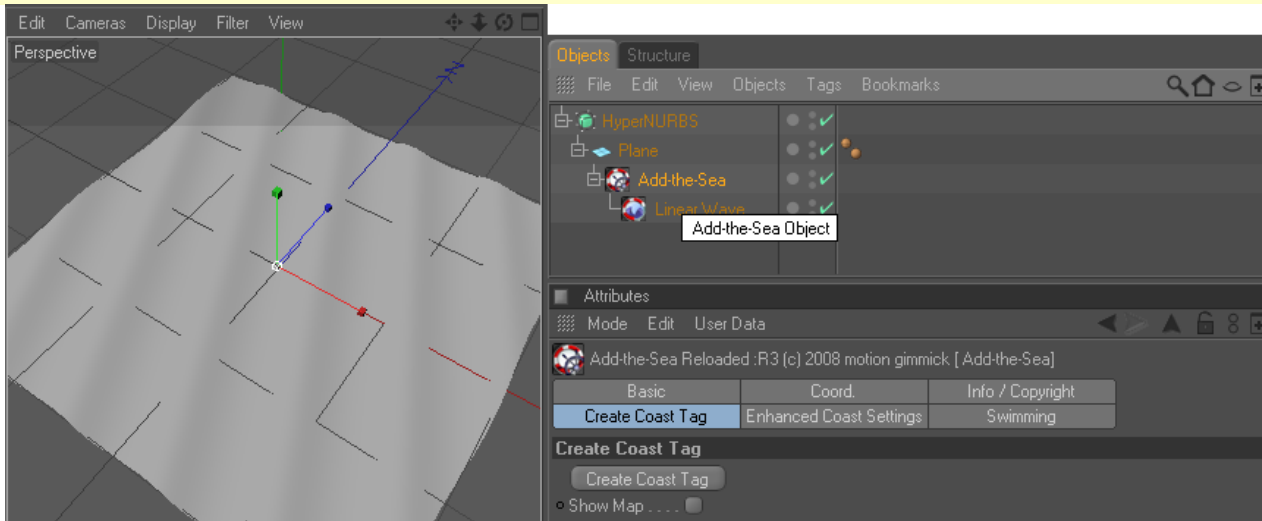
Coast created by Material

1. Create a Plane
2. Create any texture in Materialmanager / Color (in this example it is a circular gradient). You can use all textures, shaders and some Effects. Add-the-Sea only uses the Colorchannel for Coast!!
3. Now start the Add-the-Sea Plugin and put it under your Plane
4. Select a linear wave and put in under the Add-the-Sea Object.

5. Select the Add-the-Sea Object in Objectmanager to open the menu in Attributemanager.
6. Create Coast Tag
