Jacobsen Declaration
Exhibit AA
CLINIC SCHEDULE

Schedule of clinics is listed by clinician name

Albers, Gerry

CAD MODEL RAILROAD DESIGN
Advantages, disadvantages, and benefits of using Computer Aided Design (CAD) for model railroad design are presented, including what to look for in a CAD program. This clinic is pragmatic in nature and includes a "live" demonstration of CADrail 8. A list of all known (to the author) current CAD products is provided. Note: an article in MR Planning 2005 will parallel this clinic.

SUNDAY 2:30 PM - 3:30 PM ROOM 262
MONDAY 10:30 AM - 11:30 AM ROOM 208

SIGNAL SYSTEMS IN MODEL RAILROADING-
The modeler is led gradually through topics from basic prototype signal practices to advanced electronic techniques, including a detailed description of Allen McClelland's original Virginian & Ohio signal system and a description of a modern DCC system. Emphasis is placed on the benefits of operation and animation. The clinic is interfaced with descriptive charts, photos of prototype signals, and photos of model railroad signals. It progresses from a philosophical approach (model railroading is a 3-dimensional, dynamic art form to be interactively shared) through a detailed description of the hardware and software that comprise a signal system. Original and modern prototype signal models are covered. Various types of vehicle detectors, logic circuits, throttles, drive circuits, CTC panels and other relevant topics are covered.

SUNDAY 1:00 PM - 2:00 PM ROOM 262

Ames, John

TRACK, PART 1 - HISTORY & DEVELOPMENT
A historical investigation into the development of railway track, from Roman roads and medieval mining railways to modern slab track. Delve into the logic (or illogic) behind early decisions on physical designs which are now taken for granted: what track gauge to use; what made "standard" gauge standard; why the flange is on the wheel, and why it's on the inside; differences in rail designs and track structure. Find the engineering connection between early railways and canals, why the first "trains" were "unit" trains and that inter-modal transport goes back to the 1790's. Learn why some of the first railways were the best ever built, with scheduled speeds of 120 km/hr (70 mph) by 1845, and discover the amazing "atmospheric" railways, famous for no engines and infamous for their showers of mice! Handout provided.

MONDAY 9:00 AM - 10:00 AM ROOM 201
SATURDAY 1:00 PM - 2:00 PM ROOM 262

TRACK, PART 2 - DESIGN & HARDWARE
A treatise on the engineering and technical aspects of railway track. Discover how the 1:1 designers lay out a track plan; the relationship between degree of curvature and radius; turnout versus switch and other nomenclature issues; types of switches; types of frogs (yes, there are more than one); what makes a turnout a No. 8; joints and fastenings; ties and tie spacing; why and where you need guard rails; what is a gantry track (no "u"); roadbed and earthworks and modern track developments (how long is a No. 120 turnout?). Everything you ever wanted to know about track but were afraid to ask. Handout provided.

MONDAY 10:30 AM - 11:30 AM ROOM 201
SATURDAY 2:30 PM - 3:30 PM ROOM 262

Ames, Stan

EMERGING ADVANCED TOPICS IN DCC
As DCC advances there are now several new capabilities that are just beginning to emerge. Topics to be discussed are Bi-Directional DCC, Asymmetrical DCC, and Signal Controlled Influence. These emerging technologies combine to significantly enhance model railroad operations. Stan Ames is one of three co-authors of "Digital Command Control: A comprehensive guide to DCC". Stan was the original chair of the DCC working group and was also a former chair of the NMRA Conformance and Inspection program. Stan is a Life Member of the NMRA and past NER Trustee.

WEDNESDAY 6:30 PM - 7:30 PM ROOM 204
THURSDAY 6:30 PM - 7:30 PM ROOM 212

SELECTING A DCC SYSTEM
Thinking of going DCC? In 1992 the NMRA initiated an effort to generate standards for a whole new generation of model railroad control, which has become known as NMRA Digital Command Control or DCC. More than 15 manufacturers now produce compatible control systems built to the NMRA DCC specifications. With so many good choices for a model railroad control system how do you choose what is best for your needs? During this clinic we will review the current choices and help you select the features that are most important for your railroad. Brian Barnt and Stan Ames are past chairs of the NMRA DCC working group. Both have extensive experience in DCC and both own and use a variety of DCC systems.

MONDAY 8:00 PM - 9:00 PM ROOM 208
TUESDAY 8:00 PM - 9:00 PM ROOM 208

Barnt, Brian

AN INTRODUCTION TO TSUNAMI SOUND DECODERS
Introduction to Soundtraxx' new sound decoder. This decoder allows adjustments to just about every setting, multiple whistles, etc. This decoder will also run in DC mode.

FRIDAY 1:00 PM - 2:00 PM ROOM 208
SATURDAY 4:00 PM - 5:00 PM ROOM 204

Barrow, David

CAT MT. & SANTA FE LUBBOCK INDUSTRIAL DISTRICT
"From the model railroad to the railroad model" The Cat Mt. & Santa Fe is now a compressed but otherwise exact model of several Lubbock, Texas industry switching "zones".

WEDNESDAY 9:00 AM - 10:00 AM ROOM 208
FRIDAY 10:30 AM - 11:30 AM ROOM 212

Bender, Paul

JMIRI COMPUTER PROJECT: JMIRI USERS FEEDBACK SESSION
This is your opportunity to ask questions of some of the JMIRI project developers. Planned participants: Paul Bender, Dave Duchamp and Bob Jacobsen. For more information about the JMIRI project, and it's suite of tools, please visit http://www.jmiri.info.

MONDAY 9:30 PM - 10:30 PM ROOM 262

JMIRI COMPUTER PROJECT: PANEL PRO - ADVANCED USES
This is a continuation of the PanelPro Introduction and is intended
for users who want to do more with the software. Includes a
discussion of scripting, and how to create custom look and feel for
your panel. PanelPro is part of the JMRI Projects suite of tools.
More information, including download instructions, is available at

MONDAY  2:30 PM -  3:30 PM  ROOM 262
FRIDAY  8:00 PM -  9:00 PM  ROOM 208

JMRI COMPUTER PROJECT: PANELPRO
INTRODUCTION
PanelPro is a computer based system for building CTC control
panels. A discussion of supported systems and a demonstration of
constructing a control panel for a passing siding will be included.
PanelPro is part of the JMRI Projects suite of tools. More
information, including download instructions, is available at

MONDAY  1:00 PM -  2:00 PM  ROOM 262
FRIDAY  6:30 PM -  7:30 PM  ROOM 208

JMRI SOFTWARE PROJECT: DECODER PRO - A
TOOL FOR PROGRAMMING DECODERS
DecoderPro is a tool for programming decoders using a computer.
This clinic is an introduction to programming with DecoderPro. An
overview of supported DCC systems will also be included.
DecoderPro is part of the software developed by the JMRI Project.
More information about the project, including download instructions
are at http://www.jmri.info

MONDAY  10:30 AM - 11:30 AM  ROOM 262
THURSDAY  9:00 AM - 10:00 AM  ROOM 208

Bisgeier, Craig
THE TEN COMMANDMENTS OF MODEL
RAILROAD YARD DESIGN
For years, layout builders have tried to design yards for their layouts
that work well, but good design information has always been hard
to come by. This presentation will change that by sharing with you
the best practices and ideas from all over the hobby. By applying
the rules you'll learn in the ten commandments to your own design,
you will be able to design a classification yard for your layout all by
yourself that will be fun to use and won't tie up your railroad.

THURSDAY  6:30 PM -  7:30 PM  ROOM 262

Bogart, Charles
CIVIL WAR RAILROADS OF KENTUCKY
What railroads were operating in Kentucky in 1861. From where to
where? This is a clinic on a seldom modeled era.

WEDNESDAY  6:30 PM -  7:30 PM  ROOM 207
THURSDAY  6:30 PM -  7:30 PM  ROOM 208

Bongiovanni, Frank
LEMON AID
This clinic is about making a poorly running locomotive run well.
The emphasis and demonstration pieces are brass steam
locomotives, but the underlying principles apply to diesels, die cast,
and plastic. Some brass locomotive history is included. Audience
participation is encouraged.

MONDAY  2:30 PM -  3:30 PM  ROOM 207
FRIDAY  2:30 PM -  3:30 PM  ROOM 204

PHILOSOPHY, SCIENCE FICTION AND MODEL
RAILROADING
This clinic is a different approach to freelance model railroading and
problem solving, and is a layout planning, not track planning, clinic.
Frank discusses the concept behind a number of freelance model
railroads, including his Chesapeake & Iron Range. The idea is to
assist YOU in coming up with a freelance layout scheme that
provides what you want and makes sense. Audience participation is

WEDNESDAY  1:00 PM -  2:00 PM  ROOM 208
FRIDAY  4:00 PM -  5:00 PM  ROOM 204

Bragdon, Joel
CREATING GEODESIC FOAM SCENERY
this clinic is an in depth and comprehensive look at all aspects of
cast resin/foam scenery. These fast, easy and clean methods
produce spectacular results using odorless resins. A light weight
mountain railroad diorama will be science during the clinic from the
bench work up. Foam bench work and roadbed, foam hard shell and
resin/foam rock casting will be demonstrated. Also painting foam
scenery, vegetation and final detailing will be covered.

TUESDAY  9:00 AM - 11:30 AM  ROOM 204
THURSDAY  6:30 PM -  9:00 PM  ROOM 204

FAST & EASY WEATHERING
Learn to weather models realistically by learning from nature and the
real world. Many interesting techniques will be examined; both old
and new methods and materials. All are quick and easy to learn and
do. There will be a hands-on session for the attendees during the
latter portion of the clinic. Everyone will have an opportunity to try
several of the demonstrated methods.

TUESDAY  1:00 PM -  2:00 PM  ROOM 204
WEDNESDAY  8:00 PM -  9:00 PM  ROOM 204

MODELING WATER
Numerous methods and materials will be demonstrated for modeling
lakes, ponds, coastlines, white water and waterfalls. The pros and
cons of various resin types will be looked at and the best use of
each for different situations. Examples and demonstrations of acrylic
mediums, polyester resins, epoxies and the latest in odorless, water
clear polyurethane resins will be shown. Pouring clear resins
directly onto the scenic landscape and into special molds will be
covered as well as texturing and final detailing.

