NODE 08

FORUM FOR DIGITAL ARTS
NODE08.VVVV.ORG

TIMETABLE

SATURDAY April 5th 2008

	Velvet Club	Velvet Lounge	Cube	Münchener Str. 12	Diakoniekirche
16:00 - 18:00			Meet & Greet		
18:00 - 18:45			Help Patch Award Defining The Worst Help Patch		
18:45 - 00:00			Open Lab		

SUNDAY April 6th 2008

	Velvet Club	Velvet Lounge	Cube	Münchener Str. 12	Diakoniekirche
10:00 - 13:00	Shader Programming Tebjan Halm & Joreg Laptops closed	Max MSP & vvvv Relationships Between Generative Media Olivier Martin & Joseph Larralde Laptops closed	vvvv Beginners Workshop A1 Benedikt Groß & Norbert Riedelsheimer Laptops open	vvvv Beginners Workshop B1 Katharina Mayrhofer & Philipp Steinweber Laptops open	
14:30 - 17:30	Laptops open	BringYour Serial Device/ Decode RS 232 Sebastian Oschatz Laptops open			
					Exhibition open to the public 17:00 - 01:00
19:00 - 00:00		Patcher Kucha Open Mic Presentations open to the public	Open Lab		

MONDAY April 7th 2008

	Velvet Club	Velvet Lounge	Cube	Münchener Str. 12	Diakoniekirche
10:00 - 13:00	DMX Interfaces / Specific Lighting Applications with DMX Andreas Karlen feat. Chris Plant Laptops open	Typographic Techniques Thomas Hitthaler Laptops closed	vvvv Beginners Workshop A2 Benedikt Groß & Norbert Riedelsheimer Laptops open	vvvv Beginners Workshop B2 Katharina Mayrhofer & Philipp Steinweber Laptops open	
14:30 - 17:30					
					Exhibition open to the public 17:00 - 01:00
19:00 - 00:00		Patcher Kucha Open Mic Presentations open to the public	Open Lab		

TUESDAY April 8th 2008

	Velvet Club	Velvet Lounge	Cube	Münchener Str. 12	Diakoniekirche
all day	Forum Lectures Casey Reas (processing.org) Herbert W. Franke (Ludwig Maximilian University) Sebastian Oschatz (MESO Digital Interiors/vvvv group) Max Wolf (MESO Digital Interiors/vvvv group) Joreg (vvvv group) Sebastian Gregor (vvvv group) Paul Prudence (dataisnature.com) Verena Kuni (Johann Wolfgang Goethe University) Marc Fornes & Skylar Tibbits (Theverymany) Berthold Scharrer (Franken Architekten)		Open Lab till 00:00		
					Exhibition open to the public 17:00 - 01:00
20:45 - 22:15	NODE 08 Symposium with the Lecturers				
22:15 - 22:45	Audio/Visual Performance Paul Prudence (dataisnature.com)				

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TIMETABLE

WEDNESDAY April 9th 2008

	Velvet Club	Velvet Lounge	Cube	Münchener Str. 12	Diakoniekirche
10:00 - 13:00	**Virtual Architecture And Installation Setup** Sebastian Gregor Laptops closed	**Tagtool & Node Kit feat. vvvv** Markus Dorninger & Richard Radlherr Laptops closed	**Processing Printing Techniques** Casey Reas Laptops open	**Tracking Techniques** Jannis Urle Kilian Kreft Laptops open	
14:30 - 17:30	**Tagtool & Node Kit feat. vvvv** O.M.A. International & Thomas Hitthaler Laptops open	**Frame Based Animations & Feedback** Tebjan Halm & Sebastian Gregor Laptops closed	**vvvv To Sensors And Microcontrollers/1** Ingolf Heinsch Laptops open		
19:00 - 00:00		**Patcher Kucha Open Mic Presentations** open to the public	**Open Lab**		**Exhibition** open to the public 17:00 - 01:00

THURSDAY April 10th 2008

	Velvet Club	Velvet Lounge	Cube	Münchener Str. 12	Diakoniekirche
10:00 - 13:00	**FreeFrame Video Effects Coding** Joreg & Sven Thöne Laptops open		**vvvv To Sensors And Microcontrollers/2** Ingolf Heinsch Laptops open	**vvvv Project Management. XML Content Generation And Parameter Settings** David Brüll, Björn Schwarzer, Jochen Leinberger Laptops open	
14:30 - 17:30					
18:00 - 00:00			**Open Lab & Exhibition**		**Exhibition** open to the public 17:00 - 01:00

