



SOUTHWESTERN OAKLAND CABLE COMMISSION

Studio A Training Class

4 week workshop for Studio A Certification

PUBLIC ACCESS

MISSION

STATEMENT

“To provide a venue,
resources and
opportunities for residents
to utilize the medium of
television to
independently produce
their own non-
commercial, non-profit
message in the most cost-
effective manner.”

SWOCC Studios

33300 Nine Mile Rd
Farmington, MI 48836
main 248.473.2800
fax 248.473.8610

SWOCC Studios

Studio A Training Class

Syllabus

WEEK 1

SWOCC Procedures
Intro to the Camera
Camera Exercises
Question & Answer

WEEK 2

Review of the Camera
Control Room Equipment
Roles & Dialog of Crew Positions
Question & Answer

WEEK 3

Review of the Camera
Review of the Control Room
Character Generator/Audio
Integrating it all together

WEEK 4

Set-up
Production- *Community Connection*
Strike the Set

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SWOCC Studios Studio A Training Class

Facility Operations

SWOCC STUDIO PROCEDURES

1. Office hours are 8:30 a.m. – 4:30pm. Monday thru Friday. Evenings and weekends are by appointment.
2. All questions, troubleshooting, scheduling, and checkout of equipment must go through Community Relations, or staff person assigned to production.
3. First-time shows require character generation to be prepared at least one day in advance by a crew person. On going productions (those with CG already formatted) may take changes at the time of the show.
4. Access on those areas necessary for production. Staff offices (including front office) are off limits.
5. Staff will supervise all shoots and complete all technical adjustments. Staff will NOT crew any positions for any show at any time. Staff reserves the right to stop, or cancel any production for any reason at anytime.
6. Residents may not touch (use) equipment without staff approval.
7. Do not step on or roll over any cables.
8. The facility is to be left exactly as it was found.
9. Crew is responsible for returning/putting away the equipment they used/manned.
10. The producer is responsible for tape stock, actions & behaviors of guests, talent & crew. Also producer is responsible for cleaning up after their production.
11. In the event any procedures are violated, staff will complete necessary documentation to alert the Executive Director who will determine action, up to and including suspension of facility privileges.
12. Policies for use of studio, equipment and access channels are set forth in the SWOCC Public Access Television Policies.
13. All procedures are noted in the Producers workshop.

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Facility Operations

Procedures For Production

1. Producer must contact the SWOCC to set up a pre-production meeting with a SWOCC staff member, at least two weeks prior to the studio production.
2. During the Pre-Production meeting, perimeters of the production will be set. Anything **not** discussed previously in the pre-production meeting will **not** be allowed or implemented during the actual production.
3. A pre-production meeting must take place prior to each production/show until staff deems unnecessary. Staff reserves the right to require pre-production meetings as necessary.
4. Producers must arrive within 15 (fifteen) minutes of the scheduled appointment time. A user arriving more than fifteen minutes late will have their reservation forfeited.
5. Producers are responsible for set-up and strike of the set. Appointment times should be made to reflect the necessary needed time for each production.
6. Producers are expected to contact SWOCC staff if he/she is unable to make an appointment, or if they will be delayed. Leaving a voice message does not constitute a reservation cancellation or tardiness. Confirmation must be received from a staff member.
7. Producers may only use certified crew for a production. The producer is required to provide a complete list of crew and assignments to their assigned staff member prior to a production.
8. Producers are responsible for understanding and following all polices in the Public Access Polices book. Producers are responsible for their crew, talent and other persons on set, and that they must abide by the same polices.

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Studio A Training Class

Week 1
The Camera

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SWOCC Studios
Studio A Training Class

WEEK 1

Intro to the Camera

Physical Attributes of the Camera

Lens-What the Camera Sees

Zoom-Change what the camera sees from wide angle to narrow angle.

Focus- Used to make the picture appear sharp and clear

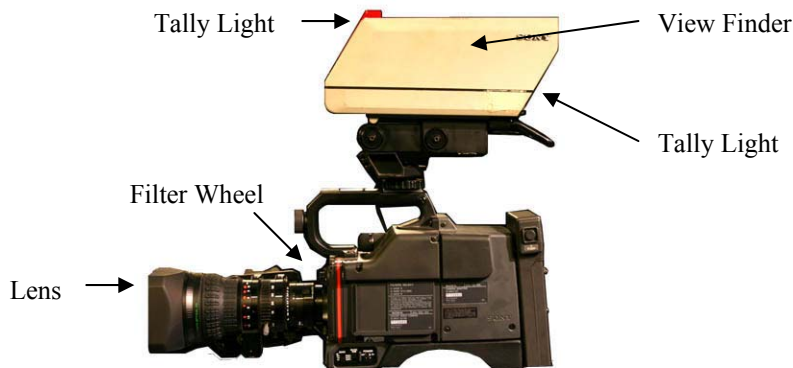
Iris- Controls the amount of light that enters the lens.

CCD (Charged-Coupled Device)- a small solid-state silicon chip that contains horizontal and vertical rows of thousands of light sensing picture elements called pixels.

View Finder- a small video monitor attached to the camera that displays the picture the camera generates.

Tally Light- A red light on the camera and in the view finder that lights up when the camera is “hot,” or live.

Filter Wheel- Located between the lens and the camera body. Normally have three possible settings. For studio lighting the filter should be set on filter 1.



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Studio A Training Class

WEEK 1

Intro to the Camera

Under the Camera

Tripod (sticks)

- Zoom Control
- Focus Control
- Tilt Control/Lock
- Pan Control/Lock
- Pedestal Control/Lock
- Leg Height Control/Lock
- Camera Head-Mount

Dolly

- Wheels
- Tripod Feet Lock

Movement Definitions

Tilt up/down- Up and down movement of the camera on the tripod.

Pan right/left- Side to side movement of the camera on the tripod.

Pedestal up/down- Physically raising or lowering the camera with the tripod.

Zoom in/out- Either using the Zoom Controls or Manually adjusting the zoom in or out until the subject is in frame.

Dolly in/out- Movement of the camera and tripod across the floor toward the subject (dolly in) or away from the subject (dolly out).

Truck left/right- Side to side movement of the camera and tripod across the floor.

Tracking- As subject moves, the camera and tripod move across the floor following parallel the subject.

Arching- Camera trucks and dolly's at the same time, moving in a semi circle around the subject.

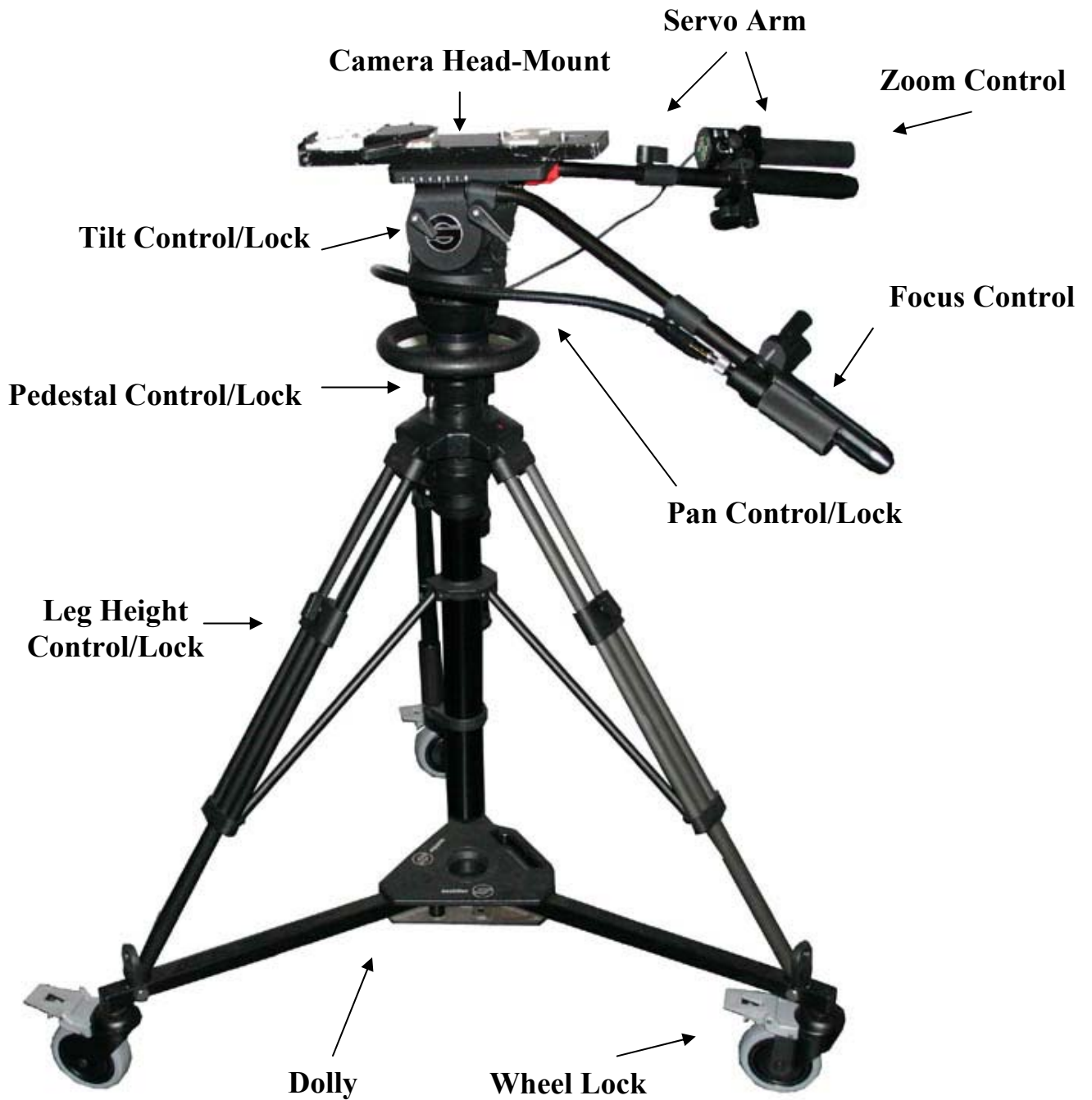
Lock Down- Establishing a shot with a camera, and locking the camera into one position without any camera or tripod movements.

