Preface

The thought of writing this book began with the realization that not a single book existed with the title *HDR? Duh!* While we rejected the idea of this title shortly after, both the idea for this book and its title matured and now you have the final result in your hands.

High dynamic range imaging is an emerging field, and for good reasons. You are either already convinced about that, or we hope to convince you with this book. At the same time, research in this area is an amazing amount of fun, and we hope that some of that shines through as well.

Together, the four authors are active in pretty much all areas of high dynamic range imaging, including capture devices, display devices, file formats, dynamic range reduction, and image-based lighting. This book recounts our experience with these topics. It exists in the hope that you find it useful in some sense.

The visual quality of high dynamic range images is vastly higher than conventional low-dynamic-range images. The difference is as big as the difference between black-and-white and color television. Once the technology matures, high dynamic range imaging will become the norm rather than the exception. It will not only affect people in specialized fields such as film and photography, computer graphics, and lighting design but will affect everybody who works with images.

High dynamic range imaging is already gaining widespread acceptance in the film industry, photography, and computer graphics. Other fields will follow soon. In all likelihood, general acceptance will happen as soon as high dynamic range display devices are available for the mass market. The prognosis is that this may be as little as only a few years away.

At the time of writing, there existed no single source of information that could be used both as the basis for a course on high dynamic range imaging and as a work of reference. With a burgeoning market for high dynamic range imaging, we offer

this book as a source of information for all aspects of high dynamic range imaging, including image capture, storage, manipulation, and display.

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