FRIDAY April 11th 2008

	Velvet Club	Cube	Münchener Str. 12	Diakoniekirche	City
10:00 - 13:00	**Shader Applications** Sebastian Gregor & Michael Mehling Laptops closed	**Exhibition** open to the public	**Boygrouping & Deskewing Projections** Thomas Hitthaler & Ingolf Heinsch Laptops open		
14:30 - 17:30				**Exhibition** open to the public 17:00 - 01:00	
21:00 - open					**Luminale Walkabout**

SATURDAY April 12th 2008

	Velvet Club	Velvet Lounge	Cube	Münchner Str. 12	Diakonie
10:00 - 13:00	**My Favourite Nodes** Sebastian Oschatz Laptops open	**Programming Language Paradigms And Designs** Sebastian Gregor Laptops closed	**Exhibition** open to the public till 00:00	**vvvv Plug-Ins Code Your Own Node** Joreg & Tebjan Halm Laptops open, till 17:30	
18:00 - 20:30	**Help Patch Award** Defining The Best New Help Patch laptops closed	**Creating Live Visuals With vvvv** David Dessens (sanchTV) laptops closed			**Exhibition** open to the public 17:00 – 01:00
21:00 - open	**vvvvabulous vvvvinissage** VJs: Onoxo (Zagreb), u7angel (Hamburg), Elektromeier (Switzerland), Desaxismundi (France), Catweasel (London) Live: Melchior Productions (Cadenza, Berlin), Gaiser (m-nus/Detroit, USA), VA (France/Berlin), b-film (Amsterdam) DJs: Alex Flitsch (Connaisseur Recordings, Frankfurt), Sylvie Marks (BPitch Control, HAL 9000, Frankfurt)				

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WORKSHOP DESCRIPTIONS

SUNDAY April 6th 2008

10:00 - 12:30
Velvet Lounge
Max/MSP & vvvv Communication
Olivier Martin &
Joseph Larralde
Laptops closed

Using Max/MSP and vvvv as our main production tools, we'd like to introduce our reflection about relationships between sound and visual parameters as well as describe our setup. We'll provide some materials to illustrate our presentation and give some starting points to those who're interested in generative and modular media communication and an introduction on the multitouch interface device Lemur and how it works.

You should know what the OSC protocol is, what Max/MSP & vvvv are and optionally how they work (we'll provide a basic introduction), basic knowledge about graphical programming & modular system concepts.

14:30 - 17:30
Velvet Lounge
Bring Your Serial Device
Sebastian Oschatz
Laptops open

How to write your own device driver subpatches. RS232, Tokenizers and Regexpr. ... Towards a library of well written serial devices. If you need a driver for your device, bring it along with you.

intermediate

10:00 - 17:30
Velvet Club
Shader Programming
Tebjan Halm & Joreg
Laptops closed
(open in the afternoon)

The workshop starts with an introduction in dataflow of graphics hardware and how shaders work on that data, to understand the possibilities of shaders. Then you will learn how to implement vertex and pixel shader programms in HLSL with the vvvv shader editor.

Participants should have basic vvvv patching knowledge. Bring your laptop with vvvv installed.

10:00 - 17:30
**Cube &
Münchener Str. 12**
vvvv Beginner's Workshop
Group 1:
Benedikt Groß &
Norbert Riedelsheimer
Group 2:
Katharina Mayrhofer &
Philipp Steinweber
Laptops open

All Beginner's Workshops run for two full days and require no previous knowledge. After introducing the user interface of vvvv and it's paradigms of a visual, node based programming language, you'll learn to create various "essential" patches from scratch. These essential patches cover basic topics like:
- Interface objects (color, string, enumerations, button, slider)
- DX9 basic elements (Renderer, Quad, Grid, FileTexture)
- Transformation (Rotate, Translate, Transform)
- Spreads concept (LinearSpread, RandomSpread, Stallone, Queue)
- Animation (LFO, Damper, Oscillator, DeNiro)
- Subpatching (build your own nodes)
- Transformation hierarchy (Rotate, Translate, Transform)
- Camera animation and navigation (LookAt, Perspective)
- Shaders (Phong, Gouraud, Constant, Tiki user shaders)
- Meshes (Mesh, Sphere, Cylinder)
- Video input (VideoIn, FileStream, VideoTexture)
- Rendering/Exporting your animations (Renderer, MainLoop, Writer, Writer(NRT))
  ... and more

Laptop computer required, installation of latest vvvv appreciated.

MONDAY April 7th 2008

10:00 - 17:30
Velvet Club
DMX Interfaces / Specific Lighting Applications with DMX
Andreas Karlen
feat. Chris Plant
Laptops open

Controlling patches via artnet/DMX from a lighting desk, things to be aware of when doing so. Controlling LED fixtures with vvvv, ie pixel mapping, constructing LED fixtures, custom mapping techniques for more unusual situations.

