# Rascal and Cottonwood

**An All Aboard Presentation**

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# 1 Introduction

**Scenarios**

The Rascal and Cottonwood comes with eleven different scenarios. The first of which is a Free Roam, which allows you to travel to any part of the route without limitations. The next ten scenarios of which two are simple introductions to the route itself have assignments that need to be completed, including one special scenario which turns the Rascal And Cottonwood route into your own model railroad, where you don't have any assignments, or even an engine. Instead, use your navigation keys to fly about the route and just railfan.



Each of the scenarios except the Free Roam and the Railfanning scenario have a final destination.  When you arrive at these final destinations for scenarios, the AI will put on the brakes and stop the engine for you.

**Route Structure**

Typically when a route is worked on it is built in a linear fashion. I began to think that if we could work in a more compressed area by looping track over itself, then the time to build a route would be less.  Also, I thought I would be able to super detail a route more consistently throughout a smaller route. AI trains would also benefit where they would have a more effective impact on the scenario if their visibility was increased because of the circular nature of their pathing. This would keep their visibility in range longer than a route built in linear.

## 2 Introducing the Rascal and Cottonwood Route

Now let's talk about the route itself.  Rascal and Cottonwood is based somewhere in North America and is a coal themed route.  Below is a picture representation of the route:
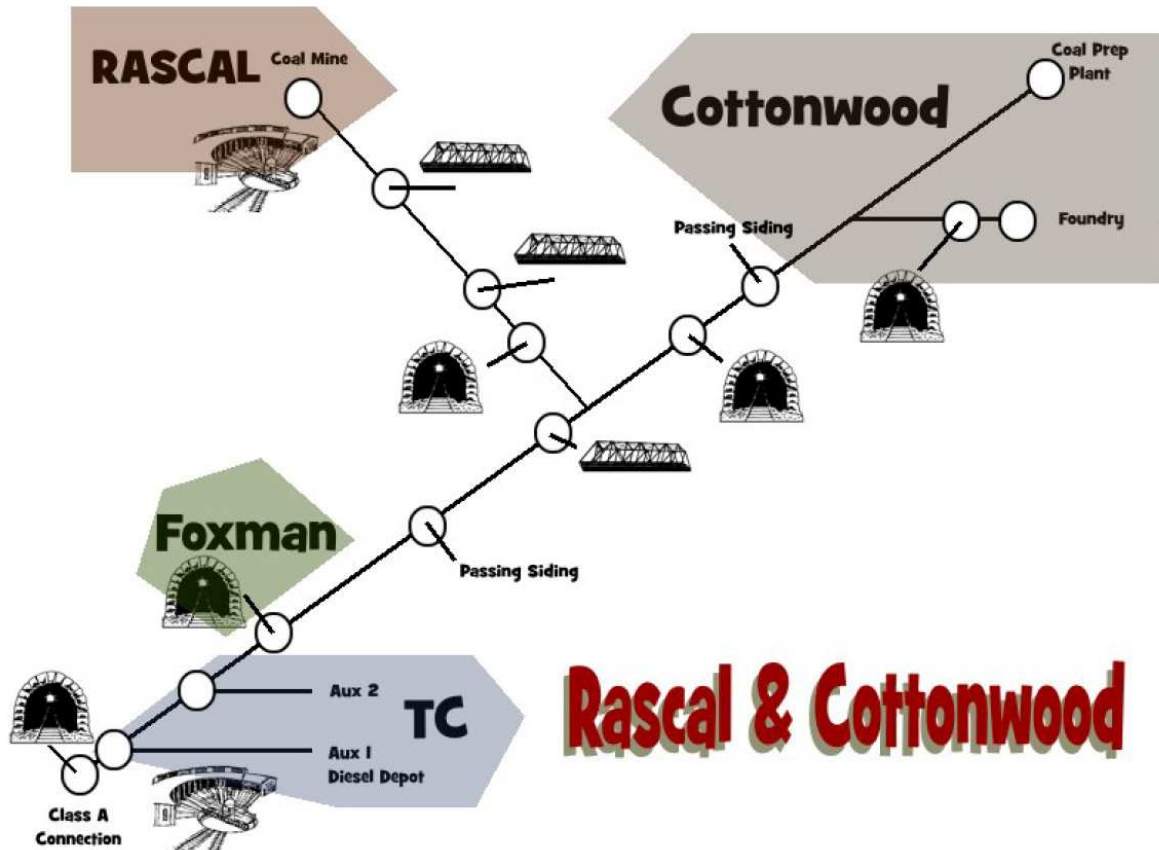


