

# TrainTRACS Intelligent Crew Scheduling

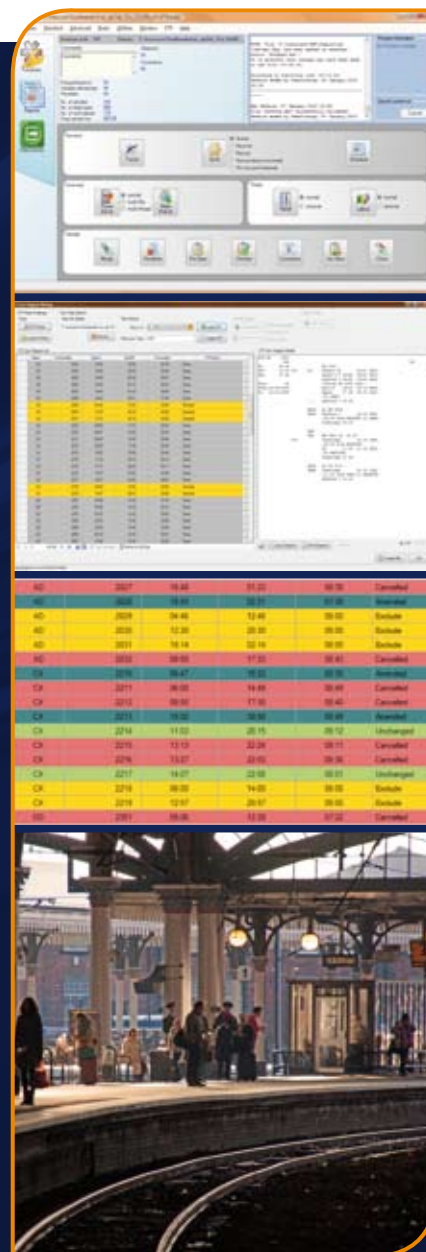
## The market-leading automated solution for efficient crew diagramming

**TrainTRACS** is a labour optimisation software package designed to address the complex procedure of crew scheduling for on-board rail crew, such as drivers, train guards and catering staff. The application is based on over 35 years of academic research at the University of Leeds, and provides the user with a number of benefits including:

- Rapid creation of legal, highly efficient crew diagrams**
- Ability to consider a wide range of scheduling constraints and parameters**
- Multiple labour agreements can be considered**
- Increased robustness by building in extra time at key locations**
- Easy to carry out strategic 'what if' scenarios**
- Direct savings range from 2-12% over traditional methods**
- Full short term planning functionality**
- Link to other applications such as Voyager Plan**
- An indispensable tool for franchise bidding and workforce negotiations**

*"The benefits of TrainTRACS have meant our planning department can work with greater flexibility and our results are seen much faster"*

