



### FAST MEMBER ORGANIZER

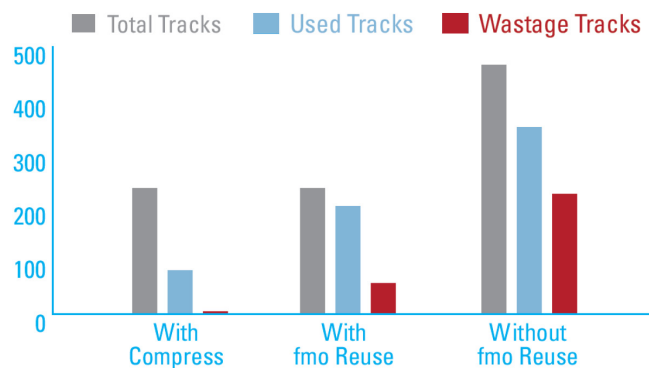
Enhances pdsfast's PDS and DASD management features with the archiving of unused members, automatic space reuse, the control of access to selected members and data sets, the recording of accesses and updates to selected members in SMF, and the automatic updating of LLA.

### DATA SET MAINTENANCE

Installations concerned about the rapidly increasing demands on DASD space or that want to avoid the excessive overhead associated with PDSEs will appreciate the immediate and ongoing savings that fmo provides. Archiving reduces the size of PDSs and saves disk space. The benefits of such control are many. For example, automatically reusing wasted space in a PDS when a member is changed or added allows the PDS to grow in size more slowly, reduces the need for full compresses, and simplifies the management of PDSs that are in use for long periods of time and unavailable for normal compresses.

### USER BENCHMARK

For a benchmark, 850 members were added and 450 were deleted, at random, to a PDS allocated on a 3390 with a primary of 375 tracks



### FMO'S SPACE REUSE

Like a compress-on-the-fly, it reduces wastage and the need for an actual compress.

### IMPROVED SYSTEM PERFORMANCE

fmo can dramatically reduce DASD utilization by tracking member usage and archiving members that have been unused for a long period of time. Not only does this make previously used space available, but it improves overall system and individual job and TSO performance. fmo makes these performance improvements by having smaller PDS directories searched to locate a member, and by having system management utilities handle smaller data sets. For example, nightly backups that included a high percentage of inactive data before fmo archiving will, afterwards, be much faster.

### ACCESS AND AUDIT CONTROL

fmo's usage monitoring facilities allow an installation to track the "who, how, and when" of member accesses. This capability can be used to improve system performance, chargeback access to members (for vendor products), and maintain an audit trail of member references. fmo can also control accesses and updates to selected members and data sets, providing a level of security not normally available. As part of this control facility, fmo can optionally record in SMF, access and update information, as well as whether the access was permitted or denied, or it can issue a WTO to the Operator's console. In addition, fmo can ensure immediate accessibility and data integrity for updated and newly added members of data sets managed by the Library Lookaside facility (LLA).

## FMO TECHNICAL SUMMARY

fmo requires minimal overhead and no modifications to user data or programs. fmo does not require that an entirely new backup system be created, but instead fits in seamlessly with your existing data center backup and migration procedures. The archive files created by fmo are saved as standard pdsfast (IEBCOPY-compatible) unload files at a user-specified location directly on tape or disk, in selectable SMS management groups that can be migrated by HSM. The names and locations of archived members are retained in the fmo Catalog. The member and directory space previously used by the inactive members is then made available either to other members in that PDS or to other data sets on the volume. If needed at a later date, archived members can easily be restored, using either the fmo Restore facility under ISPF or pdsfast itself.

