

<b>Documentation</b>	2009-07-29	BT_SG_D10_101
Prepared Bluetooth SIG Imaging Working Group	e-mail address Bt-imaging-feedback@bluetooth.org	N.B. Confidential

# BASIC IMAGING PROFILE

## Interoperability Specification

### **Abstract:**

This profile defines the requirements necessary for Bluetooth™ devices to support the Basic Imaging Profile usage models. The requirements are expressed by defining the features, functions, and underlying profiles which are required for interoperability among Bluetooth devices in the Basic Imaging Profile usage models.

## Special Interest Group (SIG)

The following companies are represented in the Bluetooth Special Interest Group:

3Com Corporation  
Ericsson Mobile Communications AB  
IBM Corporation.  
Intel Corporation.  
Agere Systems, Inc  
Microsoft Corporation.  
Motorola Inc.  
Nokia Corporation  
Toshiba Corporation.

## Revision History

Revision	Date	Comments
0.5	26-Sep-2000	Major document structure enhancement
0.7	27-Jan-2001	Features finalization
0.9	18-May-2001	Functions finalization
0.95	25-Sep-2001	Feedback from prototypes implementation and testing included
1.0 Draft	05-Feb-2002	Feedback from first open interoperability testing event and correction of remaining typos
1.0 Final	15-Nov-2002	Final draft
1.0 Final_a	25-Jul-2003	Further changes after BQRB review

## Contributors

Tatsuo Arai	Casio Computer
Ryohei Yamamoto	Casio Computer
Maria Rang	Ericsson
Erwin Weinans	Ericsson
Marcel Wong	Ericsson
Hiroshi Tanaka	Fujifilm
Mikio Watanabe	Fujifilm
Paolo Fontani	HP
Holt Mebane	HP
Franc Camara	Microsoft

Karl Heubaum	Microsoft
Stephane Bouet	Nokia Mobile Phones
Martin Roter	Nokia Mobile Phones
Takayasu Sanada	Toshiba
Yosuke Tajika	Toshiba
Patric Olsson	(curretly connectBlue AB)

### Prototyping and Profile Validation

Akane Yokota	Canon
Kenichi Fujii	Canon
Kazuaki Abe	Casio Computer
Matsunaga Kazuhisa	Casio Computer
Akinori Yoshioka	Fujifilm software
Takuya Kawamura	Toshiba

## DISCLAIMER AND COPYRIGHT NOTICE

The copyright in these publications is owned by the Promoter Members of Bluetooth SIG, Inc. (“Bluetooth SIG”). Use of these publications and any related intellectual property (collectively, the “Publication”), is governed by the Promoters Membership Agreement among the Promoter Members and Bluetooth SIG (the “Promoters Agreement”), certain membership agreements between Bluetooth SIG and its Adopter and Associate Members (the “Membership Agreements”) and the Bluetooth Specification Early Adopters Agreements (1.2 Early Adopters Agreements) among Early Adopter members of the unincorporated Bluetooth special interest group and the Promoter Members (the “Early Adopters Agreement”). Certain rights and obligations of the Promoter Members under the Early Adopters Agreements have been assigned to Bluetooth SIG by the Promoter Members.

Use of the Publication by anyone who is not a member of Bluetooth SIG or a party to an Early Adopters Agreement (each such person or party, a “Member”), is prohibited. The legal rights and obligations of each Member are governed by their applicable Membership Agreement, Early Adopters Agreement or Promoters Agreement. No license, express or implied, by estoppel or otherwise, to any intellectual property rights are granted herein.

Any use of the Publication not in compliance with the terms of the applicable Membership Agreement, Early Adopters Agreement or Promoters Agreement is prohibited and any such prohibited use may result in termination of the applicable Membership Agreement or Early Adopters Agreement and other liability permitted

by the applicable agreement or by applicable law to Bluetooth SIG or any of its members for patent, copyright and/or trademark infringement.