**Ryan Gerrish, Arriva Trains Wales**



Line	Start	End	Start	End	Category
MD	2027	18:44	19:20	19:56	Cancelled
MD	2028	18:46	19:21	19:56	Cancelled
MD	2029	18:48	19:23	19:58	Cancelled
MD	2030	18:50	19:25	19:59	Cancelled
MD	2031	18:52	19:27	20:01	Cancelled
MD	2032	18:54	19:29	20:03	Cancelled
MD	2033	18:56	19:31	20:05	Cancelled
MD	2034	18:58	19:33	20:07	Cancelled
MD	2035	18:59	19:34	20:08	Cancelled
MD	2036	19:00	19:35	20:09	Cancelled
MD	2037	19:01	19:36	20:10	Cancelled
MD	2038	19:02	19:37	20:11	Cancelled
MD	2039	19:03	19:38	20:12	Cancelled
MD	2040	19:04	19:39	20:13	Cancelled
MD	2041	19:05	19:40	20:14	Cancelled
MD	2042	19:06	19:41	20:15	Cancelled
MD	2043	19:07	19:42	20:16	Cancelled
MD	2044	19:08	19:43	20:17	Cancelled
MD	2045	19:09	19:44	20:18	Cancelled
MD	2046	19:10	19:45	20:19	Cancelled
MD	2047	19:11	19:46	20:20	Cancelled
MD	2048	19:12	19:47	20:21	Cancelled
MD	2049	19:13	19:48	20:22	Cancelled
MD	2050	19:14	19:49	20:23	Cancelled
MD	2051	19:15	19:50	20:24	Cancelled
MD	2052	19:16	19:51	20:25	Cancelled
MD	2053	19:17	19:52	20:26	Cancelled
MD	2054	19:18	19:53	20:27	Cancelled
MD	2055	19:19	19:54	20:28	Cancelled
MD	2056	19:20	19:55	20:29	Cancelled
MD	2057	19:21	19:56	20:30	Cancelled
MD	2058	19:22	19:57	20:31	Cancelled
MD	2059	19:23	19:58	20:32	Cancelled
MD	2060	19:24	19:59	20:33	Cancelled
MD	2061	19:25	20:00	20:34	Cancelled
MD	2062	19:26	20:01	20:35	Cancelled
MD	2063	19:27	20:02	20:36	Cancelled
MD	2064	19:28	20:03	20:37	Cancelled
MD	2065	19:29	20:04	20:38	Cancelled
MD	2066	19:30	20:05	20:39	Cancelled
MD	2067	19:31	20:06	20:40	Cancelled
MD	2068	19:32	20:07	20:41	Cancelled
MD	2069	19:33	20:08	20:42	Cancelled
MD	2070	19:34	20:09	20:43	Cancelled
MD	2071	19:35	20:10	20:44	Cancelled
MD	2072	19:36	20:11	20:45	Cancelled
MD	2073	19:37	20:12	20:46	Cancelled
MD	2074	19:38	20:13	20:47	Cancelled
MD	2075	19:39	20:14	20:48	Cancelled
MD	2076	19:40	20:15	20:49	Cancelled
MD	2077	19:41	20:16	20:50	Cancelled
MD	2078	19:42	20:17	20:51	Cancelled
MD	2079	19:43	20:18	20:52	Cancelled
MD	2080	19:44	20:19	20:53	Cancelled
MD	2081	19:45	20:20	20:54	Cancelled
MD	2082	19:46	20:21	20:55	Cancelled
MD	2083	19:47	20:22	20:56	Cancelled
MD	2084	19:48	20:23	20:57	Cancelled
MD	2085	19:49	20:24	20:58	Cancelled
MD	2086	19:50	20:25	20:59	Cancelled
MD	2087	19:51	20:26	21:00	Cancelled
MD	2088	19:52	20:27	21:01	Cancelled
MD	2089	19:53	20:28	21:02	Cancelled
MD	2090	19:54	20:29	21:03	Cancelled
MD	2091	19:55	20:30	21:04	Cancelled
MD	2092	19:56	20:31	21:05	Cancelled
MD	2093	19:57	20:32	21:06	Cancelled
MD	2094	19:58	20:33	21:07	Cancelled
MD	2095	19:59	20:34	21:08	Cancelled
MD	2096	20:00	20:35	21:09	Cancelled
MD	2097	20:01	20:36	21:10	Cancelled
MD	2098	20:02	20:37	21:11	Cancelled
MD	2099	20:03	20:38	21:12	Cancelled
MD	2100	20:04	20:39	21:13	Cancelled
MD	2101	20:05	20:40	21:14	Cancelled
MD	2102	20:06	20:41	21:15	Cancelled
MD	2103	20:07	20:42	21:16	Cancelled
MD	2104	20:08	20:43	21:17	Cancelled
MD	2105	20:09	20:44	21:18	Cancelled
MD	2106	20:10	20:45	21:19	Cancelled
MD	2107	20:11	20:46	21:20	Cancelled
MD	2108	20:12	20:47	21:21	Cancelled
MD	2109	20:13	20:48	21:22	Cancelled
MD	2110	20:14	20:49	21:23	Cancelled
MD	2111	20:15	20:50	21:24	Cancelled
MD	2112	20:16	20:51	21:25	Cancelled
MD	2113	20:17	20:52	21:26	Cancelled
MD	2114	20:18	20:53	21:27	Cancelled
MD	2115	20:19	20:54	21:28	Cancelled
MD	2116	20:20	20:55	21:29	Cancelled
