

Prototype Track / Industry Maps as a Design Resource

Gleaning track plan, industry, and operations ideas

by Byron Henderson

Some of the more useful prototype documents for model railroad layout design are the mapbooks designed to show track identifications, customers and car spotting locations. These go by a variety of snappy acronyms such as SLIC or TIP on various prototypes (see sidebar for definitions). For the purpose of this introduction, I'll refer to these generically as "Track/Industry Maps". These documents were issued by the railroads to help their employees identify specific railroad-served customer trackage (sidings), define "spots"¹ where cars are to be set out, and provide other information specific to a particular customer in a specific era. They can be very valuable modeling tools when they can be obtained for the area and era being modeled.

The development of these documents seems to relate to the railroads' adoption of more sophisticated computing in the 1960s. The earliest Track/Industry Maps I have seen reliably referenced are from the Southern Pacific in the Northern and Central California areas in 1966 and 1967, although it is quite possible some form of Track/Industry Map existed before that time. Track/Industry Maps are themselves derived from earlier institutionalized coded car spotting guides which

have been in use on some railroads since at least the 1920s (see sidebar page 33).

Track/Industry maps are not to scale, although some railroads printed approximately one linear track mile per page. Depending on the density of trackage, amount of traffic, and other factors, these may be highly detailed and are very specific about track spots. (For example, Western Pacific TIP books defined specific track number identifications for each of the four tracks on the car ferry *Las Plumas*.) Typically the map books include alphabetical and/or numerical lists of industries and tracks, the maps themselves, and car spotting and bookkeeping instructions. Books published in pre-desktop publishing eras are often a charming mix of hand drawn and stylishly lettered maps with typewritten lists of industries and spots.

Track numbers and spots in the real world

Track/Industry Maps are useful tools for prototype crews in relating switchlist or other instructions to actual locations. On many railroads, switch targets are painted with Track/Industry Map track numbers and spot numbers are provided on posts or painted on customer buildings. Most of the maps also identify physical RR mileposts, highway grade crossings and crossing railroads, while some even highlight bridges, culverts and non-railroad landmarks. Names of industries and spots (e.g., "hopper unloading") help guide crews in providing timely and accurate service.

The alphabet zoo

This list is not exhaustive, but is provided to show some of the prototype variety.

CLIC

Used on the Santa Fe, variously defined as "Car Location Identity Code" and "Car Location Inventory Code"

SLIC

Kansas City Southern and others. Short for "Shipper Location Inventory Code".

SPINS

Defined by the SP as "Southern Pacific Industrial Numbering System" (pages 31, 36, & 38).

TIP

Used by the Western Pacific, stood for "Track Identification Program"

ZTS

"Zone-Track-Spot", used by the Union Pacific and Conrail (page 34), among others.

Track/Industry Maps in layout design

Since they identify tracks, customers, and even specific car types, these are obviously rich reference sources for the layout designer. As general references and guidelines for prototype practice, they are useful to both prototype and freelance modelers. But there are a few limitations that should be mentioned. The maps are typically schematics, not accurate depictions of track configurations. Track/Industry maps are drawn for clarity, so track lengths and other distance relationships are not consistently rendered. Complex areas

¹ Track spots are locations on an industry spur or other track that are specified in the train crew's instructions (such as a switchlist) and indicate where to place a particular car. These may correspond with a particular type of loading or unloading device such as a spout or a dump, a loading door, an end-of-track ramp, etc. In this case, they are sometimes referred to as "Sure Spots". Requiring crews to place cars in specific spots can add much realism and challenge to op sessions. Prototype railroader Rick Mugele authored a terrific primer on spots in prototype and model railroading in *LDN-8*.

may show track spacings, lengths and angles as necessary for map-making utility which do not match the real-world configuration. So while it is tempting to use the mile-post references on some railroads' Track/Industry Map to "scale" other tracks on the same map, there is no guarantee of accuracy.

Competitive railroads in the area are often depicted very minimally. Often only actual crossings are shown, with no indication of the competing line's spurs and cus-

tomers-serving tracks. Consulting Track/Industry Maps from each of the competing railroads is the best choice when materials are available.