Referencing the picture above, the town of TC (for Tri-City) is the Rascal and Cottonwood's interchange point with a nearby Class A railroad.  For the scenarios included in this route release it is assumed this Class A, UP in this instance, has taken over the Rascal and Cottonwood.  All the coal and rolling stock are bought in and out of the Rascal and Cottonwood area through TC.  The large circles represent the highlights along the route.  In TC, Auxiliary tracks 1 and 2 are shown and take note that the Diesel Depot is where the diesel to maintain the industry for the whole route is housed.

The mainline trackage flows from TC past the town of Foxman which over the years has been affectionately called Foxy by the locals.  Passing sidings are located on Rascal and Cottonwood of which there are three in total.  In the heyday of the Rascal and Cottonwood, many coal trains passed this area per day.  Adding the passing sidings relieved much of the congestion that would sometimes clog operations and slow things down.

Following the mainline track northward in the picture, note that when empty coal hoppers are first bought to the Rascal and Cottonwood area, usually the first place

they end up is at the Rascal Mine. The Rascal Mine is one of those locations where the coal mined is of an excellent quality. The better quality means it has fewer impurities within the coal that need to be removed during the refining process. Hence the process of refining goes quicker and is cheaper to do.

But nearing the 21st century, coal is less mined because refining it involves stringent regulations which take increasingly more time and money. Coal mines all across the region were then closed up but some remained open even where the quality wasn't so good. But even with that coal became less viable as a fuel source and mines like the Rascal Mine closed up in favor of alternative energies. However, towards the end of the 21st century, an interest in cleaner burning coal was kindled as alternative sources of energy became expensive and harder to come by. Rascal Mine was reopened.

During the years of the Rascal Mine's abandonment the mine and the trackage and the tall bridges leading to the mine fell into disrepair. With the reopening of the mine, most of the money spent went into making sure the bridges were safe for the heavier and larger coal hoppers. Some of the money went into track and bed repair but as you will see, not much. And because the route runs through the mountains the track became fairly covered with underbrush and weeds. These had to be cleared as well.

To get to know the route, two introductory scenarios are included. Run them first to become more familiar with the route.

# 3 Operations

The operating procedures for the Rascal and Cottonwood are simple. The interchange at TC is the input/output outlet for all goods and rolling stock for the route. Usually a single diesel is stationed in TC to handle most of the switching and mainline operations. Occasionally more motive power is needed when larger quantities of coal are needed to be moved. Multiple trains may also be necessary to supplement movement.

The Rascal Mine itself sits up in the mountains and includes its own depot servicing facility as on occasion the engine is left at the mine waiting for the next assignment rather than expending the fuel for a return trip. A three tipple coal distribution point, coal moved from the Rascal Mine still needs some preparation and so the coal preparation plant in Cottonwood is the coal's destination.



However, before the coal is moved to the coal prep plant in Cottonwood, coal is moved directly to TC Auxiliary track #1, so a larger train can be moved to Cottonwood instead of the coal being delivered in smaller quantities.

The Cottonwood Coal Prep Plant survived the many years of coal mine closures because coal was still in use, though in smaller quantities. Brought from all over, the Cottonwood Coal Prep Plant survived and also served the Cottonwood Foundry.

The Cottonwood Foundry is Cottonwood's largest provider and produces large quantities of goods which are then trucked out of the area.  Its furnaces burn a great amount of coal and so coal trains bring in coal frequently. However, much of the coal refined is removed from the Rascal Mine and the Cottonwood Coal Prep Plant by train via interchange which then moves the coal to other parts of the country.