TUESDAY  4:00 PM -  5:00 PM  ROOM 204
WEDNESDAY  4:00 PM -  5:00 PM  ROOM 204

RTV MOLD MAKING and RESIN CASTING for the
MODEL MAKER
This clinic will cover making a variety of types RTV rubber molds for
reproducing detail parts, rolling stock, vehicles, structures or almost
anything. One piece, multiple piece and split molds will be
demonstrated. Casting with a variety of materials will be shown
including fast curing, space age polymer resins.

TUESDAY  8:00 PM -  9:00 PM  ROOM 204
THURSDAY  1:00 PM -  2:00 PM  ROOM 204

Breau, John
PROTOTYPE BASED LAYOUT DESIGN &
OPERATIONS
Clinics will cover how I researched the prototype railroads of central
Montana, GN, NP & Milwaukee. Then used this information to
design the layout and set up my operating sessions.

WEDNESDAY  10:30 AM - 11:30 AM  ROOM 212
THURSDAY  2:30 PM -  3:30 PM  ROOM 208
Brestel, Mike  
C&O CHEVIOT HILL  
Many people are surprised to learn that the Chesapeake & Ohio once operated a virtual mountain railroad through the western suburbs of Cincinnati. This clinic will cover the birth, life, and death of the spectacular Cheviot Hill line, the C&O's route to Chicago. Among other topics, this clinic will cover locomotives, scenery, structures, and operations over a 77-year period, as well as construction, abandonment, and disposition of the route.  

MONDAY 9:30 PM - 10:30 PM  
THURSDAY 9:30 PM - 10:30 PM  

Brosnan, Brendan  
STEEL MILL MODELING DETAILS  
This clinic is an introduction to the steel making process that you will see if you participate in the Cincinnati Limited tours of Newport Steel and/or Matandy Steel. Other steel making processes will also be covered along with a brief history of the evolution of the steel making process.  

TUESDAY 6:30 PM - 7:30 PM  
STEEL MILLS 1 - STEEL MILLS FOR DUMMIES  
An overview of how steel is made, starting with early methods and equipment and progressing to modern day. A look at the building and how the process flows.  

THURSDAY 8:00 AM - 9:00 AM  
STEEL MILLS 10 - STEEL MODELING PANEL DISCUSSION  
Designed to be an exchange of information between members of the audience with others in the audience and/or the panel of noted steel mill modelers from the RR Industry SIG. This session will go for as long as you can put up with our panel.  

THURSDAY 9:30 PM - 10:30 PM  

Bucher, David - Jeffery Leaman  
THE FEDERAL RAILROAD ADMINISTRATION – WE'RE HERE TO HELP  
This clinic will describe how the Federal Railroad Administration is involved with railroad and public safety. We will present a brief overview of how the FRA monitors the nation's railroads and how FRA regulators affect railroad operations. Also included are suggestions on simulating prototype model operations.  

TUESDAY 8:00 PM - 9:00 PM  
WEDNESDAY 4:00 PM - 5:00 PM  

Burchnall, John  
FOAMBOARD LAYOUT CONSTRUCTION  
See techniques developed over the past 25 years by the "Eastern Loggers" using horizontal laminations of foamboards in place of conventional roadbeds and scenery bases. Slides and live demonstrations reveal how and why to use this versatile method. Materials, tools and tips are shared through all phases of any layout construction. Includes slides, and design and construction secrets, of the "Eastern Loggers" layout.  

MONDAY 9:30 PM - 10:30 PM  
TUESDAY 9:30 PM - 10:30 PM  

Campbell, Debbie  
HISTORY OF DOLL HOUSES  
Debbie Campbell will give the history of doll houses from what doll houses were first used up to the latest in current doll houses.  

WEDNESDAY 7:30 PM - 8:30 PM  ROOM 263  

Camplin, Roger  
STEEL MILLS 4 - SINTER PLANTS  
Modeling a sinter plant  

THURSDAY 1:00 PM - 2:00 PM  ROOM 201  

Carstens, Hal  
CAMELBACK LOCOMOTIVES AND WHY THE SUSQUEHANNA NORTHERN USES THEM  
Most railroads burned bituminous (soft) coal but Pennsylvania was known for its anthracite (hard) coal. While camelbacks were tried in many parts of the country, the railroads in the Pennsylvania, New York and New Jersey area were nearest to these coal fields and developed the locomotives with larger fireboxes designed for hard coal. Among the railroads using them were the Erie, Jersey Central, Lehigh & New England, Lehigh & Hudson River, Long Island, Lehigh Valley, Reading, New York Ontario & New England and Susquehanna. And the Susquehanna Northern also has its share of these center cab haulers.  

WEDNESDAY 6:30 PM - 7:30 PM  
THURSDAY 4:00 PM - 5:00 PM  

Costello, Marlin  
QUICK & EASY SCENERY  
Dirt to dirt, weeds to weeds, scrubber pads and Christmas wreaths to trees and greenery. A tsunami of old fashioned, cheap and easy ways to cover plywood and amaze your friends. Beautiful mountains from paper bags and chicken wire. All this in a flash and  

MONDAY 9:30 PM - 10:30 PM  
FRIDAY 2:30 PM - 3:30 PM  

Dahlberg, Georgia  
CASTING SMALL PARTS WITH NEW MATERIALS IN INSTANT MOLDS  
Learn techniques for casting small parts using instant molds.  

SUNDAY 1:00 PM - 2:00 PM  ROOM 204  
SATURDAY 9:00 AM - 10:00 AM  ROOM 204  

CHANGING SCALES FROM PLANS, MODELS & PHOTOS TO YOURS  
Learn techniques for changing scales from plans using a proportional divider. Make one for pennies. Make one for all scales in styrene. Make a special quick one for scaling from photos.  

FRIDAY 9:30 PM - 10:30 PM  ROOM 212  
SATURDAY 2:30 PM - 3:30 PM  ROOM 204  

DEVELOPING BONDS AND BRIDGING GAPS IN DIFFERING MATERIALS  
Learn about applying ship building skills to model railroading, bonding wood and styrene plastic together, solvent welding plastic, bonding plastic brick sheets, and bridging gaps in different materials.  

SUNDAY 4:00 PM - 5:00 PM  
SATURDAY 1:00 PM - 2:00 PM  

STYRENE SALAMI AND JIG BUILDING
This clinic will explain how to build intricate architectural building brackets and decorative trim using a salami technique in styrene

SUNDAY  2:30 PM - 3:30 PM  ROOM 204
SATURDAY 10:30 AM - 11:30 AM  ROOM 204

De Young, Larry
CONRAIL: THE VIEW FROM INSIDE

TUESDAY  4:00 PM - 5:00 PM  ROOM 212

Dupont, Aaron
STEEL MILLS 7 - 101 WAYS TO USE THE UNIVERSAL MILL CAR
How many cars can you make from the State Tool & Die Universal Mill Car?

THURSDAY  6:30 PM - 7:30 PM  ROOM 201

Eaton, Leslie, MMR
NANO ANIMATION FOR UNDER $10
Leslie shows off an incredible variety of electronic projects that can be created cheaply from commonly available or obtainable products. A must see clinic!

MONDAY  1:00 PM - 2:00 PM  ROOM 201
TUESDAY  4:00 PM - 5:00 PM  ROOM 201

NANO-ANIMATION ELECTRONICS WORKSHOP
Learn the basics of circuit construction and add simple and inexpensive animation to your layout. Construct a dual power supply and choose a second circuit to be powered by it: a bright strobe flashing unit, or a motion animation unit, or a crossing flasher with a synchronized bell. Several new circuits will be added to this through MMR's. Attendees should have some experience soldering small parts. Attendees must bring a small soldering iron (max 40 watts) and stand with sponge, small needle-nose pliers, small side cutters, a clamping tweezer (to use as a heat-seek), a small slot-type screwdriver, and an Optimus/magnifier (if needed). Workshop cost covers all kit materials. Attendance limited to 24.

THURSDAY  1:00 PM - 5:00 PM  ROOM 300

TIPS & TRICKS FOR SCRATCHBUILDING
Leslie covers a wide variety of ideas, techniques, and tips for scratch building for your model railroad.

MONDAY  4:00 PM - 5:00 PM  ROOM 201
WEDNESDAY  2:30 PM - 3:30 PM  ROOM 204

Edwards, Bill
POLYESTER TREES DONE RIGHT
Since writing the original article on the subject (May 1983 RMC), many modelers have left out certain key steps in modeling the canopy of the forest in the correct manner. Additionally, certain new availability of products used has made the entire process less troublesome and more inviting. The writer of the original article will demonstrate how to gain more satisfactory results from this technique as well as how to utilize the new materials to allow for less trouble in manufacture of the trees and better results in the finished product. The making of trees from weeds will also be discussed and demonstrated.

FRIDAY  8:00 PM - 9:00 PM  ROOM 207
SATURDAY 10:30 AM - 11:30 AM  ROOM 262

SCRABCHBASHING
Bill and long-time modeling partner, Paul Godwin, will demonstrate their method of creating unusual and original structures as well as some pieces of rolling stock. Their method combines all the practices of the late Art Curren as well as combining them with scratchbuilding techniques in order to obtain totally different and need-driven structures for your layout. Also demonstrated are methods to quickly alter some of the many "built up" structures currently available so your structures can have a uniqueness all their own.

SATURDAY  9:00 AM - 10:00 AM  ROOM 208

WEATHERING WITH WOMEN'S MAKE-UP
This unusual and entertaining clinic touts a method of weathering rolling stock and structures using women's make-up. Bill finds it far superior to chalks and it has become his most preferred method when used in conjunction with other and older methods. Bill will demonstrate needed supplies and techniques involved.

FRIDAY  9:30 PM - 10:30 PM  ROOM 204

Erling, Dale
SCENERY THE MU-CLA WAY
Building realistic scenery with a no mess, easy to use, award winning new product for building your railroad. See just how easy it really is with MU-CLA, the new clay for modeling. Hands-on demo.

FRIDAY  2:30 PM - 3:30 PM  ROOM 207

Faulkner, Bruce
DESIGNING THE CSXT SHENANDOAH OPSig CLINIC -
This clinic covers the prototype and operating influences on the design of the CSXT Shenandoah Division, a 17' x 43' N scale double-deck layout. Bruce will share insights into designing a large model railroad for operations. In addition, design techniques applicable to any scale or any size layout will be discussed. The prototype-freelanced Shenandoah Division is heavily based on CSX’s former Clinchfield Railroad route. Prototype images illustrating various design decisions are included along with pictures showing the latest construction progress on the layout.