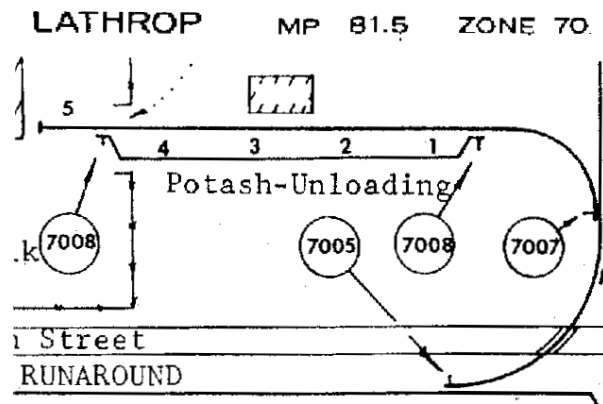
Era also plays a key role. Track/Industry Maps are accurate for a specific time. Modelers of earlier or later periods may extrapolate from available documents, but there are some challenges. In particular, railroads have a habit of naming tracks once, then using that name for many years, even though the purpose of the track

has changed. Industries change names or go out of business, but the original reference may remain in the Track/Industry Map for some time. Depending on the degree of period accuracy desired, Track/Industry Map information may be correlated with other reference sources for best results. (Of course, for modelers of eras which predate Track/Industry Maps, this can be a useful feature, as extinct businesses or spot names may be preserved.)

Taking a SPINS

Deciphering Track / Industry Maps is relatively easy and fairly consistent from railroad to railroad. For example, Southern Pacific Industrial Numbering System (SPINS) books identify industries and switching zones, tracks and consignee loading and unloading spots. By giving zones, tracks and spots certain designated numbers, the railroad was able to print switch lists with exact locations to which a customer's car is to be spotted. A SPINS number contains up to six digits. The first two indicate the zone to which the car is destined, the next two digits indicate the specific track number within the zone, the last two digits are the actual marked spot or type of spot if unmarked (see below).

XX XX XX
Zone Track Spot



This example is a section of the detail SPINS map for Lathrop, CA found on page 37. This is Zone 70, so the track numbers begin with those digits. Track numbering begins at turnouts, so track 7005 begins at the lower right of the diagram and curves back toward the center. It appears that spots for Potash unloading are found on both of tracks in the center of the diagram, these would be numbered 700501 through 700505 (from nearest to farthest from turnout) on the upper track and 700801 through 700804 on the lower track.

Zone and track numbers appear on the switch targets (thus 7008 would appear at each end of the parallel track). Spot signs are placed where customers normally

load or unload their cars. Spot signs are 6" X 6" green metal signs with 4" white reflectorized numbers. These are placed at the center of a car spot. In other locations, spot numbers may be painted on customer loading doors or other structures.

Additional designations are provided for crews' use where specific physical spot numbers are not available on a post or structure. A list from a SPINS book is reproduced below.

Bruce Morden

SPECIAL SPOT-NUMBER CODE

The last two digits of a SPINS number may convey a special meaning and are listed below:

- 88 Open area Tank Car spotting only where not possible to put up spot signs.
- 89 Denotes industry will either do the switching or furnish a switch list.
- 90 Team Track spotting.
- 91 Storage Track.
- 92 Order in basis only.
- 93 Crane spotting.
- 94 Hopper dump for feed, grain, cement, etc.
- 95 Dock spotting.
- 96 Piggyback ramp.
- 97 Auto ramp.
- 98 Interchange to other railroads.
- 99 Open area where not possible to put up spot signs.
- 00 When a car cannot be spotted according to the switch list and is left off spot, 00 will be indicated on the returned list. If the car is left on a track other than designated on list, track number and spot where car is left will be shown in addition to 00.

Track/Industry Maps

Related sources enrich information

A number of other prototype and general reference sources may be useful in combination with Track/Industry Maps (Figure 1, below). Track Charts are typically drawn to scale (at least for track lengths) and can provide additional information on track relationships. Railroads' Traffic or Marketing departments may publish documents describing customer trackage, including in some cases industry names, track capacities, etc. (Mike McLaughlin described the use of a D&RGW "Traffic Circular" as a layout design tool in *LDN-8*.) United States Geological Survey topographic maps may also help indicate actual track relationships, but typically

many tracks are not shown. Specialized references such as Sanborn fire insurance maps (*LDN-15*, *LDN-16*) may also be useful in understanding the size and layout of specific customer buildings. See page 38 for a description of using a variety of documents in planning a Layout Design Element.

Track/Industry maps in operations

Many modelers use variations of these map books for their own layouts to orient operators and add realism. On Linda and David Sand's CRT (page 24), track and spot identifications provide cues to different jobs, suggest the purpose of RR customers, and reinforce the large size of modeled industries.

See also Doug Gurin's discussion of modeling and operating ideas in

considering a prototype Track/Industry Map and crew instructions for Nokomis Mill on the Minnesota Commercial Railroad in *LDJ-24*.