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Studio A Training Class

WEEK 1

Intro to the Camera

The Tripod

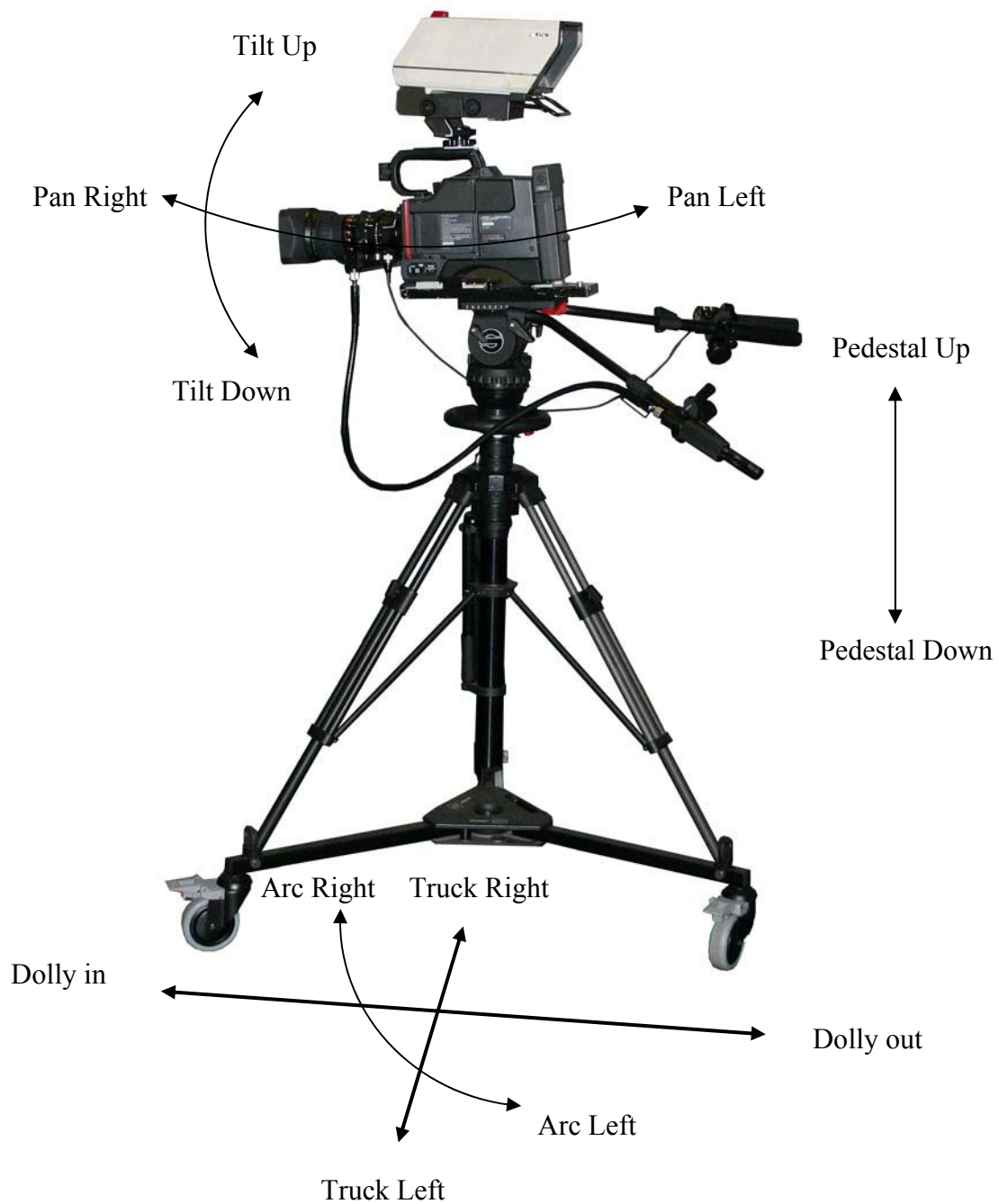


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WEEK 1

Intro to the Camera

Camera Movement Examples



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WEEK 1

Intro to the Camera

Through the View Finder

Aspect Ratio- The ratio of the width of the television screen to its height. The standard ration is 4 x 3 (four units wide by three units high); HDTV (high-definition television) is 16 x 9 (sixteen units wide by nine units high).

White Balancing- To see a white object as white, the camera must be told whether the light in which it is operating in is white. This is a camera adjustment to compensate for a bluish or reddish light. White balancing the camera should be done anytime the light changes on an object. This is an automatic feature on most consumer camcorders.

Safe Title- Refers to the picture area that will be seen by most television receivers in the home.

Camera Bars- Serves as a reference for the color monitors or for the playback of the recording.

Framing Definitions

XCU (Extreme Close-Up) – A view of just the subjects face.

CU (Close-Up)- A head and shoulders shot of subject.

MS (Medium Shot)- A view of the subject from the waist up.

LS (Long Shot)- A view of the subject from head to toe.

WS (Wide Shot) or XLS (Extreme Long Shot) or Cover Shot- A view of the subject and their surroundings.

One Shot - One person in the frame.

Two Shot- Two people in the frame.

Three Shot- Three people in the frame.

Over the Shoulder- A camera view looking over the shoulder of one subject at another subject face front.

Headroom- Space above the head of the subject

Talk (Lead) Room- Space in front of a profiled subject, or ahead of someone moving on camera.

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WEEK 1

Intro to the Camera

Picture Composition Examples



Extreme Long Shot (XLS)
or Cover Shot



Long Shot (LS) or
Full Shot



Medium Shot (MS) or
Waist Shot



Close-up (CU)



Extreme Close-up (XCU)



Two Shot



Over the Shoulder Shot
(O/S)

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WEEK 1

Intro to the Camera

Picture Composition Examples



Too Much Headroom



Too Little Headroom



Too Little Noseroom



Too Much Noseroom



Perfect Noseroom

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WEEK 1

Intro to the Camera

Picture Composition Examples



Too Little Leadroom



Perfect Leadroom



Problematic Composition:
Plant



Problematic Composition:
Flag



Pointing to Nose Room

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WEEK 1

Intro to the Camera

Before the Show

- ▶▶ Put on your headset and check whether the intercom system is functioning. You should hear at least the director, technical director (TD), or another camera operator.
- ▶▶ Unlock the pan-and-tilt mechanism on the camera-mounting head and adjust the drag, if necessary.
- ▶▶ Adjust the tripod so that the camera frames the subject appropriately or per the director.
- ▶▶ Adjust the viewfinder so you can see the picture the camera is taking.
- ▶▶ Check the zoom lens, utilizing the zoom control. Zoom in and out. Get a feel for the zoom range, speed and position.
- ▶▶ Rack through the focus, utilizing the focus control. Focus from one extreme to the other.
- ▶▶ Calibrate (preset) the zoom lens. Zoom in all the way in on the target object (usually on something that gives you enough detail, i.e. Hairline, or eye). Focus in on this object. Now Zoom out all the way back to the widest setting. You should now remain in focus throughout the zoom. If the camera or object moves, the focus changes- you must re-calibrate the zoom.
- ▶▶ Lock the camera (pan-and-tilt mechanism) before leaving it. DO NOT leave a camera unlocked, even for a short while.

During the Show

- ▶▶ Put on the headset and establish contact with Director.
- ▶▶ Unlock the camera and recheck pan-and-tilt drag and pedestal movement.
- ▶▶ Calibrate the zoom if camera position has changed or subject has moved.
- ▶▶ If you have to truck or dolly, make sure the floor is clear of cables, etc.

- ▶▶ Check the pedestal. Generally keep your shots at the talents eye level unless the director instructs you to shoot either from a high or low angle.
- ▶▶ At all times during the show, be aware of all other activities around you. Where are the other cameras? Where are any cables? Is your camera “hot”? If not which camera is hot? It is your responsibility to keep out of the view of other cameras and not hit anything. Do not make loud noises or large movements that could distract the on camera talent.
- ▶▶ Keep your eyes on the viewfinder.
- ▶▶ Watch for the tally light to go out before moving the camera into a new shooting position or re-calibrating your zoom.
- ▶▶ Listen carefully to what the director tells all the camera operators, not just you. That way you can coordinate your shots with those of the other cameras. You can avoid wasteful duplication of shots by knowing approximately what the other cameras are doing.
- ▶▶ Avoid unnecessary chatter on the intercom.

After the show

- ▶▶ At the end of the show, wait for the “all clear” signal before you lock the camera.
- ▶▶ Lock the camera mounting head, pan-and-tilt mechanism and the pedestal. Push the camera to its stored location.
- ▶▶ Coil the cable neatly, and replace it to the designated area.
- ▶▶ Assist with the remaining crew with complete strike of the set.

