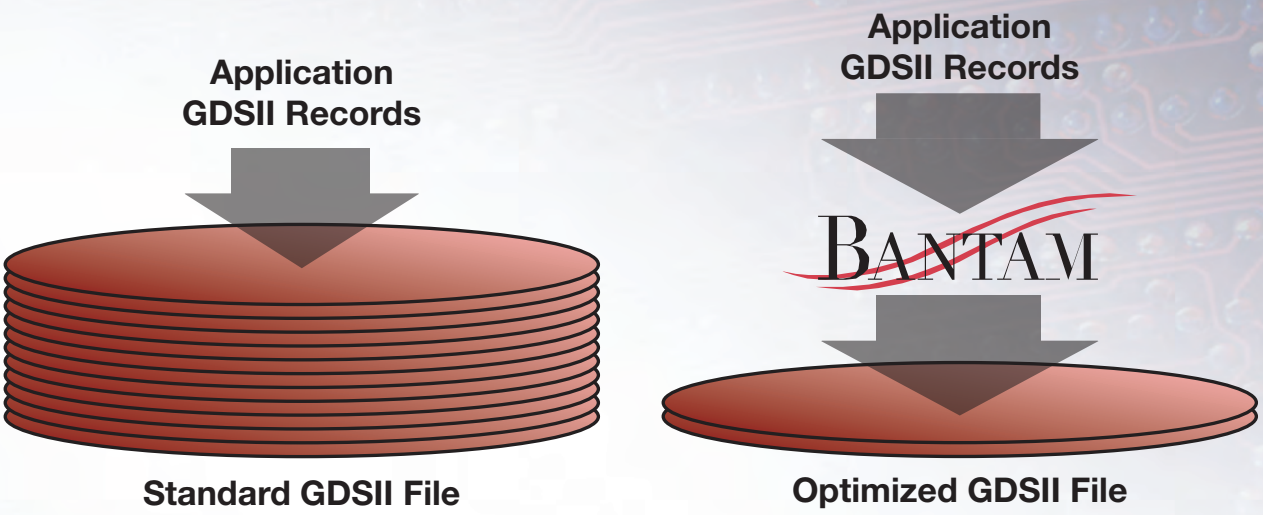
SARATOGA DATA SYSTEMS

Optimize Your GDSII Stream Files and Reduce Their Size by up to 99% Without Compression



Examples		
Original GDSII Stream file size	After Bantam restructuring	% Reduction
14 GB	99 MB	98%
17 GB	875 MB	95%
3 GB	328 MB	89%
4 GB	660 MB	83%
3 GB	626 MB	81%
4 GB	962 MB	78%
3 GB	610 MB	77%

- Faster file transmissions with increased reliability
- Significant savings on network bandwidth
- Savings in archiving with no loss of time for decompression
- Improved management and infrastructure costs from smaller and easier to handle data files.
- Faster run time on many post GDSII applications
- Speeds tape-out cycle time; improves time to market
- Accelerates viewing and plotting
- Worry free archiving: Bantam-optimized files are GDSII and will not become obsolete

Saratoga Data System's BANTAM is a revolutionary approach to the ever increasing problems of GDSII Stream file size and the associated degradation in the throughput of tools that must process the file.

BANTAM optimizes GDSII Stream files, vastly reducing their size. **BANTAM** typically reduces gigabyte size GDSII Stream files to mere megabytes. Unlike compression, with Bantam you never need to undo this optimization prior to using the file. **BANTAM** optimized GDSII Stream files may be directly read by any GDSII Stream processing tool.

BANTAM optimization also improves the throughput of the tools that must subsequently process these GDSII Stream files. As an example, the throughput of an industry standard fracturing operation is typically improved by 2X to 8X simply by using **BANTAM** to optimize the file prior to fracturing.

For years, companies have used commercial compression products to address their GDSII Stream file size problem. **BANTAM** optimization provides files size reductions equal to or better than compression and improve the throughput of your mask data preparation flow.

Customer experiences indicate that the larger and more complex the GDSII Stream file, the more effective **BANTAM** optimization becomes. GDSII Stream files containing (dummy) fill data for CMP and resolution enhancements like OPC and PSM may be reduced in size by as much as 99%.

BANTAM Frequently Asked Questions

What type of compression technology does BANTAM use?

BANTAM does not use compression technologies of any kind. BANTAM is optimization. **BANTAM** output files are GDSII Stream version 6 files.

How do I "undo" BANTAM in order to read the design into a tool?

There is no need to "undo" **BANTAM** optimization. **BANTAM** output files are GDSII Stream and 100% point-for-point equivalent to the input file. Any tool that reads GDSII Stream version 6 will be able to read a **BANTAM** output file.

What is the capacity of BANTAM? How large of a GDSII Stream file can BANTAM optimize?

BANTAM routinely and accurately optimizes GDSII Stream files of tens of gigabytes in size. **BANTAM** accurately optimized an 87GB file. **BANTAM has never encountered a file too large for it to optimize.**

Can BANTAM effectively optimize optically corrected (OPC) and phase shifted mask (PSM) designs?

Yes. In fact, **BANTAM** excels at optimizing GDSII Stream files that are optically corrected or use phase shifted mask technologies. **BANTAM** typically reduces the size of OPC or PSM design files by 75% or more. **BANTAM** has reduced many OPC and PSM design files by 95%.

What type of computer system does BANTAM require?

BANTAM runs on Linux x86 and Solaris SPARC 2 computer systems. **BANTAM** is tuned to run on "server" class computers and some "power user desktop" computers: at least 1GB of RAM, 2GB of virtual memory. A SPECint rating of 1000 or greater is highly desirable.

How fast does BANTAM optimize GDSII Stream data?

BANTAM typically optimizes 1GB of GDSII Stream data in three minutes or less when run a computer meeting the requirements above.

I'm worried that BANTAM will create an error in my design. What steps has Saratoga Data Systems taken to assure the accuracy of BANTAM?

Saratoga Design Systems maintains a test suite of more than 100 GDSII Stream files on which it rigorously tests **BANTAM** for accuracy. **BANTAM** is not released unless it successfully passes all tests. **BANTAM** endured a rigorous six month customer beta test period in which its accuracy was tested on hundreds more full chip GDSII Stream design. **BANTAM**'s accuracy was verified using the exclusive-or (XOR) function of several popular physical verification products. Additionally, **BANTAM** runs its own on-the-fly check and reports on the results.

How can I get a trial copy of BANTAM?

Go to **www.saratogadata.com** and request a trial copy.

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