A little humour, basic DMX (DMXuniverse, DMXchannel) and vvvv knowledge, especially Spreads, Subpatches, Modules. Good to know: About ArtNet
(http://vvvv.org/tiki-index.php?page=HowTo%20DMX%20)
and Advanced
(http://vvvv.org/tiki-index.php?page=kalle.Modules.DMX)

10:00 - 13:00
Velvet Lounge
Typographic Techniques
Thomas Hitthaler
Laptops closed

The different methods in generating typography within vvvv will be discussed, explaining their advantages/disadvantages. The main focus will be the generation of text inside the GDI renderer and it's use as a pixel-exact texture within an EX9 renderer.

Typographic interest and knowledge required. Basic knowledge of the vvvv interface and the renderers.

10:00 - 17:30
**Cube &
Münchener Str. 12**
vvvv Beginner's Workshop
Group 1:
Benedikt Groß &
Norbert Riedelsheimer
Group 2:
Katharina Mayrhofer &
Philipp Steinweber
Laptops open

Part two of the beginner's workshop, descriptions above.

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WEDNESDAY April 9th 2008

10:00 - 13:00
Velvet Lounge
Tagtool And Node Kit Featuring vvvv
Markus Dorninger & Richard Radlherr
Laptops closed

The Tagtool is an instrument for live performance drawing and animation, developed by individuals affiliated with OMA International and Strukt. It's like a video game that's all about drawing as a team. The underlying software is called Node Kit and it is a newly developed, open source graphical programming environment very similar to vvvv. The goal of the workshop is to communicate between the two environments. We will send the data collected by drawing onto the Tagtool to vvvv to create parallel visual remixes.

Basic vvvv knowledge.

10:00 - 13:00
Velvet Club
Virtual Architecture & Installation Setup
Sebastian Gregor
Laptops closed

We will have a look at multiple projection setups and how to solve up-coming distortion problems by mapping real space to virtual space. We will then discuss how to develop this approach further and think of how to project on any architectural object of which we have a digital copy. Along this journey we will see what vvvv offers to apply the discussed concepts and which problems arise in real life.

Basic 3D modelling skills, interest in 3D modules of vvvv.

14:30 - 17:30
Velvet Lounge
Frame Based Animation & Feedback
Tebjan Halm & Sebastian Gregor
Laptops closed

We will discuss in which cases frame based animations are needed and compare them with time based animations. We'll also compare the feedback/Framedelay concept with similar concepts like global variables or states (in other languages) and have a look at examples for frame based algorithms. We'll then dive into how feedback systems in vvvv should look like and how they can be controlled and kept easy – even when the demands/outcome are getting more complex.

Basic vvvv knowledge and interest in reducing complex behaviour into small patches.

14:30 - 17:30
Velvet Club
Tagtool And Node Kit featuring vvvv
OMA International & Thomas Hitthaler
Laptops open

Description as above.

10:00 - 13:00
Cube
Processing Printing Techniques
Casey Reas
Laptops open

Casey Reas will talk about different techniques for making print-resolution images with Processing. Code brought by the people will be modified to create high-res images. Workshop attendees can also look forward to gain some other invaluable insights into Processing and it's makings.

At least intermediate processing knowledge and an under-standing of image formats (vector- and pixel-based) and their properties when used for printouts. Every workshop-partici-pant has to bring a processing script that he/she wants to use to generate high-resolution images for printing.

10:00 - 17:30
Münchener Str. 12
Tracking Techniques
Jannis Urle Kilian Kreft
Laptops open

The workshop provides an insight into different tracking techniques taken directly from past & present MESO Digital Interiors projects. Participants will learn different approaches to programming tracking systems in vvvv. As a requirement of tracking, the workshop will also inform about suitable lighting scenarios.

Laptop and at least a webcam. If at all possible, an infrared filter and infrared camera that works with the computer would be perfect but is not a must.

14:30 - 17:30
Cube
vvvv To Sensors And Microcontrollers 1
Ingolf Heinsch
Laptops open

After a view about the possibilities of measuring differences in physical medias we´ll begin to discuss how to recognize them and how to get this data inside vvvv. We´ll also experiment with different kind of sensors and build some cute patches around to visualize the given data. Let us try to trigger some hardware out of vvvv. Maybe we´ll find the perpetuum mobile.

Basic vvvv knowledge and soldering skills.