7. Now you will see a new Tag-Icon behind your Add-the-Sea Object.
8. Select this icon. Now you see a new menu in your Attribute Manager and your Plane now is colored black
9. Go to Input Object / Material and move your Texture from Materialmanager into the Drag and Drop Field of this menu.
10. Click to the Button **Capture Run**
11. At last use the button **Bake**

Terrain is finished.

Coast: step by step
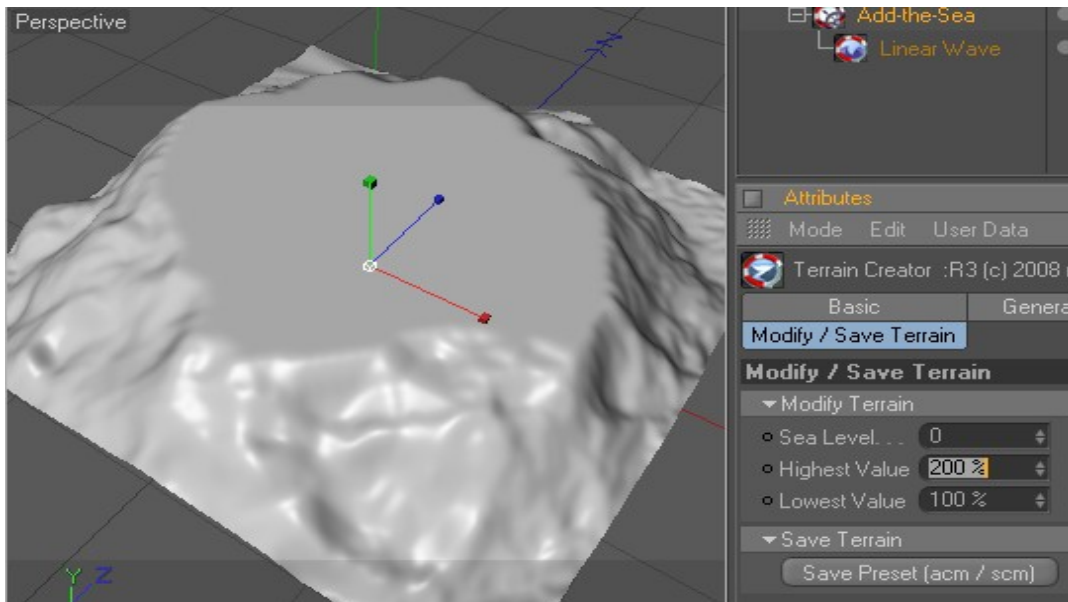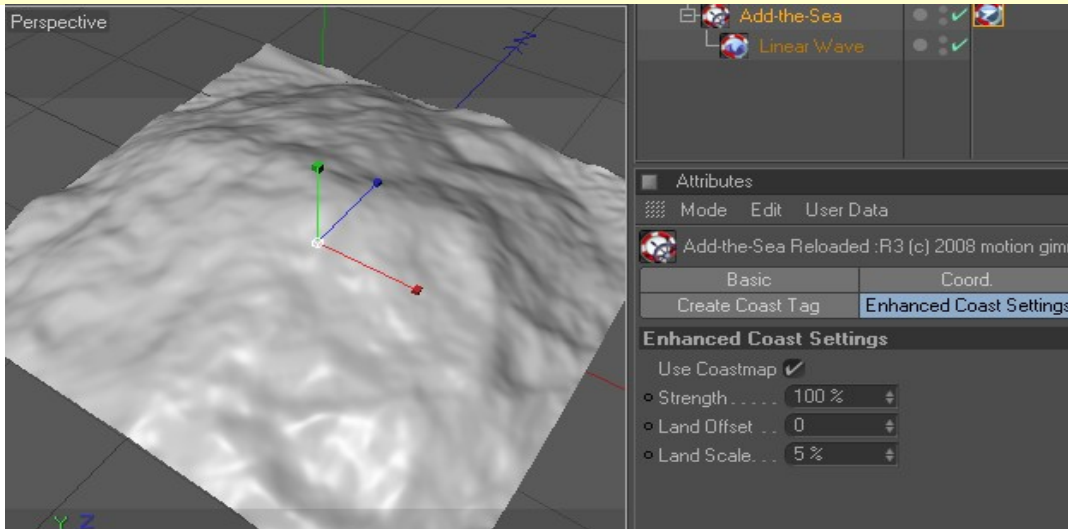
Modify Terrain