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Week 2

Production Roles and Control Room

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WEEK 2

Crew Definitions

Producer	In Charge of one or several program series. Manages budget and coordinates with talent, clients, studio management, writers, etc. Incurs sole responsibility for all aspects of a production, including all personnel working on a production, coordinating technical, and non-technical production elements. Often serves as director and writer.
Asst. Producer	Assists producer in all production matters. Often do those actual coordinating jobs, such as telephoning to schedule and confirm crew, talent, studio reservations, etc.
Director	In charge of directing talent and technical operations. Is ultimately responsible for transforming a script into an effective video and audio message.
Technical Director	Does the switching and acts as technical crew chief. Often serves as director.
Production Asst.	Assists producer and director during actual production.
Camera Operator	Operates camera, takes direction from Director, one operator often serves as floor manager.
Audio Technician	In charge of all audio operations. Works audio console (mixer) during the show. Takes cues from director.
C.G. Operator	Types and/or recalls from the computer the names and other graphic material to be integrated with the video image. Takes cues from the director.
Floor Manager	In charge of all activities on the studio floor. Directs talent, relays director's cues to talent, and supervises floor personnel.
Talent	Refers to all performers and actors who regularly appear on television.
Editor	Non-linear or linear edits the production according to the producer's notes, or direction. Often is done by the producer or director.

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Studio A Training Class

WEEK 2

The Control Room

The Switcher- A panel with rows of buttons that allows the selection and assembly of various video sources through a variety of transition devices, and the creation of electronic special effects.

VTR (Video Tape Recorder)- Records the Video and Audio signal onto videotape.

The Character Generator- A computer dedicated to the creation of letters and numbers in various fonts. Its output can be directly integrated into video images.

CCU (Camera Control Unit)- Equipment, separate from the actual camera, that allows the video operator to adjust the color and brightness balance before and during the production.

The Audio Console (Board or Mixer)- Controls the volume of all inputs, mix some or all of the inputs signals in various ways, and manipulate the sound signals of each channel for the final mix.

CD Player- Compact disk player used to add music to studio productions.

Clear Com- Intercom system used to facilitate voice communication between control room, camera operators, and floor manager.

Program Monitor- Program output of the video switcher.

Preview Monitor- Preview output of the video switcher.

QC (Quality Control) Monitor- Used in studio production to check the video of routable sources, most commonly the record deck.

Waveform/Vector Scope Monitor- Measures the brightness and color of the program video signal.

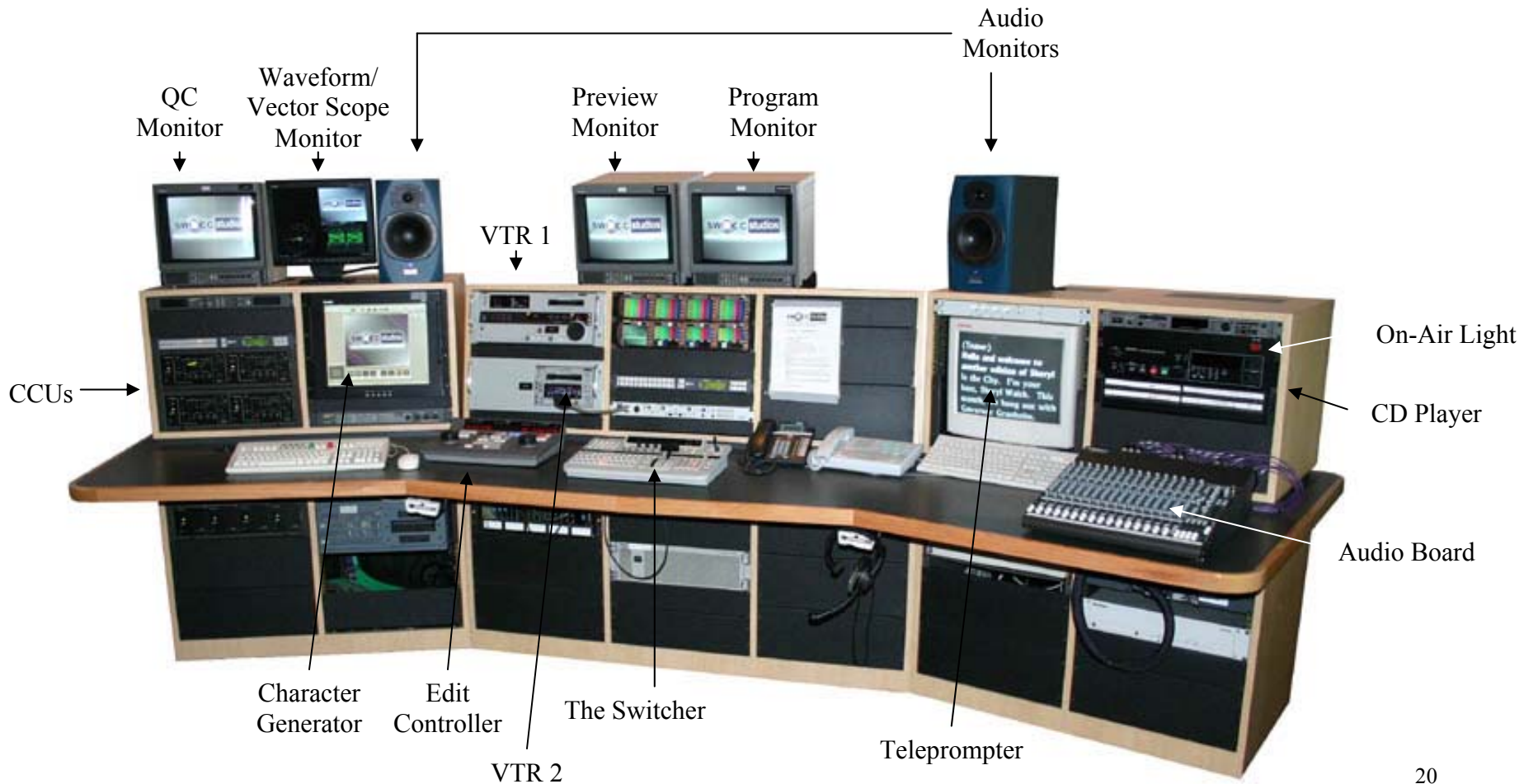
On-Air Light- Light that is turned on to alert others a production is in progress.

Teleprompter- A prompting device that projects copy over camera 1's lens so the talent can read it without losing eye contact with the viewer.