MONDAY  4:00 PM - 5:00 PM  ROOM 262
THURSDAY  4:00 PM - 5:00 PM  ROOM 212

Feeney, Kevin
A LOOK AT THE C&O THRU ITS ANNUAL REPORTS 1946-1972
As a public company the Chesapeake & Ohio Railway Co. issued annual reports to its share holders and bond holders. These reports are readily available and provide a wealth of information on traffic patterns, railroad operations, additions and changes to motive power and rolling stock as well as the railroad industry as a whole.

TUESDAY  10:30 AM - 11:30 AM  ROOM 208
THURSDAY  2:30 PM - 3:30 PM  ROOM 212

Frankrone, Bob
MODELING OPEN LOADS
Most model railroaders love open loads. Bob’s clinic features a variety of open load models that can be built from commercially available kits or easily scratch built from basic materials. Beginners and master modelers alike will enjoy learning how to create interesting and realistic open car loads. With plenty of slides from
both the prototype and HO scale models, Bob’s clinic is always a

MONDAY 1:00 PM - 2:00 PM ROOM 204
FRIDAY 6:30 PM - 7:30 PM ROOM 211

TWO SCENIC RAILROADS . . . AND A CANAL
If you are a fan of tourist railroads, then you won’t want to miss
Bob’s clinic on the Big South Fork and Western Maryland Scenic
Railways. Visit the Blue Heron mining camp as you journey on the
Big South Fork railroad located in beautiful southeastern Kentucky.
Ride behind a restored 1916 Baldwin steam locomotive as you travel
the 16 miles from Cumberland, Maryland to Frostburg on the
Western Maryland scenic railroad. As a bonus, enjoy a 10 mile bike
ride along the historic C&O canal.

WEDNESDAY 8:00 PM - 9:00 PM ROOM 207
SATURDAY 9:00 AM - 10:00 AM ROOM 262

VIEWS FROM THE TRAIN . . . AND MORE
Have you ever wanted to travel cross country on a train? Bob’s
clinic takes a light-hearted look at his experience while traveling from
Louisville, Kentucky to San Diego, California via Amtrak. Once
there, Bob takes you on a tour of the San Diego Railroad Museum.
That’s where you will board the San Diego and Arizona Railway for
a ride through the rugged, semi-arid region of southern California.
All aboard!

WEDNESDAY 2:30 PM - 3:30 PM ROOM 211
FRIDAY 8:00 PM - 9:00 PM ROOM 212

Frey, Robert
SWITCHING THE UP AND WESTERN
The UP & Western uses software to move cars. To make it easier,
these cars are marked with a two letter code. There are two yards
with printouts generated for 8 freighters. There are 12 staged trains
(some with sound) that run in a planned sequence. A spreadsheet is
used to make a 28-step custom speed table for a DCC equipped
locomotive. Visit http://www.bobfrey.auclair.com/ to see pictures of
the model railroad and try the spreadsheet.

MONDAY 6:30 PM - 7:30 PM ROOM 207
TUESDAY 6:30 PM - 7:30 PM ROOM 201

Freytag, Dean, MMR
STEEL MILLS 9 - STYRENE & STEEL, STORY OF
A CONTINUOUS CASTER
Dean is a steel mill modeler extraordinaire having built many award
winning steel industry models. In this clinic he will explain how he
constructed a model of a continuous steel caster.

THURSDAY 8:00 PM - 9:00 PM ROOM 201

STYRENE - THE FORGING MEDIUM!!
This is the "Coming Home" for Dean. His first National Clinic was in
Cincinnati. Structures - small & simple - large and complex. Dean
refers to styrene as "Legos for men," and it truly is, once the
concept gets rolling and when "scratch building" you think to
yourself that "if this was a kit how would it go together?" and your
mind tells you what's generally easier and quicker. Rolling stock is
where mistakes go. Questions are absolutely encouraged!!

TUESDAY 9:30 PM - 10:30 PM ROOM 207
WEDNESDAY 9:30 PM - 10:30 PM ROOM 204

Gallagher Jr, John
STEEL MILLS 5 - THE UNION RR, STEEL MILL
MAINLINE
A look at modeling the operation and equipment of the mainline of
the Mon Valley.

THURSDAY 2:30 PM - 3:30 PM ROOM 201

Getz, Charlie
ADVANCED TECHNIQUES FOR LASER-CUT KIT
BUILDINGS
Clinic provides ideas on assembly, customizing and alterations for
laser-cut buildings. Includes description of after-market products to
personalize kits. Samples will be shown.

WEDNESDAY 8:00 PM - 9:00 PM ROOM 201
THURSDAY 10:30 AM - 11:30 AM ROOM 212

Gough, Ron, MMR
BE A CONTEST WINNER
The subject matter provides the basic rationale of the NMRA Contest
process and how entrants can literally help themselves gain Merit
Award points while thoroughly enjoying the fun of participation and
the thrill of winning. The clinic also addresses many of the
perceptions and opinions along with the satisfaction and education
in regard to NMRA Model Contests at any level; Divisional,

MONDAY 9:00 AM - 10:00 AM ROOM 208
WEDNESDAY 1:00 PM - 2:00 PM ROOM 207

SCRATCHBUILDING 101
Clinic is all about the very, very basics of scratch building.
Starting from "scratch" the clinic will demonstrate the basic
procedures and principles for the purpose of encouraging scratch
building and how to get started. The presentation provides a step-
by-step process of how to apply the basics including the
construction of a simple structure and a box car. The subject matter
applies to any building material and to any scale.

MONDAY 1:00 PM - 2:00 PM ROOM 207
TUESDAY 1:00 PM - 2:00 PM ROOM 262

Gregory, Charles
DCC DECODER INSTALLATION TIPS, IDEAS &
DISCOVERIES W/ HARD TO DO ENGINES
This clinic will present tips, ideas and some neat discoveries that I
have found while doing DCC Decoder installation as a full time job.
During the clinic we will follow go through a step by step guide in
installing some hard to do installations in some various engines.
This clinic will show you how to do the very basic installation and
will leave you with some ideas for future work in engines that you
thought may be impossible to get done for your DCC layout. Please
bring your questions and even engines to the clinic. Look forward
to seeing you there.

SUNDAY 1:00 PM - 2:00 PM ROOM 211
MONDAY 6:30 PM - 7:30 PM ROOM 201

Hale, Fran & Miles, MMR
CITIES, VILLAGES & TOWNS with DPM
Virtually every layout includes villages, towns, or cities and they all
need buildings. DPM has the full city system you need to build
whatever structure you want. Learn easy techniques and tips for
building the size, shape and style of buildings your city needs with
DPM kits and modular systems.

MONDAY 10:30 AM - 11:30 AM ROOM 204
WEDNESDAY 9:00 AM - 10:00 AM ROOM 262

FOAM SUBTERRAIN ... THE WOODLAND SCENICS WAY
The newest method for building your layout or module is with high-density foam. Woodland Scenics has it all in the Sub Terrain system and this clinic will show you how to use it. Learn how to create a fast and easy layout using no woodworking skills or tools and very little mess.

MONDAY 4:00 PM - 5:00 PM ROOM 204
WEDNESDAY 10:30 AM - 11:30 AM ROOM 262

TERRAIN AND LANDSCAPING - THE WOODLAND SCENICS WAY
This clinic starts from the terrain up to show you magically how easy and fun it is to model ground cover, bushes, grasses, weeds, and trees for your layout. Learn simple blending and layering techniques that provide ultimate realism as you add both color and texture to your layout. The clinic is designed to help you begin a new layout or add finishing touches to an existing one. Landscaping is easy and almost magic when done the Woodland Scenics way. Come and let Fran and Miles make you a magician.

TUESDAY 2:30 PM - 3:30 PM ROOM 204
WEDNESDAY 6:30 PM - 7:30 PM ROOM 262

Harding, Doug
DECKER MEAT PLANT - PROTOTYPE, MODELING & OPERATIONS
The Jacob E Decker & Sons meat plant at Mason City, Iowa was started in 1899, sold to Armour in 1935 and closed down in 1975. The locals always call it Deckers. The plant was on the M&StL mainline and served exclusively by the M&StL as one of the RR's largest shippers. The clinic will be divided in three parts. First a look at the Decker plant and other meat plants in Iowa using photos, Sanborn maps, RR maps, and interviews. Second, a brief look at modeling Deckers in HO. Third an explanation of Operations answering the question "how did RR's work meat plants?" This will include a listing of commodities and cars in and out of meat plants and the special paperwork for the reefer moves. The Oct & Nov 2004 issues of RMC contained my article on Meat Packing. Handouts provided.

MONDAY 6:30 PM - 7:30 PM ROOM 262
FRIDAY 6:30 PM - 7:30 PM ROOM 262

Henderson, Byron
A QUICK AND EASY START FOR OPERATIONS
Learn the simple steps needed to get your layout ready for operations. A few easy choices and simple preparation are all it takes for an engaging op session. We'll talk about train control, car routing, crew instructions, documentation, and more -- start with the basics and add challenge over time. This is one of the fastest growing and most enjoyable areas of the hobby -- and you can join in! This is Operations for Beginners.

THURSDAY 9:00 AM - 10:00 AM ROOM 211
SATURDAY 1:00 PM - 2:00 PM ROOM 211

DESIGNING PRACTICAL LAYOUTS BASED ON PROTOTYPE RAILROADS
Capturing the essence of a real railroad in limited layout space is a

challenge. Join a custom layout designer to discuss methods to analyze the personality of prototype locations and translate elements to the layout convincingly. We'll cover the sources and use of prototype data, the balance between appearance and operational fidelity, and making it all fit (well, the best parts, at least!)

THURSDAY 2:30 PM - 3:30 PM ROOM 207
FRIDAY 2:30 PM - 3:30 PM ROOM 211

SMALL LAYOUT DESIGN - BEYOND THE TIMESAVER
123456789012345 -
Sometimes there's only enough room (or time, or money) for a small layout. But these layouts can still include believable scenes and operating potential. Move beyond the traditional switching puzzle by including more interesting elements from real railroads. We'll cover examples of engaging small layouts, along with tips for designing and building your own.

FRIDAY 4:00 PM - 5:00 PM ROOM 262
SATURDAY 9:00 AM - 10:00 AM ROOM 211

Henize, Fred
A DAY ON THE J-743
This CSX local switcher works out of Rockdale, Illinois on the old Rock Island Line. Fred worked this job and will tell how trains are made up. This is also an excellent piece of the Rock Island to model.