Use the Terrain we just finished from the gradient shader.

Change the Landscale from 100% to 5 %.
Now we will create a plataux to this terrain. We cut off the top of the hill.

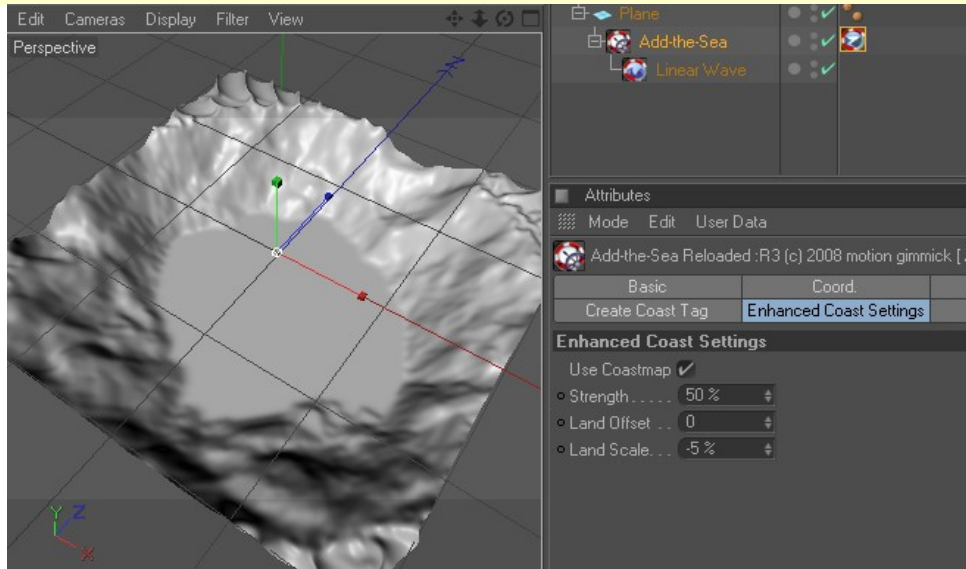Go to the Coast Tag in Objectmanager and open the Coast menu in Attributemanager.

Scale the Highest Value from 100% to 200%.