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Studio A Training Class

WEEK 2

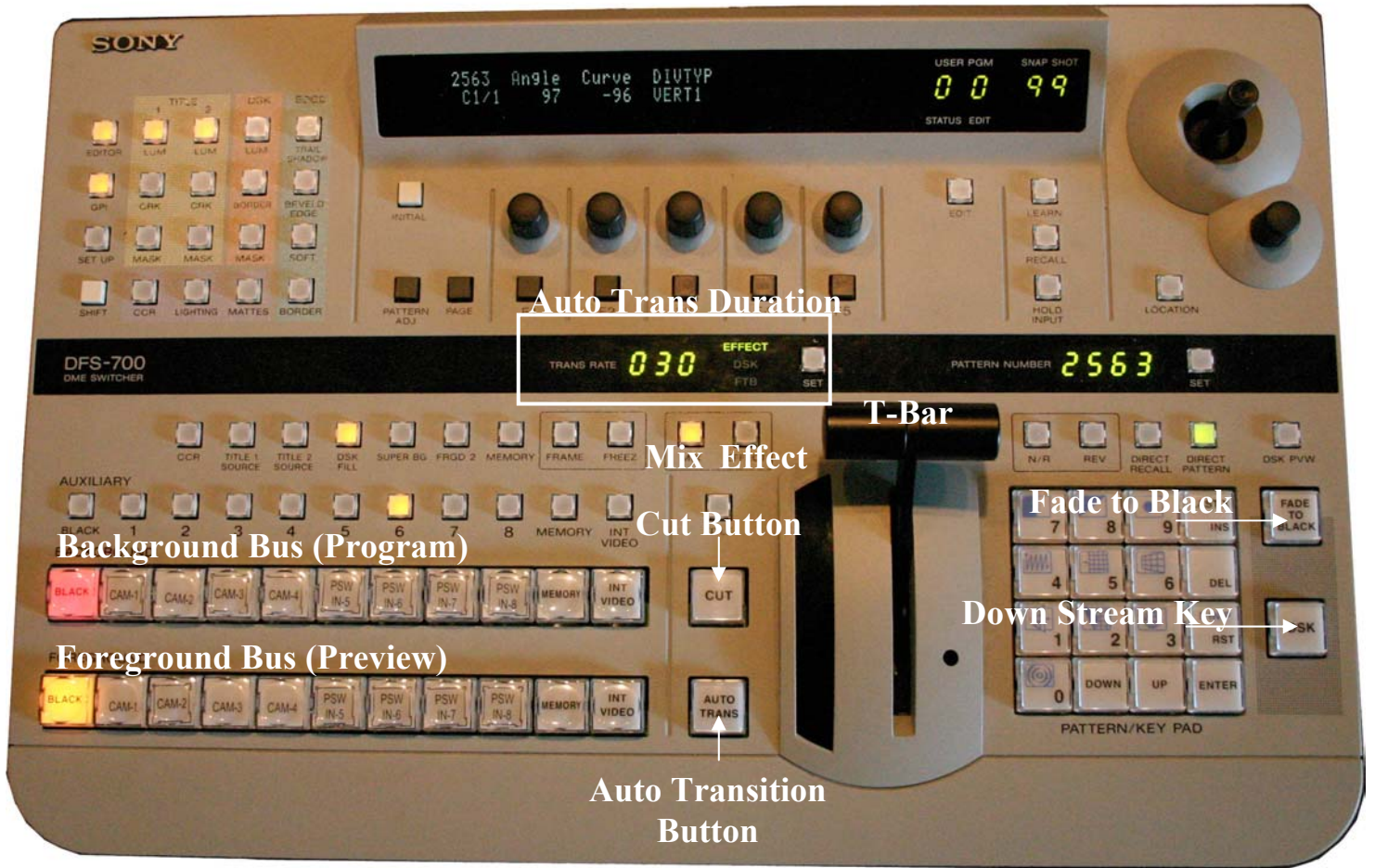
The Control Room



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WEEK 2

The Switcher



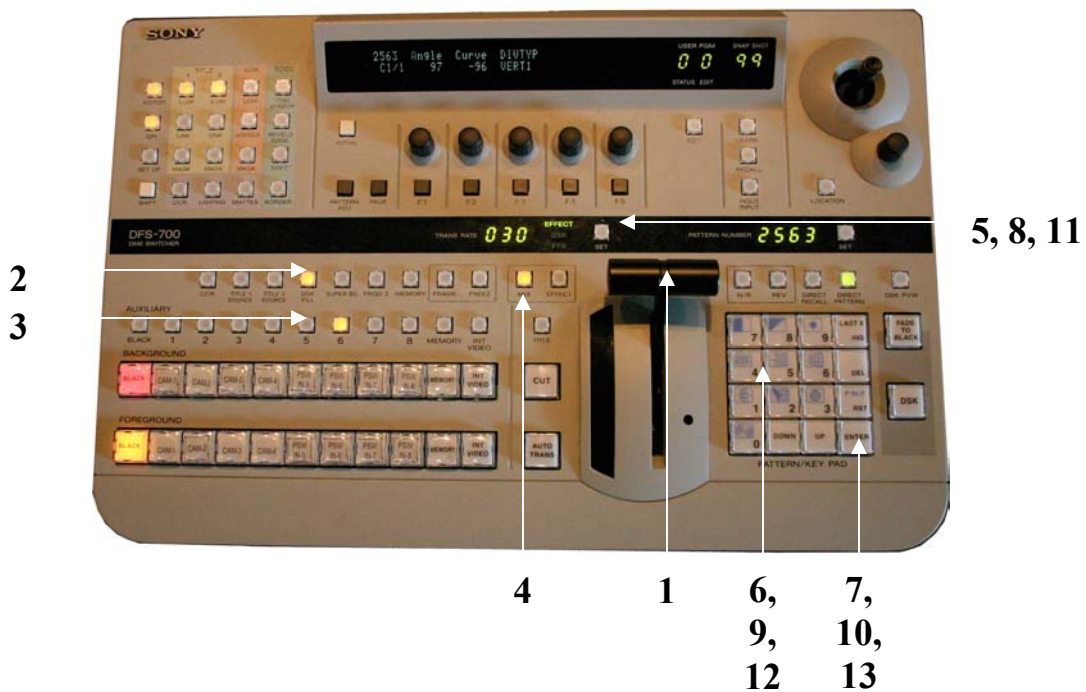
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WEEK 2

How to set up the Switcher

The Switcher is always on.



- 1- Pull or Push the T-Bar all the way toward or away from you.
- 2- Press DSK Fill, the button will light.
- 3- Press Auxiliary 5, the button will light.
- 4- Press Mix, the button will light.
- 5- Press Set until "Effect" lights.
- 6- Enter number of frames for the Auto Trans to dissolve (30 frames = 1 second)
- 7- Press Enter.
- 8- Press Set until "DSK" lights.
- 9- Enter the number of frames for the DSK to dissolve.
- 10- Press Enter
- 11- Press Set until "FTB" lights.
- 12- Enter the number of frames to Fade to Black.
- 13- Press Enter

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WEEK 2

The Switcher

Foreground (Preview) Bus- Lit button is being sent to the Preview Monitor.

Background (Program) Bus- Lit button is being sent to the Program Monitor.

Cut- The instantaneous change from one shot (image) to another.

Mix Mode- Dissolves are used to transition from one video signal to another.

Effect Mode- Effects are used to transition from one video signal to another.

(Both Mix and Effect may be done Manually or by Auto-Transition)

Manual- Use T-Bar to manual transitions.

Auto-Trans- Press button to transition between Preview and Program for a pre-set amount of time.

DSK (Down Stream Keyer)- A control that allows the title to be keyed (cut-in) over the picture (Program out signal) as it leaves the switcher.

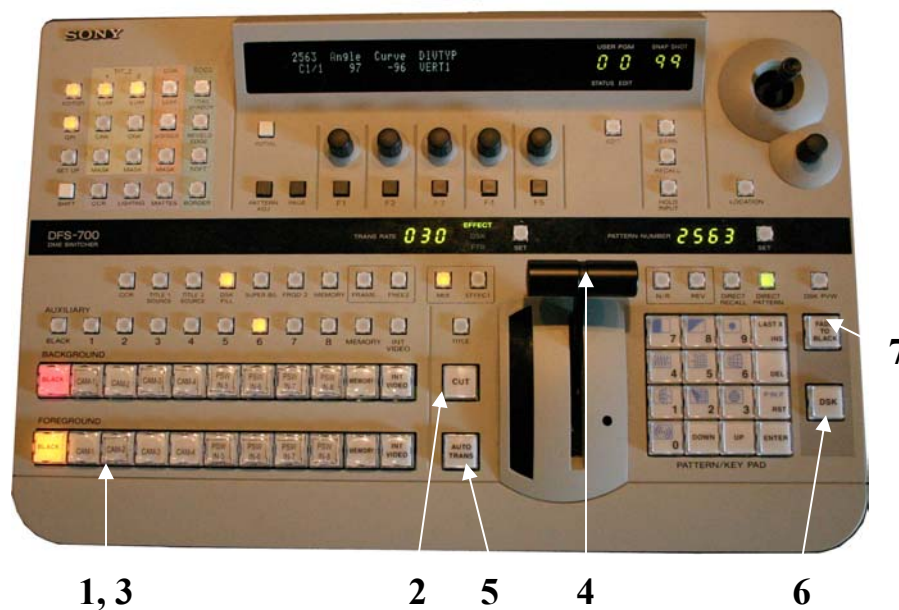
Fade to Black (FTB)- Fade all video signals leaving the switcher to black.

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WEEK 2

Directing using the Switcher



To Cut

- 1- Select the video source on the Preview Bus you want to switch to.
- 2- Press the Cut button.

To Dissolve

- 3- Select the video source on the Preview Bus you want to switch to.
- 4- To manually dissolve, pull or push the T-Bar towards or away from you.
- 5- To Automatically dissolve, press the Auto Trans button.

To Bring in the Character Generator (CG)

- 6- Press the DSK button. (Press the DSK button again to remove CG)

To Fade to Black

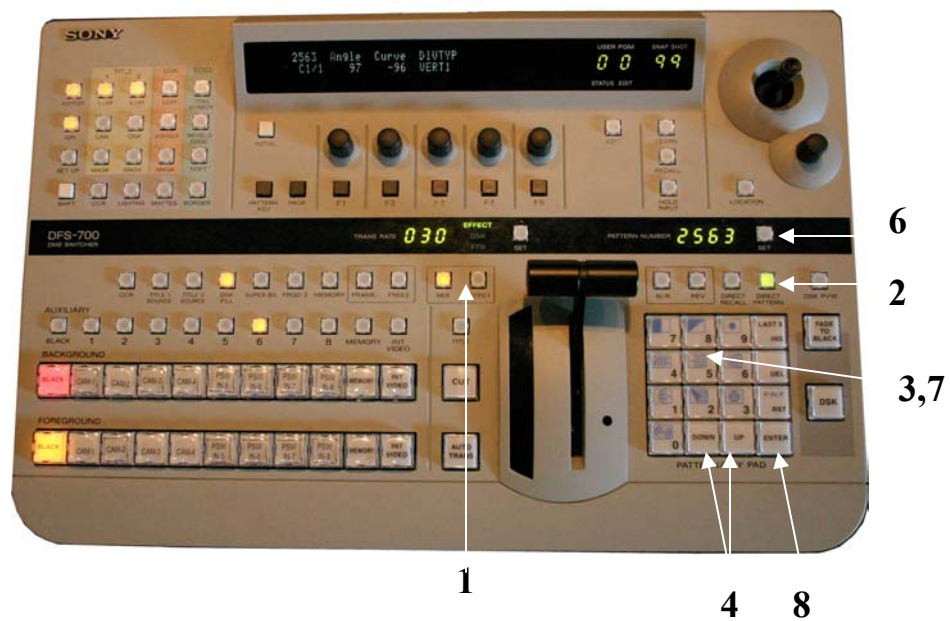
- 7- Press the Fade to Black button (Press Fade to Black button to fade UP from black)

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WEEK 2

Selecting Effects



To Select an Effect:

- 1- Press the Effect button, it will light.
- 2- Press the Direct Pattern button, it will light.
- 3- Press Number buttons (0-9) to get to effect sub group.
- 4- Press Up or Down buttons to scroll through effects.

