

APA 4311 - Lab 4

Steps to take when using the Ariel system to process and digitize video data

- (1) Turn on both the Ariel analysis computer and the video unit.
- (2) Choose the #1 option: **APAS-CES** system, enter

GRABBING:

- (3) From the menu that appears, choose the APAS menu, and under this menu choose **GRAB**.
- (4) The active screen, located above the video play back unit will be yellow and black, this is your input screen. Enter a **root filename** in the space provided i.e. for Dan Ramsey's first trial in a normal walking event you could call it: WN01dr.
- (5) Open the VCR option in the menu if the picture is okay to digitize. This is done by opening the **VCR** menu. **F1** will adjust the contrast and brightness of the video display. When complete choose **F10** to return you to the main menu.
- (6) Choose the **Capture** menu and under this menu choose the **Parameters** option. Enter any descriptors for the data (things about the actual trial itself). For **offset** choose 0. The **number of images** should be set at the number of frames that it takes for the subject to get from contralateral heel strike ...to the next contralateral heel strike. The **skip factor** should be set at 0. **Step delay** is also set at 0. The **VCR** is set at auto.
- (7) Go to **Toggel** option and make sure this option is **off**, advance the video to the the first frame of the trial you wish to digitize.
- (8) Advance the video to the image of the control board, and grab this image.
- (9) Advance the video to the trial you have selected to digitize. You have to grab these frames 'so that they are stored to be used later for digitizing. Choose **DATA** from this menu and the system will grab the number of fames that you specified when you set the parameters.
- (10) Exit the **GRAB** menu by repeatedly choosing the F10 key.

DIGITIZING

- (11) Choose the **Digitize** option under the **APAS-CES** menu.

(12) Now it is time to digitize the control points on the grid board. Find the grid board on the video tape. You will need “# **points 7**” and the “# **of control points** to be = to 4”. The **control point ID source** is from the **KEYBOARD**.

(13) Select the point (body markers) that you wish to digitize. Select the **Points** menu and after this the **Point Ids (Identifiers)**. Select the following body markers for the walking trials:

- | | |
|---------------------|-----------------|
| 1. R. Shoulder = RS | 5. R. Heel = R8 |
| 2. R. Hip = RH | 6. R. Ball = RB |
| 3. R. Knee = RK | 7. R. Toe = RT |
| 4. R. Ankle = RA | |

(14) Now select **Control point** from the menu. Locations are on the actual grid board itself. First digitize the reference point (try the white motion detector at the top right hand corner of the screen), then digitize each of the black markers in each of the four corners of the gridboard. F10 to escape from this mode. The **control point locations** are as follows:

0	100	0
200	100	0
0	0	0
200	0	0

(15) Now, choose **New view** and give the trial a name.

(16) Select the **Video/PCX** File and then the **Control** (board) F9.

(17) If your image is small or not very clear, choose the **Video** (F8) option to make the image larger and clearer (this will really help in the identification of the body markers). For lab setting, the **2X** option is usually sufficient, but play around with the zoom until you obtain the clearest picture for your trial. F10/F10 will escape you back to the main menu.

(18) Make sure that you deactivate the FNT strip of the screen, this is done through the **Display menu (F7)**.

(19) Start the digitizing process with the control grid board then once digitized proceed to digitize the trial. Select the F9 **Options** to get to the Control board. You must digitize the fixed point (motion detector) and then the 4 grid points (top to bottom, left to right). If you happen to make a mistake, don't worry, use the F3 key to back up and redigitize the frame. When finished choose the F1 to advance the video.

(20) Choose the F10 key to start digitizing the frames of your trial. Continue digitizing, advancing the film (F1) until you are finished the entire sequence of events.

(21) Once finished digitizing, exit the DIGITIZING menu and quit the program.
You're done for the day.