Nice place to build a house on the Top of the hill....
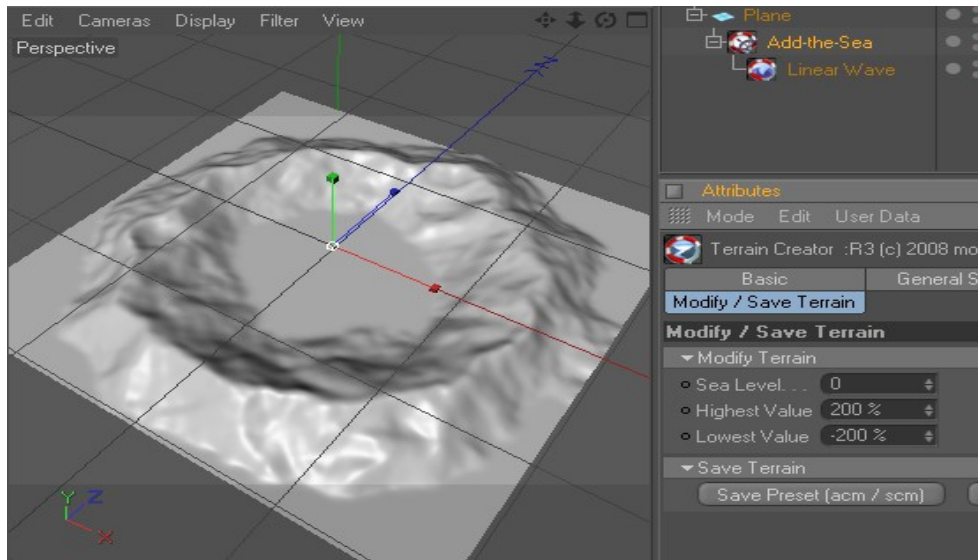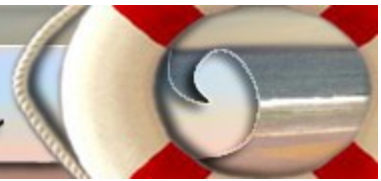
save this example, we use it on the next part of this Quicktutorial.

Coast: step by step

Modify Terrain

Now we will invert from hill to valley. Select the Add-the-Sea Object in Objectmanager, open the menu Enhanced Coast Settings and edit Landscale from 5% to -5%.

Now we change the Lowest Value from 100% to -200% and get a vulcano.
Play around with this parameters and you will get some tricky results.

Coast: step by step
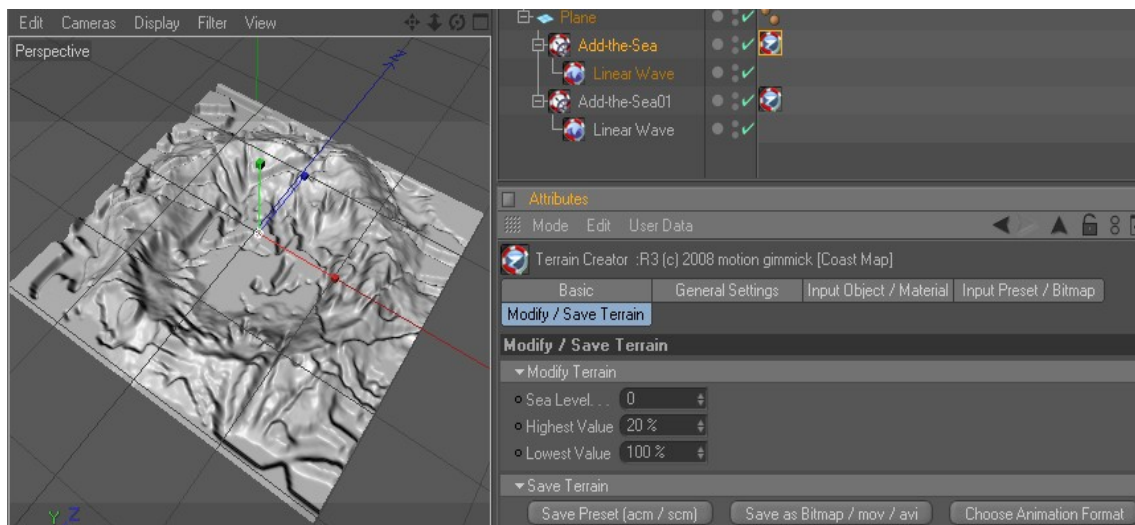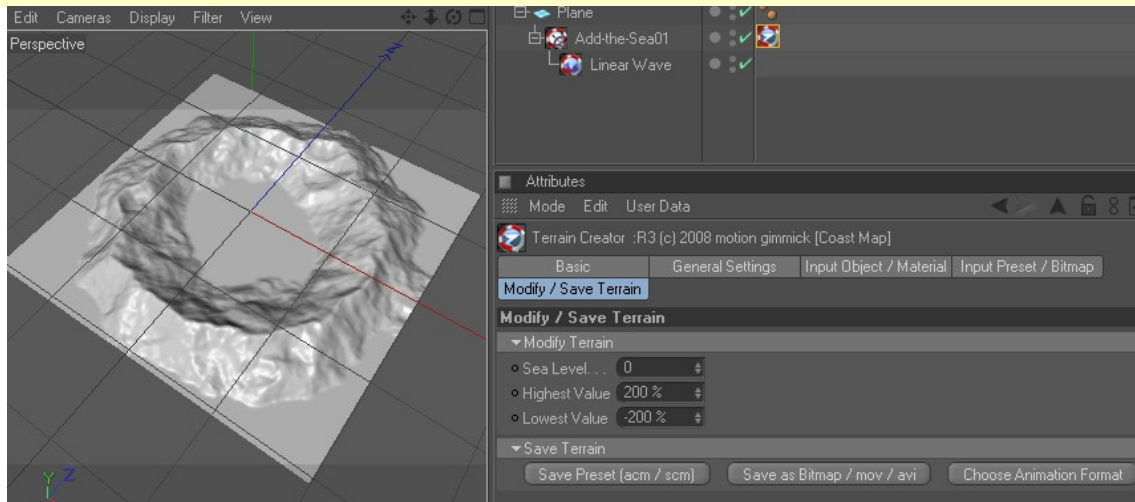
Add more than one Coastmap

Use the last Coastmap again but now edit your plane to:
Width Segments: 150
Height Segments: 150
Rename your existing Add-the-Sea Object to Add-the-Sea 01

Create another Add-the-Sea Object and put it under the plane.

