Characterization of colloidal systems and investigation of their stability in their native state (i.e. without denaturation) is of prime importance for the formulator who wants to optimize the development of new products. A new technique has been developed, based on Multiple Light Scattering (MLS) to measure and analyze instability phenomena in liquid colloidal dispersions from 0 to 95% in volume fraction, with particles from 0.1µm to 1mm, 5 to 50 times quicker than the naked eye. It is also a useful technique to characterize the dispersion state of colloidal samples (for quality control purposes) and the mean diameter of particles in dispersions (for analytical purposes).