# An Increase in OPeNDAP Software Downloads Results from REASoN Funding.

As part of the project to develop a *Thematic Data Portals to Satellite-Derived Ocean Surface Properties* we have augmented OPeNDAP software in a number of ways. This has resulted in a significant increase in the use of this software in the scientific community. To the right is a plot of the number of unique IP addresses requesting OPeNDAP software — clients and servers — from the OPeNDAP web site (http://opendap.org) per month between January 2001 and January 2007. Also shown in this plot are two straight lines, least square fit to the data, one for the period January 2001 – September 2005 and the second for the period September 2005 – January 2007. The break between the two sections was selected visually. OPeNDAP software was available prior to January 2001, but we do not have the logs for this period. Prior to January 2001, the number of unique IP addresses increased at approximately 50 per year. After September 2005, the rate increased to approximately 350 per year. *Currently, approximately 900 users are downloading OPeNDAP software from the OPeNDAP web site per month*. We believe that the increase in the number of unique IP addresses per year that occurred in late 2005 results from several factors:
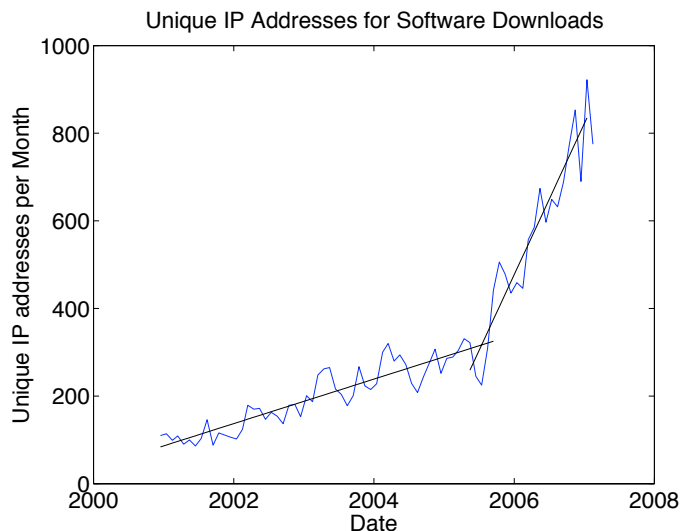
- New/improved software introduced as a result of our REASoN project; that software became available toward the middle of 2005,

- Advertisement of this software associated with this software at various meetings, and

- Increased interest by NOAA in the use of OPeNDAP .

There are several things to keep in mind with regard to these statistics. First, *they do not include software downloads from RPMFIND and similar download sites* — RPMFIND is a web site that provides pointers to archives of RPM packages. Because OPeNDAP is an open source project and because it is part of the Fedora Core Linux distribution, OPeNDAP software has been put on the RPMFIND site (search for *libdap* at http://www.rpmfind.com/). Second, *they do not include clients and/or servers based on the OPeNDAP protocol developed and distributed by other groups* — Examples of such packages are the Python Data Access Protocol (PyDAP), the GrADS-Data Server (GDS), the Ferret Data Server (FDS), the Integrated Data Viewer (IDV) and Dapper. The GDS and FDS communities number in the thousands, but not all of these users make use of OPeNDAP access, so it is not clear how one might count these with regard to OPeNDAP software downloads. For this reason, as well as the fact that we do not have metrics from these groups, statistics for these downloads have not be included in the analysis presented above. Finally, *they do not represent the number of cumulative users, but rather the number of users to download software in a given month*. Active users may update software as new software becomes available or as new patches are made available, so the number of cumulative users is between the maximum number of users per month and the sum of the number of users over all months; i.e., between 922 and 22,600.

REASoN title: **Thematic Data Portals to Satellite-Derived Ocean Surface Properties.**
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