Or, if you have found an effect you would like to use out of the Switcher Operators Manual:

- 5- Follow Steps 1-2
- 6- Press the Set button, it will light.
- 7- Type in number of effect.
- 8- Press Enter.

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Week 3

Audio and Character Generator

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WEEK 3

Microphones

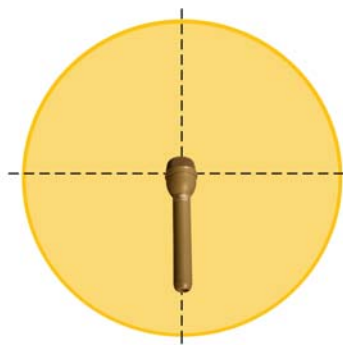
Pick up Pattern- The zone within which a microphone can hear well. (Omni- and Uni-directional)

Omnidirectional- hears equally well from all directions.

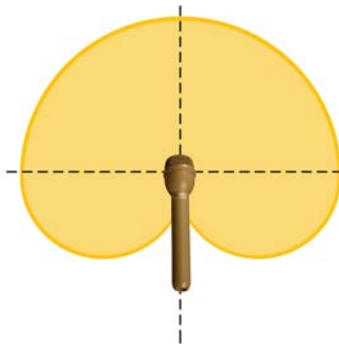
Unidirectional- hears especially well in one direction.

Cardioid- Unidirectional mic which has a heart-shaped pickup pattern.

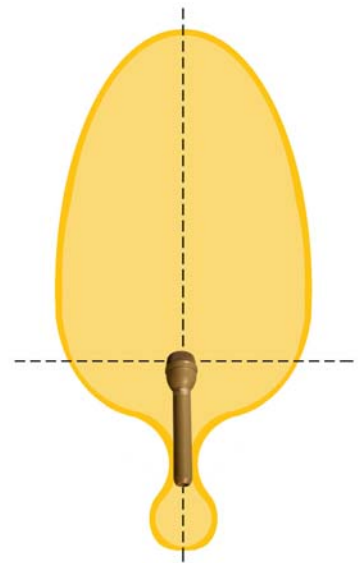
Hypercardioid- Unidirectional mics which has a “long reach,” meaning it can pick up sounds that are farther away. Because these mics are fairly long and are aimed at the sound source, they are commonly called **Shotgun mics**.



Omnidirectional



Uni-directional
Cardioid



Uni-directional
HyperCardioid

Microphones

Lavaliere (Lav) Microphone- a very small, rugged, omnidirectional microphone that is used primarily for voice pickup. Usually clipped to clothing.



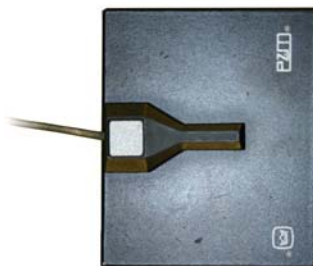
Hand Held Microphones- a microphone that is handled by the talent, used in situations in which you need to exercise some control over the sound pickup.



Shotgun (Boom) Microphone- a long, unidirectional microphone that is used to pick up sound sources farther from the microphone; used whenever the mic is to be kept out of the picture.



Pressure Zone Microphone (PZM)- a small omnidirectional boundary microphone that can be placed on a table, wall, floor, lectern, or any flat surface. A small microphone is mounted face-down a short distance from the reflective boundary plate. This creates a pressure zone between the plate and the mic. The microphone detects changes in this pressure zone, rather than the conventional method of detecting changes in the surrounding air pressure (i.e. sound waves).



Connector



Female
XLR

Male
XLR



Male
RCA

Female
RCA

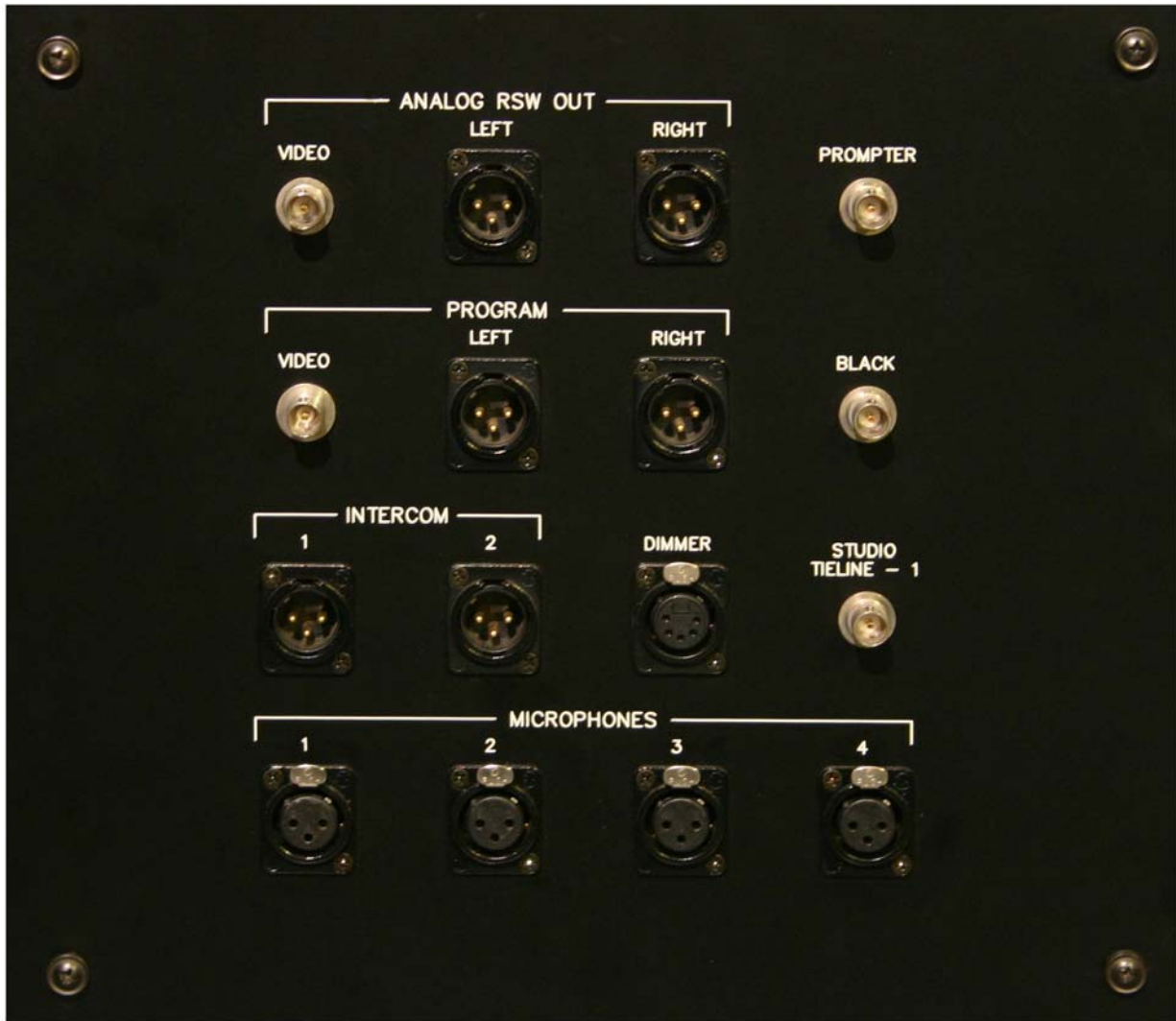


Male
Phone
(Quarter Inch)