## FMO FEATURES

- Archival of unused members
- Reclaims wasted space within a PDS using COMPRESS
- Reclaims unused directory blocks within a PDS
- Reclaims wasted space on the volume through PDS reallocation
- Supports user customization of archival parameters
- Automatic space reuse
- Intelligent Space Reuse supports Add as well as Replace
- Reduces the need for PDS compresses and thereby increases PDS availability
- Usage monitoring
- Monitor references by application, by data set name, by member name, and the like
- Provides information required for cost-effective DASD management and capacity planning
- Automatic LLA updates in real time at the member level
- Easy-to-read reports (ex. Unreferenced members by data set and volume, Archived members, etc.)

## FMO OPERATION

fmo consists of two main components: the **fmo Supervisor** and the **fmo Agent**.

The fmo Supervisor is a continuously running task normally started at system IPL time. It tracks PDS member references and updates for selected data sets by intercepting BLDL (locate member) and STOW (update member) SVC calls. The fmo Supervisor maintains a Journal, which is updated as additional member references to the selected data sets are detected. The fmo Agent is a batch job that actually performs the member archive process, based on user-specified control statements and the information recorded by the Supervisor in the fmo Journal. For all members selected for Archive, the Agent will perform a pdsfast-unload to a specified data set name, volume, unit, etc., and will then (optionally) delete the archived members and compress or reallocate the data set or change its directory size, thereby freeing up the member and directory space that was occupied by the inactive data. An Agent LISTJOURNAL request will list selected data sets in the fmo Journal.

Information on archived members and their destination data sets is saved in the fmo Archive Catalog. A subsequent Agent LISTCATALOG request selecting either the original or archive data set will produce a report showing the location of the archived data, allowing members to be restored using the fmo Restore facility under ISPF or with pdsfast or IEBCOPY, if necessary. Archive data sets (i.e., data sets containing archived members) that are created by the Agent can be specified with unique DFSMS storage and/or management classes, allowing them to be handled as desired by the installation.

## INSTALLATION, HARDWARE/SOFTWARE REQUIREMENTS

fmo can be installed in less than 10 minutes. No changes are required to the operating system. FMO can run in any IBM OS/390 or z/OS environment.

### **REDUCE WASTED DASD, CPU TIME, EXCPS, AND ELAPSED TIME WITH SEA'S FAST PACK**

SEA's fastPack is comprised of 5 state-of-the-art DASD management tools. On the DSN and Volume level, pdsfast, fastgenr, fastvsam, and Fast Data Set Organizer (fdso) constitute a suite of ultra-high-speed DASD and data management solutions. Its powerful and flexible reporting facility provides management with an installation-wide view of the DASD subsystem that can be tailored to their needs (broken down by volume, storage group, unit type, pool, etc.)

On the member level, Fast Member Organizer (fmo) is a comprehensive, easy to use, high-speed, member-level monitoring and management tool that can dramatically reduce DASD space consumption by archiving unreferenced PDS members and by reusing disk space.

Using fastPack, installations can recover automatically from many out-of-space conditions during processing, backup huge volumes of VSAM data, defragment volumes incrementally without requiring exclusive access to the volume, and a whole host of other functions.

As transparent replacements for the IBM utilities IDCAMS, IEBCOPY, and IEBGENER, which are invoked thousands of times a day, the fastPack components can deliver significant resource savings.

With fastPack, SEA is uniquely positioned to help modern data centers not only maintain and maximize their investment in DASD but also improve their system performance, extend DASD capacity by up to 20%, and keep pace with its continued growth through improved automation and management.

---

### **SEA - SOFTWARE ENGINEERING OF AMERICA**

Established in 1982, Software Engineering of America has built a global reputation as a leader in the field of data center software solutions. Over 10,000 data centers of all sizes and configurations are utilizing one or more of SEA's products, including 9 of the Fortune 10 as well as 425 of the Fortune 500 Companies.

SEA provides the highest quality technical support in the industry for all of its products, 24 hours a day, 7 days a week, worldwide.

# **SEA™**

**SOFTWARE ENGINEERING OF AMERICA®**  
Phone: 516.328.7000 • Fax: 516.354.4015 • [www.seasoft.com](http://www.seasoft.com)

All trademarks & copyrights are the property of their respective owners.