TUESDAY 9:00 AM - 10:00 AM ROOM 208
WEDNESDAY 4:00 PM - 5:00 PM ROOM 208

THE YARD JOB - J-740
The J-740 switches the small end of the line yard at Ohawa, Illinois on the old Rock Island Line. This job makes up the locals for Bureau Junction (J-742) and Mersailles (J-741). This job also switches a couple of local industries including US Silica.

TUESDAY 2:30 PM - 3:30 PM ROOM 207
WEDNESDAY 9:00 AM - 10:00 AM ROOM 212

Hitchock, Chuck, MMR
ARGENTINE INDUSTRIAL DISTRICT RAILWAY, A NEW PAINTING
The Argentine Industrial District Railway was built for ease of construction and operation. Clinic will cover the concept of this Kansas City prototype based industrial switching railway, it's design, construction, and operation. Construction began July 2001 and operation commenced New Year's Eve day, 2001. Scenery is 2/3 complete. Allen Keller video due to be released May 2005.

WEDNESDAY 1:00 PM - 2:00 PM ROOM 211
FRIDAY 1:00 PM - 2:00 PM ROOM 212

THE JOY OF OPERATION
OPSIG CLINIC - LDSIG -
Operation of a model railroad with a group of friends should and can be fun and fulfilling. The purpose of this clinic is to provide information and assistance with the process of (1) developing a concept for your railroad, (2) Designing of a railroad to "fit the concept", (3) construction ideas to consider when beginning, (4) developing the components needed to operate the railroad and (5) recruitment and development of a crew to operate the railroad and other personnel matters.

FRIDAY 2:30 PM - 3:30 PM ROOM 208
THE JOY OF OPERATION - PANEL DISCUSSION
OPSig CLINC -
This follow up to Chuck's clinic on operation will feature operators
David Barrow, John Breau, Steve King, Tony Koester and Allen
McClelland as well as Chuck. This discussion is a must for serious
operators and those who would like to be.
FRIDAY 4:00 PM - 5:00 PM  ROOM 208

Hobbs, Paul
TRANSCONTINENTAL PASSENGER TRAINS
1946-1971
A review of the Transcontinental Passenger trains operating
between Chicago / Minneapolis / St. Paul / Kansas City in the Mid-
West and Los Angeles / San Francisco / Portland Seattle on the
West Coast in the Streamlined era. At 1946 a very few streamlined
trains served these markets. Within five-years all the name trains
were streamlined, another five and dome cars were featured. We will
discuss the competitive routes, the similarities and differences
among the several railroads and the styles of equipment utilized.
SUNDAY 2:30 PM - 3:30 PM  ROOM 211
TUESDAY 10:30 AM - 11:30 AM  ROOM 262

Holzheimer, Steve
PROTOYPE MODELING IN N SCALE - THE
BEST CHOICE FOR TODAY?
Suggest to a space starved prototype modeler that he/she consider
N scale and the Incantations begin: CAN'T see the numbers, CAN'T
super detail, CAN'T do switching, and on and on. N scale has come
a LONG way in the last 15 years. It may even be the best choice for
today's busy lifestyles. We'll look at some reasons why and
consider a prototype modeler stuck with a small space to illustrate
MONDAY 9:00 AM - 10:00 AM  ROOM 204
THURSDAY 6:30 PM - 7:30 PM  ROOM 207

Hoover, Gary
MODELING THE SANTA FE IN 1951
This clinic will present the challenges and rewards of modeling a
specific prototype railroad at a specific time. Gary will explain how
he made compromises to fit the prototypical scenery and scratch
built structures into the space available.
SUNDAY 4:00 PM - 5:00 PM  ROOM 211
MONDAY 10:30 AM - 11:30 AM  ROOM 211

Ireland, Zana
DCC & THE FUTURE OF COMMAND CONTROL
Learn the basics of DCC and other exciting train control
technologies. See how you can have more fun & enjoyment with
your layout using simple technologies.
WEDNESDAY 10:30 AM - 11:30 AM  ROOM 201
DIGITRAX USER FORUM
Digitrax new product announcements and Q&A. We'll stay until the
last question is asked and answered. See you there!
THURSDAY 9:30 PM - 10:30 PM  ROOM 211

Kaczar, Keneth - Brendan Brosnan
STEEL MILLS 6 - COAL TO COKE
A detailed look at modeling coke plants, from bee hive to Clairton
Coke works.
THURSDAY 4:00 PM - 5:00 PM  ROOM 201

Kannry, Harry
PROPER USE OF LUBRICANTS
This clinic will cover the use of lubricants of model trains and rolling
stock. This will include why, where, when, what and how to use
lubricants on your equipment.
WEDNESDAY 6:30 PM - 7:30 PM  ROOM 212
THURSDAY 9:00 AM - 10:00 AM  ROOM 204

Katt, Dan
CRIME PREVENTION
Dan Katt is the President of Crime Prevention Solutions, Inc. and a
former law officer will present a program on how to protect yourself
from identity theft.
TUESDAY 10:00 AM - 11:00 AM  ROOM 263

Katzer, Matt
BUILDING YOUR OWN MODEL RAILROAD
PROGRAM WITH TRAIN SERVER
Building model railroad software applications was difficult, time
consuming and just hard to do. This problem was solved with Train
Server. Train Server provides an open programming interface to
build software applications in VB6, VB.NET, C#, J#, (MS Java) (or
one of the other 32 different computer languages supported on
.NET.) Train Server integrates all of the layout command station
plumbing with an easy to use software interface. This clinic focuses
on building software applications in using Train Server development
tools. Additional information may be found at our web site at
http://www.kamind.com
TUESDAY 6:30 PM - 7:30 PM  ROOM 262

DECODER COMMANDER - EASY TOOL FOR
PROGRAMMING DECODERS
Programming decoders is filled with challenges. Software
applications may not work, the user interfaces are too hard to use
and too technical, and all you want to do is to program your
locomotive and defined a speed curve. This clinic is an introduction
to programming your decoders using Decoder Commander software,
an easy to use decoder programming software application designed
for the model railroad. Additional information may be found at our
web site at http://www.kamind.com
TUESDAY 2:30 PM - 3:30 PM  ROOM 212

DRIVING YOUR LOCO WITH RAIL DRIVER &
USB
This clinic will review the operating model of using the RailDriver
CAB console and your DCC Command station. At the end of the
clinic the user should have an understanding of the different
functions available on the RailDriver CAB console and how to use
the PC sounds to extend the capability of your locomotive sound
MONDAY 10:30 AM - 11:30 AM  ROOM 212

KAM TRAIN TOOLS SOFTWARE USER GROUP
MEETING
This will be an open discussion to answer questions about KAM
software products today and future products.
THURSDAY 1:00 PM - 2:00 PM  ROOM 211

USING SIGNALS with DCC and CLASSIC PANEL
This clinic will focus on using Signals on your layout and how to
integrate the signals with Classic Panel software. The clinic will
review the different type of signals, what are the signal rules, and how the 1940 style dispatcher panel implements these signal rules. At the end of the clinic, the user should have a good understanding of what signals man and how to use signals on their model railroad

WEDNESDAY 2:30 PM - 3:30 PM ROOM 212

Keith, David
LOGGING, NOT JUST SAWMILLS
>From 1870 to 1930 logging in the Eastern United States was not simply to get the lumber, but also the chemicals within the wood. This prototype-modeling clinic takes a detailed look at tanneries and wood chemical plants, two industries which play a prominent role in the logging history of Pennsylvania (NY & W VA too). Examples of how the historical information was applied to the Eastern Logger's model railroad will be presented.

THURSDAY 1:00 PM - 2:00 PM ROOM 207
FRIDAY 4:00 PM - 5:00 PM ROOM 212

Keller, Allen
MODELING THE MID-SOUTH
Allen will give examples of scenic and structural elements that are typical of the south.

THURSDAY 10:30 AM - 11:30 AM ROOM 211
THURSDAY 1:00 PM - 2:00 PM ROOM 212

Keller, Vagel
HO VEHICLES FOR MODELLERS OF THE PRE-WORLD WAR II ERA
This copiously illustrated clinic surveys various kits for HO scale vehicles, farm equipment, etc. for an era that continues to be ignored by manufacturers of Ready-to-Run stuff. Vagel has built kits of varying difficulty, believes "simpler is best," and shows why. The presentation compares models to prototypes and offers some tips for altering stock models to suit a different need. Models available for viewing afterwards.

WEDNESDAY 8:00 PM - 9:00 PM ROOM 212
FRIDAY 9:30 PM - 10:30 PM ROOM 262

Kerka, Linda
BEAD JEWELRY
Remember the days of wearing a ribbon around the neck on your Peter-Pan blouse? The design of the "Bow-Tie" silver necklace with celestial highlights is reminiscent of that era. You will use silver-plated tube beads and celestial crystal beads with a magnetic closure to create a hand-crafted treasure to take home. The cost for this

TUESDAY 7:30 PM - 8:30 PM ROOM 263

BELLY DANCING
Experience the art of Belly Dancing with all the exotic music and costumes. You may even want to try a few steps to spice up your exercise routine and who knows what else.

WEDNESDAY 9:00 AM - 10:00 AM ROOM 263

BINGO
Test your luck in our Bingo Parlor. We're still not sure how we'll beat the revenues. Bring bail money.

MONDAY 2:30 PM - 5:00 PM ROOM 263

CAKE DECORATION
The Queen City Decorating Club will share with us how to make your cakes look as good as the "store-bought" bakery cakes. They will be using real cakes and a snack (cake) will follow this clinic. I will not miss this one!

FRIDAY 10:00 AM - 11:00 AM ROOM 263

CINCINNATI ZOO
Will have the nationally renowned Cincinnati Zoo & Botanical Garden folks share the inside skinny on the operation of a first class zoo. They promise to bring some "little friends" ... So that you can talk to the animals.

TUESDAY 9:00 AM - 10:00 AM ROOM 263

COTTAGES TO CASTLES
Cincinnati Historical Society will provide a lecture on housing

THURSDAY 12:00 PM - 1:00 PM ROOM 263

DOLL CLOTHES
Did you ever want to learn how to make doll furniture or arrangements? Then join us at this clinic and you will learn the

THURSDAY 1:00 PM - 2:00 PM ROOM 263

FLOWER ARRANGEMENT
Benkins, Cincinnati's premier floral experts will demonstrate with real flowers the secrets of how to make those special arrangements for the holidays, special occasions, and center pieces. After the clinic you may be one of the lucky people who will win the arrangements.