Go to the new Add-the-Sea object and Create Coast Tag.
Default Size of the Coastmap is 400x400. We will use this, so do not change.

Open the Coastmenu for this new Coast Tag and choose **Input Preset / Bitmap.**

Select a Bitmap from your harddisk.
It is not necessary to bake this map. Bitmaps are working immediatly to the coastmap. To speed up your performance deactivate Show Terrain in Generell Settings of your Coast Tag.

Edit your new map with Modify/Save Terrain. I used:
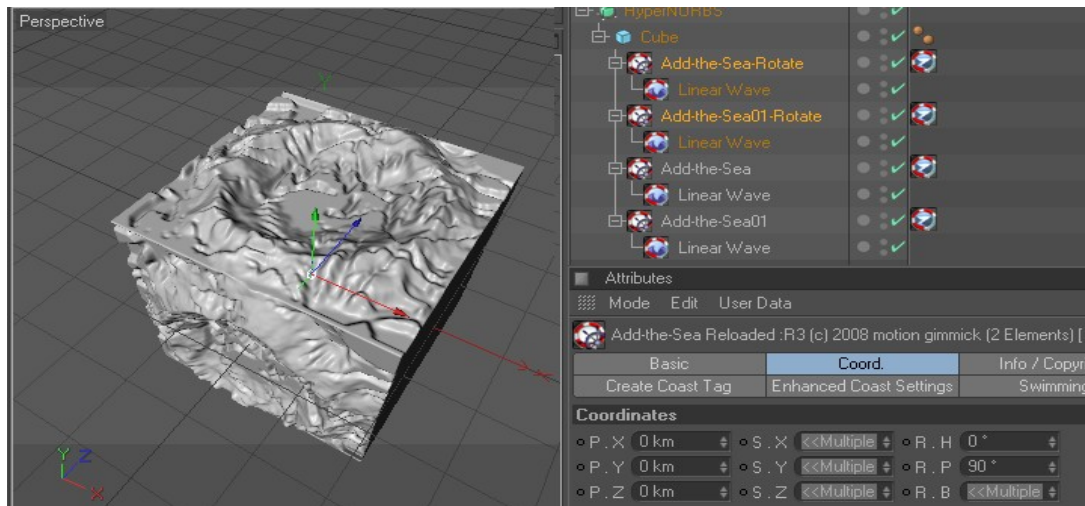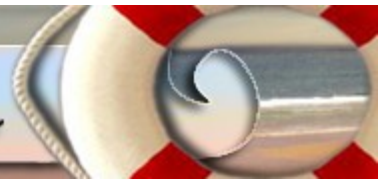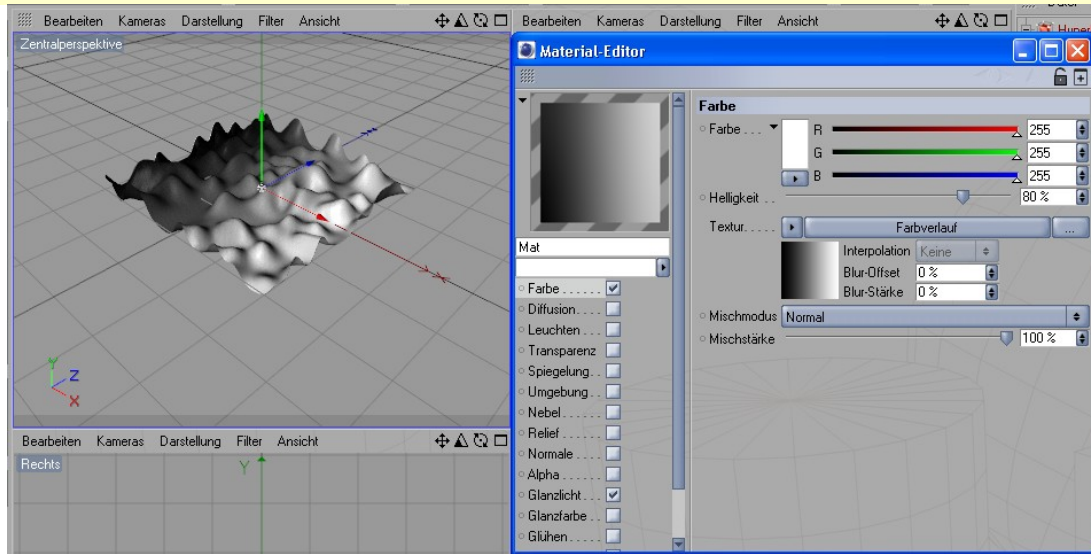Highest Value 200%
Lowest Value -200%
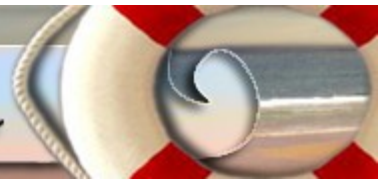
Coast: step by step
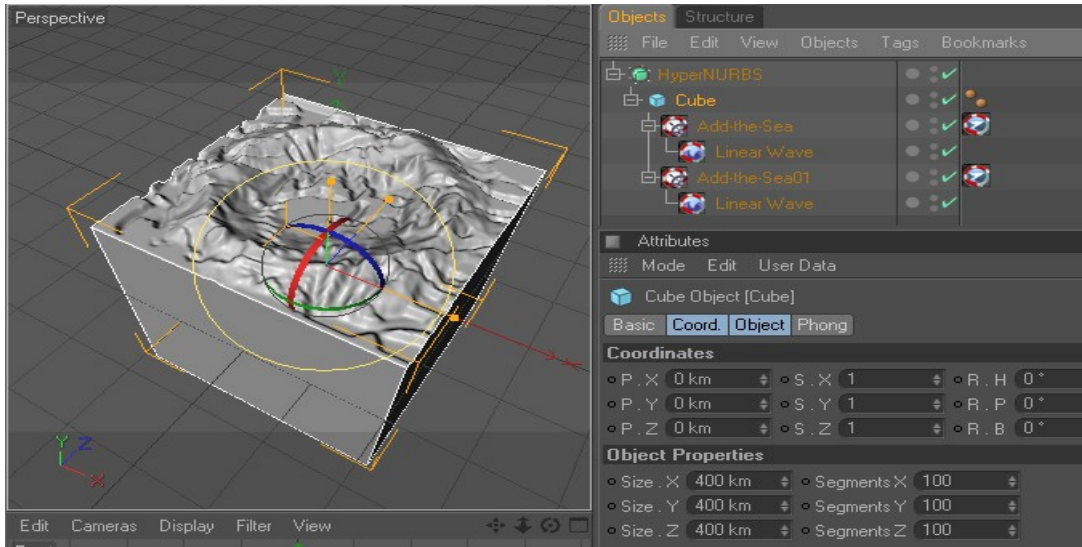
Create a Cube
Put the Coastmaps we did in the further examples under this Cube.
Subdivide the Cube to
Segments X: 100
Segments Y: 100
Segments Z: 100