THURSDAY April 10th 2008

10:00 - 17:30
Münchener Str. 12
vvvv Project Management, XML Content Generation And Parameter Setting
David Brüll ,
Björn Schwarzer,
Jochen Leinberger
Laptops open

This workshops provides you with best practices when working on projects with vvvv. We will demonstrate how tidy folder structures help versioning your vvvv software and how XML can aid in easily customizing your project settings. Jochen finalizes the workshop with a hands on example of XML based content generation using the Adobescript Engine of Ilustrator/Photoshop to process content described in a XML file and how to feed vvvv with the results.

Basic knowledge of vvvv and procedural programming languages (Javascript is used in Adobescript), Photoshop, Illustrator required. You should be interested in the concept of XML and the corresponding nodes and skills in proper string handling in vvvv. Bring your laptop with you and download the prepared files in advance.

10:00 - 13:00
Cube
vvvv To Sensors And Microcontrollers 2
Ingolf Heinsch
Laptops open

Part two of the sensors workshop, descriptions above.

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WORKSHOP DESCRIPTIONS

THURSDAY April 10th 2008

10:00 - 13:00
Velvet Club
FreeFrame Video Effects Coding
Joreg &
Sven Thöne
Laptops open

Guiding you step by step to create your own video effect plugins based on the freeframe 1.0 standard and vvvv.org's extended freeframe specification, allowing you to return values from video plugins. You'll also learn how to use version control to access vvvv.org's exisiting opensource plug-ins and start working with them.

Laptop running WinXP, CodeBlocks IDE (http://codeblocks.org) **preinstalled and tested to compile an empty project, TortoiseSVN client** (http://tortoisesvn.tigris.org/) **for accessing version controlled code online. We'll be working with c++ and expect participants to have at least basic skills. However, we have simple templates to start with so we won't have to go much into c++ details. Still, any prior coding experience will help.**

FRIDAY April 11th 2008

10:00 - 17:30
Münchener Str. 12
Boygrouping & Deskewing Projections
Thomas Hitthaler &
Ingolf Heinsch
Laptops open

The first part of the workshop explains how to set up a boygroup with multiple clients, developing a basic patch to apply textures onto a mesh. The various properties of projectors will be discussed and the analogies to renderer transformations within vvvv explained. The goal of the workshop is to project onto a non-planar object without distortion.

If you are not familiar with the termini used to descibe this workshop, this workshop is not for you. Moreover, you should have a basic understanding of 3d geometry (what is a vertex?) and 3d spaces.

10:00 - 17:30
Velvet Club
vvv Shader Applications
Sebastian Gregor &
Michael Mehling
Laptops closed

We'll look into applications of vertex and pixel shaders, such as lighting and shading, post processing effects in image space, etc. Also special topics, such as pixel shader automata through feedback loops (wave shader, game of life, …) will be covered.

You should know what a shader is (or visit the shader – beginner's workshop with Joreg and Tebjan) and have a bit of programming skills.

SATURDAY April 12th 2008

10:00 - 17:30
Münchener Str. 12
vvvv Plugins – Code Your Own Node
Joreg & Tebjan Halm
Laptops open

We'll guide you step by step to code your own vvvv nodes using vvvv's plugin interface. You'll also learn how to use version control to access vvvv.org's exisiting opensource plugins and start working from them.

Laptop running WinXP and .Net 2.0 Framework, SharpDevelop IDE (http://www.icsharpcode.net/OpenSource/SD/) **preinstalled and tested to compile an empty project, TortoiseSVN client** (http://tortoisesvn.tigris.org/) **for accessing version controlled code online. We'll be working with c# and expect participants to have at least basic skills. However, we have simple templates to start from so we won't have to go much into c# details. Still, any prior coding experience will help.**

10:00 - 13:00
Velvet Lounge
Programming Language Paradigms & Design
Sebastian Gregor
Laptops closed

This is an attempt to translate some ideas of programming into common language and to encourage a discussion about the motivations and needs among programmers during the following days. We will have a look on different groups of (textual) programming languages and explore their basic concepts partly by mapping them to visual representations and vice versa. We'll discuss the different approaches of functional and imperative programming and try to get our head around what object orientation could mean. We'll touch evaluation in dataflow programming.

Skills in textual or visual programming with an interest in the language behind readable patches or source code

10:00 - 13:00
Velvet Club
My Favourite Nodes
Sebastian Oschatz
Laptops open

Sebastian Oschatz will show his favourite uses of nodes when patching.

Basic vvvv knowledge.

14:30 - 17:30
Velvet Lounge
Creating Live Visuals With vvv
David Dessens
Laptops closed

In this workshop you will see the different way to create your own visual content and deal with the advantage and limitation of vvvv.
- Creating your own content with vvvv and define a patch structure .
- Design your own interface hardware and software.
- Synchronisation technique, midi/audio
- Deal with multiscreen setup.

Participants have to be familiar with vvvv, this is a presentation.