FRIDAY 11:00 AM - 12:00 PM ROOM 263

HAUNTED PLACES OF CINCINNATI
Cincinnati Historical Society lecture on the haunted places of Cincinnati.

TUESDAY 2:00 PM - 3:00 PM ROOM 263

HERB SOCIETY - LOG CABIN HERB GARDEN
Learn about herbs and ways to use them. This will be my first lesson in "herbomastics."

THURSDAY 3:00 PM - 4:00 PM ROOM 263

HOME SAFETY - CINCINNATI POLICE
The Cincinnati Police Department staff will discuss safety for your home and how to protect yourself when you are away from home.

TUESDAY 6:00 PM - 7:00 PM ROOM 263

JAZZERCISE
Start the day out right by joining us for fun and getting a good workout. A professional Jazzercise instructor will have us moving to the beat of music. At the end of the class you will feel great and be ready to have a wonderful day. Please wear comfortable clothes and shoes for this class. There is no charge for the class but you will need to register and present your ticket at the door.

THURSDAY 6:00 PM - 7:00 PM ROOM 263

LEMON LAY OFF PARTY
Bring something you want to get rid of and make somebody else take it home. This party will have some real surprises and a lot of

MONDAY 1:00 PM - 2:30 PM ROOM 263

LONGABERGER BASKETS
Join us for a Longaberger Basket Party. You will learn how to use baskets for decorating and you will be able to choose from the many baskets and items for sale (some of the items will have to be ordered). You will need to register and present your ticket at the

THURSDAY 8:00 PM - 9:30 PM ROOM 263
MAKIEP TIPS
Tips on the latest fashion in make up and applications.

SATURDAY  10:00 AM -  11:00 AM  ROOM 263

ORGANIC GARDENING
Learn the current state-of-the-art of gardening without chemicals and pesticides.

TUESDAY  3:00 PM -  4:00 PM  ROOM 263

SCRAPBOOKING
Wondering what to do with all the vacation pictures you will take while at the Cincinnati Convention? These folks will make it simple and fun.

WEDNESDAY  2:00 PM -  3:00 PM  ROOM 263
SATURDAY  1:00 PM -  2:00 PM  ROOM 263

TRAVEL TIPS
Tips from the professionals on planning your next vacation with emphasis on the "do's and dont's of traveling."

THURSDAY  10:00 AM -  11:00 AM  ROOM 263

WILD BIRDS
Learn what types of wild birds there are, their habits and what and how to feed them.

MONDAY  11:00 AM -  12:00 PM  ROOM 263

Kline, Larry

STEEL MILLS 3 - STEEL LOADS
How to model open load trains for or from the mill.

THURSDAY  11:00 AM -  12:00 PM  ROOM 201

US FREIGHT CARS IN 1947 AS PHOTOGRAPHED IN HARRISBURG PA
Larry will present photos from a collection of 520 freight car photographs taken primarily in Harrisburg, PA locations in 1946-1948. There are 105 railroads and private car owners represented. The NMRA is publishing a book based on these photos. Larry and Ted Culotta are the co-authors.

MONDAY  6:30 PM -  7:30 PM  ROOM 204
FRIDAY  9:30 PM -  10:30 PM  ROOM 201

Knapp, Bruce

BRASS TIPS
The clinician will draw from his 30+ years as a repair technician for a local hobby shop to highlight quick ways to make older brass imports run like the newer brass and plastic imports. Topic covered will include cam motors, servicing or replacing gear boxes, springing and suspension systems, lead and trailing trucks, and electrical systems. While the clinic will focus on United, Atlas, Samhongsa, and Atlas HO steam locomotives, the techniques demonstrated apply to any scale. The clinician will also spend some time discussing early brass diesels. This clinic should be of interest to anyone running some of the earlier brass imports. All clinic attendees will be encouraged to contribute from their own experiences.

MONDAY  9:00 AM -  10:00 AM  ROOM 211
FRIDAY  8:00 PM -  9:00 PM  ROOM 211

Koester, Tony

RAISING A FALLEN FLAG: NKP's ST LOUIS DIVISION

Update on my new HO layout based on Nickel Plate Road in Indiana and Illinois in 1954. Special emphasis on multi-level layout design and construction, especially lighting ("Day" and "Night"), and on providing realistic work environment for crews such as operator-
hands-on sessions will run during the convention Monday through Thursday. Each session is 5 hours and will begin with a workshop on the project followed by a hands-on session during which you will build a model aided by a team of Master Model Railroaders who will assist you, answer your questions and share their modeling expertise, skills and techniques. When the session is finished you will be able to take your project home. This clinic involves building a Laser Structure kit. Attendance is limited to 28. Cost is $48 for N & HO and $53 for S & O scales.

WEDNESDAY 1:30 PM - 6:30 PM ROOM 300
MODELING w/ THE MASTERS: BUILDING A WHITE METAL VEHICLE KIT
Get your seat for one of the most exciting NMRA programs. "Modeling with the Masters"! Join a team of Master Model Railroaders as they personally help you build a model. These hands-on sessions will run during the convention Monday through Thursday. Each session is 5 hours and will begin with a workshop on the project followed by a hands-on session during which you will build a model aided by a team of Master Model Railroaders who will assist you, answer your questions and share their modeling expertise, skills and techniques. When the session is finished you will be able to take your project home. This clinic involves building a white metal vehicle. Attendance is limited to 28. Cost is $48 for N & HO and $53 for S & O scales.

TUESDAY 7:30 AM - 12:30 PM ROOM 300
MODELING w/ THE MASTERS: SCRATCH-BUILDING A STYRENE STRUCTURE
Get your seat for one of the most exciting NMRA programs. "Modeling with the Masters"! Join a team of Master Model Railroaders as they personally help you build a model. These hands-on sessions will run during the convention Monday through Thursday. Each session is 5 hours and will begin with a workshop on the project followed by a hands-on session during which you will build a model aided by a team of Master Model Railroaders who will assist you, answer your questions and share their modeling expertise, skills and techniques. When the session is finished you will be able to take your project home. This clinic involves scratch building a structure in styrene. Attendance is limited to 28. Cost is $48 for N & HO and $53 for S & O scales.

MONDAY 1:30 PM - 6:30 PM ROOM 300
Kunkle, Robert
STEEL MILLS 2 - BEYOND THE BASEMENT, MODELING STEEL WITHOUT THE MILL
Modeling steel in a limited space or talent. Use the illusion of mill buildings beyond the basement.

THURSDAY 9:15 AM - 10:15 AM ROOM 201
Lambert, Brent
INSIDE THE KALMBACH MEMORIAL LIBRARY'S KENTLEIN-PORTER COLLECTION
This clinic provides on inside look at NMRA's Kentlein-Porter Collection. A world-class collection by any standards, the Kentlein-Porter Collection includes 1000 builders photos, numerous catalogs, blueprints, and company correspondence from the H.K. Porter Company, once the premier industrial locomotive builder in the world.

TUESDAY 10:30 AM - 11:30 AM ROOM 201
WEDNESDAY 6:30 PM - 7:30 PM ROOM 201
Lana, Patrick, MMR
MODELING AGRICULTURE
Modeling the Midwest, Enjoying the Rockies. A clinic on modeling agriculture. Some of the many faces of agriculture will be shown -- in different seasons and regions of the US -- but mostly in the Midwestern summer. My favorite methods of modeling Midwest agriculture will be discussed including research and modeling of crops, livestock, buildings, and machinery. The majority of time will be spent on modeling crops like corn, soybeans, and hay. Although modeled in N scale, these concepts will work in other scales.

WEDNESDAY 2:30 PM - 3:30 PM ROOM 262
MODELING PROTOTYPE DISPATCHING WITH OPEN SOFTWARE
OPSig CLINC -
An introduction to prototypical dispatching for model railroads using the Cradic Automated Traffic System (CATS). CATS is based on freeware JMRI and is networked to a DCC system on the N scale CRANDIC railroad. Criteria and evolution of this flexible system, installation of hardware (including searchlight and semaphore construction) will be covered along with details of the protable software developed to assign crews and trains, and control signals and turnouts in CTC and ABS.

MONDAY 2:30 PM - 3:30 PM ROOM 201
WEDNESDAY 8:00 PM - 9:00 PM ROOM 262
Larson, Lloyd, MMR
FROM THE TRACK BACK
Three part clinic describing track detail, lighting and creating three dimensional backdrops. The use of black lights and rope lights. Slide presentation with hands-on and recreation. (All Scales)

TUESDAY 10:30 AM - 11:30 AM ROOM 211
WEDNESDAY 1:00 PM - 2:00 PM ROOM 204
Lee, John, MMR
EVERYTHING YOU WANTED TO KNOW ABOUT MODELFLEX PAINTS BUT DIDN'T ASK
This clinic gives people the opportunity to ask questions about the do's and don't of Modelflex paints and acrylic paints in general.

WEDNESDAY 9:00 AM - 10:00 AM ROOM 201
PAINTING SUPER CLINIC -- AIRBRUSHING & DECALING FREIGHT CARS
A hands-on double session clinic sponsored by Badger Air Brush, Athearn & Microscale Decals. Each participant will paint an Athearn freight car with a Badger Air Brush & Modeflex paint and then decal the car with custom-made convention style decals from Microscale Decals to take home.

WEDNESDAY 7:30 PM - 10:00 PM ROOM 201
Lenz, Bernd - Deborah Ames
LENZ USER'S FORUM
After 25 years of producing model railroad equipment, Lenz Elektronik is introducing three new, innovative DCC technologies, that will further enhance DCC operation. We invite you to learn about: Asymmetric DCC, RailCom, and USP. Special emphasis will be on users' questions and users' ideas for new products.