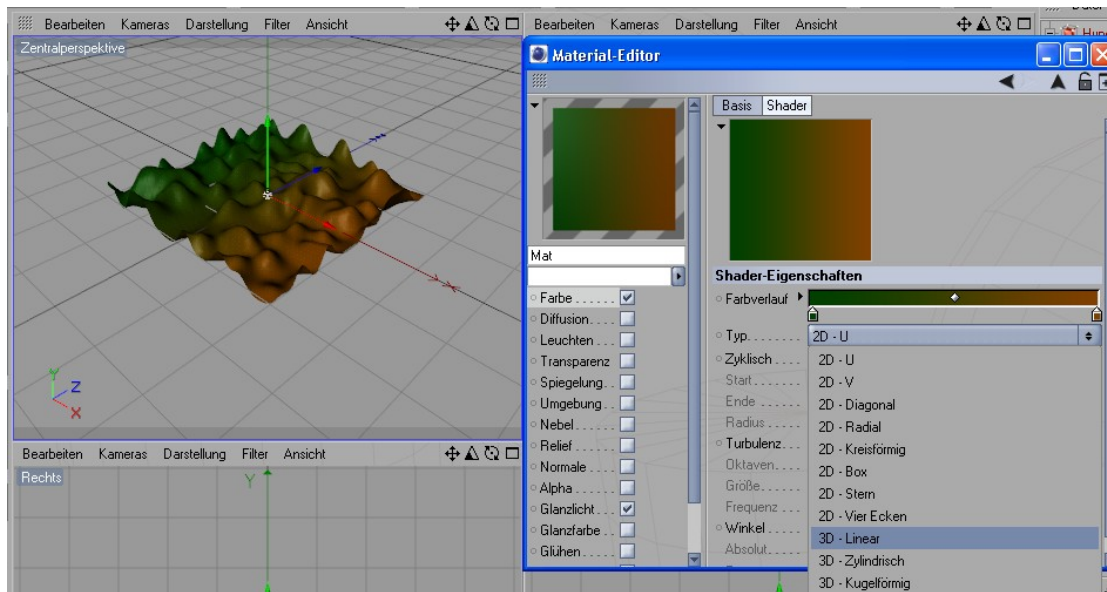Now copy Add-the-Sea and Add-the-Sea01 and rotate it in P 90°.
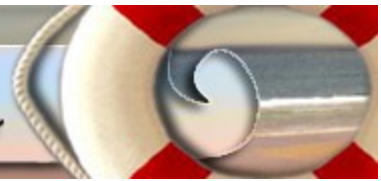
Coast: step by step
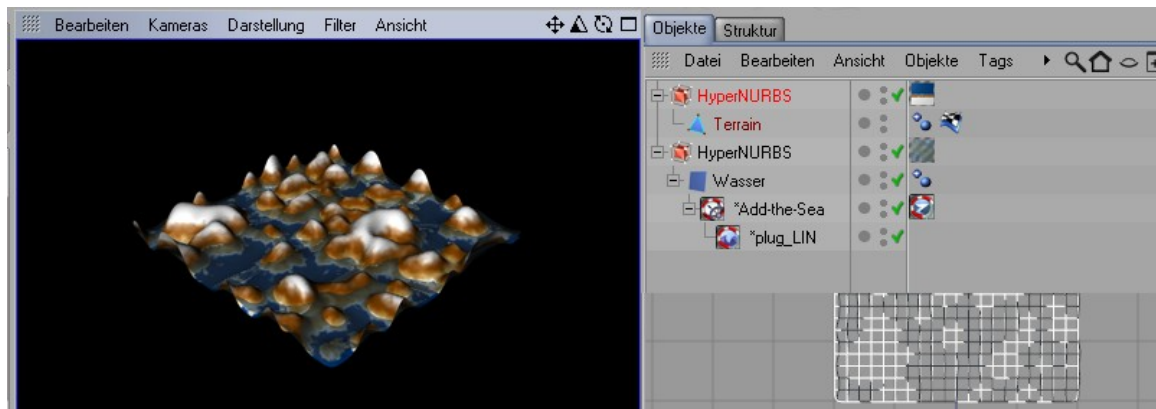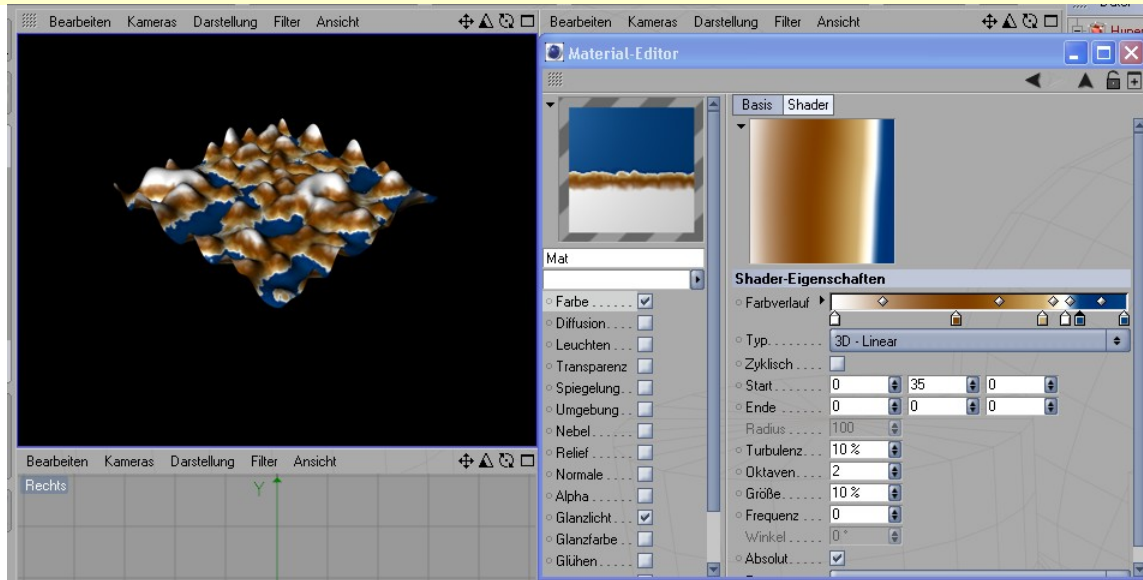