A customer's view of railroading

Track/Industry Maps are a unique resource which provide insight on track configurations, commodities, customers, even operating patterns (see related articles in this issue). Focusing on the customers served and the commodities moved enhances the realism of our layouts and operations, no matter the theme, era or prototype. ●

Bruce Morden and Jon Cure contributed to the development of this article and Mike McLaughlin provided prototype materials.

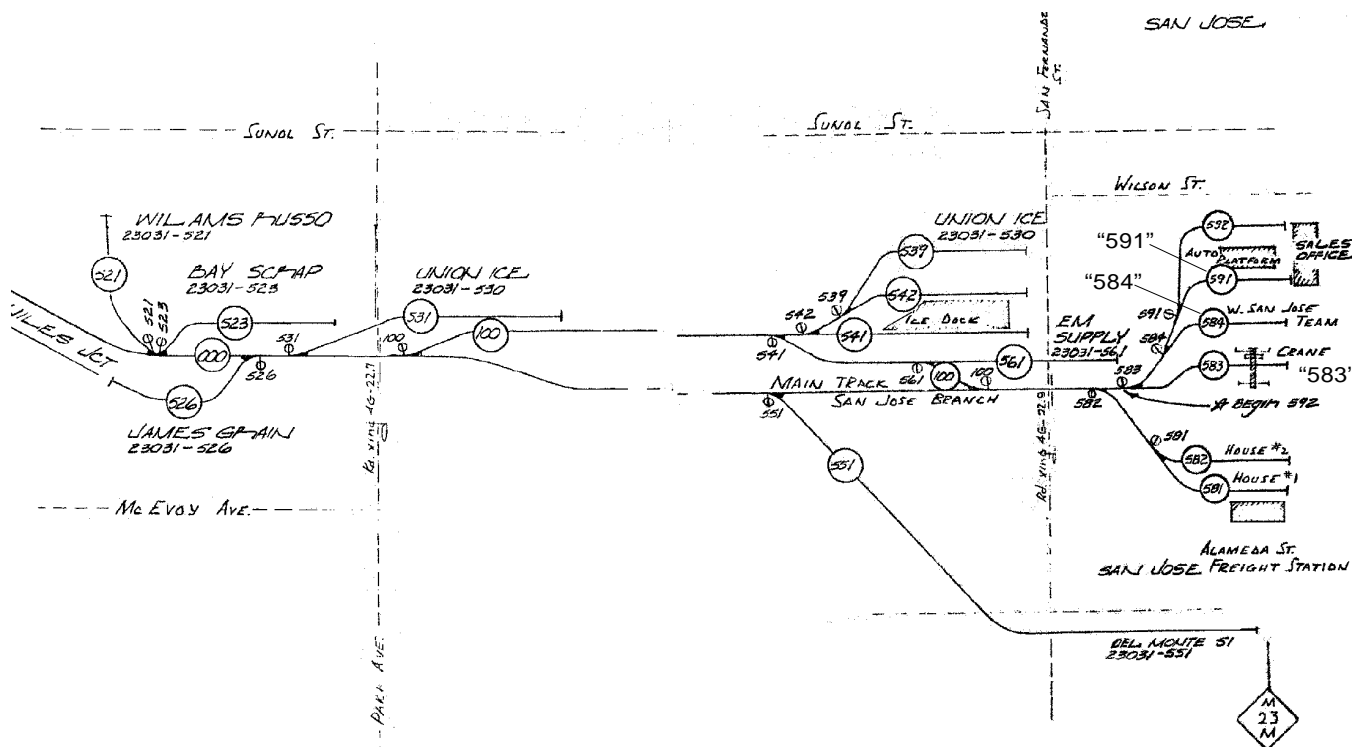


Figure 1 -- Combining Track/Industry Map and other reference sources

This is Western Pacific's TIP ("Track Identification Program") map for the west end of the San Jose, CA branch showing industry names and track numbers. TIP books also contained a numerical listing by track number (another listing in the book is alphabetical by industry). Combined with other prototype documents, a clearer picture of the area may be drawn to aid in modeling. For example, a copy of the WP Merchandising Manual indicates that the two team tracks (583 and 584 at the right of the TIP diagram) each had a capacity of 3 cars and that the auto ramp (591) was for side-unload (boxcars) only. Roughly one linear mile of main track is shown here. (LDJ trivia buffs may find it interesting to know that the WP Freight Station was still standing and in use for other businesses until a few months ago just across Alameda Street from the firm that printed this LDJ.)