WEDNESDAY 9:30 PM - 10:30 PM ROOM 201
Licharson, John
UPGRADING CHEAP CARS TO MODERN STANDARDS
This clinic is intended to show owners of older, cheaper rolling stock (i.e. Athearn, Bachman, Life Like, Mantua, Varney, etc.) how to upgrade their models to modern standards of detail. The upgrading can run the mill cars up to where they meet NMRA Achievement Program Merit Standards.
TUESDAY  9:00 AM - 10:00 AM  ROOM 207
THURSDAY  1:00 PM - 2:00 PM  ROOM 262

Lowrance, John, MMR
SETTING THE SCENE
This clinic is based on the observation that "Today we have the very best selection of highly detailed structures, vehicles, figures, details and scenery products ever available in the history of model railroading, yet many people still have difficulty mixing these components together into a realistic scene." This clinic will strive to provide some basic things that help create realistic scenes. Some of the topics include: why scenery may be the most important part of your layout, nature's laws that must be followed, setting a season and time period, every scene tells a story, how much detail is needed, control of views, placement of structures, and more.
MONDAY  8:00 PM - 9:00 PM  ROOM 212
TUESDAY  2:30 PM - 3:30 PM  ROOM 262

THE SKY'S THE LIMIT!
This is backdrops painting for the artistically challenged! The zany team of John and Miles present the use of stencils used for painting backgrounds with clouds, mountains, cities, and hills. The background magically appears before your eyes in this live demonstration. Don't miss the fun.
MONDAY  1:00 PM - 2:00 PM  ROOM 212
THURSDAY  9:00 AM - 10:00 AM  ROOM 207

Luginbill, John
THE CINCINNATI SUBWAY
Experience the true story of the little-known attempt at rapid transit in Cincinnati. Today, over 2 miles of tunnels and station platforms exist under a major thoroughfare downtown Cincinnati, never used for over 75 years. Plans, details, and photos are presented, along with a discussion of the politics of the era.
WEDNESDAY  4:00 PM - 5:00 PM  ROOM 201

MacHan, Jeffrey
GAME-BASED OPERATIONS FOR SMALL RAILROADS
Single persons & small layout owners are the neglected majority when it comes to "operations." Not anymore! Jeffrey MacHan demonstrates how game-based operations can be used to enhance the joy of small railroads, such as his award-winning "Val Ease Central". The system is highly flexible and can be adapted to basic, intermediate and advanced operations.
FRIDAY  1:00 PM - 2:00 PM  ROOM 211
FRIDAY  4:00 PM - 5:00 PM  ROOM 211

Mack, Tom
COMPUTERIZED TRAIN GENERATION USING MS EXCEL

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OPSig CLINC -
This clinic demonstrates how to use Microsoft Excel to develop a train consist generator and car ordering system, and how to integrate these into operating sessions. Details include defining variable train lengths, setting up inbound/outbound industry request tables, creating automated switchlists and train manifests, and using the tools with or without car cards during an operating session.
TUESDAY  1:00 PM - 2:00 PM  ROOM 207

Marshall, John
SOLDERING 101, BACK TO BASICS
It should be the easiest but is often the hardest thing for a modeler to do. Is it an art or a science? The answer: a little of both! This clinic will serve as an introduction to the ancient practice of soldering, provide an overview of the tools and supplies needed and the techniques that will boost your skill set. You may not become a world class soldering expert but you will lose your fear of the process.
MONDAY  2:30 PM - 3:30 PM  ROOM 211
TUESDAY  9:00 AM - 10:00 AM  ROOM 262

THE JOY OF SPLINE ROADBED
This clinic offers an intriguing alternative to the 'cookie cutter' or plywood slab methods of sub-roadbed construction. Advantages, materials and assembly techniques for the application of this construction style will be presented and discussed. If you are planning a new layout or rebuilding your current layout, Spine roadbed offers a viable option.
TUESDAY  1:00 PM - 2:00 PM  ROOM 211
WEDNESDAY  10:30 AM - 11:30 AM  ROOM 208

Maslyn, Tim
SIGNS - TYPE, FUNCTION, MODELING
An overview of signals. Mast, bridge, dwarf and platform types of signal heads and modeling possibilities using integrated signal systems components.
MONDAY  4:00 PM - 5:00 PM  ROOM 211
TUESDAY  4:00 PM - 5:00 PM  ROOM 262

McClelland, Allen, MMR
EVOLUTION OF THE NEW VIRGINIAN & OHIO
It would be helpful to attend this clinic before doing my layout tour. Update on the new V&O Railroad now under construction with new design considerations and unique techniques construction, computer track planning and construction drawings, with an overview of concepts for prototype operation for the new V&O.
MONDAY  2:30 PM - 3:30 PM  ROOM 204
MONDAY  8:00 PM - 9:00 PM  ROOM 204

McClelland, Bradley A
THE SHORT LINE (L&N's CINCINNATI & LOUISVILLE LINE)
A synchronized twin projector photo essay on the L&N's historic route from Cincinnati to Louisville, now operated by the CSX LCL Subdivision. This show is a must for fans of the L&N or CSX, mountain railroading, and modern high-quality rail photography.
SUNDAY  4:00 PM - 5:00 PM  ROOM 201
MONDAY  9:30 PM - 10:30 PM  ROOM 212
WELCOME TO CINCINNATI (RAILROADING AROUND CINCINNATI)
An authoritative look at today's railroading in the Cincinnati area, including local CSX, NS, short line and industrial railroad action. It's a must see for anyone planning to check out the Cincinnati railroad scene while in town for the convention.

SUNDAY  1:00 PM -  2:00 PM  ROOM 201
MONDAY  6:30 PM -  7:30 PM  ROOM 212

McQuade, Richard
FROM WOOD TO STEEL
Based on the popular book of the same name, this clinic will focus on the evolution of passenger cars from the open platform "Wild West" cars of the 1860's to the beginning of the steel car era. Although built between 1860 and 1920, a surprising number of these cars persisted into the 1950's and beyond. Copies of the book will be available.

THURSDAY  4:00 PM -  5:00 PM  ROOM 207
FRIDAY    1:00 PM -  2:00 PM  ROOM 207

Meetz, Richard
AGING EYES
Richard will discuss the effects that aging has on your eyesight. This includes what happens to your eyes as you age and how difficult it is to build models when your eyesight is failing.

MONDAY  10:00 AM -  11:00 AM  ROOM 263

EYESIGHT, AGING AND THE MODELER
The ability to do prolonged detail work at near distances changes with age. Mature modelers must also change how they model either by changing scales or by the use of vision-aids and lighting. This clinic will explain what difficulties these age-related changes present to the modeler. Discussed in detail will be methods of compensating for these changes so that modeling activities need not be curtailed or abandoned as the modeler ages. With these methods, the modeler can pursue detailed modeling, even in the smaller scales, for hours at a time without eyestrain or discomfort.

MONDAY  1:00 PM -  2:00 PM  ROOM 211
THURSDAY  10:30 AM - 11:30 AM  ROOM 208

Metal, David
HOW I BUILD SIGNAL ASSEMBLIES FOR MY MODEL RAILROAD
This clinic shows how I build the three light signals that I needed for my HO railroad. Provides all the information needed to construct the signal assy. Shows the material and tools used and provides detailed construction steps from start to finish. Includes a handout.

MONDAY  4:00 PM -  5:00 PM  ROOM 212

HOW I SIGNALIZED MY MODEL RAILROAD
Reasons for signaling, decisions made and equipment selection.

MONDAY  2:30 PM -  3:30 PM  ROOM 212

Moir, Jim
PROTRAK OPERATIONS SOFTWARE
How to use switch lists, train lists and yard lists in your operations. Making all the operating roles realistic. Modeling the complete car cycle -- using your "clean out", rip tracks, weigh scale and service trackage. Do you want to get into operations in the easiest way possible? If this interests you, then you should attend this clinic. This is the clinic that introduces operations management with

MONDAY  9:00 AM -  10:00 AM  ROOM 212
TUESDAY  1:00 PM -  2:00 PM  ROOM 208

PROTRAK USERS FORUM
Users' questions and answers about ProTrak, the real time operations software. A brief introduction to ProTrak and Grapevine, followed by an open forum. Questions and "how to" about ProTrak and about operations. Here's your opportunity to get all of your questions answered.

TUESDAY  8:00 PM -  9:00 PM  ROOM 262

Morris, Don
LOOK WHAT'S GROWING IN THE GARDEN
A quick and easy guide on how to design, build, run and maintain a garden railroad. We will include all aspects of building a garden railroad from start to finish using the latest materials and techniques. This will include things such as minimum radius, minimum track spacing, maximum grade, and types of roadbed, wiring and various types of track including brass, aluminum, nickel silver, and stainless steel.

TUESDAY  2:30 PM -  3:30 PM  ROOM 211
WEDNESDAY  2:30 PM -  3:30 PM  ROOM 207

Murphy, Dennis
BASIC ELECTRIC & WIRING FOR MODEL RAILROADING "LET'S GET WIRED"
This clinic is for the modeler who is getting started in the hobby. The clinic will cover (1) Electron theory, (2) DC current, (3) AC current, (4) Volts, Amps, Watts & Ohms, (4) Incandescent vs. LED lights, (5) electric motors & types, (6) power pickup, (7) powering track and accessories and (8) advanced considerations with wiring.

FRIDAY  6:30 PM -  7:30 PM  ROOM 212

MICRO MINI COLOR CAMERA CAR CONSTRUCTION
This clinic is for the modeler that wants more out of his hobby. Wow .. what good fun!! Have you ever wanted to look at your train layout from "street level"? Have you ever wondered if that new office building model you just completed is as "real" looking as you think it is? Have you ever wanted to ride inside your favorite locomotive, watching the scenery pass by? Well, now you can! There are great little battery or DCC powered cameras that can bring your miniature world to life. These cameras are so small that I use them with my N-scale trains.

MONDAY  6:30 PM -  7:30 PM  ROOM 208
SATURDAY  10:30 AM -  11:30 AM  ROOM 212

Naumann, Walter
UP & W MODEL RAILROAD EMPIRE - STATUS REPORT
The UP&W is N-Scale of a bit of Union Pacific in Wyoming, May 21, 1950. Accuracy requires code 30 and 40 rail, turn radii from 9 to 200
Nichols, Joe, MMR

DETAILING INDUSTRIAL BUILDINGS

The clinic will describe techniques for adding details to industrial buildings, whether kit-built, kit-bashed, or scratch built and materials from various sources. It is the details which give a building its character and realism.

TUESDAY  2:30 PM - 3:30 PM  ROOM 201
WEDNESDAY  4:00 PM - 5:00 PM  ROOM 211

SCRATCHBUILDING STYRENE INDUSTRIAL BUILDINGS

The clinic will describe techniques for building prototype industrial buildings from styrene and obtaining styrene in large sheets instead of small pieces.