Male
Mini

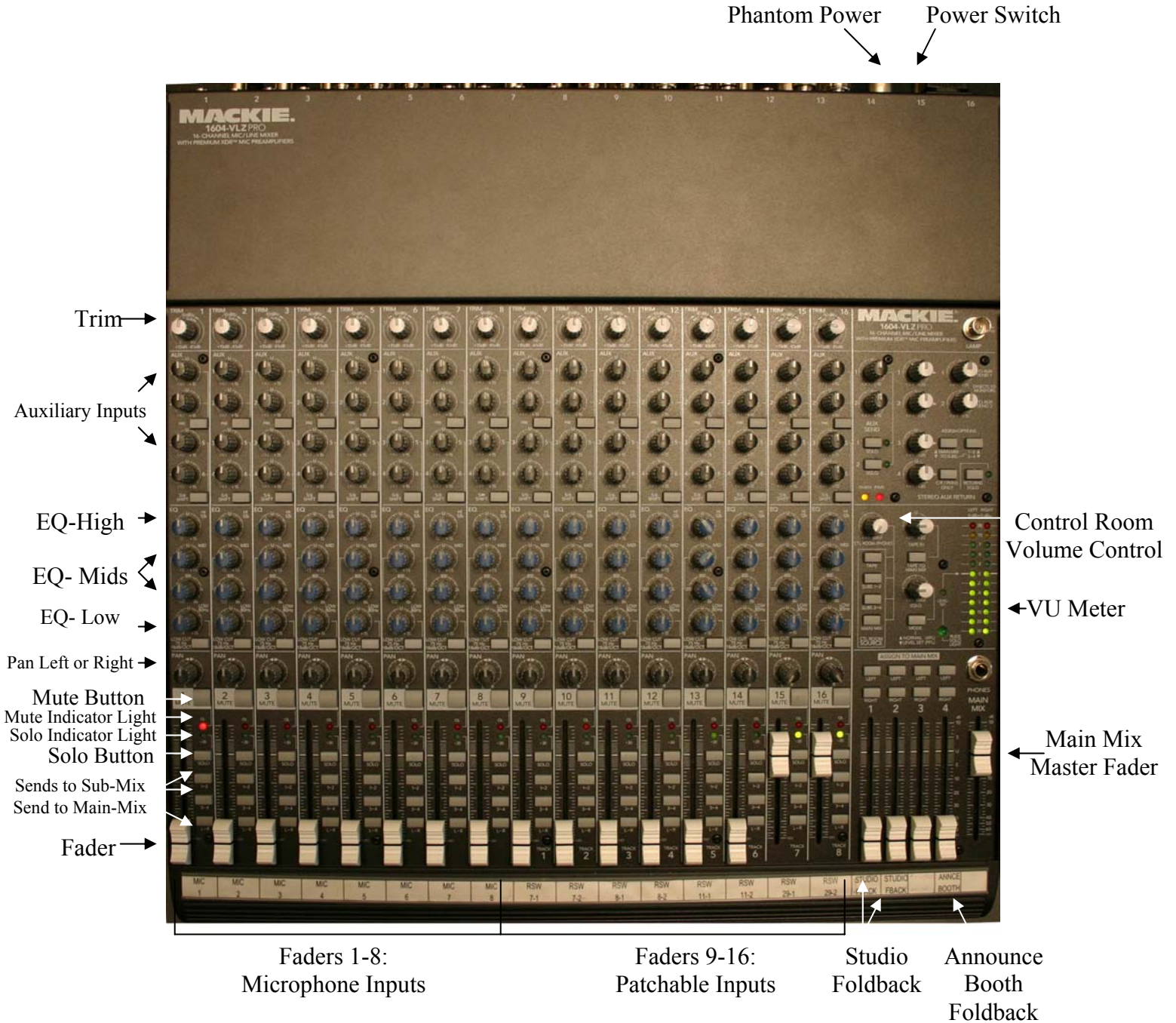
Studio Panel



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WEEK 3

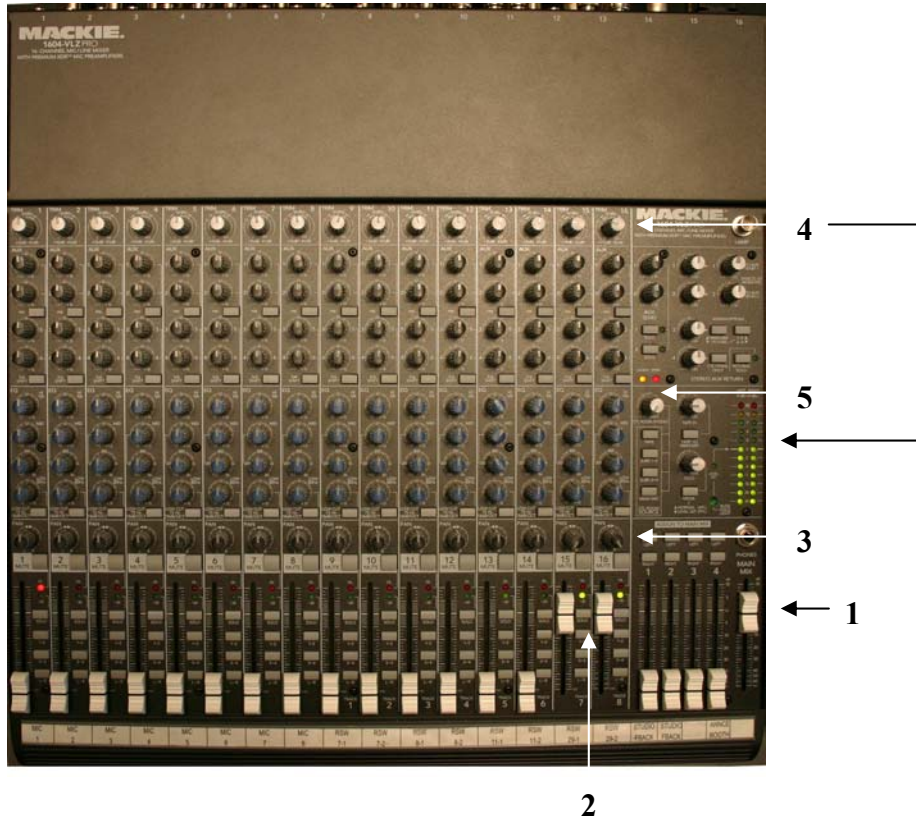
Audio Board



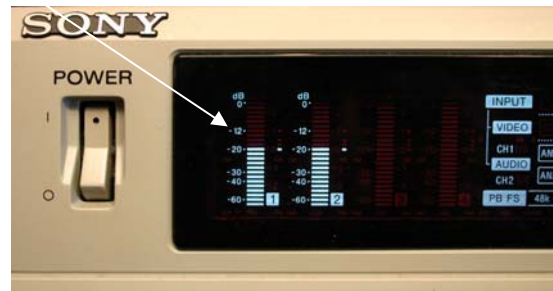
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WEEK 3

Setting Up the Audio Board



- 1- Slide Main Mix Fader to 0db or Unity
 - 2- Slide faders 15 and 16 to 0db or Unity
 - 3- Pan 15 to the Left and Pan 16 to the Right
 - 4- Adjust Trim on 15 and 16 until the VU Levels are at 0db
 - 5- Adjust Control room volume to desired level
 - 6- Adjust Levels on VTR 1 to -20db
- You have now calibrated the output from the mixer with the input of the deck.



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Week 3

Character Generator

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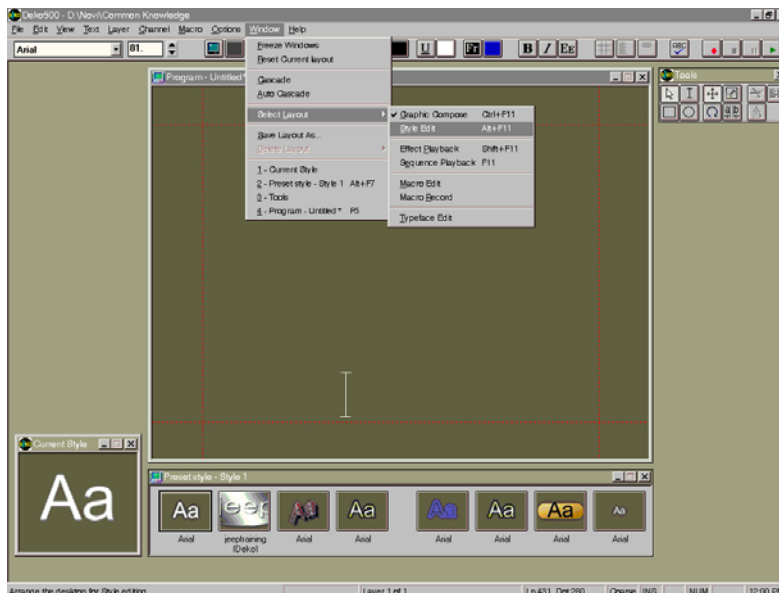
WEEK 3

The Character Generator

1. Open Deko500 Program



2. Click: **Window>Select Layout>Style Edit** or **ALT + F11** on the keyboard

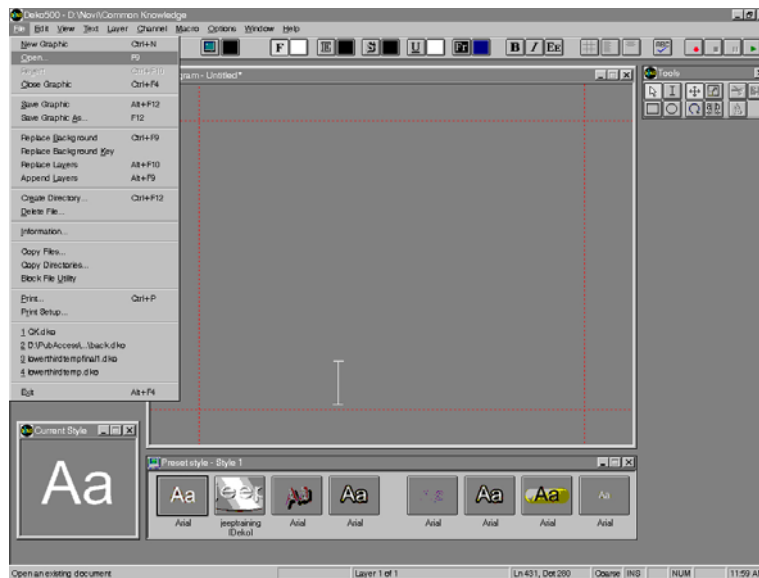


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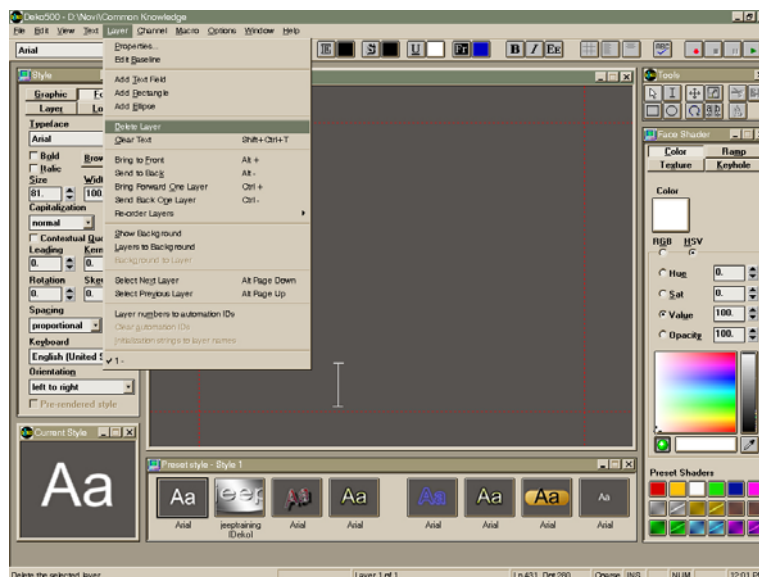
WEEK 3

