

# DCA Custom Development & Services

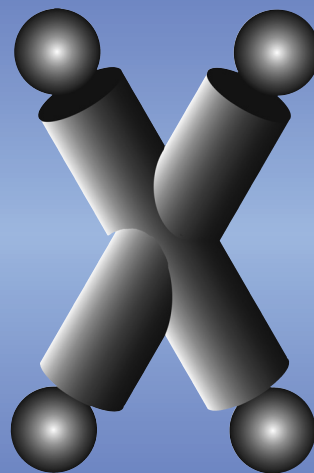


Unique & innovative solutions,

Custom products,

Intellectual property,

Unlocking the possibilities of your ideas



P O S S I B I L I T I E S . . . U N L O C K E D

Since 1988, DCA has continued a long history of innovation in the optical disc industry, including the development of the world's first in-line loading, mastering and verification products as well as the industry standard infrastructure foundation, DDP. DCA continues that history of innovation today with our custom services & development for our valued customers and partners.

When the industry has needed to move forward, DCA has been there, usually one step ahead, prepared with ideas to pull the industry forward. DCA is constantly looking for solutions to customer & industry problems; listening and providing unique & innovative products, services & intellectual property to unlock the possibilities of your ideas.

Some of the areas of DCA's expertise include format creation, custom application development, consulting, plant infrastructure and workflow optimization and IP development. A few recent examples include:

#### **Content Owners**

Microsoft contacted DCA in 2000 with an idea that was gaining traction within their company - a game machine that would build upon the ease of programming for the PC and allow a best-in-class console gaming platform. Microsoft desired an optical disc format to use in their XBOX console that had rock-solid anti-piracy features with very specific constraints.

DCA provided both the XBOX & XBOX 360 disc formats for Microsoft. These are among the very few disc formats that have yet to be broken by hackers or professional pirates. (Current hacks for the XBOX & XBOX 360 console are based upon modification of the console itself).

A major US film studio contacted DCA in 2005 with a request for a global authorization tool to allow re-authoring a specific title using a DVD replica as the input source. The need was due to inadequate archives of the original source content used to create a specific DVD title. DCA provided a custom application and internet based infrastructure, Reload, which provides secure, central authorization of specific DVD replicas to be used to re-populate specific authoring sites and systems.

#### **Format Creation & Extension**

DCA has also assisted in the creation of many formats, including copy protection, anti-piracy and forensic tracking technologies features. Using the power of DCA's unique Genesys Reference Signal Processor, the standard bearer of format design tools, the HD DVD family, Blu-ray recordables and UDO were all developed or tested with the help of Genesys, as were FVD and HRD for China markets.

Genesys 2 and associated format design tools are now available, specifically designed for aid the development ultra-high density storage formats, which require electron beam recorders including Next Generation HDD.

### **Infrastructure and Workflow Solutions**

Deluxe Digital Studios in Burbank, California first contacted DCA in 2004 with the idea of starting a microplant that would specialize in small orders & check discs. Such a plant would need to run extremely efficiently, and Deluxe additionally wanted to be first out of the gate with next generation format capability, including HD DVD & Blu-ray.

DCA partnered with Deluxe and worked with their personnel to bring their new plant up & running, from scratch. DCA provided the expertise, technology & equipment necessary to help Deluxe become one of the first plants in the world to cut the HD DVD & Blu-ray formats. Additionally, with the use of the DiscTag Enabled Workflow, Deluxe is able to reliably turn most jobs around in under 24 hours due in part to the high degree of end-to-end automation, from authoring seamlessly to disc QC.

Microsoft XBOX 360 anti-piracy features required a much more secure and automated infrastructure to allow efficient and highly reliable disc production beginning at title creation all the way to final disc certification. DCA created and delivered highly automated, end-to-end secure infrastructure to transport 360 game content from game developers, to replicators every step through manufacturing including automating the physical and electrical disc testing. DCA's unique & powerful DiscTag and HCRC were key enabling technologies.

EDC in Hanover, Germany contacted DCA in 2001 with a desire to improve their plant workflow. EDC was using multiple Singulus off-line and on-line LBRs in standalone, non-networked operation. DCA provided a complete, integrated network mastering solution including DCA Commander Scheduler central job scheduling and DCA's Linx & RLinx modules to automatically schedule the Singulus on-line LBRs through SceNT and off-line LBR's via DCA MIS V8.

Sonopress in Weaverville, North Carolina contacted DCA in 2006 with a request to extend HCRC verification to their LBR environment, using the EOE return signal. DCA delivered EFM Capture, a utility that extends DCA's existing pre-mastering software to perform an HCRC check against LBR captured results.

### **IP Development**

DCA has assisted numerous companies over the years with the help of its' ever expanding patented and patent pending intellectual property portfolio, including developments in forensic markers, forensic tracking systems, customization to standard formats, anti-piracy, and information automation.

DCA's stance on their IP portfolio is to license out technology whenever possible, rather than keep our advanced ideas to ourselves. DCA currently offers IP licensing & SDKs for DDP Creation, Content Analysis, DiscTag, HCRC, and many more custom operations.

**DCA's Custom Development & Services partners with you to deliver unique & innovative products, services & intellectual property to unlock the possibilities of your ideas.**

**DCA has provided expertise from our custom development & services to many partners, recently including:**

- |                          |                      |
|--------------------------|----------------------|
| * Microsoft              | * Singulus Mastering |
| * Toshiba                | * RiTek              |
| * Deluxe Digital Studios | * Plasmon            |
| * GDMX                   | * Philips IP&S       |
| * EDC                    | * Memory-Tech        |
| * Sonopress              | * Pulstec            |
| * GE Global Research     | * AudioDev           |
| * Sonic Solutions        | * DaTARIUS           |

***Possibilities...Unlocked***  
***With DCA***   
***The Innovation Continues!***

**DCA**   
***The Innovation Continues!***

**Contact Us**

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