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It was no longer "the largest computer in

Canada" by the time Wes Graham posed with UW's IBM 360/75, but it had held that title for a few months after its arrival in the Physics building in 1967. Later moved to the red room when Math and Computer was built, it stayed in service at UW until 1979. The console from the 360/75 is in storage during the current red room renovations, but will be put back on display as a historical artifact later this year.

UW computing pioneer mourned

by Chris Redmond

Wes Graham, the retired computer science professor who has been called "the father of computing at Waterloo," died August 23 at the age of 67.

"He was a great teacher and a great leader," said former UW president Doug Wright, "and did more than any one person to put Waterloo on the map in computing."

James Wesley Graham, who was named an Officer of the Order of Canada a few weeks earlier, and invested into the order in a private ceremony three days before his death from cancer, came to UW in 1959, after a few years working for IBM in Toronto.

He taught statistics at first, in a department of mathematics (still within the faculty of arts) where a fledgling "computing centre" was established in the fall of 1960, headed by faculty member Basil Meyers. When the computing centre became a separate department in 1962, Graham became the director.

He gained a reputation for doing things fast and without too much paperwork. Years later he recalled the arrival of an IBM 7040 computer: "We had a little opening ceremony for it, and there was an article in the K-W Record, and it said, U of W installs 2 million dollar computer. Hagey [Gerry Hagey, then president of UW] phoned me and asked me to come over. He said, 'Wes, I'm amazed. Basil always told me we needed a two-million-dollar computer, and now we have one. I like the way you do things. I didn't even know we ordered it."

But the big 7040 turned out to be slower than the smaller IBM 1620, which had the advantage of a nifty little computer language called FORGO, a subset of FORTRAN. Something of the sort was needed for bigger machines. And it was under Graham's aegis that, over a hectic three months in the summer of 1965, four students wrote the original WATFOR (WATerloo FORtran) compiler for the 7040. Before long there were 250 keypunches serving the computer at UW.

Shortly afterwards came WATFIV, soon to be marketed by the Computer Systems Group, which Graham headed for decades, and the spinoff Watcom Inc., now part of Sybase Inc. In 1973 he returned to teaching, research, and encouragement of commercial development for UW software, but he continued to be the eminence behind many computing developments at UW. In 1982 he was a key figure in negotiating a "partnership" deal that brought \$17 million worth of IBM hardware to Waterloo, including three IBM 4341 mainframes.

From 1983 to 1988, while Wright was president, Graham held the position of "dean of computing and communications," which was created for him and disappeared when he finished his term.

Among other distinctions, he was a Distinguished Teacher Award winner at UW, and he was given one of the university's "25th Anniversary Medals" in 1982. The J. W. Graham Medal in Computing and Innovation is presented to a Waterloo alumnus each year in his honour.

Graham made his last appearance on campus early in the summer, when he was guest of honour at a gathering marking the closing of the Red Room in the Math and Computer building. He spoke for a few minutes at that event, recalling the planning of Math and Computer (built in 1967) and the last-minute change that made the computer room "red" instead of yellow as originally intended.

It had been a novelty, he reminded his audience, to put computers -- huge, unwieldy machines costing millions of dollars -- where the general public, and the students using them, could actually see them.

The *Globe and Mail* featured Graham in its "Lives Lived" column on August 26, with an appreciative article quoting Graham's colleague Don Cowan.

"There are three or four people in Canada that I consider pioneeers," Cowan told the Globe, "and Wes was one of them."

The article called Graham "something of an evangelist, recognizing that computer technology should not be the exclusive property of academics, and he lived to see his software for teaching computer programming spread into high schools, business, industry and government. . . .

He helped the Ontario Ministry of Education design its curriculum for the first computer course for high schools and worked with colleagues to write textbooks that became models. . . .

"He served a term as president of the Canadian Water Ski Association. There he pioneered the use of computers in tabulating the scores at tournaments."

Says the official obituary notice: "He was a tireless and devoted father to Barbara Graham (deceased), Marlene and Randy Kipfer, Jim and Connie Graham, Susi and Ricky McCormick, Gord Graham and Paul Graham and a proud and loving grandfather. . . . Wes will be missed by beloved companion Rebecca Edisbury . . . he will also be remembered by his wife Helen Graham and his sister Gail Corbett."

A memorial service was held August 27 at St. Mark's Lutheran Church in Kitchener. Memorial donations to the Grand River Hospital Foundation were suggested.

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