

Foreword

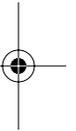
Not 200 meters from where I sit, there was a revolution.

Responding to a call from a famous night rider, a handful of men turned out in the middle of the night to protect their families, their lands, and a set of “human rights” they had in fact just discovered. Their intolerable treatment by a distant tyrant caused them to risk everything—their very lives—to protect their way of life. Some paid the ultimate price that morning, sending a message heard around the world, becoming the beacon of revolution that was to reverberate throughout the Age of Enlightenment down to today.

They wanted nothing less than to create a better society, a just society, different than what they saw in the distant tyrant’s domain. They wanted to change everything, wipe the slate clean, and dissolve the political bonds that bound them to their past. Leaning on the previous hundred years of political philosophy, they believed themselves to have what would soon be termed “certain inalienable rights,” and they meant to assert those rights.

The result was years of painful fighting, a trans-oceanic war between the world’s greatest superpower and a band of rebels, led by a figure termed a “traitor” by the ranks of that superpower. Against all odds, the rebels won the war in a mere eight years, winning a place in history and control of their own destinies.

Yet . . . more than 200 years later, here I sit in that same country drinking a cup of coffee in my local coffeehouse, where stood 200 years ago another coffeehouse. Though this country and its former tyrannical, imperial owner have been separated for more than two centuries, we still share the same language. The legal systems are nearly identical; the political systems, while different, have strong and clear similarities. The cultures are closely related, closely enough to share the same sources of entertainment. In fact, these one-time enemies are considered to have a “special relationship” that transcends all other





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diplomatic relationships, even to the exclusion of the closest neighbors and trading partners of both countries.

The message is clear: sometimes at least, revolutions are evolutionary. The urge to reinvent, to clear the decks and start again, quite often instead reifies an extant system—in this case, personal freedom in the context of a precedent-based legal system structured around a government of the people, for the people, and by the people.

Moving our focus from political history to the structure of scientific and industrial revolutions, we find much the same situation. Thomas Kuhn's view of the world is constantly invoked in the information technology industry, but more often as not, IT "paradigm shifts" are in fact only terminology shifts.

Model Driven Architecture (MDA), the vision of the Object Management Group (OMG) to move software development out of the depths of handicraft up to the heights of engineering, without doubt represents a paradigm shift. By focusing on architecture and encapsulating design "on paper" the way building architects capture blueprints, the OMG aims not only to lower initial software development costs but, more importantly, to decrease the ever-increasing costs of software integration and maintenance (which claim some 90 percent of software lifecycle resources today). At the same time, MDA starts with a graphical language rather than a textual one and forces developers to design before coding (or even instead of coding). Clearly there's a revolution under way.

At the same time, however, MDA represents just another level of abstraction, another level of compilation. The authors of the tome in your hands call MDA a "revolution" akin to the late-twentieth-century move from procedural to object-oriented programming languages; but even that was only another compiler-based level of abstraction (few instruction sets are object-oriented; object-oriented languages must be compiled to those non-OO instruction set architectures). In fact, the MDA revolution is already delivering benefits, without discarding that which came before; that is, it is an evolutionary revolution.

Every revolution, regardless of how well it replaces or expands the existing order, must have a language; political revolutions have their constitutions and declarations, and the MDA revolution focuses on software processes and assets. This book, while it briefly presents a software development process, focuses primarily (and in prescient and clear depth) on filling out a set of patterns to simplify the development of software. This book is, effectively, your dictionary of the new language of MDA, a set of basic blueprints that will accelerate the construction of the building you have in mind. Builders don't all need to reinvent steel I-beams, and software developers don't need to reinvent the product catalog.





In sum, you hold in your hands the keys to an evolutionary revolution, one that is already having its impact on the software development world. I must confess to a personal failing, that I find joy in reading encyclopedias and dictionaries. As I sip my coffee near the site of an evolutionary revolution, it's hard not to enjoy reading the declaration of another.

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