# 4 Rascal and Cottonwood RailWorks Track Layout

The route, while it is linear, is folded up into loops to speed up development and to take the tedium out of driving the wilderness parts. Like a model railroad layout the route has been "selectively compressed" and regrouped to keep the scenery viable and interesting while maintaining a fairly consistent representation to the real route. You should note that one of the passing sidings is missing in the picture but it's absence won't have any bearing on this discussion.
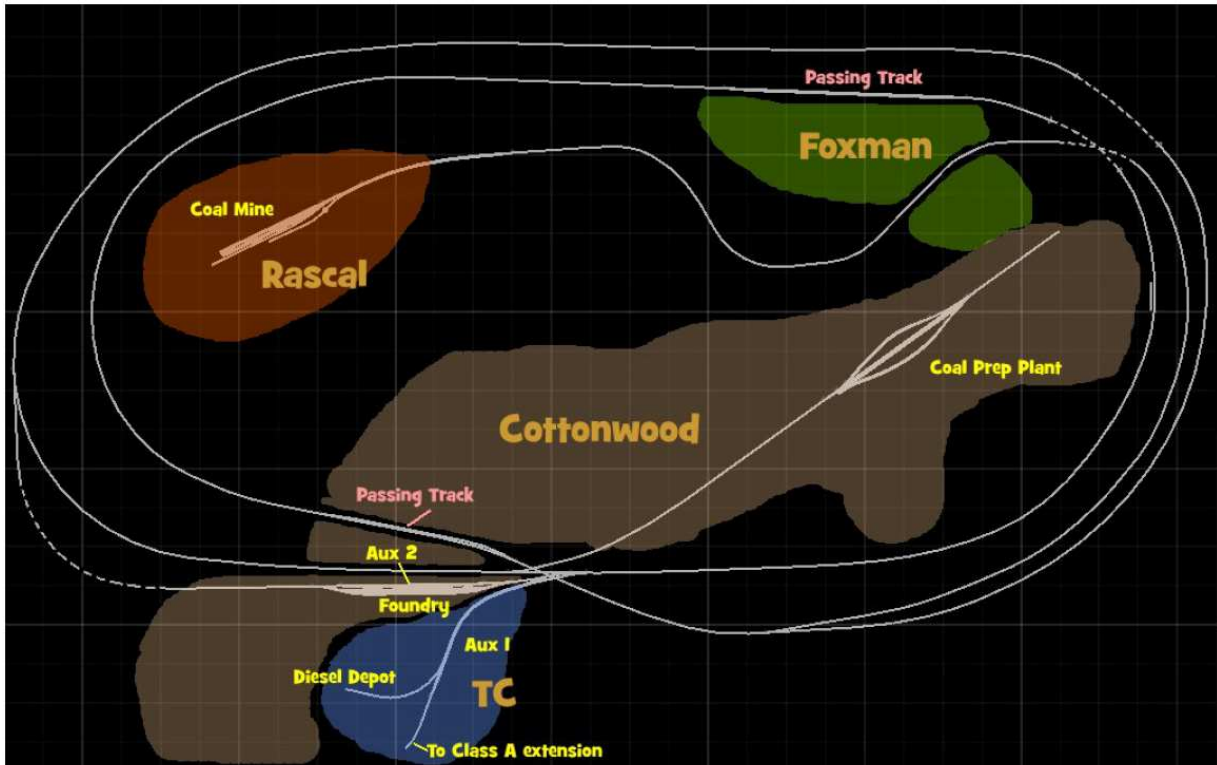


The first thing you would want to notice is how TC and Cottonwood, while on opposite ends of the route as pictured on a previous page, are within very close proximity to each other here. But note that as the trackage lays, the authenticity is still intact because trackwise you can't get to Cottonwood from TC without first traversing the whole route.