Sources of Track / Industry Maps

As the interest in railroad paper has grown, there have been more copies of these useful books available. Unfortunately, as collectible items, this availability can sometimes be combined with hefty prices. Layout design research is served by copies as well as by an original, so one of the best places to begin a search for these useful books is with the railroad's historical society. Some offer copies (or originals) of Track/Industry Maps at a minimal fee. The Santa Fe

Historical and Modeling Society, for example, offers a wide range of original and reproduction CLIC books for sale. On-line auction website eBay (www.ebay.com) has an extensive railroadiana section where Track/Industry Maps may sometimes be obtained. These are usually originals and come with the added cost of rarity. Train shows and similar swap meets may also offer these documents. Stan Jones reports a few other possibilities. These are not

recommended by the SIG and none of this information has been verified. Caveat Emptor! Dave Cramer's Railroad Paper Collectibles has a website at:

<http://trainsite.8m.com//index.html>

Stan also suggest kctrains (email henryjhaus@aol.com) and Derek Gardner (email bmgp91737@aol.com) who each offer material on eBay and also have catalogues.

Father of ZTS?

Track/Industry Maps seem to be a product of the 1960s, but printed track and industry codes date from much earlier. These earlier documents lack maps and seem to be oriented toward creating cards that were physically attached to the tackboards of the actual cars for reference by crews. Bob Johnson kindly provided some copies from a 1952 version of a Pennsylvania Railroad document. This book is titled "Symbol System of Car Placement" and is specifically for the Chicago area. The inner notes of the book indicate that the first version was created in 1929, with previous revisions in 1937 and 1942. Much of the instruction relates to marking cars and the proper reverse routing of foreign line empties.

It may be that these track and industry identification books were only used in the most concentrated switching districts. (The long periods between document revisions certainly are reflective of a slower pace of change in business than is found today!) While they lack the visual attraction of the later Track/Industry Maps, similar guides for other eras and railroads would be useful modeling resources. No doubt these car placement guides were the precursors of the SPINS, CLIC, and ZTS documents we're more familiar with today. If any LDJ readers have seen similar documents, please contact Eric Hansmann (page 2) for a possible follow-up article.

The following is a list of zones, track numbers and industries.

- Zone A.** Includes all territory beginning with the Chicago Union Station and ending with the track of the Vierling Steel Co. at 23rd Street. Tracks in this zone are numbered 1 to 27, inclusive.
- Zone B.** Includes all territory from 23rd Street to 59th Street. Tracks in this zone are numbered 28 to 67, inclusive.
- Zone C.** Includes all territory from 59th Street to Grand Crossing. Tracks in this zone are numbered 68 to 87, inclusive.

The Chicago switching district is divided into 16 "zones" which are coded with alphabet letters from A through S.

ZONE A	
Track No.	Industry or Yard
C. U. S. to 23rd Street:	
1	Chicago Union Station Co.
2	U. S. Post Office
2	U. S. Post Office (Polk Street)
3	Merchants Warehouse
4	P. R. R. Polk Street Freight Transfer

Tracks within each zone are identified with a number.

RAILROAD INDEX			
Line No.	Interchange Line	Zone	Via Line No.
700	A. T. & S. F.....	D	703
		M	703
701	B. & O.....	H	702
		M	703
702	B. & O. C. T.....	H	
		M	
703	Belt Ry. (Clearing).....	D	
		M	
704	Belt Ry. (North of 87th St.).....	D	703
		D	
		M	703

Due to Chicago's nature as a railroad hub, much attention is given to interchange movements. Specific codes are noted for each connecting railroad (above) along with schedules for interchange movements (right).

INDEX "A"

Industry	Track Zone No.
Abbott Laboratories.....	J 260
Aberdeen Franklin Coal Co.....	P 479
Ace Warehouse.....	K 368
Acme Paper & Twine Co.....	J 290
Acme Steel Co.....	S 521
Admiral Corp.....	J 287
Albright Nell Co.....	R 417
Alison Bowes Co.....	J 260
Allen Paper Co.....	J 260

As with the typical Track/Industry Map, cross-reference indices allow for look-up by industry or track number.

SCHEDULE OF INTERCHANGE MOVEMENTS COLEHOUR DISTRICT

ROAD TO	Approximate Time of Departure	Received At or Delivered To	Direct or Indirect Owner or Non-Owner
Belt Ry.-So. Chgo.	1.00 P.M.	Commercial Ave.	Direct
Belt Ry.-So. Chgo.	7.00 A.M.	Commercial Ave.	Direct
Belt Ry.-So. Chgo.	7.00 P.M.	Commercial Ave.	Direct
C. & O.....	See above	Commercial Ave.	Direct (Owner)
C. S. L.....	See above	Commercial Ave.	Via Belt

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