appreciated your recent Personal Computing Paradigm columns about Microsoft and its products. However, there is an important functionality that Microsoft has provided to the Wintel congregation. Because of this functionality, I find myself choosing the NT machine at my disposal over my Mac more and more. The reason? Microsoft, through its software and its operating system, has recognized an important reality of large, corporate entities that generate unimaginable amounts of data via a plethora of different software producing databases that are similar in structure and purpose, yet incompatible between some systems.

Large corporations still have a wide variety of Wintel hardware in their network. In our department alone most computers are still running Windows 3.1 with no more than 16Mb of RAM. For secretaries who are focused on word processing, some elementary spreadsheet work, and accessing patient appointment and surgery schedules, these machines are sufficient. However, we are finding it essential to have at least one NT machine that can handle more global projects that pull data together from a variety of sources.

It is essential that any clinical data generated by the hospital be collected electronically by us for use in departmental projects involving both patient care and research. The alternative is to physically pull charts and search manually for the data. In this age of decreased funding, efficiency is paramount. Clinical researchers are being asked to see more patients, garner more grant funds, and teach more, with less administrative support because of the ever-increasing burden that reimbursement issues place upon their assistants (yet the hours in a day have not been increased).

To get information about hospital stays, I need to access SAS datasets warehoused on a UNIX server. To get information about clinic visits, I need to access databases generated by a proprietary software—actually, the only thing that works is to generate a delimited text file, which is imported by Excel 97 with ease. These two situations are only the tip of the iceberg.

Normally, this situation would be a nightmare by anyone’s standards. However, Windows 95 and Windows NT operating systems introduced a godsend of a concept—dynamic data exchange. Microsoft and developers of high-end statistical, data warehousing and enterprise software (SAS, Oracle, etc.) have teamed up to make communication and exchange of data between products a relatively easy process. There is no equivalent in the Mac OS, I’m sorry to say.

As you might expect, Microsoft Office components feed well into this data communication network.

I find myself setting up very simple Excel spreadsheet templates on secretary’s and lab technician’s computers so they can quickly and easily update specific components of the

larger database I am managing. Alternatives to Excel include Access, Lotus, FileMaker Pro (Windows version), and others. Unfortunately, Mac files cannot seamlessly feed into this system.

Files created by administrative or technical support are saved to the network drive and can be pulled up by the NT machine. In less than 5 minutes, I have incorporated updates from 6 attending physicians located in two departments, pulled relevant data from hospital and clinic data warehouses and spit out reports—exported back to one or multiple, personalized Excel, Lotus, or FileMaker Pro spreadsheets. The power of this system is being noticed by other departments in our division, so I imagine the number of attendings contributing to our database and the number of separate projects that incorporate this interface design will increase dramatically in the next few years.

Using dynamic data exchange, the power of a variety of statistical and enterprise software can be used to quickly analyze data collected via low-tech Excel spreadsheets. This makes for a user-friendly system and only one high-end NT workstation (equipped with large RAM, fast processor, and expensive software applications) is required. Administrative and technical support staff need learn the basics of only one or two applications—usually Excel and Word—to productively contribute to complex multi-center research projects. Their Windows 3.1 machines are sufficient. The whole system is marvelously cost- and time-efficient. The strengths of diverse personnel are emphasized and duplication of effort is minimized.

Fortunately, Macintosh is not totally excluded from cashing in on this goldmine. Microsoft is the engine. Maintaining that partnership and enhancing the Mac OS to include dynamic data exchange would be a big plus. It would also solve a major problem in the whole Mac vs. Windows feud. While it's true that Mac users can access many files produced on Windows machines without prior "translation" by the Windows user, the converse is not true. This sets Mac users apart in a negative way. Dynamic data exchange tools would break this barrier.

As you so correctly point out in your articles, Mac software has historically included high-quality products that are focused on easily performing common tasks. The one complaint I have about the system I work with is that we still need to load (and pay for) full-featured Excel, Access, or FileMaker Pro software on each networked machine (Network computers will not be a viable option for several years, if ever). Many individuals do not require the range of features offered in these applications. Businesses would choose machines that offered a scaled-down set of applications, but only if those machines could seamlessly feed into a networked system such as I've described above. So, Apple has an opportunity to increase its market share in large corporations if Apple and Mac software developers will seize it by adopting the dynamic data exchange paradigm.