Of note too is how the mainline runs through Cottonwood long before the final destination of Cottonwood is actually reached. This too is a plus as it gives the player some diversity of scenery to look at rather than just a long boring stretch of wilderness. From a developer's standpoint it also allows the player to see more of the city of Cottonwood than he would otherwise see and from a different angle as well.

Driving the route itself will still yield that same 'out in the world' feel one gets when driving a route which is linear. The Rascal and Cottonwood route is somewhere between 16 to 20 miles long from point to point. The two small connecting track segments allow continuous loop running for those who prefer just to drive a train endlessly through highly detailed scenery in Free Roam.

Release Version 1.0

One additional feature about the route is how easy it is to traverse from points within the route to another. The route is compressed to a comfortable size and allows scenarios to be completed in a reasonable amount of time. Finally, with the route compressed as it is into what amounts to be a model railroad trackplan, the scenery has a completeness to it instead of that cross-section look typified in most routes.

Release Version 1.0

# 5 Designer Notes

RailWorks offers a keen opportunity to pursue an idea I looked at so long ago. All of my posting and thoughts on route building has always been something with the effect of a "collective moan," for how much time was used up to build a route and then to super detail it. In the earlier versions of Ohio Rail I was excited about how quickly I was able to construct miles of scenery. Starting with Build 8 and on through to Build 10 I noticed that the construction process was slowing down dramatically. What started out as a hobby was quickly becoming a profession.

In the interim between Ohio Rail and All Aboard I did some experimentation with routes which could loop -- hoping to reuse areas with scenery already placed. MSTS didn't take too well to my experimentation. And even if I had some small measure of success, explaining how to keep loops working in MSTS would have amounted to an unstable environment. So I dropped the idea.

Two things became apparent which I learned from these experiments. First, areas placed would be seen by other areas of the route, speeding up route building. Second, AI traffic weaving in and out of the scenery would be seen longer. In terms of the former, and with RailWorks this idea proved successful though the importing of over 250 USA objects slowed me down. The latter's success is partially contributed by RailWorks and with the flyover feature.

With all the ease in building the route I've been bragging about, you might be wondering, where is the traffic, the seasons, the people, dedicated rolling stock and more scenarios like you've seen in my previous MSTS releases? It is truly regrettable these were not included in this first release and as disdainful as this may sound I can only apologize profusely and say, I had to start somewhere and finish quickly. At the same time I also feel that the value of what you are partaking in demonstrates a great potential for future routes and even a potential for your own route building exploration. With routes being so easy to build in RailWorks, within a month's time if you're that clever, you could have your own personal route done too!

And with that I would like to close my thoughts on this, my first route add-on for RailWorks. I think of The Rascal and Cottonwood as the first step in many projects to continue my route building tradition within the rail simulation community. We strive for a reasonable compromise between the prototype and computer simulation mixing the best of model railroading technique, 3d graphic entertainment and fact.

Richard Garber

# 6 Credits

The Rascal and Cottonwood owes its completion to a few people. I would first like to thank those at RailSimulator.com for the Foliage Pack assets and Marc Nelson's 3dTrains Rural Landscapes Pack. Both packs became invaluable for lifting the appearance of the route to a greater authenticity. Both packs proved to be replete with superbly done models textured beautifully. Well done guys!

More excellent products from 3DTrains can be found on their website at www.3dtrains.com.

I would also like to thank Ed Hawkins for allowing me to use his objects again in my add-on routes. Ed and I have been friends for a long time and his friendship and talents have proved to be invaluable to me over and over again. Thanks Ed!

Once again, Marc Nelson, who is one of the quintessential leaders of our hobby, continues to impress me with his generosity in helping others and his outstanding artistry leaving most of us in the dust. I owe you one Marc!



I can never express my thanks and worship enough of our great Lord who has provided us with an amazing world in which to play in. And that even more so, life will go on if you seek to know Him personally. The best of which I know how to express this gratitude is to repeat His words in John 3:16-17:

For God so loved the world that he gave his one and only Son, that whoever believes in him shall not perish but have eternal life. For God did not send his Son into the world to condemn the world, but to save the world through him.