MD	2117	20:21	20:56	21:30	Cancelled
MD	2118	20:22	20:57	21:31	Cancelled
MD	2119	20:23	20:58	21:32	Cancelled
MD	2120	20:24	20:59	21:33	Cancelled
MD	2121	20:25	21:00	21:34	Cancelled
MD	2122	20:26	21:01	21:35	Cancelled
MD	2123	20:27	21:02	21:36	Cancelled
MD	2124	20:28	21:03	21:37	Cancelled
MD	2125	20:29	21:04	21:38	Cancelled
MD	2126	20:30	21:05	21:39	Cancelled
MD	2127	20:31	21:06	21:40	Cancelled
MD	2128	20:32	21:07	21:41	Cancelled
MD	2129	20:33	21:08	21:42	Cancelled
MD	2130	20:34	21:09	21:43	Cancelled
MD	2131	20:35	21:10	21:44	Cancelled
MD	2132	20:36	21:11	21:45	Cancelled
MD	2133	20:37	21:12	21:46	Cancelled
MD	2134	20:38	21:13	21:47	Cancelled
MD	2135	20:39	21:14	21:48	Cancelled
MD	2136	20:40	21:15	21:49	Cancelled
MD	2137	20:41	21:16	21:50	Cancelled
MD	2138	20:42	21:17	21:51	Cancelled
MD	2139	20:43	21:18	21:52	Cancelled
MD	2140	20:44	21:19	21:53	Cancelled
MD	2141	20:45	21:20	21:54	Cancelled
MD	2142	20:46	21:21	21:55	Cancelled
MD	2143	20:47	21:22	21:56	Cancelled
MD	2144	20:48	21:23	21:57	Cancelled
MD	2145	20:49	21:24	21:58	Cancelled
MD	2146	20:50	21:25	21:59	Cancelled
MD	2147	20:51	21:26	22:00	Cancelled
MD	2148	20:52	21:27	22:01	Cancelled
MD	2149	20:53	21:28	22:02	Cancelled
MD	2150	20:54	21:29	22:03	Cancelled
MD	2151	20:55	21:30	22:04	Cancelled
MD	2152	20:56	21:31	22:05	Cancelled
MD	2153	20:57	21:32	22:06	Cancelled
MD	2154	20:58	21:33	22:07	Cancelled
MD	2155	20:59	21:34	22:08	Cancelled
MD	2156	21:00	21:35	22:09	Cancelled
MD	2157	21:01	21:36	22:10	Cancelled
MD	2158	21:02	21:37	22:11	Cancelled
MD	2159	21:03	21:38	22:12	Cancelled
MD	2160	21:04	21:39	22:13	Cancelled
MD	2161	21:05	21:40	22:14	Cancelled
MD	2162	21:06	21:41	22:15	Cancelled
MD	2163	21:07	21:42	22:16	Cancelled
MD	2164	21:08	21:43	22:17	Cancelled
MD	2165	21:09	21:44	22:18	Cancelled
MD	2166	21:10	21:45	22:19	Cancelled
MD	2167	21:11	21:46	22:20	Cancelled
MD	2168	21:12	21:47	22:21	Cancelled
MD	2169	21:13	21:48	22:22	Cancelled
MD	2170	21:14	21:49	22:23	Cancelled
MD	2171	21:15	21:50	22:24	Cancelled
MD	2172	21:16	21:51	22:25	Cancelled
MD	2173	21:17	21:52	22:26	Cancelled
MD	2174	21:18	21:53	22:27	Cancelled
MD	2175	21:19	21:54	22:28	Cancelled
MD	2176	21:20	21:55	22:29	Cancelled
MD	2177	21:21	21:56	22:30	Cancelled
MD	2178	21:22	21:57	22:31	Cancelled
MD	2179	21:23	21:58	22:32	Cancelled
MD	2180	21:24	21:59	22:33	Cancelled
MD	2181	21:25	22:00	22:34	Cancelled
MD	2182	21:26	22:01	22:35	Cancelled
MD	2183	21:27	22:02	22:36	Cancelled
MD	2184	21:28	22:03	22:37	Cancelled
MD	2185	21:29	22:04	22:38	Cancelled
MD	2186	21:30	22:05	22:39	Cancelled
MD	2187	21:31	22:06	22:40	Cancelled
MD	2188	21:32	22:07	22:41	Cancelled
MD	2189	21:33	22:08	22:42	Cancelled
MD	2190	21:34	22:09	22:43	Cancelled
MD	2191	21:35	22:10	22:44	Cancelled
MD	2192	21:36	22:11	22:45	Cancelled
MD	2193	21:37	22:12	22:46	Cancelled
MD	2194	21:38	22:13	22:47	Cancelled
MD	2195	21:39	22:14	22:48	Cancelled
MD	2196	21:40	22:15	22:49	Cancelled
MD	2197	21:41	22:16	22:50	Cancelled
MD	2198	21:42	22:17	22:51	Cancelled
MD	2199	21:43	22:18	22:52	Cancelled
MD	2200	21:44	22:19	22:53	Cancelled
MD	2201	21:45	22:20	22:54	Cancelled
MD	2202	21:46	22:21	22:55	Cancelled
MD	2203	21:47	22:22	22:56	Cancelled
MD	2204	21:48	22:23	22:57	Cancelled
MD	2205	21:49	22:24	22:58	Cancelled
MD	2206	21:50	22:25	22:59	Cancelled
MD	2207	21:51	22:26	23:00	Cancelled
MD	2208	21:52	22:27	23:01	Cancelled
MD	2209	21:53	22:28		