Coast-Material example

We have created a terrain with a bitmap, and now we want to add a material to it. First, we will use the color channel.

Create a new material and add the Cinema Gradient Shader to the color channel. Change the gradient colors and change the type to 3D linear.

Coast: step by step


Coast-Material example

Now, define the start and end value of the shader for the Y axis. Consequently, the gradient colors will be dispersed along the Y axis of the terrain.
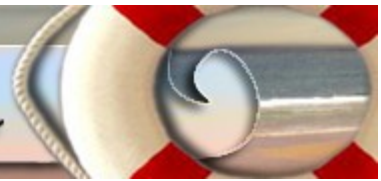
If we had not used a copy of the plane for both terrain and water and if we had made the deepest points blue, it would have looked great in a still render. However, when animated, the wave deformer of Add-The-Sea would have moved the transition area between water and land.

In order to create an authentic looking coast line, we have to duplicate the plane incl. Add-the-Sea. Subsequently, we have to change the Land Offset to 5% (the movement of the waves has now been disabled). Change the object with Current State to Object. This will create the terrain.
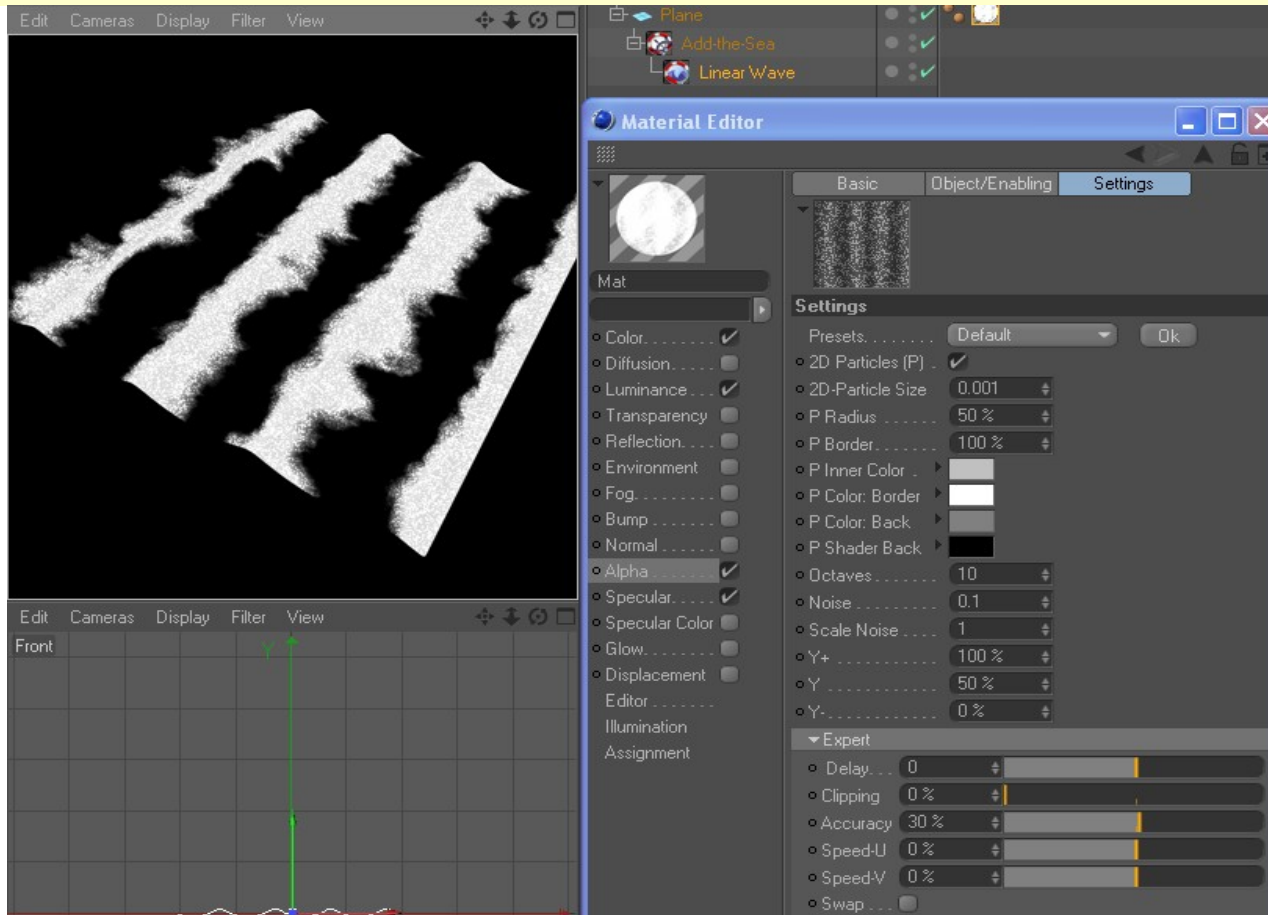
Add a good looking water material to the water surface. Lastly, change land scale of the Add-The-Sea main plugin to -5 %.
Move the waterplane in Y+ direction.
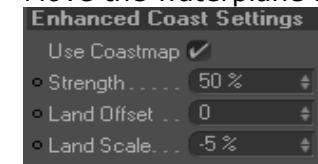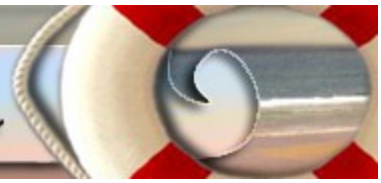
20. 4ATS-Shader Step by Step

4ATS-Shader for Linear, Radial and Random Waves

1. Create a plane 400x400
2. Add the Add-the-Sea Object as a child to this plane
3. Create a linear wave as a child to the Add-the-Sea Object
4. Go to the Materialmanager and create a new material
5. Color Channel has white color
6. Luminance Channel with Default Setting
7. Alpha-Channel / Texture / 4ATS
8. Open the Texture menu
9. Object Enabling: Put your Add-the-Sea Object with Drag&Drop into the ATS-Object/Tag Field.
10. Use UV from Object to get the right Shader-Size for your Plane.

Now you can do some enhanced Settings:
Y+ change to 100%
Y change to 50%
Accuracy change to 30%

and you get a nice Standard 2D-Foam that works to linear waves, radial waves random waves.