TUESDAY  9:00 AM - 10:00 AM  ROOM 212
WEDNESDAY  1:00 PM - 2:00 PM  ROOM 262

Paul, Kermit, MMR

LET’S MAKE A MOVIE

Kermit will discuss his experiences in taking digital video and making DVD movies using Adobe Premiere Elements software.

MONDAY  4:00 PM - 5:00 PM  ROOM 207
THURSDAY  9:00 AM - 10:00 AM  ROOM 212

Persing, Ray

DAYTON & TROY ELECTRIC RAILWAY COMPANY

Much like the dot-coms at the end of the 20th century, interurbans at the end of the 19th century were the investment of choice. The Dayton and Troy Electric Railway ran from Dayton to Piqua between 1901 and 1932, and was a critical link in the vast mid-west interurban network in the early part of the twentieth century. We’ll examine the story behind this long-gone and little-remembered part of the Miami Valley. Seldom-seen photos illustrate the 31-year life of an integral part of the mid-west, and we’ll look at the few remaining vestiges of the railroad.

FRIDAY  9:30 PM - 10:30 PM  ROOM 208

SCRATCHBUILDING IN WOOD

Nothing looks so much like wood in a model structure than real wood. Master Builder Ray Persing will take you through a selection of modeling techniques you can apply to your wood modeling. We’ll follow the construction of a merit-award winning model and look at methods that work, as well as a few that don’t so much!

MONDAY  6:30 PM - 7:30 PM  ROOM 208
TUESDAY  8:00 PM - 9:00 PM  ROOM 207

Petrarca, Bruce

DCC SOUND, A DESIGNER’S NOTEBOOK

A hands-on look at getting the most sound out of your locos. HO scale is featured, but the techniques discussed extend to any scale.

FRIDAY  1:00 PM - 2:00 PM  ROOM 204
SATURDAY  2:30 PM - 3:30 PM  ROOM 212

Phillips, Dave

MODELING MODERN C&NW COVERED HOPPERS

Throughout the history of the C&NW it has been a major Grainger railroad. Transportation of grain & food products had always been a major source of revenue. Covered hoppers were the most numerous
freight car type on the C&NW. Whether or not you model the C&NW, some of these hopper cars belong in your freight car

TUESDAY 10:30 AM - 11:30 AM ROOM 207
FRIDAY 6:30 PM - 7:30 PM ROOM 201

Puthoff, David E.

ELECTRONIC LOGIC CONTROL OF TRACKSIDE SIGNALS

Electronic logic circuitry can be used to operate 2 and 3-aspect trackside signals in 1 or 2 directions of travel, with or without automatic stopping of trains, using conventional or DCC controls. A primer on prototype signaling is presented, with circuit details, examples of train detectors, and options that enable a close imitation of the prototype in any scale.

SUNDAY 2:30 PM - 3:30 PM ROOM 212
WEDNESDAY 8:00 PM - 9:00 PM ROOM 211

Rathbone, Michael

TWILIGHT OF STEAM IN CHINA - FROM THE CAB

The last steam is rapidly vanishing from China. But a few centers remain. Riding in the cab and driving these great machines is a unique experience shared with the engine crews of the early 20th Century in North America.

SUNDAY 4:00 PM - 5:00 PM ROOM 212
TUESDAY 4:00 PM - 5:00 PM ROOM 211

Reid, Walter

THE DOLLY VARDEN MINING RAILWAY - A SMALL RAILWAY YOU CAN MODEL

The Dolly Varden Railway was an 18 mile narrow gauge railway built between 1917-1920 in Northern British Columbia to haul silver ore from minehead to the waterside ore bunker in Alice Arm (British Columbia). It was also briefly used as a logging railway as well. With the aid of slides, we will explore the railway's features and spend time focusing on the modeling potential such a specific prototype has to offer. This clinic will be of interest to modelers who are interested in mining or logging narrow gauge, as it's a well-documented example of a railway built with minimal resources. Recently found blueprints of the ore bunker and surrounding area will also be featured.

WEDNESDAY 10:30 AM - 11:30 AM ROOM 207
WEDNESDAY 1:00 PM - 2:00 PM ROOM 212

Rising, Paul

CLAY ROCK MODELLING

Tired of the inflexibility and sameness of Hydrocal rock casting? This technique allows you to make superb, unique and even prototype rock formations/outcrops using air dry clay and latex rock molds. For the beginning to expert modeler who wants custom

TUESDAY 9:00 AM - 10:00 AM ROOM 211
THURSDAY 9:00 AM - 10:00 AM ROOM 262

HEAT ALTERING STYRENE FOR TEXTURAL EFFECTS

Learn how to modify standard modeling styrene and old plastic kits so realistically replicate wood shingles, board formed concrete, logs and stone. This technique uses a low wattage soldering pencil and home made tips. For the intermediate modeler not afraid to

MONDAY 8:00 PM - 9:00 PM ROOM 211
WEDNESDAY 9:00 AM - 10:00 AM ROOM 204

Roberts, John, MMR

APPALACHIAN COAL MINES AND TIPPLES

If you're interested in modeling Eastern coal country, this clinic is a must see. John has extensive knowledge of the coal mining industry and will share a wide variety of prototype photos of mines, tipplers, and general regional structures of interest. The clinic will also cover points of interest regarding railroad operations (C&O, WM, N&W, CRR, PRR, B&O, L&N) in this region and will address changes that have occurred in the industry from the 1930's to present. So if you're interested in mining coal on your model railroad, whether it's steam or diesel era, you'll find this presentation packed with all the necessary information to successfully begin modeling coal country or to expand knowledge to enhance your current models and layout.

MONDAY 9:00 AM - 10:00 AM ROOM 262
WEDNESDAY 4:00 PM - 5:00 PM ROOM 212

MEET THE NMRA PRESIDENT & VICE PRESIDENT

MONDAY 2:30 PM - 3:30 PM ROOM 208

Sacco, Jim

A BRIEF HISTORY OF THE AMERICAN GAS STATION & SOME TIPS FOR MODELING ONE

The title pretty much says it all. It begins with a brief photo history of the gas station in America and is followed by some tips that may help modelers build a more realistic model of a gas station. The clinic ends with a slide show of common, unusual or just plain wacky gas stations. I’d like to think that it is a clinic where folks can sit back and enjoy the pictures. Or as the late night talk show host, Tom Snyder, used to say "Sit back and watch the pictures as they fly

TUESDAY 4:00 PM - 5:00 PM ROOM 207
THURSDAY 8:00 PM - 9:00 PM ROOM 211

Schaumburg, Bill

RAILROAD TIE TREATING

A brief historical survey of railroad tie treatment, a look at typical older plants and a tour of a modern tie treatment plant. Bill is the editor of Railroad Model Craftsman and models the Nevada County Narrow Gauge RR (which mostly used Western red cedar ties, it turns out) in On3.

TUESDAY 6:30 PM - 7:30 PM ROOM 204
WEDNESDAY 9:30 PM - 10:30 PM ROOM 207

Schlotfeldt, Ken

CHOOSING, USING, MAINTAINING AND TROUBLESHOOTING YOUR AIRBRUSH EQUIPMENT

Ken Schlotfeldt is the owner of Badger Airbrush will show you how to choose the airbrush that is best for you and how to use and maintain your airbrush for maximum potential. He will show you how to troubleshoot your airbrush and the equipment that goes along

WEDNESDAY 1:00 PM - 2:00 PM ROOM 201
THURSDAY 8:00 PM - 9:00 PM ROOM 207
FUN, FOOLPROOF PAINTING WITH WATER BASE ACRYLIC PAINTS
Ken Schlotfeldt from Badger Airbrush will show you how to select and apply the latest in acrylics and get more enjoyment from your

WEDNESDAY 2:30 PM - 3:30 PM ROOM 201
THURSDAY 9:30 PM - 10:30 PM ROOM 204

Schorr, Neal
MODELING THE MIDDLE DIVISION OF THE PENNSYLVANIA RAILROAD
The picturesque Middle Division of the Pennsylvania Railroad connected Harrisburg with Altoona, Pennsylvania, and was the first portion of the PRR to be constructed in the mid-19th century. In this clinic, we will take a tour of the prototype railroad by means of over 50 railfan slides taken of the Middle Division in the 1940’s, 50’s, and 60’s. The second half of the clinic will then turn its attention to Neal’s layout which portrays the Middle Division as it once existed.

TUESDAY 8:00 PM - 9:00 PM ROOM 201

Sharpe, William
WELLAND ONTARIO - LATE SUMMER 1953 - MODELING A TIME & PLACE
Have you ever thought of becoming a prototype modeler? Many of us do and begin by accurately modeling rolling stock and locomotives of a certain era. Suppose you went one step further and did a whole town. William Sharpe began by starting small to render the scene faithfully. He will discuss the prototype location and why it was selected, the era chosen, and the various components constructed to date as well as future plans. By dealing with one piece at a time your layout need not be generic, but rather a faithful compliment to your prototype locomotives and rolling stock.

TUESDAY 1:00 PM - 2:00 PM ROOM 201
THURSDAY 9:30 PM - 10:30 PM ROOM 208

Smith, Howard R., MMR
BIG IDEAS -- SMALL INDUSTRIES
This clinic is for modelers with BIG IDEAS but room for only small industrial models. Presentation includes photos of both prototype and model industries suitable for model railroad layouts.

TUESDAY 9:30 PM - 10:30 PM ROOM 204
WEDNESDAY 9:30 PM - 10:30 PM ROOM 211

Spurlock, Loy
DCC BASICS
(1) Why DCC: The benefits of DCC; (2) Defining Terminology & features: You don't know what you need if you don't know what the buzz words mean; (3) How DCC works: A semi-technical discussion in plain English; (4) Choosing DCC equipment: systems, throttles, decoders & other equipment.

MONDAY 8:00 PM - 10:30 PM ROOM 201

DCC WIRING; TRACK & LOCONET
(1) DCC Layout wiring: Basic to complex; (2) Turnouts: Powered frog/insulated frog, identifying problems; (3) Reverse Section Control: Manual, simultaneous, automatic, short circuit, & detection; (4) Digitrax LocoNet: Building, testing, & troubleshooting; (5) Power Supply: Voltage, amperage, other issues & features.

TUESDAY 9:30 PM - 10:30 PM ROOM 201
DECODER INSTALLATION
Testing: Decoder loco, plug-n-play. Installation: isolation, wired, plug-n-play, drop-in, sound. Programming: cv's, decimal/hexadecimal/binary, ops/service mode. Loy will cover the decoder installation subject "from soup to nuts".