The Character Generator

3. To open a Graphic: **File>Open**



4. Creating a New Graphic : **Layer>Delete Layer**

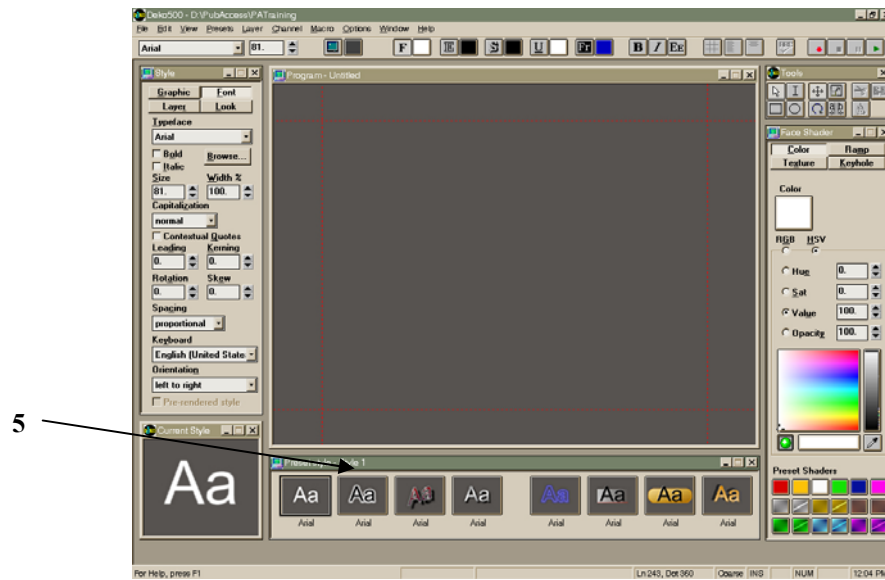


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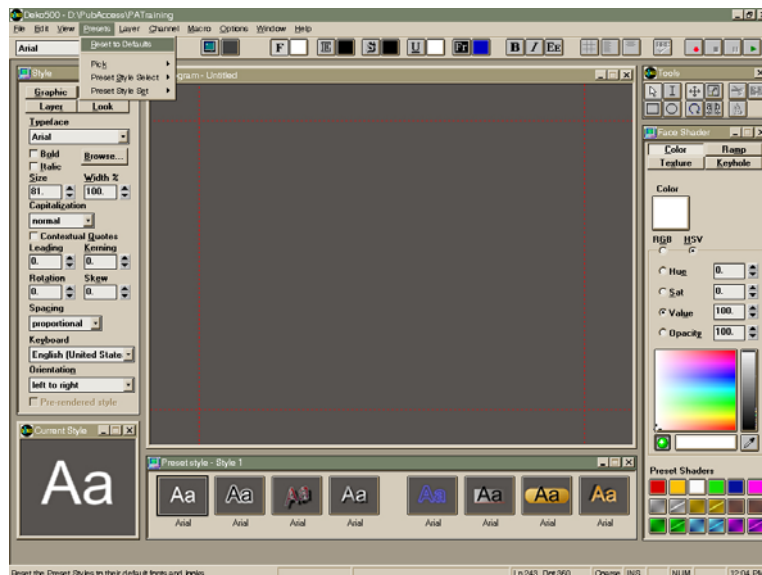
WEEK 3

The Character Generator

5. Click on Preset Style Window



6. Click : Presets>Reset to Defaults

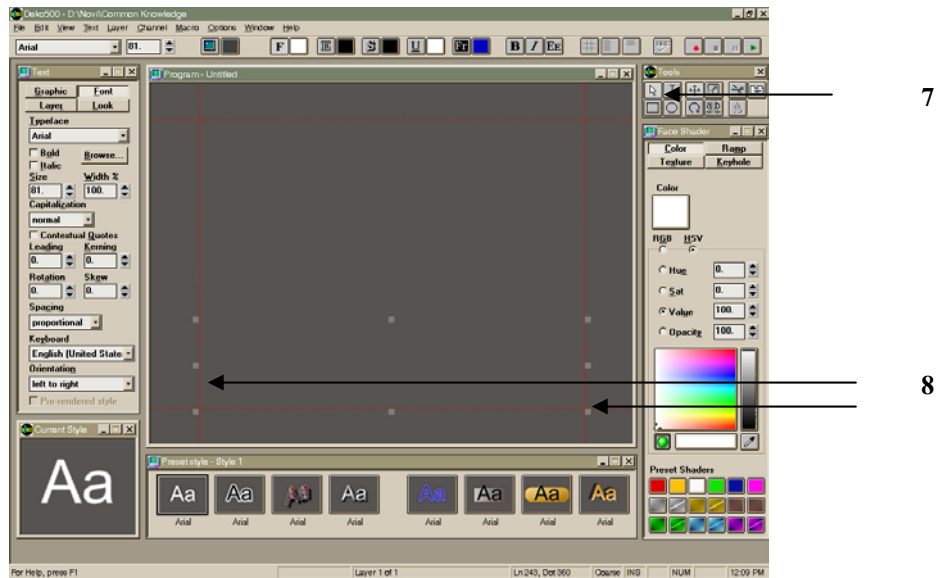


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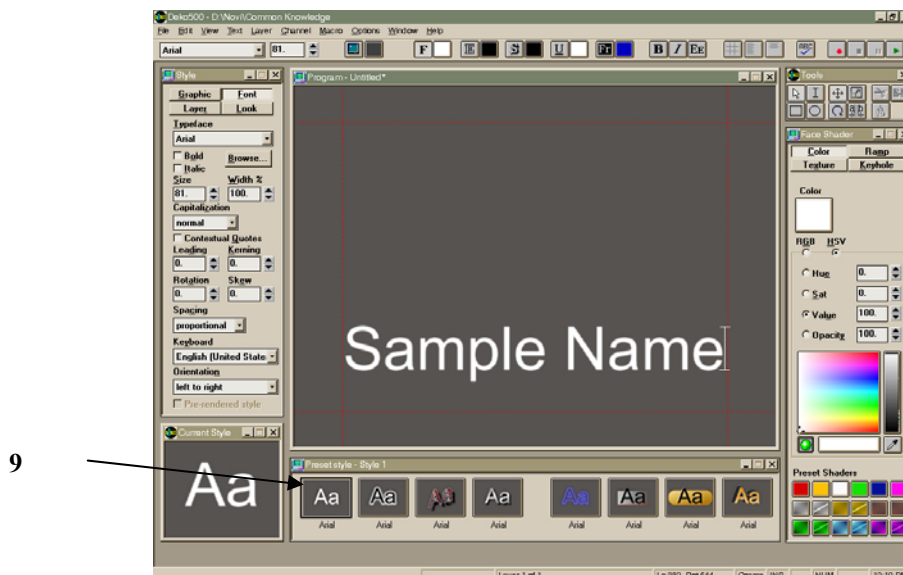
WEEK 3