**THE PUBLICATION IS PROVIDED "AS IS" WITH NO WARRANTIES WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT, FITNESS FOR ANY PARTICULAR PURPOSE, SATISFACTORY QUALITY, OR REASONABLE SKILL OR CARE, OR ANY WARRANTY ARISING OUT OF ANY COURSE OF DEALING, USAGE, TRADE PRACTICE, PROPOSAL, SPECIFICATION OR SAMPLE.**

Each Member hereby acknowledges that products equipped with the Bluetooth™ wireless technology ("Bluetooth™ Products") may be subject to various regulatory controls under the laws and regulations of various governments worldwide. Such laws and regulatory controls may govern, among other things, the combination, operation, use, implementation and distribution of Bluetooth™ Products. Examples of such laws and regulatory controls include, but are not limited to, airline regulatory controls, telecommunications regulations, technology transfer controls and health and safety regulations. Each Member is solely responsible for the compliance by their Bluetooth™ Products with any such laws and regulations and for obtaining any and all required authorizations, permits, or licenses for their Bluetooth™ Products related to such regulations within the applicable jurisdictions. Each Member acknowledges that nothing in the Publication provides any information or assistance in connection with securing such compliance, authorizations or licenses. **NOTHING IN THE PUBLICATION CREATES ANY WARRANTIES, EITHER EXPRESS OR IMPLIED, REGARDING SUCH LAWS OR REGULATIONS.**

**ALL LIABILITY, INCLUDING LIABILITY FOR INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHTS OR FOR NONCOMPLIANCE WITH LAWS, RELATING TO USE OF THE PUBLICATION IS EXPRESSLY DISCLAIMED. BY USE OF THE PUBLICATION, EACH MEMBER EXPRESSLY WAIVES ANY CLAIM AGAINST BLUETOOTH SIG AND ITS PROMOTER MEMBERS RELATED TO USE OF THE PUBLICATION.**

Bluetooth SIG reserve the right to adopt any changes or alterations to the Publication as it deems necessary or appropriate and to adopt a process for adding new Bluetooth™ profiles after the release of the Publication.

# Contents

---

<b>1</b>	<b>INTRODUCTION</b>	<b>8</b>
1.1	PROFILE DEPENDENCIES	8
1.2	BLUETOOTH OBEX-RELATED SPECIFICATIONS	8
1.3	SYMBOLS AND CONVENTIONS	9
1.3.1	<i>Requirement Status Symbols</i>	9
1.3.2	<i>Signaling Diagram Conventions</i>	11
<b>2</b>	<b>PROFILE OVERVIEW</b>	<b>12</b>
2.1	PROTOCOL STACK	12
2.2	CONFIGURATIONS AND ROLES	13
2.3	USER REQUIREMENTS AND SCENARIOS	13
2.4	PROFILE FUNDAMENTALS	14
2.5	CONFORMANCE	14
<b>3</b>	<b>USER INTERFACE ASPECTS</b>	<b>15</b>
3.1	MODE SELECTION	15
3.2	FEATURES	15
3.3	EXAMPLE FEATURE SEQUENCES	16
3.3.1	<i>Example Image Push Sequence</i>	17
3.3.2	<i>Example Image Pull Sequence</i>	17
3.3.3	<i>Example Advanced Image Printing Sequence</i>	18
3.3.4	<i>Example Automatic Archive Sequence</i>	18
3.3.5	<i>Example Remote Camera Sequence</i>	19
3.3.6	<i>Example Remote Display Sequence</i>	19
<b>4</b>	<b>APPLICATION LAYER</b>	<b>21</b>
4.1	IMAGING DEVICES CLASSIFICATION	21
4.2	IMAGING FEATURES OVERVIEW	22
4.3	IMAGING FEATURES	23
4.3.1	<i>Image Push Feature</i>	23
4.3.2	<i>Image Pull Feature</i>	25
4.3.3	<i>Advanced Image Printing Feature</i>	26
4.3.4	<i>Automatic Archive Feature</i>	29
4.3.5	<i>Remote Camera Feature</i>	32
4.3.6	<i>Remote Display Feature</i>	33
4.4	IMAGING PROFILE FORMATS, OBJECTS, AND PARAMETERS	35
4.4.1	<i>Storage Formats Support</i>	35
4.4.2	<i>Imaging File Formats Support</i>	36
4.4.3	<i>Imaging Thumbnail</i>	36
4.4.4	<i>Imaging Handles</i>	37
4.4.5	<i>Imaging Attachments</i>	37
4.4.6	<i>XML Headers and Objects</i>	37
4.4.7	<i>Imaging Descriptors</i>	49
4.5	IMAGING FUNCTIONS	55
4.5.1	<i>GetCapabilities Function</i>	55
4.5.2	<i>PutImage Function</i>	56
4.5.3	<i>PutLinkedThumbnail Function</i>	57
4.5.4	<i>PutLinkedAttachment</i>	57
4.5.5	<i>RemoteDisplay Function</i>	58
4.5.6	<i>GetImagesList Function</i>	59
4.5.7	<i>GetImageProperties Function</i>	62
4.5.8	<i>GetImage Function</i>	62
4.5.9	<i>GetLinkedThumbnail Function</i>	63

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.