4ATS Shader Step by Step

4ATS-Shader for Dropwaves

1. Create a plane 400x400
2. Add the Add-the-Sea Object as a child to this plane
3. Create a Drop Wave as a child to the Add-the-Sea Object and use raindrops for this example. (Count 10)
4. Go to the Materialmanager and create a new material
5. Color Channel has white color
6. Luminance Channel with Default Setting
7. Alpha-Channel / Texture / 4ATS
8. Open the Texture menu
9. Object Enabling: Put your Add-the-Sea Object with Drag&Drop into the ATS-Object/Tag Field.
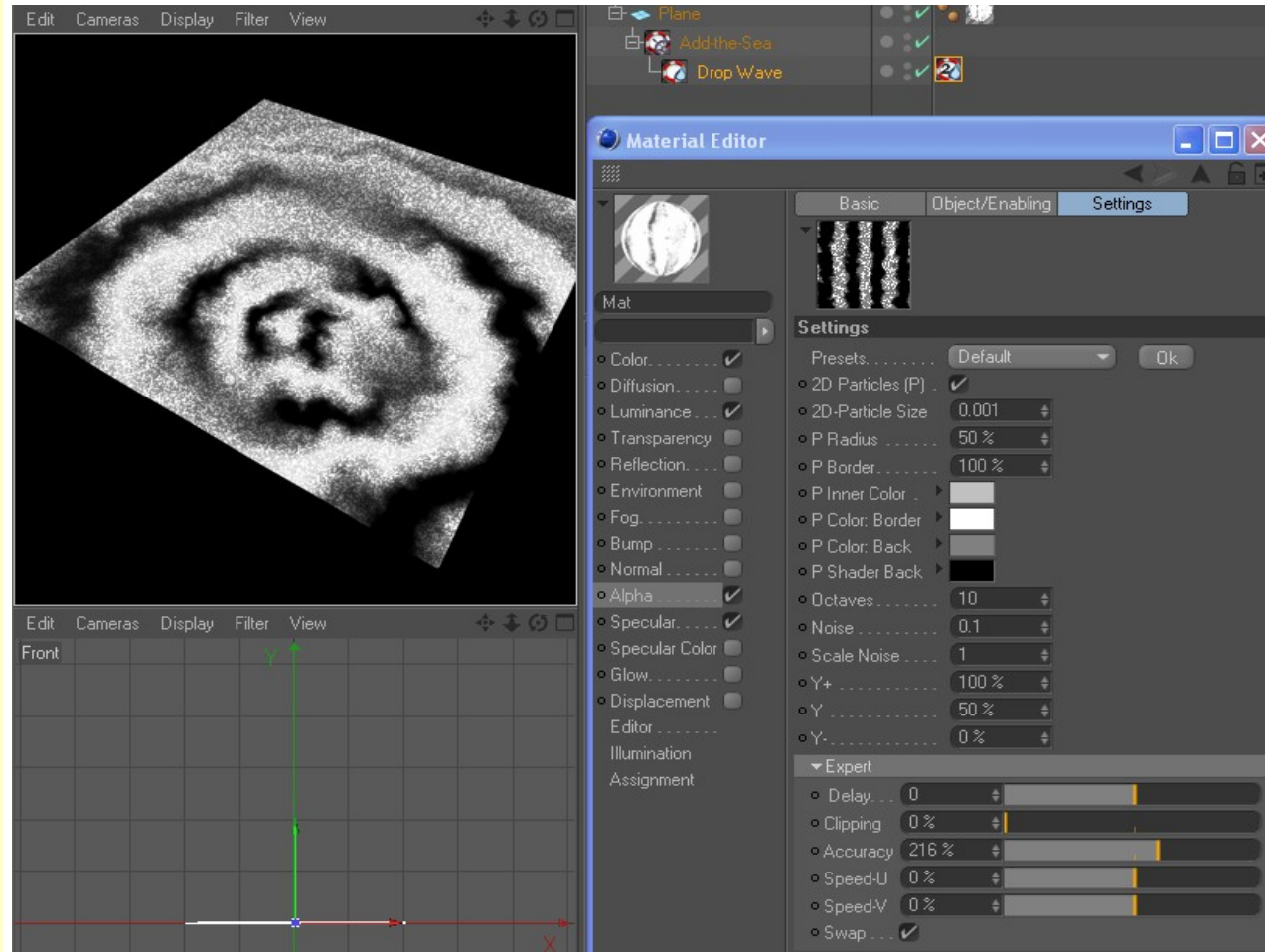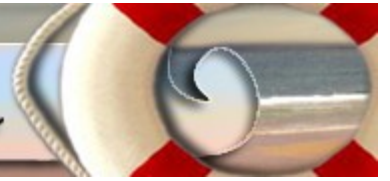10. Use UV from Object to get the right Shader-Size for your Plane. Now you can do some enhanced Settings:
Y+ change to 100%
Y   change to 50%
Accuracy change to min. 216% (Dropwaves need higher accuracy than Standard waves like linear wave...)
activate Swap

and you get a nice Standard 2D-Foam that works to all dropwaves

21. Epilogue

Please note:
The tool has many uses, so do not let its name fool you. Hopefully, you will be inspired by the diversity of this plugin ;o)

With a little bit of patience and effort, you will find out that Add-The-Sea is an advanced and diverse deformer. It is capable of animating displacement and waves. You can also deform, distort, swim through, place objects on waves and create the most amazing shapes.

... We offer support for:
Questions, ideas, project support, changes, additions, wishes...
Do not hesitate to contact us.

Add-the-Sea has been in development since Cinema Version 5, and this is most certainly not the last version. We still have plenty of ideas!

Visit our website for downloads enhanced tutorials and news.

Regards,
The **motion gimmick - Team**