The Character Generator

7. Select I-Beam tool
8. Draw text box from safe title area to safe title area



9. Click on a font and type desired text

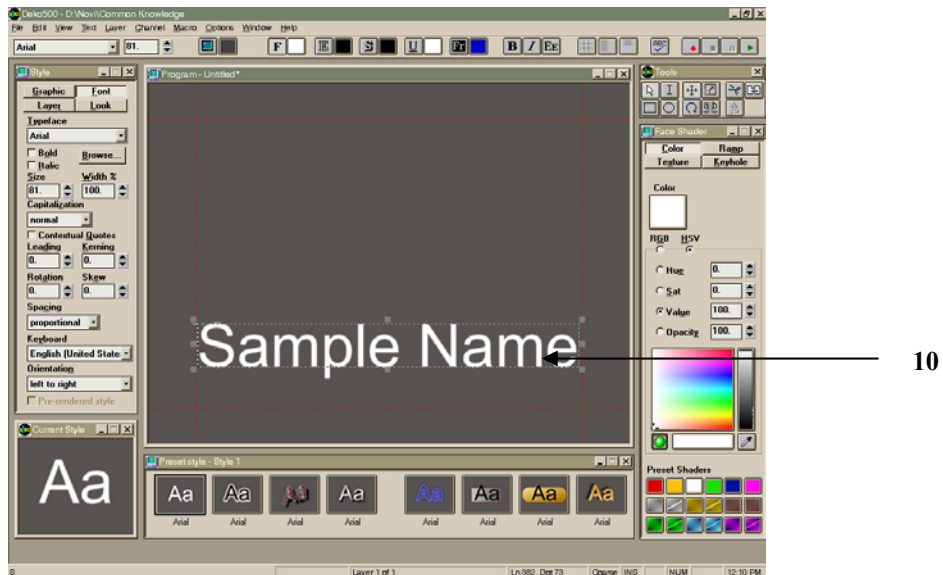


SWOCC Studios Studio A Training Class

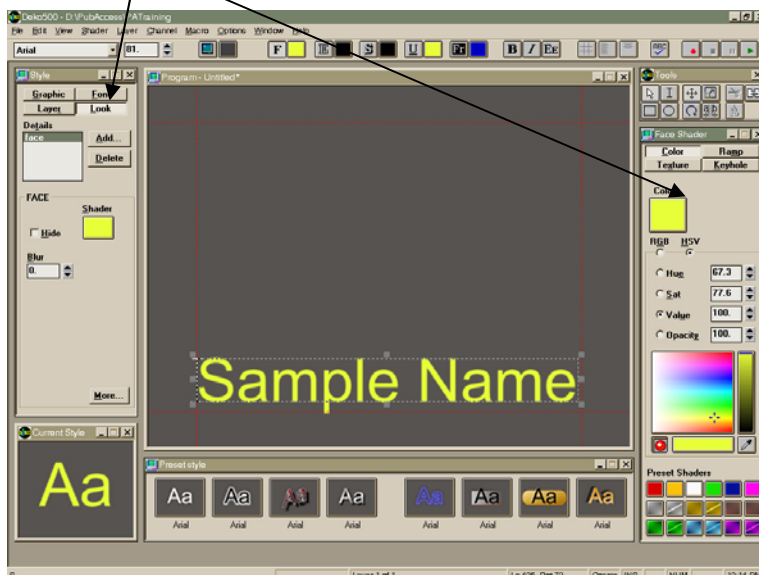
WEEK 3

The Character Generator

10. Click one letter to the end of the row or page you wish to select, Right Arrow over, then Shift + Left Arrow till all text is selected.



11. Manipulate Font Look and Style.

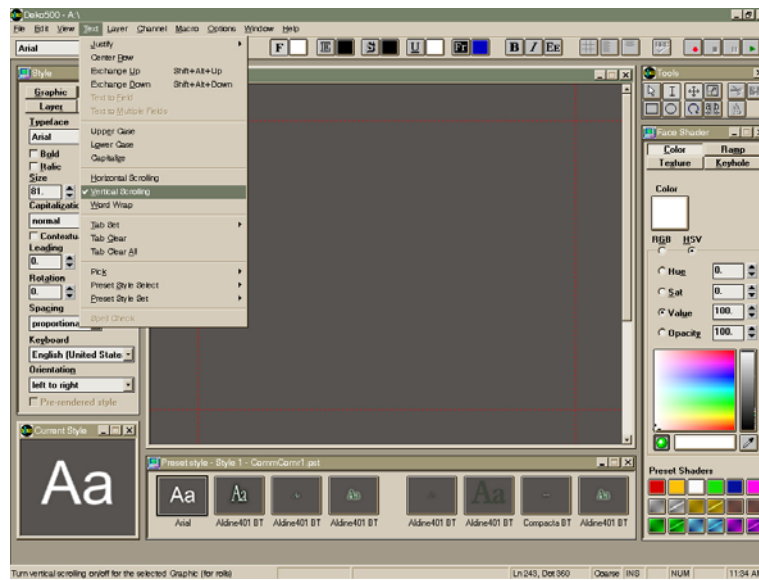


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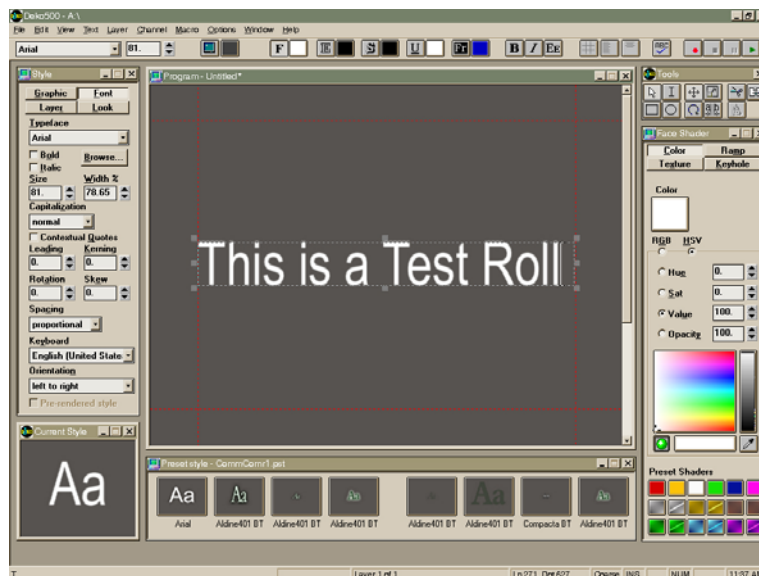
WEEK 3

The Character Generator

12. To Create Text Roll: Text>Vertical Scrolling



13. Select I-Beam and Drag Text Box from safe title to safe title, Click on a font and type desired text.

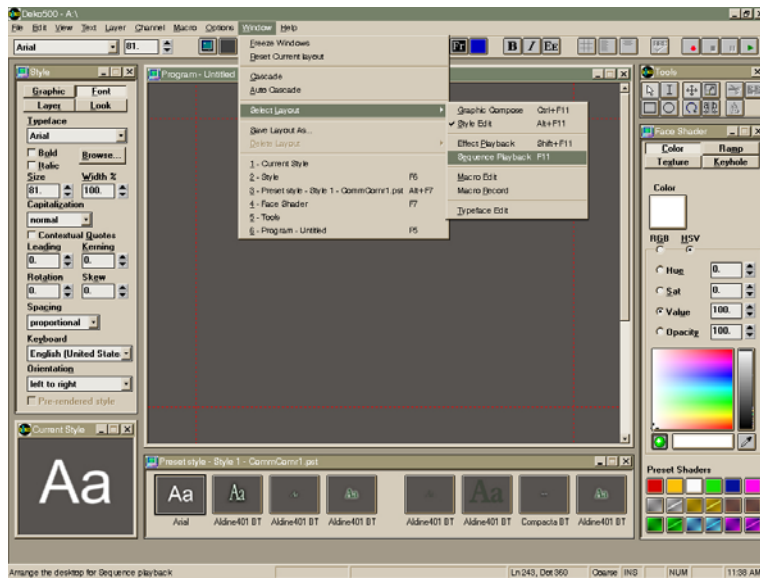


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WEEK 3

The Character Generator

14. To Create a Sequence: **Window>Select Layout>Sequence Playback** or **F11** on keyboard



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The Character Generator

Creating a Sequence

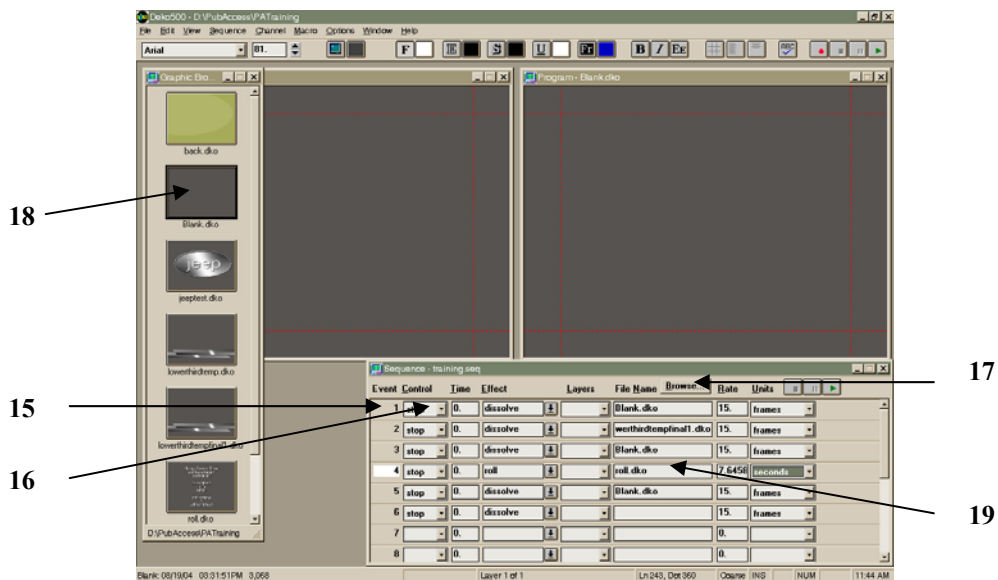
15. Select Event 1

16. Change Options to **Control: Stop, Time: 0, Effect: Dissolve, Layers: Blank, File Name: Blank, Rate: 15, Units: Frames.**

17. Select Browse

18. To import a file: Double Click (always start with a blank page)

19. Remember to change credit roll **Effect** to **Roll** and **Unit** to **Seconds**.



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The Character Generator

Short Cuts to Remember

Alt + Arrow: Move Object

CTRL + Space Bar: Fine Movement vs. Course

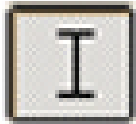
Alt + F11: Style Edit

F11: Sequence Playback

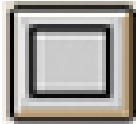
F5: New Graphic



Pointer



Add
Text
I-Beam



Add
Rectangle



Add
Ellipse



Move
Tool



Rotate/Skew
Tool