### 2.4 Scanning with Smiley

## SCANNING BASICS:

1. There are three methods of collecting data from Smiley: $\qquad$ , $\qquad$ , and
$\qquad$ . Each scan will have different individual parameters, but there are similar controls and features on all three.

## THE CONTROLS

2. Controls are located to the left and are the same in all three scan interfaces.
3. Begin Scan. Once the scan starts the green button will change to a red stop scan.
4. Save Scan: allows you to save your current data.
5. Clear: clears the present data.
6. Open Data file: allows users to open previously saved data files to be re-analyzed. Files are saved to a location on the PARI server.
7. IF Gain, the IF stands for $\qquad$ which. magnifies the $\qquad$ of the incoming radio waves. It is the "volume" for radio scans.
8. $\qquad$ : determines the rate at which Smiley collects data and is then plotted. It can be increased or decreased. Increasing the rate plots data more quickly but less data is collected.
9. $\qquad$ $: 1.42 \mathrm{GHz}$ is the default base frequency because is the target frequency for neutral hydrogen. There are others frequencies.

## THREE TYPES OF SCANS

10. Spectrum Scan graphs the $\qquad$ .
11. The intensity scales ranges from $0-10$.
12. Continuum Scanning measures Intensity $\qquad$ .
13. Mapping Scans take samples of several scans to form an overall map.

## GRAPHING FEATURES

14. Graphs can be accessed and modified by right clicking, including:
15. Show unconnected points, Zoom in and Out, Translate: up, $\qquad$ , left, and $\qquad$ ,
Show Grid, and Data point color.

Notes: $\qquad$