WEDNESDAY 9:30 PM - 10:30 PM ROOM 262

SIGNALING WITH LOCONET
A discussion with Team Digital's SIG24. Subjects covered will include: (1) Blocking & detection, (2) LocoNet messaging, (3) Logic. (4) Other fun stuff including Locking out turnout control when occupied and route indication.

THURSDAY 2:30 PM - 5:00 PM ROOM 262

TROUBLESHOOTING DCC
This DCC clinic will cover: (1) System & command station, throttle, network, layout, loco and decoders; (2) Layout: track wiring, turnouts, loco, decoder and (3) Loco: decoder, installation, loco, etc.

FRIDAY 4:00 PM - 5:00 PM ROOM 207

Swanson, Sam
SCENIC DETAILING
Ideas and techniques on how to color and texture trees, weeds, ivy, wooded hills, ground cover, and water are covered in this clinic. Both foreground and background scenic elements are presented, along with ideas for transitioning between the two.

TUESDAY 6:30 PM - 7:30 PM ROOM 212
THURSDAY 8:00 PM - 9:00 PM ROOM 212

Truax, Jerry
USING WIRELESS MICRO VIDEO CAMERAS ON YOUR TRAINS
Find out how to install and use wireless micro color video cameras on your trains, on any scale, from "Z" to "12 inches = 1 foot". Trouble shooting interference and how to correct it.

FRIDAY 8:00 PM - 9:00 PM ROOM 262
SATURDAY 1:00 PM - 2:00 PM ROOM 212

Tylick, Michael
KITBASH THIS (BUILDING)
Many hobbyists hope to bang out a layout as quickly as possible, but soon the layout is nearly finished, or something is needed that just can’t go out and buy. Scratch building can be a rewarding pastime onto itself; in this slide presentation Michael discusses several structure and rolling stock projects built from a wide variety of materials. In traditional Yankee fashion, if you can’t find what you want at the store, you can make it yourself while spending very

TUESDAY 1:00 PM - 2:00 PM ROOM 212
FRIDAY 6:30 PM - 7:30 PM ROOM 204

SCENERY CONSTRUCTION
Over the years, I’ve worked with a number of ways to build scenery and scenic elements, including landforms and detailing. I will describe my experiences with many of them, some of which I feel are unusual. Most of the finished work is set in autumn, not often modeled but among the most visually compelling times of year.

WEDNESDAY 10:30 AM - 11:30 AM ROOM 211

SCENERY IN TIGHT SPACES
Scenery design in tight spaces, which in reality is every model railroad. It was felt that hiding tight space in urban scenery, but difficult to do the same in the country. While assembling the clinic, I
found the same devices will work in both. I’ve tried to include every trick I could think of, and much mention is made of what is popularly known as “forced perspective” This clinic makes use of prototype photos.

FRIDAY  8:00 PM - 9:00 PM  ROOM 204

THE JOY OF SCRATCHBUILDING
Many hobbyists hope to bang out a layout as quickly as possible, but soon the layout is nearly finished, or something is needed that just can’t go out and buy. Scratch building can be a rewarding pastime onto itself; in this slide presentation Michael discusses several structure and rolling stock projects built from a wide variety of materials. In traditional Yankee fashion, if you can’t find what you want at the store, you can make it yourself while spending very

THURSDAY 10:30 AM - 11:30 AM  ROOM 262

Vaccaro, Dennis
SMALL HYDROELECTRIC PLANTS
Do your scale people have enough power for their busy lives? Small hydroelectric plants have dotted the landscape all across the US for over 100 years. Many are still in operation. An overview of plant equipment, site arrangements, building construction, operations, and modeling possibilities will be presented. Slides of several sites in New England will be shown.

TUESDAY  2:30 PM - 3:30 PM  ROOM 208
THURSDAY  4:00 PM - 5:00 PM  ROOM 208

Van Arnem, Bob
COUNTRY GRAIN ELEVATORS ALONG THE OSL
IN IDAHO
Presentation will include research, photographs of prototype, their construction and operation, drawing scale plans, and techniques/jigs used in scratch building components.

WEDNESDAY  2:30 PM - 3:30 PM  ROOM 208
THURSDAY  6:30 PM - 7:30 PM  ROOM 211

Vaughn, Marty, MMR
CONTEST JUDGING
This clinic covers the NMRA Contest and the requirements to be a contest judge -- for both experienced and novice.

TUESDAY  10:30 AM - 11:30 AM  ROOM 212

Wagner, Richard
MODELING MAINTENANCE OF WAY 101
Ever notice Maintenance of Way equipment sitting on a nearby siding? Ever wonder what it does? This clinic will give the modeler a broad overview of the prototype equipment that modern railroads use to maintain their track and right of way. The clinic will discuss some ideas to incorporate MOW practices and display some examples of models currently available in HO that can be used to simulate these MOW projects.

TUESDAY  9:30 PM - 10:30 PM  ROOM 212
WEDNESDAY  9:30 PM - 10:30 PM  ROOM 212

THE COLORFUL PENN CENTRAL
OK, so you think that the Penn Central was just black engines and green box cars. How could the Penn Central be colorful? Add to that that you never really liked the Penn Central! After this clinic you may have a different opinion. After a brief discussion of the history of this railroad, the clinic will show many variations to the PC paint and lettering schemes and disprove the myth that all Penn Central equipment looks the same. Who knows, you may even come to appreciate the Penn Central? p.s. if you like the Penn Central, you are welcome too!

MONDAY  8:00 PM - 9:00 PM  ROOM 207
THURSDAY  8:00 PM - 9:00 PM  ROOM 208

Wentworth, David
MAKING REALISTIC WATER SCENES
After presenting photos of actual ponds, streams, dams and waterfalls, the clinic focuses on how David made the many water scenes on his HO (New England) and O-scale (PRR) layouts. The clinic examines techniques for making three types of water: (1) calm/smooth reflective water, (2) choppy rough/white water, and (3) waterfalls. Dioramas demonstrate how weeds, lily pads, rocks, shoreline, wood and stone dams, and retaining walls make realistic

WEDNESDAY  10:30 AM - 11:30 AM  ROOM 204
WEDNESDAY  4:00 PM - 5:00 PM  ROOM 207

Wesner, John
TRACK PLANNING: A HANDS-ON DESIGN EXPERIENCE
When you want to design something, do you have trouble thinking up new ideas, and then deciding which is the best? Would you like to learn and practice some methods to help you generate ideas and then pick the solutions that best satisfies your goals? Come to this hands-on clinic. Our example will be track planning, but the methods we use will have lots of applications.

MONDAY  9:00 AM - 11:30 AM  ROOM 207
THURSDAY  2:30 PM - 5:00 PM  ROOM 204

Westerfield, Al, MMR
FISHBELLY SIDE SILL BOX CARS
Built almost exclusively in 1902-1910, they were the first steel under frame house cars. Although most were scrapped in the 1930's, many ran into the 1950's and 1960's in MOW service.

FRIDAY  8:00 PM - 9:00 PM  ROOM 201
SATURDAY 10:30 AM - 11:30 AM  ROOM 211

Wickhorst, Charles - Gary Loiselle
OPEN LOADS --
Reviewing the prototypes through slides and emulating it for our railroads. How to model what we see to get the effect. By Gary and Charlie, two of the contributors to the book "Modeling Open Loads", an NMRA publication.

WEDNESDAY  9:00 AM - 10:00 AM  ROOM 207
THURSDAY 10:30 AM - 11:30 AM  ROOM 207

Wissinger, John, MMR
BUT WHY TRACTION?
Electric traction railroads had their beginnings in the mid-1800's, flourished between 1900 and 1920 transporting passengers and freight and, with the exception of some regional and city lines, all but disappeared by 1939. This clinic will review the history of the traction industry using prototype slides and a short movie of interurban freight and street railway equipment. Even if you do not model traction railroads and think trolleys are uninteresting buses
with broomsticks on their roofs, come to this clinic to learn about
this fascinating aspect of railroading that few people know of today.

THURSDAY  9:30 PM - 10:30 PM  ROOM 262
MODEL TRACTION OVERHEAD
CONSTRUCTION
This clinic shows a relatively easy method of installing "simple cross
span" model traction overhead. While it is not an exact scale
reproduction of the prototype, it is a reasonable representation of
streetcar and interurban overhead. Many prototype photos are used
for reference so it is applicable to all scales.

TUESDAY  8:00 PM - 9:00 PM  ROOM 211
THE MECHANICS OF LAYOUT PLANNING
The success or failure of a model railroad can often be traced to the
amount of planning that went into the layout before construction
was started. In this clinic, the steps in designing your perfect model
railroad will be outlined. Following these steps will make your model
railroad a pleasure to operate, instead of an exercise in frustration.
Whether you use a computer, a drafting board or just a pencil and
tablet, this clinic will show how to avoid many of the mistakes that
often occur. Note: this clinic is about how to plan a model railroad,
not what goes into a good layout. That is up to the individual to
decide.
MONDAY  9:30 PM - 10:30 PM  ROOM 204
FRIDAY  6:30 PM - 7:30 PM  ROOM 207

Wolohon, Larry, MMR
1930's PASSENGER TRAINS - UPDATE
I will attempt to show the causes of the downfall of passenger train
usage in the 1930's and how the railroads attempted to revive the
passenger traffic in the 1930's.

TUESDAY  9:30 PM - 10:30 PM  ROOM 208
FRIDAY  9:30 PM - 10:30 PM  ROOM 211

Yungblut, Gibson R
CINCINNATI UNION TERMINAL
It is a fascinating and exhaustive look at the planning, building,
operation, and slow fading away of the Cincinnati Union Terminal,
an Art Deco masterpiece and one of the world's great railway
stations. The story of the terminal's triumphal rebirth as the
Cincinnati Museum Center is also included. Mr. Yungblut is one of
three authors of the book "Cincinnati Union Terminal" and is world
authority on the subject.

SUNDAY  2:30 PM - 3:30 PM  ROOM 201
MONDAY  8:00 PM - 9:00 PM  ROOM 262

Ziegler, Peter W
THE ZIMO DCC SYSTEM OVERVIEW
Here's a chance to hear about Zimo's DCC system and its features

FRIDAY  2:30 PM - 3:30 PM  ROOM 201

THE ZIMO DCC SYSTEM, 2005 NEWS
Hear what's the latest developments from Zimo DCC systems.

FRIDAY  4:00 PM - 5:00 PM  ROOM 201