

# Optical Media

- What is Optical Media
- Determining Optical Drive Capabilities
- Types of Media
- Storage Capacity
- Writing (Burning) Media Using Ashampoo

# What is Optical Media

- CD, DVD, and BD(Blu-Ray)
- Laser read and written
- Data recorded from spindle out
- Plastic layers with data film between layers
- Available in
  - Write once, read many
  - Write many, read many
- Will deteriorate over time and usage

# Determining a System's Optical Drive Capabilities

- Run Belarc
- Google *Manufacture Model Spec*
- Interpret results

# Belarc Information

- Find CD-ROM drive information
  - “**Optiarc** DVD RW **AD-7241S** ATA Device [CD-ROM drive]
- Optiarc is the manufacturer, not Dell!
- AD-7241S is the model

# Google for Specifications

- Enter in the search entry the manufacturer model spec

Optiarc AD-7241S spec

- Find entry for the manufacturer
- Sometimes you may need to get the user manual

# Interpret Results

- Determine which types are supported
  - CD, DVD, BD
- Determine which media formats can be written
  - -R, +R, -RW, +RW, +R5, +R9, DL
- Write speed
- Other features
  - LightScribe Support

# Optiarc AD-7241S

- Web Page

<http://www.sony-optiarc.eu/products/archive/dvddrivesdesktoppcs/ad7241s.html>

- Write Speed

- DVD-R: 24x max. DVD+R: 24x max.
- DVD-RW: 6x max. DVD+RW: 8x max.
- DVD-R DL: 12x max. DVD+R9: 12x max.
- DVD-RAM: 12x max.
- CD-R: 48x max. CD-RW: 32x max

# What does this mean?

- -R write once, read many (CD, DVD)
  - DVD's the – is important, CD only have –
- -RW write many, read many (CD, DVD)
- +R write once, read many (DVD)
  - DVD's the + is important
- +RW write many, read many (DVD)
- -R DL write once, read many dual layer (DVD)
- +R9 write once, read many dual layer (DVD)
  - Same as +R DL

# Speed and Features

- ####X indicates access speed
  - ### times the speed of a 1X
    - 150KB/sec CD
    - 1.32MB/sec DVD
- Special features
  - Dust protected enclosure, buffer under run error prevention, LightScribe Direct Disc Labeling
    - Buffer under run error prevention (good thing to have)
    - Support for LightScribe labeling media

# Storage Capacities

- CD-R,-RW 650MB, 700MB
  - 74 and 80 minutes of audio
- DVD±R, ±RW 4.7 GB
- DVD±R DL, +R9 8.5GB
- BD-R, BD-RE 25GB, 50GB

# Buying Media

- Type and format must be write supported by burner!
- Speed is not that important
  - Software/firmware will use slower speed in auto
- More storage capacity = more \$\$\$ / disk
- Don't buy features you do not need
  - High speed media for a low speed drive
  - LightScribe for non-LightScribe units

# Use CD's

- Audio CD's for CD players
- Data needs less than 737MB
- ISO's less than 737MB

# Use DVD's

- Movies, Movie Slide Shows for DVD players
- Data needs less than 4.7GB or 8.5GB
- ISO's less than 4.7GB

# BD's (Blu-Ray)

- **Burners cost about \$100.**
- **Media is much more expensive than DVD's or CD'S**
- **Less than \$.25 compared with \$1 or more.**
- **4.7 Gig vs 25 Gig so the cost per Gig is better but “burning a coaster” is more expensive and you have more data to lose if it fails.**

# Ashampoo Burning Studio

- How to get free version  
<http://www.ashampoo.com/en/usd/fdl>
- What it can do
  - Backup files
  - Create ISO files
- What it can't do
  - Create movie files
    - Windows Live Movie Maker (W7)
    - Windows Movie Maker (Vista)
    - DVDstyler
    - WinX DVD Authoring

# Demo Ashampoo

- How to download and install
- How to do data copy
- How to do data backup
- How to do ISO burn

- Any Questions for Randy or Jim?